

**S&P Dow Jones
Indices**

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**ESG Factors Disclosure: iBoxx
ABF Green Bonds Unconstrained
*December 2022***

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1) ESG Factor Disclosure for iBoxx ABF Green Bonds Unconstrained

Benchmark type	Fixed Income and Sovereign Debt
Report as of date	30 November 2022
ESG data sources	<p>The primary source for ESG data is Sustainalytics ESG Research. Further other sources, listed below, are referred for specific disclosures</p> <ul style="list-style-type: none"> • Climate Bond Initiative, Environmental Finance and IHS Markit Reference Data: Referred for green bonds. • World Bank data: Referred for (1) GHG intensity for Sovereigns and (2) Average income inequality score.
Coverage (% ,bond count)	For all reported ESG metrics coverage is calculated as number of bonds where the ESG metric is available relative to the total number of bonds in the index.
Coverage (% ,index weight)	For all reported ESG metrics coverage is calculated as to index weights where the ESG metric is available.
Applicable Disclosures	Disclosures applicable for Sovereigns / Fixed Income Corporates are highlighted as (Sov/Corp*) respectively, as per Commission Delegated Regulation supplementing Regulation (EU) 2016/1011

iBoxx Sector classification	Index Weight
Sovereigns	8.3%
Sub-Sovereigns	91.7%
Total	100.0%

2) Combined ESG Factors Disclosure

Disclosure Factors			Factor Value	Coverage (%, bond count)	Coverage (%, index weight)
Consolidated ESG Rating	Consolidated ESG Score	Corporates	19.0	73.1%	80.2%
		Sovereigns	66.2	3.8%	8.3%
	Rating Distribution		ESG Risk Category		Index Weight
			Negligible		0.2%
			Low		76.2%
			Medium		12.1%
			High		0.0%
			Severe		0.0%
		Not Rated		11.5%	
ESG Ratings of Top 10 Constituents	Issuer	Coupon (%)	Maturity	Index Weight	ESG Risk Rating
	China Development Bank	2.500	01-04-25	15.18%	Low
	China Development Bank	3.070	24-03-24	12.37%	Low
	China Development Bank	2.190	14-12-24	9.52%	Low
	China Development Bank	2.450	21-01-27	9.36%	Low
	Singapore Government Bond	3.000	01-08-72	8.27%	Low
	China Development Bank	2.110	17-10-25	7.41%	Low
	Export-Import Bank of China	2.480	28-12-26	6.95%	Medium
	China Development Bank	2.280	29-07-24	6.29%	Low
	China Development Bank	3.070	24-03-24	5.02%	Low
	Housing & Development Board	4.090	26-10-27	3.97%	
International Standard Signatories (%) (Sov*)			Index Weight	Coverage (%, bond count)	Coverage (%, index weight)
			0.0%	3.8%	8.3%
Disclosure Factors			Factor Value	Coverage (%, bond count)	Coverage (%, index weight)

Consolidated Environmental Score	Corporates	3.3	34.6%	3.7%
	Sovereigns	62.5	3.8%	8.3%
High Climate Impact (NACE) Sectors (% , Index Weight) (Corp*)		0.8%	100.0%	100.0%
GHG Intensity	Corporates	5.7	69.2%	80.0%
Reported Emissions (% , Index Weight)	Corporates	0.8%		
Estimated Emissions (% , Index Weight)	Corporates	79.3%		
GHG Intensity	Sovereigns	0.1	3.8%	8.3%
Energy and Mining (NACE) Sectors (% , Index Weight) (Corp*)		0.0%	100.0%	100.0%
Green Bonds (% , Index Weight)		100.0%	100.0%	100.0%

Disclosure Factors		Factor Value	Coverage (% , bond count)	Coverage (% , index weight)
Consolidated Social Score	Corporates	7.3	34.6%	3.7%
	Sovereigns	61.7	3.8%	8.3%
Controversial Weapons (% , Index Weight) (Corp*)		0.0%	84.6%	89.1%
Tobacco (% , Index Weight) (Corp*)		0.0%	73.1%	80.2%
Social Violations (bond count)	Corporates	0.0	73.1%	80.2%
	Sovereigns	0.0	3.8%	8.3%
Social Violations (% of constituents)	Corporates	0.0%	73.1%	80.2%
	Sovereigns	0.0%	3.8%	8.3%
Human Rights Performance Score (Sov*)		41.8	3.8%	8.3%
Income Inequality Score (% , Weighted average) (Sov*)		-	-	-
Freedom of Expression Score (Sov*)		49.3	3.8%	8.3%
ILO Policy Non-Compliance (% , Index Weight) (Corp*)		0.0%	73.1%	80.2%
Gender Pay Gap Score (Weighted average ratio) (Corp*)		-	-	-
Female to Male Board Members (% , Weighted average ratio) (Corp*)		30.8	15.4%	0.8%
Accidents, Injuries, Fatalities (Weighted average count) (Corp*)		0.0	34.6%	3.7%
Corruption & Bribery Convictions (Number of cases) (Corp*)		-	-	-

Disclosure Factors		Factor Value	Coverage (% , bond count)	Coverage (% , index weight)
Consolidated Governance Score	Corporates	6.7	34.6%	3.7%
	Sovereigns	70.5	3.8%	8.3%
Corruption Score (Sov*)		86.6	3.8%	8.3%
Political Stability Score (Sov*)		79.5	3.8%	8.3%
Rule of Law Score (Sov*)		82.8	3.8%	8.3%

3) Environmental ESG Factors Disclosure

Disclosure Factors		Factor Value	Coverage (%, bond count)	Coverage (%, index weight)
Consolidated Environmental Score	Corporates	3.3	34.6%	3.7%
	Sovereigns	62.5	3.8%	8.3%
High Climate Impact (NACE) Sectors (%, Index Weight) (Corp*)		0.8%	100.0%	100.0%
GHG Intensity	Corporates	5.7	69.2%	80.0%
Reported Emissions (%, Index Weight)	Corporates	0.8%		
Estimated Emissions (%, Index Weight)	Corporates	79.3%		
GHG Intensity	Sovereigns	0.1	3.8%	8.3%
Energy and Mining (NACE) Sectors (%, Index Weight) (Corp*)		0.0%	100.0%	100.0%
Green Bonds (%, Index Weight)		100.0%	100.0%	100.0%

4) Social ESG Factors Disclosure

Disclosure Factors		Factor Value	Coverage (%, bond count)	Coverage (%, index weight)
Consolidated Social Score	Corporates	7.3	34.6%	3.7%
	Sovereigns	61.7	3.8%	8.3%
Controversial Weapons (% Index Weight) (Corp*)		0.0%	84.6%	89.1%
Tobacco (% Index Weight) (Corp*)		0.0%	73.1%	80.2%
Social Violations (bond count)	Corporates	0.0	73.1%	80.2%
	Sovereigns	0.0	3.8%	8.3%
Social Violations (% of constituents)	Corporates	0.0%	73.1%	80.2%
	Sovereigns	0.0%	3.8%	8.3%
Human Rights Performance Score (Sov*)		41.8	3.8%	8.3%
Income Inequality Score (% Weighted average) (Sov*)		-	-	-
Freedom of Expression Score (Sov*)		49.3	3.8%	8.3%
ILO Policy Non-Compliance (% Index Weight) (Corp*)		0.0%	73.1%	80.2%
Gender Pay Gap Score (Weighted average ratio) (Corp*)		-	-	-
Female to Male Board Members (% Weighted average ratio) (Corp*)		30.8	15.4%	0.8%
Accidents, Injuries, Fatalities (Weighted average count) (Corp*)		0.0	34.6%	3.7%
Corruption & Bribery Convictions (Number of cases) (Corp*)		-	-	-

5) Governance ESG Factors Disclosure

Disclosure Factors		Factor Value	Coverage (%, bond count)	Coverage (%, index weight)
Consolidated Governance Score	Corporates	6.7	34.6%	3.7%
	Sovereigns	70.5	3.8%	8.3%
Corruption Score (Sov*)		86.6	3.8%	8.3%
Political Stability Score (Sov*)		79.5	3.8%	8.3%
Rule of Law Score (Sov*)		82.8	3.8%	8.3%

6) ESG Factors Description

Disclosure Factors	Description
Consolidated ESG Rating (Corporates)	Weighted average of Overall Risk Score. It refers to a company's overall score in the ESG Risk Ratings that measures the extent to which enterprise value is at risk driven by ESG factors. Range: 0 to 100; lower score represents higher rating.
Consolidated ESG Rating (Sovereigns)	Weighted average of Overall ESG Factors Score. Range: 0 to 100; higher score represents higher rating.
Rating Distribution(ESG Risk Category)	Corporates and Sovereigns ESG scores are calculated and aggregated on opposite scales and cannot be directly combined at index level; ESG scores are translated into different ESG risk categories, which range from Negligible to Severe.
International Standards Signatories %	Considers country's ratification of controversial weapons treaties or conventions as listed below. Countries are considered if all conventions and treaties have been ratified. <ul style="list-style-type: none"> ● Controversial Weapons Conventions-Score: Includes the Arms Trade Treaty and all international conventions on weapons considered to be controversial. ● Environmental Conventions-Score: Includes major environmental treaties such as the Paris Agreement and the Kyoto Protocol ● Human Rights Conventions-Score: Based on the fundamental human rights conventions ● Labour Rights Conventions-Score: Based on the eight core International Labour Organization (ILO) labour rights conventions. Range: 0 to 100; higher score represents high number of signatories to International Standards.
Consolidated Environmental Score (Corporates)	Weighted average of Environmental Risk Score. Range: 0 to 100; lower score represents higher rating.
Consolidated Environmental Score(Sovereigns)	Weighted average of Environmental ESG Factors Score. Range: 0 to 100; higher score represents higher rating.
GHG Intensity (Corporates)	Carbon intensity is computed as the ratio of Absolute emissions to revenues. Absolute emissions, either reported or estimated, consider multiple greenhouse gases expressed in terms of tons of CO ₂ ; revenues are computed in millions of US\$. Range: 0 to 9999; lower score represents lower green house gas intensity.
GHG Intensity (Sovereigns)	Considered most recent CO ₂ emissions (kg per PPP \$ of GDP) as reported by World Bank. Range: Not Defined; lower score represents represents lower green house gas intensity.
Percentage of Reported / Estimated emissions	Reported / Estimated emissions % is not applicable for Sovereigns. Indicates whether emissions are reported ("Reported") or estimated ("Estimated").
High Climate Impact (NACE) Sectors	Covering specific sectors as listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006 Section A — Agriculture, Forestry and Fishing

Disclosure Factors	Description
	<p>Section B — Mining and Quarrying Section C — Manufacturing Section D — Electricity, Gas, Steam and Air Conditioning Supply Section E — Water Supply; Sewerage, Waste Management and Remediation Activities Section F — Construction Section G — Wholesale and Retail Trade; Repair of Motor Vehicles And Motorcycles Section H — Transportation and Storage Section L — Real Estate Activities</p> <p>Range: 0 to 100; lower score represents lower exposure to climate impact (NACE) sectors.</p>
<p>Energy and Mining (NACE) Sectors</p>	<p>Covering specific activities falling under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006</p> <p>Division 5 - Mining of coal and lignite Division 6 - Extraction of crude petroleum and natural gas Division 7 - Mining of metal ores Division 8 - Other mining and quarrying Division 9 - Mining support service activities Division 19 - Manufacture of coke and refined petroleum products Division 20 - Manufacture of chemicals and chemical products</p> <p>Range: 0 to 100; lower score represents lower exposure to energy and mining (NACE) sectors.</p>
<p>Green Bonds</p>	<p>The classification of instruments as Green Bonds is based upon usage of proceed as reported by Climate Bonds Initiatives (CBI) and Environmental Finance (EF). Data is further verified based on publicly available prospectus and other relevant documents.</p> <p>Range: 0 to 100; higher value represents higher weight of green bonds in the index.</p>
<p>Consolidated Social Score (Corporates)</p>	<p>Weighted average of Social Risk Score.</p> <p>Range: 0 to 100; lower score represents higher rating.</p>
<p>Consolidated Social Score (Sovereigns)</p>	<p>Weighted average of Social ESG Factors Score.</p> <p>Range: 0 to 100; higher score represents higher rating.</p>
<p>Controversial Weapons Sector</p>	<p>Weighted average percentage of benchmark constituents in the controversial weapons sector. Field indicating whether any evidence of activity has been found with respect to controversial weapons. The Controversial Weapons Research covers the following types of weapons: Anti-Personnel Mines (AP), Biological and Chemical Weapons (BC), Cluster Weapons (CM), Nuclear Weapons (NW), Depleted Uranium (DU) and White Phosphorus (WP).</p> <p>Range: 0 to 100; lower score represents lower exposure to Controversial Weapons and related sectors.</p>
<p>Tobacco Sector</p>	<p>Weighted average percentage of benchmark constituents in the tobacco sector. This indicator provides an assessment of whether companies derive revenues from tobacco products including cigarettes, cigars, tobacco, electronic cigarettes, paper used by end consumers for rolling cigarettes, filters, snuff tobacco, etc. This indicator looks at companies that manufacture tobacco products. This indicator also covers retailers and distributors of these products.</p>

Disclosure Factors	Description
	Range: 0 to 100; lower score represents lower exposure to Tobacco and related sectors.
Social Violations (Corporates)	<p>Covers companies' level of involvement in controversial events that have an impact on the environment or society. Involvement in events may indicate that a company's management systems are not adequate to manage relevant ESG risks. Each event is categorized from Category 1 (low impact on environment and society, posing negligible risks to the company) to Category 5 (severe impact on the environment and society, posing serious risks to the company). Every material ESG issue has one or more events linked to it.</p> <p>Range: 0 to 100; lower score represents low level of involvement in social violations.</p>
Social Violations (Sovereigns)	<p>Indicator captures events with high and severe negative ESG impact are that may affect the prosperity and economic development of a country and its ability to manage its wealth in an effective and sustainable manner.</p> <p>Lower value represents low level of involvement in social violations</p>
Human Rights Performance Score	<p>Aggregated quantitative indicator considering below listed indicators</p> <ul style="list-style-type: none"> ● Civil Liberties-Score: This indicator captures perceptions of the extent to which a country's citizens enjoy civil liberties including freedoms of expression, assembly, association, education, and religion; also, if the countries has an established an generally fair legal system that ensures the rule of law, allow free economic activity and strives for equality of opportunity for everyone. ● Level of Peace-Score: The Global Peace Index, produced by the Institute for Economics & Peace (IEP), ranks 163 countries (99.7% of the world's population) according to 23 qualitative and quantitative indicators of peace. ● Political Rights-Score: This indicator captures perceptions of the extent to which a country enjoy a wide range of political rights, including free and fair elections; it considers also the functioning of the political system, assessing whether elected candidates actually rule, political parties are competitive, the opposition plays a role and has power, and minority group are represented. ● Human Rights Conventions-Score: Based on the fundamental human rights conventions. Score description: 0 if no conventions or treaties are ratified; 50 if some conventions and/or treaties have been ratified; 100 if all conventions and treaties have been ratified. <p>Higher value indicates a high level of adherence to promote and protect human rights and fundamental freedoms of individuals or groups.</p>
Income Inequality Score	<p>Considered Proportion of people living below 50 percent of median income (%) as reported by World Bank. The median is measured at 2011 Purchasing Power Parity (PPP) using PovcalNet (http://iresearch.worldbank.org/PovcalNet).</p> <p>Range: 0 to 100 ; lower score represents lower level of income disparity.</p>
Freedom of Expression Score	<p>This indicator captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association and a free media. Countries receive a higher score only if they outperform their peers on the given indicator.</p>

Disclosure Factors	Description
	Range: 0 to 100; higher score represents higher perceptions to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association and a free media.
ILO Policy Non-Compliance	<p>Exposure of the benchmark portfolio to companies without due diligence policies on issues addressed by Conventions 1 to 8 of the International Labour Organisation. Aggregated quantitative indicator considering below listed indicators</p> <ul style="list-style-type: none"> ● Freedom of Association Policy: This indicator provides an assessment of the quality of a company's freedom of association and collective bargaining policy. ● Discrimination Policy: This indicator provides an assessment of the quality of a company's policy to eliminate discrimination and ensure equal opportunity. ● Scope of Social Supplier Standards: This indicator provides a general assessment of whether the company has supply chain/contractors policies and the scope of social standards. ● Supply Chain Management: This indicator provides an assessment of whether the company has a supply chain management system and how it is applied. <p>Range: 0 to 100; lower score represents high level of adherence to Conventions 1 to 8 of the International Labour Organisation.</p>
Female to Male Board Members	Ratio of female to male board members. Higher score represents high representation of Female board members.
Accidents, Injuries, Fatalities Score	Number of fatal injuries per 100,000 workers; includes both employee and contractor fatalities. Range: 0 to Not defined ; lower score represents low level of accidents, injuries and fatalities rates.
Consolidated Governance Score (Corporates)	Weighted average of Governance Risk Score. Range: 0 to 100; lower score represents higher rating.
Consolidated Governance Score (Sovereigns)	Weighted average of Governance ESG Factors Score. Range: 0 to 100; higher score represents higher rating.
Corruption Score	This indicator captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Countries receive a higher score only if they outperform their peers on the given indicator. Range: 0 to 100; higher score represents low perception of corruption levels.
Political Stability Score	This indicator measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. Countries receive a higher score only if they outperform their peers on the given indicator. Range: 0 to 100; higher score represents high perception of political stability.
Rule of Law Score	This indicator captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Countries receive a higher score only if they outperform their peers on the given indicator.

Disclosure Factors	Description
	Range: 0 to 100; higher score represents represents high perception of confidence in law and regulations.

Disclaimer

Performance Disclosure/Back-Tested Data

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Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

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