October 2024

Templeton Global Macro Views

An update on our ESG scores

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In this issue

Integration of environmental, social and governance (ESG) factors into sovereign fixed income investing is an area that has long been of particular interest to Templeton Global Macro, which first published commentary on this topic in 2018. That publication (Global Macro Shifts—issue 9 [GMS-9]) introduced the Templeton Global Macro-ESG Index®(TGM-ESGI).

In general, much of the industry has opted for a levels-based approach to sovereign ESG scoring, where countries with weaker metrics are either excluded or underweighted in the resulting portfolios. However, since our original publication, Templeton Global Macro has opted for a momentum-based approach instead. In this approach we score countries on their anticipated progress on a number of ESG indicators over a horizon of approximately the next three years, based on our understanding of factors such as government policies and societal and economic trends.

This approach leads to possibly unexpected outcomes. For example, emerging or frontier markets which tend to have weaker scores on (for instance) governance metrics today using the levels-based approach may be assigned a positive momentum score based on implemented or planned reforms perceived to be improving their situations. While there is a degree of subjectivity in this approach, if we understand ESG scores to be tightly interlinked with factors such as income levels and credit quality, we expect the countries that end up realizing their projected positive momentum would outperform in the medium term.

In this regular publication we recap our vision and approach to sustainable investing and provide updates to both methodology and scores. Our analyst team members compiled these updated scores during August and September 2024, based on their extensive macro and on-the-ground research. In addition, we include a special topic in this **October 2024** edition, covering innovation in green and social financing.

A recap of TGM's ESG philosophy and scoring process

1. **Integration:** ESG is most effective as an investment tool when fully integrated into the other components of research, including traditional economic analysis and in-person visits with policymakers, which help form our core macroeconomic views on a country. ESG factors are integrated into our analysis of economic issues such as growth and inflation, and are also actively considered in the portfolio construction process.

2. **Forward-looking:** Focus is placed on forward-looking data points rather than current ESG performance, which is strongly correlated with income levels. We believe momentum, or change in score, is the measure that truly matters —whether the focus is investment performance or identifying where capital can be deployed to generate the most potential impact.

3. **Focus on the tails:** ESG is an important tool for identifying investment opportunities and for highlighting areas of risk. Within TGM, we are most interested in the projected "tails," which signal major ESG shifts in either direction.

4. **Time horizon:** To benefit from ESG analysis, investors must have a sufficiently long time horizon. ESG factors guide a country's longer-term fundamentals, but the underlying trends can be obfuscated in the short term by cyclical or temporary conditions. Conviction in an analytical view and patience to see that view come to fruition are prerequisites to successful ESG investing.

5. **Engagement:** Emphasis on a country's long-term fundamentals provides an effective base from which to open communications with policymakers interested in discussing best economic practices. This dialogue is important in our efforts to evaluate ESG factors and for government officials interested in the perspectives of private markets.

The TGM-ESG Index (ESGI)

The incorporation of social and governance factors in country research is not a particularly novel idea. Many market participants have long recognized that factors such as the quality of institutions, levels of corruption and social and political stability over the long-term correlate to the credit quality of sovereign issuers.

This understanding has long been fundamental to the Templeton Global Macro investment process as well and has helped the team both navigate volatile periods like the eurozone sovereign crisis and the 2020 COVID-19 crash, as well as to pick long-term winners, particularly in emerging markets. While this approach was long an integral part of internal research and various scoring mechanisms, in 2018 we developed the Templeton Global Macro ESG Index (TGM-ESGI) to formalize and quantify these longstanding views.

An initial version of the index published in 2018 outlined a set of high-level, uncorrelated factors that we judged to be material to the economic situation in a country. The index initially overweighted social and governance factors compared to environmental ones, on the assumption at the time that there was a more direct and observable link between these and the near-term economic performance of countries.

However, the growing climate crisis—with its numerous spillover effects into the social and governance domain—caused the team to revisit this stance a few years later and rebalance the index to an equal-weighted combination of environment, social and governance indicators. This feature exemplifies how TGM-ESGI is a "living" index, with its subcomponents frequently reassessed and redefined based on new insights and information.

At the highest level, TGM-ESGI currently contains 14 subcategories. Governance consists of government effectiveness, policy mix and reform-mindedness, corruption and transparency, institutional strength and business climate. Social factors include social cohesion and stability, infrastructure, health security, labor, human capital and demographics. Finally, the environmental factors reflected in the index are unsustainable practices, extreme weather risk and resource insecurity.

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TGM-ESGI methodology

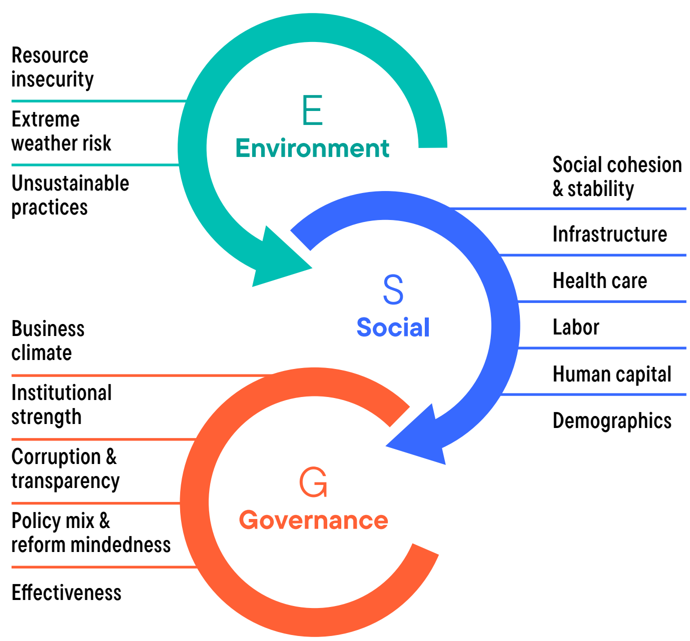
A baseline representing every index is constructed from publicly available indexes and datasets published by major institutions like World Bank Group, which typically reflect various quantitative and qualitative underlying data sources. For some indicators these are a direct reflection of the data, such as is the case with "institutional strength," directly represented by the World Bank Governance Indicators Rule of Law index. In other cases, we have constructed our own index. An example is "unsustainable practices," which is represented by six different components reflecting items like greenhouse gas emissions, deforestation and biodiversity. Typically, we will opt for the latter approach when available single datasets have historically seen significant methodology changes and instability.

Countries are scored on a 0-to-100 scale on the distinct ESG subcategories described in the previous section. Underlying each of these indicators is a benchmark that matches a top-level view for every indicator. This is the base upon which the analyst team overlays their scores.

There are slight differences in statistical approaches between the data sources used, but in all cases the benchmark data converts an underlying country ranking to 10-point buckets between zero and 100. The two basic methodologies used are: 1) conversion into uniformly distributed ordinal buckets, which tends to work well for benchmarks that follow a normal statistical distribution, or 2) preserving the distribution in the underlying dataset. This latter is particularly important for datasets like the GINI benchmark[1] that have significant outliers.

Our analysts take these baseline numbers and overlay their own views on them, typically not deviating more than +/- 20 points to ensure scores remain reasonably anchored to the index. Subsequently, they project their expected change in years ahead, which yields our momentum measures.

With regard to our approach, we highlight that while the resulting levels on every indicator can be seen as being closely connected to an objective and publicly available indicator, there is a degree of subjectivity in the future projected scores. A case for such score deviations can be made based on factors like an understanding of the situation on the ground, analysis of government policy or data trends and so on. Within this, an analyst also has the freedom to implicitly emphasize or overweight certain aspects of a category.



Scoring and index changes

In each publication, we summarize changes to the methodology. Index changes can happen due to discontinued underlying indexes, or due to new insights on what needs to be included in the index or how certain categories should be measured. Whenever we need to replace an index even though our interpretation of a category has not changed, we seek a new index that largely provides continuity of scores and has a high correlation to the previous index.

When an index is rebalanced or new insights are reflected, scores will naturally see more significant shifts that could potentially make comparison to previous versions harder. However, in most iterations such affected indexes are a low single-digit percentage of the entire TGM-ESGI index, making this effect manageable.

Previous changes to the index composition

Some examples of changes we saw in previous versions include the following:

- **Unsustainable Practices (11% of overall index score), March 2023:** After years of significant volatility in this index due to publishing institutions frequently changing their methodology, we implemented a custom index to ensure future stability. It consists of 50% greenhouse gas emissions per capita and 50% biodiversity, deforestation, air pollution, marine health and land degradation.
- **Water Security (3.7% of overall index score), March 2023:** We complemented the original metric on water scarcity with water use efficiency and water resources management, to better reflect the fact that certain water-scarce areas are managing resources in such a way that help alleviate the situations (while others very much do not). With this approach, we balance the topic with policies meant to address it.
- **Infrastructure (5.5% of overall index score), March 2024:** The previously used World Economic Forum index had become stale. We have constructed a new custom index with a 50% weight in the infrastructure sub-factor of the World Bank's Logistics Performance Index (LPI), 12.5% in electricity generation per capita, 12.5% in air carrier departures per capita, 12.5% in broadband access and 12.5% in road density. The correlation of the new index with the previous index is high, at 90%.
- **Extreme Weather Risk (11% of overall index score), March 2024:** The previously used index adjusted its methodology in a way that made it inconsistent with our approach. We adopted a modified version of the INFORM Risk index,[2] adjusted so that its weightings comprise 25% hazard and exposure (excluding conflict risk), 25% vulnerability and 50% lack of coping capacity. This weighting brings its scores closest to the prior index and, in our view, in some cases enhances its outcomes. For example, certain highly developed countries like Japan and the Netherlands are highly exposed to extreme weather events and consequently in the past had had some of the lowest scores. However, they also have some of the best coping capabilities, and taking this into account means they now score significantly better.
- **Health Care (5.5% of overall index score), March 2024:** In 2020, we introduced Health Security as a subcategory. This indicator essentially measured pandemic preparedness, which we conceded was lacking in the original index. However, in our discussions this indicator was generally interpreted as a health indicator, something until then not incorporated into the rest of the index. In March 2024, we complemented this index with traditional health care metrics like doctors per capita and life expectancy, while renaming the category to "health care" to provide a more traditional view of the topic.
- **Demographics/Population Growth (2.8% of overall index score), March 2024:** This index maintains its underlying statistical distribution but cuts out the largest outliers so that the rest of the data set is not grouped too closely together. The threshold for excluded tails was widened in 2023 from 2.5% and 97.5% to 5% and 95%, respectively. In March 2024, we again observed large swings in the data from 2021 to 2022. In order to smooth the data, going forward we will determine the index score based on the five-year moving average (latest data represented by 2018-2022).

Benchmark updates and changes to index composition

For this update, 11 out of 18 benchmarks (including sub-benchmarks) were updated to the latest data; this means that the vast majority of indexes are now using 2022-2024 data. There was one major index revision in this round:

- **Inequality (2.8% of overall index score), September 2024:** We are replacing the GINI coefficient with an Inequality index using data from the World Inequality Database, specifically four indicators: each of the bottom 50% and top 10% in wealth and income. A higher share of wealth and income in the bottom 50% leads to higher scores, and a lower share of wealth and income in the top 10% leads to higher scores. These effects sometimes work against each other. While 91% of countries remain within +/- 20 points from their previous scores, some significant shifts have occurred.

We endeavor to minimize methodology-induced volatility in the index as much as we can, preferring if possible to have gradual adjustments when we change any underlying sources of our indexes.

Changes to the country universe

TGM-ESGI scores are maintained for a total of 127 countries and territories in the world. Our global coverage has as its starting point all countries/territories in the world, which we then subdivide into three groups: an actively tracked contingent of countries, which our analysts research, discuss and overlay their views on; a passively tracked group, where we use benchmark scores but do not add any of our own views; and a non-investment universe group, which contains the rest.

The last-mentioned group consists of countries that are not investable due to either sanctions, lack of functioning capital markets or debt outstanding. The country universe remains subject to change and is reviewed on a biannual basis.

In this round of scoring, we moved three countries from the passively tracked group to the active group: Montenegro, Paraguay and Barbados. With that, the active group has grown to 91 countries. No further changes were made.

Leveraging innovative finance for emerging markets

The Sustainable Development Goals (SDG) were formalized (as part of the United Nations' Agenda for Sustainable Development) in 2015 as a blueprint for sustainable development, particularly in emerging markets. While the objectives have been globally lauded, progress toward them over the last decade has been disappointing. One of the critical challenges has been funding. The capital that emerging markets need to meet their SDG goals is substantial.

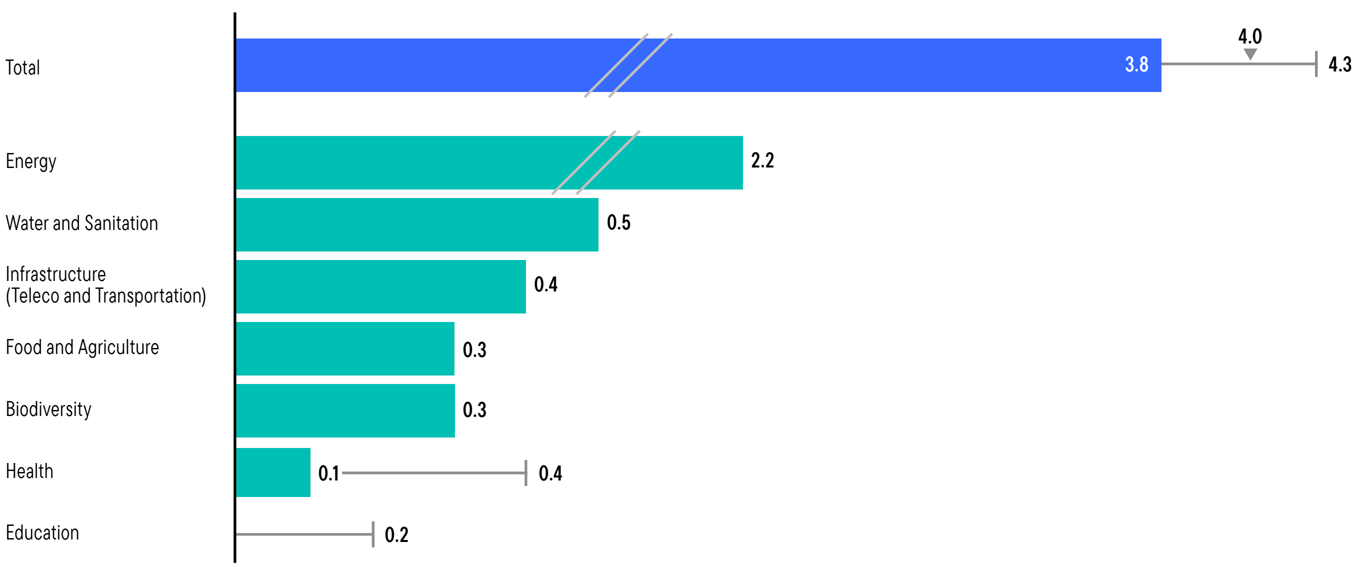
The United Nations Conference on Trade and Development (UNCTAD) recently updated its estimate of the annual development investment gap to US$4 trillion per year, significantly higher than its original evaluation of $2.5 trillion in 2014.[3] According to the organization, this revision is due to shortfalls in past years along with increasing global challenges such as the pandemic and high energy prices.

Although these numbers might appear overwhelming, there are efforts to chip away at the gap. One recognition is that traditional financing tools may not be conducive to achieving development goals. Such instruments were created to deliver maximum market efficiency and returns, but this does not necessarily account for the increased complexity of linking development goals to financial ones. The resulting gap in the market has led to a rise in new and innovative financing instruments to accomplish both objectives. While a select number of these instruments are completely new, many are existing structures or mechanisms which have been adjusted or combined in new ways to further development financing, thus leveraging methods that have succeeded in other sectors.

In addition to delivering strong financial results, the overarching objective of these instruments is to (1) address development challenges more effectively through both positive impact and risk reduction, and (2) crowd in additional capital at a cheaper rate to make financing more attainable. The latter objective may be achieved through enhancing the risk-return profile for investors in addition to expanding the investor base to draw more financing into emerging markets. One learning has been that there is no one-size-fits-all approach, and so instruments have emerged to achieve varying goals, catering to investors in diverse asset classes with differing risk-return profiles.

Exhibit 1: Capital Expenditure Requirements Across Key Sustainable Development Goals Sectors[4]

US$ Billions, Estimate As of September 2023

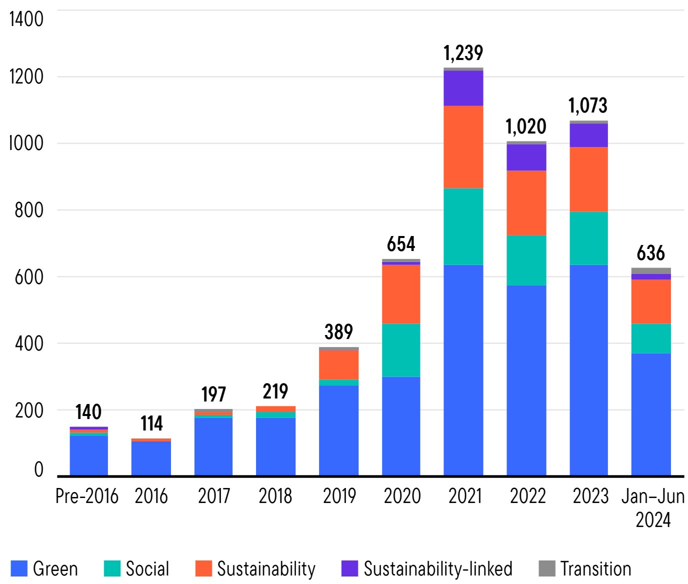


Source: World Economic Forum.

The sector exhibiting the most explosive growth has been Green, Social, Sustainability and Sustainability-Linked Bonds (GSSS), and this category itself is expanding quickly to other types of instruments with targeted purposes like gender and marine health. The GSSS market has increased 9.4 times in size in the 10 years from 2014 to 2023.[5] In the first half of 2024, cumulative GSSS issuance reached US$636 billion, on track to rebound to recent highs (see Exhibit 2) as global liquidity conditions ease. Emerging markets still account for the minority share at 16% of total issuance, although levels are high at around US$100 billion.

Exhibit 2: Global GSSS Bond Issuance

US$ Billions, Pre-2016 through June 2024



Source: World Bank.

While the literature often groups GSSS bonds together, they encompass two separate types of instruments. One category is use of proceeds while the other is outcome-based. Use-of-proceeds bonds promise that the funds raised will be dedicated to specific and pre-approved purposes. These bonds have gained popularity because of their relative simplicity. The structure is very similar to that of a conventional bond, with additional stipulations on how the capital can be used along with greater reporting transparency. Such bonds are an effective way to raise capital for dedicated projects.

Sustainability-linked bonds (SLBs), on the other hand, link the coupon on the bond to the achievement of specific pre-determined key performance indicators (KPIs). The funds raised are not ring-fenced for certain projects and can be used for general purpose expenses by the issuer. However, there is an accountability mechanism where the coupon rate the issuer pays will change depending on whether the bond's KPIs are met. As a result, SLBs incentivize the issuer to meet their objectives but do not dictate how they must do so, giving the issuer more flexibility to manage that process. The KPIs themselves are often also highly specific, which also promotes data collection and transparency. SLBs benefit from their outcomes-based approach because it encourages efficiency along with the greater flexibility of capital they provide for issuers. However, this segment of the market has been slower to develop compared to use-of-proceeds bonds, particularly among sovereigns, because of the challenge of designing effective KPIs and uncertainty with regulatory treatment in certain domiciles.

Other types of structures have emerged to protect developing countries against risk. Climate resilient debt clauses (CRDCs) are an emerging feature, drawing upon the lessons learned from catastrophe bonds in the insurance industry. Bonds in this case have stipulations that allow for delay of payment to investors in the event of a pre-defined natural disaster. Unlike catastrophe bonds, though, the payments are only delayed with capitalization and not voided entirely. CRDCs are more akin to a restructuring of income streams that can prevent more complex and disadvantageous defaults by providing issuers with greater fiscal room in the short term. Island countries with greater exposure to natural disasters such as Grenada and Barbados have entered this market, successfully issuing bonds with CRDCs. Grenada also became the first issuer to trigger this clause in August 2024 after Hurricane Beryl.

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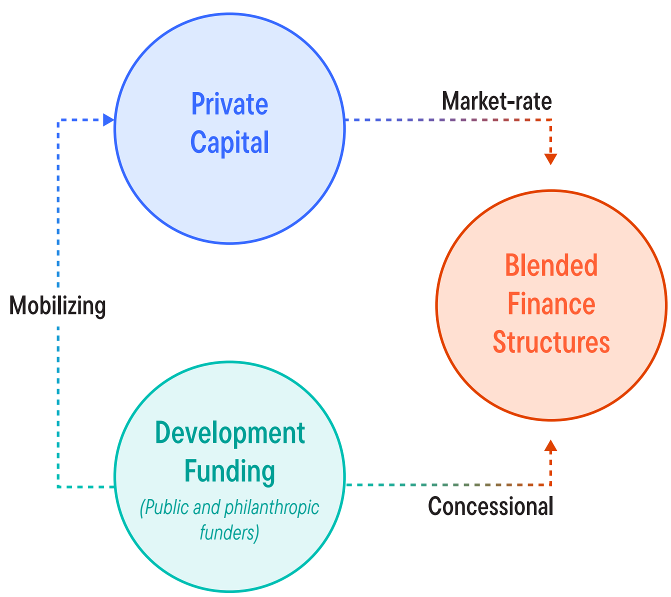
Finally, the financing gap for emerging markets has led to interest in a concept named blended finance. Blended finance is a structuring approach that aims to use development capital to catalyze private financing by sharing and lowering the burden of risk. The most high-profile example within the sovereign space has been debt-for-nature swaps, which have taken place in countries such as Belize, Gabon and Ecuador over the last few years. In these arrangements, sovereigns buy back debt with a loan and, in its stead, issue new bonds which are backed by development finance organizations for lower coupon rates. The governments then commit to using a portion of their savings for a specific cause, such as protecting the Galapagos in Ecuador and ocean conservation in Gabon.

Although debt-for-nature swaps are an example of blended finance in action, the potential scope is much broader in terms of asset classes and includes various potential mechanisms, including first-loss protection, insurance, grants and securitization. Concessionary capital can also be included in existing instruments, such as compensating investors in the event of payment delays, as part of CDRCs discussed earlier. The specific mechanism will depend on the asset class, its cash-flow generating mechanisms and how investors can be convinced that the structure will enhance their risk and return objectives.

Exhibit 3: Illustration Of Blended Finance Structures



Source: *Convergence.*

In addition to supporting development objectives, these new instruments with their added development objectives aim to draw more capital into emerging markets. There are promising signs that this is indeed happening. One example is Uruguay's 2022 SLB issue, which attracted 188 investors, 21% of whom were new holders of the country's debt.[6] Similarly, a green bond issued by the Dominican Republic in June 2024 was six times oversubscribed and was priced at 15 basis points (bps) below the country's conventional bonds.[7] Such strong results suggest that demand exists for these types of instruments. A compelling sustainability profile could have the potential to attract investors who otherwise might not have been interested in those markets. Blended finance, if deployed at scale, would further this objective by bringing in additional capital at more affordable rates.

As well as opportunity, there are of course challenges involved in creating new financial instruments. First, there is often a tradeoff between impact and complexity. The inclusion of additional objectives, parties involved and steps for accountability result in a robust impact story, but also raise the cost of structuring and reduce the ease of understanding them. Operational risks also come with complexity, even if the structure appears sound on paper. This is especially the case in emerging and frontier markets, where investors are already more cautious given higher legal and institutional risks. For most asset managers, the resources involved in understanding participating in these markets can sometimes be limited.

However, despite the challenges, these new instruments provide exciting opportunities, both for emerging market investors and for the countries themselves. While these structures can never replace the fundamental conditions that are conducive for capital flows, including strong institutions, effective policymaking, a capable workforce and peaceful conditions for economic activity, they can help bridge the gap to make emerging markets more investable. Through creating a more compelling impact story, protecting issuers and investors against downside risk and helping facilitate the cooperation of various segments in this process, innovative financing has the potential to help deliver on the promises to emerging markets.

Updated TGM-ESGI scores

Exhibit 4 summarizes the scores as of September 2024 as well as the change in scores compared to March 2024. As discussed earlier in this publication, these 91 countries comprise the subset of the total country universe that is actively covered currently using customized overlays that reflect the analytical views of our research team.

Exhibit 4: Environmental, Social and Governance Scores by Country (TGM-ESGI)[8]

TGM-ESGI Scores: Current

As of March 2024 and September 2024

	Previous TGM-ESGI Score		Current TGM-ESGI Score	Current TGM-ESGI Score by Category		
	Mar 2024	=>	Sep 2024	E	S	G
Switzerland	89	0.0	**89**	88	84	96
Sweden	87	0.0	**87**	86	81	94
Norway	86	0.0	**86**	79	84	96
New Zealand	85	0.0	**85**	76	86	94
Finland	82	-0.6	**81**	71	79	94
Netherlands	81	-0.3	**81**	67	80	96
Singapore	78	2.0	**80**	57	85	98
Ireland	79	1.2	**80**	67	77	96
Hong Kong	79	0.3	**80**	78	69	92
Canada	79	0.0	**79**	62	80	94
Australia	78	-1.1	**77**	56	80	96
France	79	-2.1	**77**	77	71	84
Austria	77	-0.3	**77**	67	78	86
Belgium	76	-0.3	**76**	68	74	86
Japan	77	-1.4	**76**	61	76	90
Germany	76	0.0	**76**	66	73	88
UK	75	-0.4	**75**	67	72	86
Latvia	73	0.9	**74**	77	64	82
Portugal	73	1.4	**74**	72	72	78
Lithuania	74	-0.6	**73**	73	65	82
Spain	73	0.3	**73**	66	78	76
Slovenia	74	-0.9	**73**	61	78	80
Korea	72	1.1	**73**	60	76	82
UAE	73	-0.6	**72**	58	74	84
Qatar	70	1.2	**72**	62	68	84
Czech Republic	75	-4.5	**71**	59	71	82
Taiwan	70	0.0	**70**	49	74	88
US	70	-0.4	**70**	53	66	90
Uruguay	70	-0.5	**69**	67	62	80
Costa Rica	68	1.1	**69**	77	64	66
Seychelles	71	-2.6	**68**	66	62	78

	Previous TGM-ESGI Score		Current TGM-ESGI Score	Current TGM-ESGI Score by Category		
	Mar 2024	=>	Sep 2024	E	S	G
Israel	68	-0.4	**68**	66	63	76
Croatia	66	0.3	**67**	71	65	64
Italy	68	-1.8	**66**	66	68	66
Slovakia	66	-0.5	**66**	63	64	70
Hungary	64	0.0	**64**	62	66	64
Greece	60	4.2	**64**	62	61	68
Poland	61	0.8	**62**	54	64	68
Malaysia	59	3.2	**62**	51	64	70
Romania	62	-0.7	**61**	67	58	60
Bahrain	60	0.6	**60**	53	59	68
Chile	61	-1.9	**60**	47	60	72
Barbados	63	-3.4	**59**	47	63	68
Panama	57	-0.2	**56**	66	56	48
Bulgaria	54	1.3	**55**	54	57	54
Oman	53	1.4	**55**	47	53	64
Saudi Arabia	54	0.1	**54**	48	51	64
Albania	55	-1.5	**54**	60	48	54
North Macedonia	53	-0.1	**53**	56	49	54
Jordan	51	0.9	**52**	49	48	60
China	52	-0.1	**52**	44	58	54
Montenegro	51	0.8	**52**	44	54	58
Colombia	52	0.2	**52**	56	53	48
Brazil	52	-0.1	**52**	68	50	38
Serbia	49	0.6	**50**	42	56	52
Namibia	49	1.2	**50**	54	41	54
Kazakhstan	49	0.2	**50**	43	58	48
Mongolia	48	-0.6	**48**	44	57	42
Indonesia	47	0.4	**47**	47	43	52
Ecuador	49	-1.4	**47**	61	48	32
Vietnam	47	0.0	**47**	33	55	52
Paraguay	48	-1.0	**47**	69	39	32

	Previous TGM-ESGI Score		Current TGM-ESGI Score	Current TGM-ESGI Score by Category		
	Mar 2024	=>	Sep 2024	E	S	G
Thailand	48	-2.8	**46**	38	55	44
Sri Lanka	44	0.7	**45**	53	44	38
Argentina	45	-0.1	**45**	48	53	34
Dominican Republic	46	-1.4	**45**	42	43	48
Peru	44	-0.7	**43**	48	44	38
El Salvador	44	-0.8	**43**	54	43	32
Morocco	43	-0.4	**43**	42	40	46
India	43	-1.9	**41**	30	42	52
Ghana	41	0.0	**41**	43	35	44
Turkey	43	-2.0	**41**	38	48	36
Mexico	42	-0.8	**41**	39	49	34
Philippines	38	2.4	**40**	34	45	42
Tanzania	40	-0.2	**40**	47	38	36
Uzbekistan	40	-0.6	**40**	40	48	32

	Previous TGM-ESGI Score		Current TGM-ESGI Score	Current TGM-ESGI Score by Category		
	Mar 2024	=>	Sep 2024	E	S	G
Kenya	40	-0.9	**39**	48	38	32
Senegal	40	-0.5	**39**	43	34	40
South Africa	39	-0.4	**38**	30	39	46
Benin	39	-0.6	**38**	44	30	40
Egypt	37	-0.2	**37**	50	33	28
Ivory Coast	37	-0.3	**36**	42	27	40
Gabon	37	-1.0	**36**	48	40	20
Zambia	35	0.6	**36**	47	30	30
Ukraine	35	-0.3	**35**	38	34	32
Tajikistan	33	0.5	**33**	49	35	16
Uganda	34	-1.2	**33**	44	29	24
Angola	32	-0.6	**31**	43	23	26
Ethiopia	30	-0.6	**29**	40	25	22
Mozambique	26	0.3	**27**	41	21	18
Nigeria	24	-0.3	**24**	29	27	16

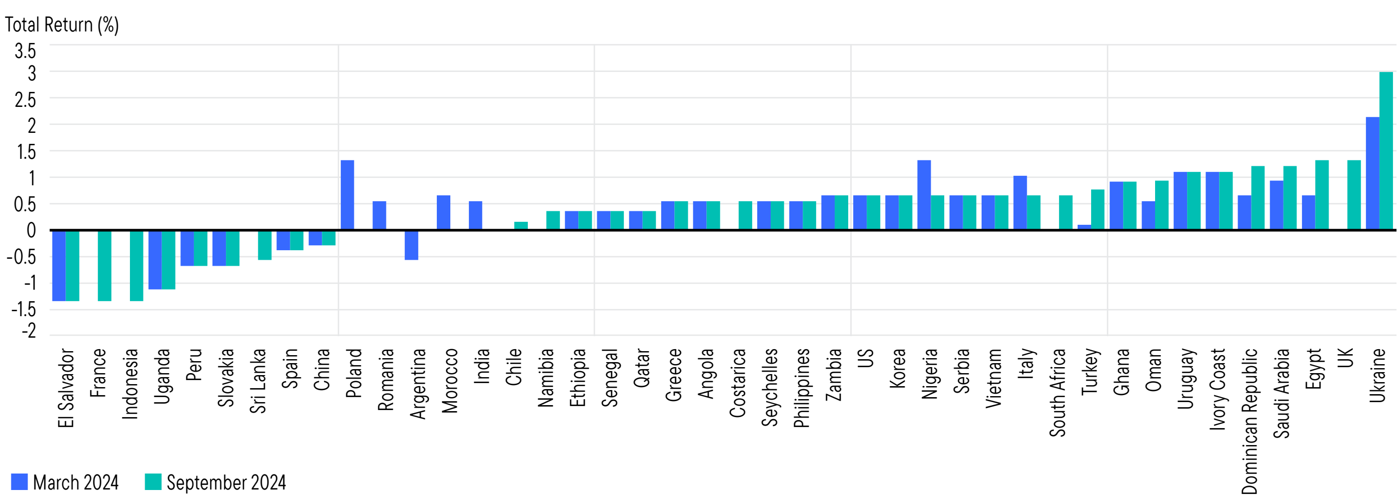
Source: TGM-ESGI.® Our medium-term projections are for the next two to three years (excluding countries with neutral/flat momentum). These scores are for illustrative purposes only and are not an indication of trading intent. They are subject to change.

Exhibit 5 shifts the focus to the future, charting our projected score changes as of September 2024 compared to March 2024. Note that countries with no projected momentum are not shown in these charts. Meanwhile, Exhibit 6 breaks down the latest set of projected scores by their E, S and G components, sorted from largest total decline to largest total increase. Countries without a material projected change are not included in the chart. This projection looks approximately three years ahead of now, based on the assessment of our analyst team.

From the breakdown of E, S and G projections we can see that, currently, Ukraine is projected to see the most improvement across all three categories, while Hong Kong is expected to deteriorate the most.

Exhibit 5: TGM-ESGI Scores: Projected Change[9]

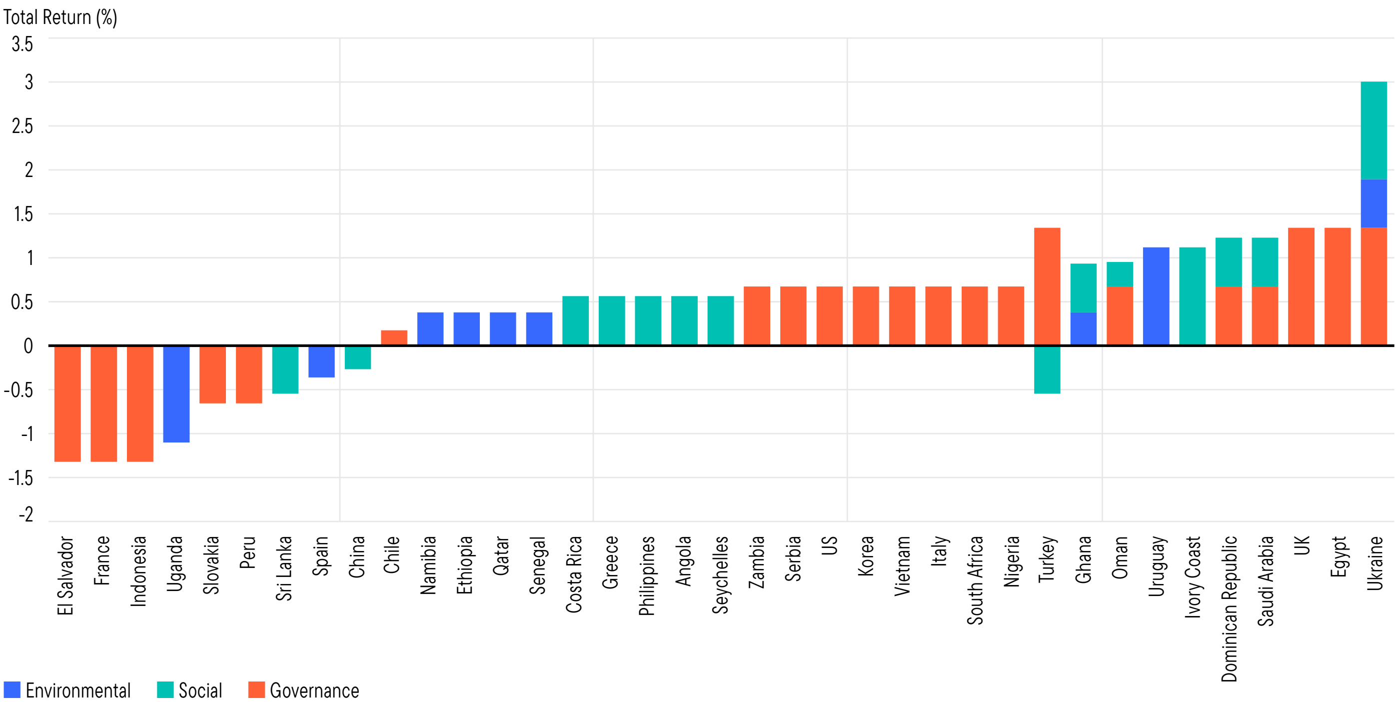
As of September 2024 and March 2024



Source: TGM-ESGI. Our medium-term projections are for the next two to three years (excluding countries with neutral/flat momentum). Projections are based on the Templeton Global Macro investment team's proprietary methodologies. There is no assurance that any estimate, forecast or projection will be realized.

Exhibit 6: TGM-ESGI Scores: Projected Change by ESG Component

As of September 2024



Source: TGM-ESGI. Our medium-term projections are for the next two to three years (excluding countries with neutral/flat momentum). Scores are shown for informational purposes only and are not an indication of trading intent. Projected scores are subject to change and there is no assurance that predictions of ESG momentum will be realized.

Main index changes

- Effective governance and policy were key this round, driving downgrades in European and Southeast Asian countries facing transition or gridlock. Impacted countries range from France to North Macedonia, Romania, India, Indonesia, Thailand, Sri Lanka and Taiwan. Key challenges were the uncertainty of caretaker governments and lower reform momentum pre- or post-election. Though there is potential for improvement, this is dependent on governance becoming more stable and coordinated.
  - Romania, for example, received a lower projected score on policy mix relative to the previous round's projected score. This was due to greater participation of the Social Democratic Party in the governing coalition, which will likely curb fiscal consolidation. Moreover, comments from the new government have not indicated a clear path for fiscal consolidation.
  - For France, on the other hand, both current and projected scores for policy mix were revised down due to parliamentary gridlock. The installation of a prime minister focused on fiscal order could improve the fiscal deficit, but potentially inhibits some reforms based on higher spending. These conditions will likely persist while Macron remains president, which is likely through 2027.
  - In Thailand, the entire governance category saw a dramatic shift lower as the prime minister was impeached. The turbulence of this event compromised overall unity of the government in the short term, but scores are expected to improve after the political stress is over.
  - Lastly, Taiwan saw rising risk of gridlock in policymaking due to the legislature's efforts to increase checks on the government. While these are unlikely to impact the daily functions of government, policymaking may be slowed.

- Meanwhile, adaptations to climate challenges were a key driver of score changes in African countries. Their ability or inability to reckon with environmental shifts impacted scores in weather risk, energy security, water security and food security. These changes occurred across the continent, including Namibia, Senegal, Zambia and South Africa.
  - On the positive side, Namibia received an upgrade to energy security due to its fast-improving solar capacity. Rather than requiring large transmission lines, most solar power is produced on-site, easing distribution costs. This effort has reduced dependence on energy imports.
  - On the other hand, Zambia has borne the brunt of drought effects from last year's El Niño weather phenomenon. Extremely low rainfall halved the maize harvest and lowered hydropower capacity. These led to downgrades in food, energy and water security.
  - Notably, though South Africa has improved electricity production over the last six months, energy security and distribution has not improved enough yet to warrant an upgrade to scores.
- The two highest improvers from the previous round of scoring (Spring 2024) were Greece and Malaysia. Both were idiosyncratic improvers, unrelated to regional changes. For Greece, policy mix and business climate continued to be higher than the index. The government has been committed to primary fiscal surpluses and has also reduced the amount of time it takes to register a business, encouraging investment. Additionally, extreme weather risk improved from the previous round. For Malaysia, the unsustainable practices score was upgraded due to the 2024 budget embrace of ESG principles, especially through promoting sustainable manufacturing.
- As in the last round of scoring, the country with the highest projected change is Ukraine. Based on a two-year outlook for the projected score, this outlook is based on an eventual end to the war and the beginning of the reconstruction process. The projected change increased not because the future outlook improved, but because current scores were downgraded further. Projected scores continue to reflect Ukraine's potential under non-conflict conditions.
- Comparing this round of scoring to the last round, there are more countries with positive momentum projected—28 countries in total compared to 25 in the previous round. The average projected change for this group also increased, at 0.81 compared to 0.76 previously. The number of countries with negative momentum increased slightly from six to nine. These also had a slightly more pronounced score change, at -0.85 compared to -0.71 in the previous round. Across the entire universe, the average projected score change reversed a trend of deceleration from previous rounds, moving up to 0.17 from 0.10.

Endnotes

1. The GINI coefficient or GINI index is a measure of statistical dispersion that illustrates the level of income inequality in a country. It is constructed to range between 0 (perfectly equal) and 1 (perfectly unequal - a hypothetical situation where one person receives all the country's income).
2. The INFORM Risk Index is published by the European Commission. It is a global, open-source risk assessment for humanitarian crises and disasters. It can support decisions about prevention, preparedness and response.
3. Source: "Developing countries face staggering $4 trillion investment gap in SDGs." United Nations. July 5, 2023.
4. Source: "Why trillions more are needed to bridge the SDG financing gap." World Economic Forum. September 18, 2023.
5. Source: "Green, Social, Sustainability, and Sustainability-Linked (GSSS) Bonds" The World Bank Market Update. July 2024.
6. Source: "Uruguay Issues Global Sustainability-Linked Bond, with IDB Support." Inter-American Development Bank. October 24, 2022.
7. Source: "Investing in a Greener Future: Successful Debut of the Green Bond in the Dominican Republic." World Bank Group. July 5, 2024.
8. Current scores are the results of the research team overlaying their views on the benchmark scores and allowing for +/- 20 points deviations in each subcategory. In the TGM investment process itself, any restrictions related to ESG scores are implemented based on the unadjusted benchmark scores.
9. Current scores are the results of the research team overlaying their views on the benchmark scores and allowing for +/- 20 points deviations in each subcategory. In the TGM investment process itself, any restrictions related to ESG scores are implemented based on the unadjusted benchmark scores.

Templeton Global Macro Views is a complementary publication that will update and/or amplify the periodic research-based briefing on global economies called Global Macro Shifts. Both feature the analysis and views of Dr. Michael Hasenstab and senior members of Templeton Global Macro. This economics team, trained in some of the leading universities in the world, integrates global macroeconomic analysis with in-depth country research to help identify long-term imbalances that translate to investment opportunities.

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WHAT ARE THE RISKS?

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