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ADVACING ETHICAL AND SUSTAINABLE ECONOMY

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ESG ADJUSTMENT IN COUNTRY RISK PREMIUM IN SOVEREIGN SUKUK

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- ❖ Affinity between ESG and Islamic Finance
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INTRODUCTION

Environmental Challenges

- ❖ Unprecedented burning of fossil fuels
- ❖ Contamination of seas and rise of sea levels
- ❖ Rise in temperature, rapid deforestation and frequent heat waves
- ❖ Floods, melting of glaciers and enormous loss of marine and tropical forest species
- ❖ Air pollution is responsible for approximately 3.7 million deaths a year

Social Challenges

- ❖ 1.831 billion people are living under poverty at \$3.65 a day poverty line in 2023
- ❖ 5.8% or 208 million people unemployed in 2023

Governance Challenges

- ❖ Conflicts, lack of binding frameworks, weak governance and lack of focus on stewardship
 - ❖ Waste of food to the extent of almost half of all production
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- ❖ **ESG framework strives to bring focus back towards these important issues and trigger market response in terms of affecting market entry, rules of business, pricing and allocation of resources.**

AFFINITY BETWEEN ESG AND ISLAMIC FINANCE

Environment

- Moderation
- No Waste
- Responsible Use
- Sharing
- Protecting Land
- Protecting Life

Social

- No Racism
- Social Equality
- Need Fulfilment
- Reduced Inequality
- Cooperation
- Social Freedom

Governance

- Justice
- Fairness
- Transparency
- Accountability
- Consultative Decisions
- Unity and Order

AFFINITY BETWEEN ESG AND ISLAMIC FINANCE

Principles	Islamic Teachings
Moderation	“And let not your hand be tied (like a miser) to your neck, nor stretch it forth to its utmost reach (like a spendthrift), so that you become blameworthy and in severe poverty” (Al-Isra: 29).
Responsible Resource Use	“Can there be wastefulness while performing ablution?” Prophet Muhammad (pbuh) replied: “Yes even if you perform it in a flowing river.” (Ibn-e-Maja, Hadith No. 425).
Avoiding Waste	“But waste not by excess: for Allah loveth not the wasters” (Al-An’am:141).
Sharing Excess Resources	“Among the three types of people with whom God, on the Day of Resurrection, will exchange neither words nor look at is the one who possesses an excess of water but withholds it from others.” (Sahih Al-Bukhari, Hadith No. 2358).
Preserving Land	“Do not spread corruption in the land after it has been set in order” (Al-A’raf: 56).
Respecting Bio-Diversity	“There is a reward for acts of charity to every beast alive” (Sahih Al-Bukhari, Hadith No. 2466).

AFFINITY BETWEEN ESG AND ISLAMIC FINANCE

Principles	Islamic Teachings
No Racism	“Surely the most noble of you in the sight of Allah is the most righteous among you” (Al-Hujurat: 13).
Social Equality	In last sermon of Hajj, Prophet Muhammad (pbuh) said that ‘no white man has superiority over a black man and no Arab has a superiority over a non-Arab’.
Need Fulfilment	Islamic principles emphasize on need fulfillment. Islamic principles emphasize goal orientation to achieve need fulfillment.
Reduced Inequality	Inclusive programs, such as Zakat, Waqf, Riba-free Qard and Mudarabah.
Cooperation	Islamic principles also promote cooperation in good and non-cooperation in evil (Al-Maida: 2).
Social Freedom	Everyone has right to trade and exchange, provide labour and engage in lawful enterprise. Qur'an says: “Do not devour another's property wrongfully – unless it be by trade based on mutual consent.” (Al-Nisa: 29).

AFFINITY BETWEEN ESG AND ISLAMIC FINANCE

Principles	Islamic Teachings
Justice	“O believers! Stand firm for justice as witnesses for Allah even if it is against yourselves, your parents, or close relatives...” (Al-Nisa: 135).
Fairness & Transparency	Islamic teachings emphasize on documenting contracts where contractual performance is spread over a timeline (Al-Baqarah: 282).
Accountability	Islamic institution of ‘Hisba’ fosters accountability and control.
Consultative Decisions	In collective matters, Islam suggests the use of consultative decision-making (As-Shura: 38). It helps in leveraging cognitive diversity, builds consensus, team motivation, synergies and reduce the chances of mission drift, demotivation and conflicts.
Unity and Order	Islamic teachings emphasize the importance of sticking to ‘Jamaat’ (Sahih Muslim 1855a). In socio-economic context, it implies that rules, order and authority shall not be challenged to the point of revolt. It brings disasters. Even within short teams, Islamic norms recommend having chain of command to ensure order and control.

NEED FOR ESG ADJUSTED COUNTRY RISK PREMIUMS

ESG Rating Providers	Details
MSCI ESG Ratings	Sector balanced indices use a bottom-up approach to select companies in the top half of every gig sector that are effectively tackling their emissions, based on current and forward-looking climate indicators.
Sustainalytics' ESG Risk Ratings	Covers over 12 million assets and offers peer analysis across different industries and geographies.
Bloomberg ESG Disclosures Scores	Offers ESG data for more than 15,000 companies in over 100 countries. Carbon emissions data for over 100,000 global companies. ESG fund-level analytics on carbon emissions, social and governance data for over 60,000 mutual funds and 10,000 ETFs.
FTSE Russell's ESG Ratings	Ratings include 7,200 securities in 47 developed and emerging markets. ESG Ratings consist of an overall rating based on underlying pillars, theme-based exposures and scores.
ISS Ratings and Rankings	Provides company, country and fund ratings as well as data and analysis across the full range of sustainable investment issues. ESG Corporate Ratings covers 12,500 issuers (7,800 companies), ESG Country Rating covers 830 sovereign issuers and ESG Fund Ratings cover 26,500 funds.
CDP Climate, Water and Forest Scores	Climetrics rates almost 20,000 funds. In 2022, it scored nearly 15,000 companies on their climate change, forests and water security disclosures.
S&P Global ESG Score	S&P Global ESG Scores are available for a universe of over 10,000 companies across 61 sub-industries, representing 99% of global market cap using up to 1,000 data points.
Moody's ESG Solutions Group	Provides ESG Scores and Sustainability Ratings. Data of 11,000+ entities with Credit Impact Scores and Issuer Profiles Scores is available.

NEED FOR ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ Most of the Sukuk issued are sovereign.
- ❖ Sovereign Sukuk outnumber corporate Sukuk in numbers as well as in volumes.
- ❖ Most of the jurisdictions use Sukuk when they instigate the use of Islamic finance. Even non-Muslim majority countries like Great Britain, Singapore, Luxembourg and others are active to attract Sukuk market.
- ❖ During Covid-19, several governments needing fiscal space issued Sukuk. Since 2020, sovereign Sukuk outnumber corporate Sukuk issuances.
- ❖ Another factor giving rise to sovereign Sukuk is that some countries are looking to transform their financial system to comply with Islamic principles. There is greater potential for success of sovereign Sukuk since it attracts both Islamic institutional investors and conventional institutional investors.
- ❖ **Need to incorporate ESG ratings in deriving country risk premiums** for better allocation of financial investments and to trigger ESG-focused transformation of economy and businesses.

DEVELOPING ESG INDEX FOR ESG RATING

- ❖ Data for **53 OIC member countries** is used for ESG Index.
- ❖ Most recent value is taken except in GDP growth rate where the average growth rate of 10 years is taken to get a true representation of sustainable growth rate.
- ❖ **12** indicators are used, **four** each for environment, social and governance dimension.
- ❖ For environment, **renewable resource consumption as a percent of total energy consumption, average air pollution, water stress level and carbon emissions per capita** are taken.
- ❖ For social, **unemployment rate, average GDP growth rate of 10 years, agricultural value added as a percent of total GDP and poverty headcount ratio at national poverty lines** are taken.
- ❖ For governance, **strength of legal rights index and estimates of control of corruption, government effectiveness and rule of law** are taken from World Governance Indicators (WGI).
- ❖ Equal weights are given to each indicator in each category to avoid bias. Within each category, the sum of the weights equals unity.

DEVELOPING ESG INDEX FOR ESG RATING

$$ESG \text{ Index} = \frac{1}{12} \sum_{i=1}^n ESG_i \quad \text{--- (i)}$$

Since the units for indicators differ from each other, the following procedure is used in line with the Human Development Index to normalize the index value:

$$\text{Indicator Normalized Value} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}} \quad \text{--- (ii)}$$

Normalization helps in obtaining standardized values within $[0, 1]$ bound irrespective of the units in which indicators are measured.

For some indicators, the higher value has a negative interpretation. E.g. unemployment rate, poverty rate, air pollution, water stress level and carbon emissions. The normalized value for such indicators is taken by subtracting the value from 1.

Higher value within a category represents better ESG performance. Lower value represents lower progress on ESG. Overall ESG index value measures the sum of values across all 12 indicators.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	RE	AP	WS	Co ₂	Country	RE	AP	WS	Co ₂
Afghanistan	17.86	52.42	54.76	0.22	Malaysia	5.84	16.59	3.44	7.38
Albania	44.58	18.64	4.72	1.54	Maldives	1.04	10.94	15.67	2.83
Algeria	0.15	32.83	137.92	3.72	Mali	63.76	60.62	8.00	0.20
Azerbaijan	1.23	25.50	55.60	3.40	Mauritania	23.44	66.81	13.25	0.86
Bahrain	0.00	59.22	133.71	21.98	Morocco	10.92	35.05	50.75	1.82
Bangladesh	27.96	63.43	5.72	0.51	Mozambique	80.91	20.77	1.75	0.22
Benin	46.20	46.86	0.98	0.63	Niger	81.91	80.11	11.02	0.09
Bosnia	37.71	29.47	2.00	6.31	Nigeria	82.51	70.40	9.67	0.54
Brunei	0.01	7.68	3.47	21.71	Oman	0.05	44.57	116.71	15.64
Burkina Faso	68.00	53.67	7.82	0.25	Pakistan	46.60	62.57	116.31	0.81
Cameroon	78.94	64.47	1.56	0.37	Qatar	0.06	76.05	431.03	31.73
Comoros	39.05	17.16	0.83	0.41	Saudi Arabia	0.06	61.51	974.17	14.27
Côte d'Ivoire	63.34	55.62	5.09	0.41	Senegal	38.64	60.21	16.28	0.65
Djibouti	30.94	43.17	6.33	0.39	Sierra Leone	71.17	51.10	0.50	0.13
Egypt	6.51	67.89	141.17	1.96	Somalia	95.37	30.36	24.53	0.04
Guinea	65.53	52.51	1.37	0.34	Sudan	62.13	54.68	118.66	0.47
Guinea-Bissau	87.26	54.07	1.50	0.16	Suriname	14.66	21.18	3.95	4.29
Guyana	11.97	20.10	3.30	3.47	Syria	1.08	30.95	124.36	1.21
Indonesia	22.01	19.37	29.70	2.07	Tajikistan	38.75	38.32	69.94	0.98
Iran	1.03	38.02	81.29	7.06	Togo	76.62	46.21	3.39	0.29
Iraq	1.08	48.47	79.51	3.84	Tunisia	12.88	30.43	98.11	2.41
Kazakhstan	1.78	20.29	34.10	11.30	Turkiye	13.72	26.03	45.71	4.84
Kuwait	0.10	60.97	3850.5	21.17	Turkmenistan	0.06	26.20	135.21	10.18
Kyrgyzstan	30.04	24.07	50.04	1.38	Uganda	93.03	35.22	5.83	0.13
Lebanon	6.71	28.96	58.79	3.79	UAE	0.92	43.67	1587.3	20.25
Libya	3.12	38.59	817.14	6.68	Uzbekistan	1.03	34.79	168.92	3.38
					Yemen	3.53	44.47	169.76	0.31

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ African countries are ahead in relying on renewable energy.
- ❖ All top 14 OIC countries belong to Africa who have the highest percentage of using renewable energy.
- ❖ Gulf countries have lower reliance on renewable energy. UAE, Kuwait, Qatar, Saudi Arabia, Oman and Bahrain all have less than 5% use of renewable energy consumption in their overall energy consumption.
- ❖ Air pollution is higher in African, South Asian and Gulf countries. Densely populated South Asian countries like Bangladesh and Pakistan also have high air pollution with greater proportion of population concentrating in large metropolitan centers.
- ❖ Gulf countries face more severe water stress as compared to some of the landlocked African countries. The top 5 countries facing severe water stress include Kuwait, UAE, Saudi Arabia, Libya and Qatar.
- ❖ Oil rich and high growth countries emit more carbon per capita. The top 10 countries include Qatar, Bahrain, Brunei, Kuwait, UAE, Oman, Saudi Arabia, Kazakhstan, Turkmenistan and Malaysia.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	RE	AP	WS	Co ₂	E	Country	RE	AP	WS	Co ₂	E
Afghanistan	0.19	0.38	0.99	0.99	2.55	Malaysia	0.06	0.88	1.00	0.77	2.71
Albania	0.47	0.85	1.00	0.95	3.27	Maldives	0.01	0.95	1.00	0.91	2.87
Algeria	0.00	0.65	0.96	0.88	2.50	Mali	0.67	0.27	1.00	1.00	2.93
Azerbaijan	0.01	0.75	0.99	0.89	2.65	Mauritania	0.25	0.18	1.00	0.97	2.40
Bahrain	0.00	0.29	0.97	0.31	1.56	Morocco	0.11	0.62	0.99	0.94	2.67
Bangladesh	0.29	0.23	1.00	0.99	2.51	Mozambique	0.85	0.82	1.00	0.99	3.66
Benin	0.48	0.46	1.00	0.98	2.92	Niger	0.86	0.00	1.00	1.00	2.85
Bosnia	0.40	0.70	1.00	0.80	2.90	Nigeria	0.87	0.13	1.00	0.98	2.98
Brunei	0.00	1.00	1.00	0.32	2.32	Oman	0.00	0.49	0.97	0.51	1.97
Burkina Faso	0.71	0.37	1.00	0.99	3.07	Pakistan	0.49	0.24	0.97	0.98	2.68
Cameroon	0.83	0.22	1.00	0.99	3.03	Qatar	0.00	0.06	0.89	0.00	0.94
Comoros	0.41	0.87	1.00	0.99	3.27	Saudi Arabia	0.00	0.26	0.75	0.55	1.56
Côte d'Ivoire	0.66	0.34	1.00	0.99	2.99	Senegal	0.41	0.27	1.00	0.98	2.66
Djibouti	0.32	0.51	1.00	0.99	2.82	Sierra Leone	0.75	0.40	1.00	1.00	3.14
Egypt	0.07	0.17	0.96	0.94	2.14	Somalia	1.00	0.69	0.99	1.00	3.68
Guinea	0.69	0.38	1.00	0.99	3.06	Sudan	0.65	0.35	0.97	0.99	2.96
Guinea-Bissau	0.91	0.36	1.00	1.00	3.27	Suriname	0.15	0.81	1.00	0.87	2.83
Guyana	0.13	0.83	1.00	0.89	2.84	Syria	0.01	0.68	0.97	0.96	2.62
Indonesia	0.23	0.84	0.99	0.94	3.00	Tajikistan	0.41	0.58	0.98	0.97	2.94
Iran	0.01	0.58	0.98	0.78	2.35	Togo	0.80	0.47	1.00	0.99	3.26
Iraq	0.01	0.44	0.98	0.88	2.31	Tunisia	0.14	0.69	0.97	0.93	2.72
Kazakhstan	0.02	0.83	0.99	0.64	2.48	Turkiye	0.14	0.75	0.99	0.85	2.73
Kuwait	0.00	0.26	0.00	0.33	0.60	Turkmenistan	0.00	0.74	0.97	0.68	2.39
Kyrgyz Republic	0.31	0.77	0.99	0.96	3.03	Uganda	0.98	0.62	1.00	1.00	3.59
Lebanon	0.07	0.71	0.98	0.88	2.64	UAE	0.01	0.50	0.59	0.36	1.46
Libya	0.03	0.57	0.79	0.79	2.18	Uzbekistan	0.01	0.63	0.96	0.89	2.49
						Yemen	0.04	0.49	0.96	0.99	2.48

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	UR	GDP	AVA	PR	Country	UR	GDP	AVA	PR
Afghanistan	11.71	(0.36)	33.48	54.50	Malaysia	3.73	4.16	8.93	8.40
Albania	11.81	2.87	18.63	21.80	Maldives	4.88	6.68	5.27	5.40
Algeria	11.55	1.84	11.38	5.50	Mali	2.76	4.17	36.42	44.60
Azerbaijan	5.46	1.67	4.76	4.90	Mauritania	11.11	3.81	19.20	31.80
Bahrain	1.40	2.73	0.26	7.50	Morocco	10.49	2.45	10.73	4.80
Bangladesh	4.70	6.50	11.22	24.30	Mozambique	3.91	3.97	27.50	46.10
Benin	1.65	5.52	26.90	38.50	Niger	0.53	5.67	36.48	40.80
Bosnia	14.05	2.93	4.71	16.90	Nigeria	5.76	2.41	23.69	40.10
Brunei	7.20	(0.43)	1.10	5.00	Oman	2.33	2.11	1.84	0.10
Burkina Faso	5.18	4.88	20.40	41.40	Pakistan	6.42	4.38	22.25	21.90
Cameroon	4.00	3.93	16.98	37.50	Qatar	0.10	2.20	0.25	0.40
Comoros	8.81	2.46	36.41	42.40	Saudi Arabia	5.64	2.58	2.41	13.60
Côte d'Ivoire	2.64	6.88	16.72	39.50	Senegal	3.43	5.16	15.74	46.70
Djibouti	27.93	5.17	1.68	21.10	Sierra Leone	3.64	2.96	57.45	56.80
Egypt	6.96	4.23	10.95	32.50	Somalia	20.05	6.67		69.00
Guinea	5.75	5.81	27.32	43.70	Sudan	18.73	0.14	5.03	46.50
Guinea-Bissau	3.58	3.32	30.86	47.70	Suriname	8.64	(1.43)	9.19	70.00
Guyana	12.36	14.47	13.49	35.00	Syria	9.61	(6.15)	36.63	82.50
Indonesia	3.55	4.27	12.40	9.50	Tajikistan	7.83	7.09	22.45	26.30
Iran	10.96	1.95	12.46	18.70	Togo	4.07	5.15	18.32	45.50
Iraq	15.55	2.92	2.85	23.00	Tunisia	16.12	1.22	10.09	16.60
Kazakhstan	5.01	3.02	5.19	5.20	Turkiye	10.03	5.30	6.46	14.40
Kuwait	2.48	0.30	0.46	0.10	Turkmenistan	5.02	6.10	11.04	0.20
Kyrgyz Republic	4.57	4.10	12.12	33.30	Uganda	4.28	4.57	24.06	19.50
Lebanon	12.64	(3.11)	1.40	27.40	UAE	2.75	3.11	0.91	20.30
Libya	20.68	(1.38)	1.60	36.00	Uzbekistan	6.01	5.86	23.47	14.10
					Yemen	13.59	(6.18)	17.18	48.60

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ Unemployment rate is lowest in Gulf countries while it is highest in African and poorer countries in the Middle East, especially those which are affected by War.
- ❖ Poverty headcount rate is lowest in South East Asian, Gulf and Central Asian countries.
- ❖ For gauging sustainable growth, the study takes average growth rate of 10 years. Barring some small countries in Africa where growth rates are high possibly because of lower base, only few OIC countries have had average growth rate in excess of 4%.
- ❖ Not surprisingly, African countries are more dependent on agriculture while Malaysia, Turkiye and Central Asian countries have lower dependence on agriculture.
- ❖ While GCC and some South East Asian countries have lower dependence on traditional agriculture, they are still heavily reliant on crude and palm oil exports. Thus, in long term, their liquidity in terms of foreign exchange may come under pressure when there is paradigm shift from fossil fuels to renewable energy as major sources of energy.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	UR	GDP	AVA	PR	S	Country	UR	GDP	AVA	PR	S
Afghanistan	0.58	0.28	0.42	0.34	1.62	Malaysia	0.87	0.50	0.85	0.90	3.12
Albania	0.58	0.44	0.68	0.74	2.43	Maldives	0.83	0.62	0.91	0.94	3.30
Algeria	0.59	0.39	0.81	0.93	2.72	Mali	0.90	0.50	0.37	0.46	2.23
Azerbaijan	0.81	0.38	0.92	0.94	3.05	Mauritania	0.60	0.48	0.67	0.62	2.37
Bahrain	0.95	0.43	1.00	0.91	3.29	Morocco	0.63	0.42	0.82	0.94	2.80
Bangladesh	0.83	0.61	0.81	0.71	2.96	Mozambique	0.86	0.49	0.52	0.44	2.32
Benin	0.94	0.57	0.53	0.53	2.58	Niger	0.98	0.57	0.37	0.51	2.43
Bosnia	0.50	0.44	0.92	0.80	2.66	Nigeria	0.80	0.42	0.59	0.51	2.32
Brunei	0.74	0.28	0.99	0.94	2.95	Oman	0.92	0.40	0.97	1.00	3.29
Burkina Faso	0.82	0.54	0.65	0.50	2.50	Pakistan	0.77	0.51	0.62	0.74	2.64
Cameroon	0.86	0.49	0.71	0.55	2.60	Qatar	1.00	0.41	1.00	1.00	3.40
Comoros	0.69	0.42	0.37	0.49	1.96	Saudi Arabia	0.80	0.42	0.96	0.84	3.02
Cote d'Ivoire	0.91	0.63	0.71	0.52	2.77	Senegal	0.88	0.55	0.73	0.43	2.59
Djibouti	0.00	0.55	0.98	0.75	2.27	Sierra Leone	0.87	0.44	0.00	0.31	1.63
Egypt	0.75	0.50	0.81	0.61	2.68	Somalia	0.28	0.62		0.16	1.07
Guinea	0.80	0.58	0.53	0.47	2.37	Sudan	0.33	0.31	0.08	0.44	1.16
Guinea-Bissau	0.87	0.46	0.46	0.42	2.22	Suriname	0.69	0.23	0.16	0.15	1.23
Guyana	0.56	1.00	0.77	0.58	2.90	Syria	0.66	0.00	0.64	0.00	1.30
Indonesia	0.88	0.51	0.79	0.89	3.06	Tajikistan	0.72	0.64	0.39	0.68	2.43
Iran	0.61	0.39	0.79	0.77	2.56	Togo	0.86	0.55	0.32	0.45	2.17
Iraq	0.44	0.44	0.95	0.72	2.56	Tunisia	0.42	0.36	0.17	0.80	1.75
Kazakhstan	0.82	0.45	0.91	0.94	3.12	Turkiye	0.64	0.56	0.11	0.83	2.13
Kuwait	0.91	0.31	1.00	1.00	3.22	Turkmenistan	0.82	0.59	0.19	1.00	2.61
Kyrgyzstan	0.84	0.50	0.79	0.60	2.73	Uganda	0.85	0.52	0.42	0.76	2.55
Lebanon	0.55	0.15	0.98	0.67	2.35	UAE	0.90	0.45	0.01	0.75	2.12
Libya	0.26	0.23	0.98	0.56	2.03	Uzbekistan	0.79	0.58	0.41	0.83	2.61
						Yemen	0.52	0.00	0.30	0.41	1.22

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ On overall social sub-index of ESG, top 5 countries are Qatar, Maldives, Bahrain, Oman and Kuwait.
- ❖ Surprisingly, Turkiye, UAE, and Tunisia also rank very low. For UAE, it is probably because of lower GDP growth given the high base and relatively high poverty among the expatriates which represent quite a major chunk of population.
- ❖ For Tunisia and Turkey, it could be because of high unemployment rate which has also effected national poverty rate.
- ❖ The bottom 5 countries include Syria, Suriname, Yemen, Sudan and Somalia. All these countries are stuck in conflicts and poverty trap.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	LR	CoC	GE	RoL	Country	LR	CoC	GE	RoL
Afghanistan	10	-1.14	-1.63	-1.87	Malaysia	7	0.17	0.99	0.56
Albania	8	-0.56	0.00	-0.26	Maldives	2	-0.37	0.39	-0.17
Algeria	2	-0.61	-0.62	-0.82	Mali	6	-0.87	-1.22	-0.90
Azerbaijan	12	-0.83	0.25	-0.58	Mauritania	2	-0.82	-0.73	-0.67
Bahrain	3	0.17	0.72	0.47	Morocco	2	-0.43	-0.07	-0.25
Bangladesh	5	-0.96	-0.63	-0.61	Mozambique	1	-0.81	-0.77	-1.04
Benin	6	-0.15	-0.21	-0.59	Niger	6	-0.55	-0.61	-0.40
Bosnia	7	-0.64	-1.04	-0.28	Nigeria	9	-1.07	-1.00	-0.86
Brunei	12	1.25	1.45	0.89	Oman	1	0.09	-0.12	0.41
Burkina Faso	6	-0.06	-0.73	-0.44	Pakistan	2	-0.79	-0.40	-0.64
Cameroon	6	-1.09	-0.88	-1.10	Qatar	1	0.81	1.11	0.93
Comoros	6	-1.29	-1.79	-1.22	Saudi Arabia	3	0.31	0.50	0.23
Cote d'Ivoire	6	-0.37	-0.50	-0.63	Senegal	6	0.06	0.06	-0.36
Djibouti	8	-0.78	-0.80	-1.01	Sierra Leone	5	-0.43	-1.11	-0.82
Egypt	5	-0.68	-0.43	-0.24	Somalia	0	-1.78	-2.05	-2.27
Guinea	6	-1.00	-0.92	-1.13	Sudan	3	-1.29	-1.64	-1.21
Guinea-Bissau	6	-1.30	-1.42	-1.44	Suriname	2	-0.40	-0.65	-0.10
Guyana	3	-0.17	-0.24	-0.40	Syria	1	-1.78	-1.74	-2.07
Indonesia	6	-0.43	0.38	-0.22	Tajikistan	11	-1.34	-0.59	-1.19
Iran	2	-1.10	-0.86	-0.95	Togo	6	-0.67	-0.65	-0.56
Iraq	0	-1.25	-1.29	-1.73	Tunisia	3	-0.23	-0.17	0.10
Kazakhstan	8	-0.24	0.06	-0.49	Turkiye	7	-0.39	-0.09	-0.42
Kuwait	1	-0.03	-0.04	0.26	Turkmenistan	-	-1.42	-0.93	-1.44
Kyrgyz Republic	9	-1.12	-0.73	-1.07	Uganda	5	-1.00	1.40	-0.35
Lebanon	2	-1.23	-1.29	-1.07	UAE	6	1.18	-0.57	0.83
Libya	0	-1.57	-1.72	-1.78	Uzbekistan	6	-0.81	-0.20	-0.89
					Yemen	0	-1.65	-2.30	-1.80

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ On strength of legal rights, Central Asian and South East Asian countries perform better, whereas African and Gulf countries have dismal performance. War affected regions like Syria, Iraq, Libya, Somalia and Yemen have the worst performance on legal rights.
- ❖ On control of corruption, South East Asian and Gulf countries like Brunei, UAE, Qatar Saudi Arabia, Malaysia, Bahrain and Oman rank relatively better than others. Similar picture appears in government effectiveness with South East and Gulf countries performing well followed by Central Asian countries. South Asian countries and African countries perform less well.
- ❖ On rule of law, Gulf countries and high-income South East Asian countries like Brunei and Malaysia perform well. Most of the countries with dismal performance belong to Africa and some countries in Central Asia. Only 9 countries have positive score on rule of law. It highlights the fact that most OIC countries perform less well on rule of law.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	LR	CoC	GE	RoL	G	Country	LR	CoC	GE	RoL	G
Afghanistan	0.83	0.21	0.18	0.13	1.35	Malaysia	0.58	0.64	0.88	0.88	2.99
Albania	0.67	0.40	0.61	0.63	2.31	Maldives	0.17	0.47	0.72	0.66	2.00
Algeria	0.17	0.39	0.45	0.46	1.46	Mali	0.50	0.30	0.29	0.43	1.52
Azerbaijan	1.00	0.32	0.68	0.53	2.52	Mauritania	0.17	0.32	0.42	0.50	1.40
Bahrain	0.25	0.64	0.80	0.86	2.55	Morocco	0.17	0.45	0.60	0.63	1.84
Bangladesh	0.42	0.27	0.45	0.52	1.65	Mozambique	0.08	0.32	0.41	0.39	1.20
Benin	0.50	0.54	0.56	0.52	2.12	Niger	0.50	0.41	0.45	0.58	1.94
Bosnia	0.58	0.38	0.34	0.62	1.92	Nigeria	0.75	0.24	0.35	0.44	1.78
Brunei	1.00	1.00	1.00	0.99	3.99	Oman	0.08	0.62	0.58	0.84	2.12
Burkina Faso	0.50	0.57	0.42	0.57	2.06	Pakistan	0.17	0.33	0.51	0.51	1.51
Cameroon	0.50	0.23	0.38	0.37	1.48	Qatar	0.08	0.85	0.91	1.00	2.85
Comoros	0.50	0.16	0.14	0.33	1.13	Saudi Arabia	0.25	0.69	0.75	0.78	2.47
Cote d'Ivoire	0.50	0.47	0.48	0.51	1.96	Senegal	0.50	0.61	0.63	0.60	2.33
Djibouti	0.67	0.33	0.40	0.39	1.79	Sierra Leone	0.42	0.45	0.32	0.45	1.63
Egypt	0.42	0.36	0.50	0.63	1.91	Somalia	0.00	0.00	0.07	0.00	0.07
Guinea	0.50	0.26	0.37	0.36	1.49	Sudan	0.25	0.16	0.18	0.33	0.92
Guinea-Bissau	0.50	0.16	0.23	0.26	1.15	Suriname	0.17	0.46	0.44	0.68	1.74
Guyana	0.25	0.53	0.55	0.59	1.92	Syria	0.08	0.00	0.15	0.06	0.30
Indonesia	0.50	0.45	0.71	0.64	2.30	Tajikistan	0.92	0.15	0.46	0.34	1.86
Iran	0.17	0.23	0.38	0.41	1.19	Togo	0.50	0.37	0.44	0.54	1.84
Iraq	0.00	0.18	0.27	0.17	0.61	Tunisia	0.25	0.51	0.57	0.74	2.07
Kazakhstan	0.67	0.51	0.63	0.56	2.36	Turkiye	0.58	0.46	0.59	0.58	2.21
Kuwait	0.08	0.58	0.60	0.79	2.05	Turkmenistan		0.12	0.37	0.26	0.75
Kyrgyz Republic	0.75	0.22	0.42	0.37	1.76	Uganda	0.42	0.26	0.99	0.60	2.26
Lebanon	0.17	0.18	0.27	0.37	0.99	UAE	0.50	0.98	0.46	0.97	2.91
Libya	0.00	0.07	0.15	0.15	0.38	Uzbekistan	0.50	0.32	0.56	0.43	1.82
						Yemen	0.00	0.04	0.00	0.15	0.19

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ Top 5 countries are Brunei, Malaysia, UAE, Qatar and Bahrain.
- ❖ Though, many African countries have lower rank, but there are exceptions, such as Uganda and Benin who rank above relatively more developed African countries like Tunisia, Egypt and Morocco.
- ❖ War affected regions like Iraq, Libya, Syria, Yemen and Somalia stand at the bottom.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

Country	E (0-4)	S (0-4)	G (0-4)	ESG (0-12)	Country	E (0-4)	S (0-4)	G (0-4)	ESG (0-12)
Brunei	2.32	2.95	3.99	9.25	Saudi Arabia	1.56	3.02	2.47	7.05
Malaysia	2.71	3.12	2.99	8.81	Guinea	3.06	2.37	1.49	6.92
Uganda	3.59	2.55	2.26	8.40	Uzbekistan	2.49	2.61	1.82	6.91
Indonesia	3.00	3.06	2.30	8.35	Djibouti	2.82	2.27	1.79	6.88
Azerbaijan	2.65	3.05	2.52	8.22	Pakistan	2.68	2.64	1.51	6.82
Maldives	2.87	3.30	2.00	8.18	Egypt	2.14	2.68	1.91	6.73
Albania	3.27	2.43	2.31	8.01	Mali	2.93	2.23	1.52	6.68
Kazakhstan	2.48	3.12	2.36	7.97	Algeria	2.50	2.72	1.46	6.67
Côte d'Ivoire	2.99	2.77	1.96	7.72	Guinea-Bissau	3.27	2.22	1.15	6.65
Guyana	2.84	2.90	1.92	7.67	Tunisia	2.72	1.75	2.07	6.55
Burkina Faso	3.07	2.50	2.06	7.63	UAE	1.46	2.12	2.91	6.49
Benin	2.92	2.58	2.12	7.62	Sierra Leone	3.14	1.63	1.63	6.40
Senegal	2.66	2.59	2.33	7.58	Comoros	3.27	1.96	1.13	6.35
Kyrgyzstan	3.03	2.73	1.76	7.52	Mauritania	2.40	2.37	1.40	6.17
Bosnia	2.90	2.66	1.92	7.47	Iran	2.35	2.56	1.19	6.11
Bahrain	1.56	3.29	2.55	7.41	Lebanon	2.64	2.35	0.99	5.98
Oman	1.97	3.29	2.12	7.38	Kuwait	0.60	3.22	2.05	5.88
Morocco	2.67	2.80	1.84	7.31	Suriname	2.83	1.23	1.74	5.81
Togo	3.26	2.17	1.84	7.28	Turkmenistan	2.39	2.61	0.75	5.74
Tajikistan	2.94	2.43	1.86	7.23	Afghanistan	2.55	1.62	1.35	5.52
Niger	2.85	2.43	1.94	7.23	Iraq	2.31	2.56	0.61	5.48
Qatar	0.94	3.40	2.85	7.19	Sudan	2.96	1.16	0.92	5.04
Mozambique	3.66	2.32	1.20	7.18	Somalia	3.68	1.07	0.07	4.82
Bangladesh	2.51	2.96	1.65	7.12	Libya	2.18	2.03	0.38	4.60
Cameroon	3.03	2.60	1.48	7.11	Syria	2.62	1.30	0.30	4.21
Turkiye	2.73	2.13	2.21	7.08	Yemen	2.48	1.22	0.19	3.89
Nigeria	2.98	2.32	1.78	7.07					

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS

- ❖ South East Asian and some Central Asian countries have higher ESG performance.
- ❖ However, there are some pleasant surprises with Uganda, Cote d'Ivoire, Guyana, Burkina Faso, Benin and Senegal also showing promising performance.
- ❖ Countries engulfed in conflicts and poverty trap perform below par on social, governance and environmental indicators.
- ❖ The bottom of the table countries on ESG index are Afghanistan, Iraq, Sudan, Somalia, Libya, Syria and Yemen.
- ❖ Among the Arab countries, Bahrain, Oman and Qatar rank above Saudi Arabia, UAE and Kuwait.

USING INDEX TO DERIVE ESG RATINGS

- ❖ Countries with ESG score below 3 are given C rating
- ❖ Countries with ESG score between 3 and 4.5 are given C+ rating
- ❖ Countries with ESG score between 4.5 and 6 are given B rating
- ❖ Countries with ESG score between 6 and 7.5 are given B+ rating
- ❖ Countries with ESG score between 7.5 and 9 are given A rating
- ❖ Countries with ESG score above 9 are given A+ rating
- ❖ Country credit risk premium is calculated through sovereign debt method:
$$CRP_i = RRR_i - RRR_b$$
- ❖ CRP_i is country risk premium of country 'i'. RRR_B is required rate of return in benchmark country. RRR_i is required rate of return in the country of interest.

USING INDEX TO DERIVE ESG RATINGS

The ESG ratings can then be used to include a ESG multiplier in country risk premium, i.e.

$$ECRP_i = (RRR_i - RRR_b) * (1 + ESG_w)$$

Where,

$ECRP_i$ is ESG adjusted country risk premium.

ESG_w is ESG weight assigned based on rating.

ESG weight can be incrementally increased by 0.1 for each lower ESG rating. For instance, ESG weight assigned as 0 for countries with ESG rating of A+, 0.1 for countries with ESG rating of A, 0.2 for countries with ESG rating of B+, 0.3 for countries with ESG rating of B, 0.4 for countries with ESG rating of C+ and 0.5 for countries with ESG rating of C. Benchmark country would most probably be a developed country which has a lower required rate of return among the peers.

RESULTS: ESG ADJUSTED COUNTRY RISK PREMIUMS



Country	ESG (0-12)	Rating	Country	ESG (0-12)	Rating
Brunei	9.25	A+	Saudi Arabia	7.05	B+
Malaysia	8.81	A	Guinea	6.92	B+
Uganda	8.40	A	Uzbekistan	6.91	B+
Indonesia	8.35	A	Djibouti	6.88	B+
Azerbaijan	8.22	A	Pakistan	6.82	B+
Maldives	8.18	A	Egypt	6.73	B+
Albania	8.01	A	Mali	6.68	B+
Kazakhstan	7.97	A	Algeria	6.67	B+
Cote d'Ivoire	7.72	A	Guinea-Bissau	6.65	B+
Guyana	7.67	A	Tunisia	6.55	B+
Burkina Faso	7.63	A	UAE	6.49	B+
Benin	7.62	A	Sierra Leone	6.40	B+
Senegal	7.58	A	Comoros	6.35	B+
Kyrgyzstan	7.52	A	Mauritania	6.17	B+
Bosnia	7.47	B+	Iran	6.11	B+
Bahrain	7.41	B+	Lebanon	5.98	B
Oman	7.38	B+	Kuwait	5.88	B
Morocco	7.31	B+	Suriname	5.81	B
Togo	7.28	B+	Turkmenistan	5.74	B
Tajikistan	7.23	B+	Afghanistan	5.52	B
Niger	7.23	B+	Iraq	5.48	B
Qatar	7.19	B+	Sudan	5.04	B
Mozambique	7.18	B+	Somalia	4.82	B
Bangladesh	7.12	B+	Libya	4.60	B
Cameroon	7.11	B+	Syria	4.21	C+
Turkiye	7.08	B+	Yemen	3.89	C+
Nigeria	7.07	B+			

CONCLUSIONS AND RECOMMENDATIONS

- ❖ In commercial finance, using ESG risk weights would help in affecting allocation of resources in environmentally sustainable regions and projects. It will create impetus towards achieving better ESG scores to access finance in a cost-effective way.
- ❖ In development finance, it will also identify regions where there is more need of impact investments. Countries with low ESG ratings can be provided with other forms of development assistance, such as social finance.
- ❖ Development finance institutions such as World Bank, Asian Development Bank and Islamic Development Bank can provide investment quotas based on ESG ratings.
- ❖ Highly indebted poor countries can be provided with debt relief and concessions subject to signing up for ESG structural transformation.
- ❖ It will also help in transparency and visibility of the ESG performance. It will also encourage conducive environment and competition to win new investors who are conscious about ESG.

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