# ESG Risk Around the World

A Comparative Analysis Between
Developed and Emerging Markets

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## A Comparative Analysis Between Developed and Emerging Markets

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**As environmental, social and governance (ESG) investing has gained momentum over the last decade and is being adopted worldwide, it is imperative to gain insights into policies and practices for managing ESG related risks. Based on the Sustainalytics ESG Risk Ratings[2] framework, our study examines ESG attributes of companies in emerging and developed markets over the period 2018 to 2022. We analyze the differences over time, markets, sectors, market caps, and company types. Overall, companies in developed and emerging countries are improving their ESG Risk Ratings at different paces.**

## Highlights

- In developed markets, assets under management (AUM) in sustainable funds have increased more than six-fold, from US$321 billion in 2018 to US$2,155 in 2022. In the emerging markets, AUM have grown almost seven-fold, from US$23 billion in 2018 to US$164 billion in 2022.
- The number of companies in our ESG Risk Ratings universe is increasing much faster in emerging markets than in developed ones.
- Average ESG Risk Rating scores of companies in developed markets have improved by 12%, while in emerging they improved by 6% over this period.
- In 2022, 13.6% of companies that are among the three top performers in their subindustry are headquartered in emerging markets.
- In both developed and emerging countries, large caps have lower ESG risk scores than small companies.
- In 2018 and 2019, public companies had significantly lower ESG Risk Ratings than private companies in emerging and developed markets.
- Italy, Ireland, and Spain improved their scores the most in developed markets.
- Peru, Turkey, and UAE saw their ESG risk rating scores improve the most within the emerging markets group, whereas Qatar and Russia sit in last place.
- Emerging markets outperform developed markets in only two of eleven sectors, Industrials and Consumer Discretionary.
- Sectors with low ESG Risk Rating scores have a higher total market cap than those with high ESG Risk Rating scores in developed and emerging markets.
- We find that companies that improved the most in their ESG Risk Ratings are not confined to one market or sector and have various levels of past ESG Risk Rating scores.

# Introduction

In the last decade, emerging countries have accounted for two-thirds of the world GDP growth

In the 80s, a group of economists from the World Bank put forward the concept of emerging countries.[3] Noticing that some countries have high economic and demographic growth, these economists created a different category beyond the developed and developing groups. Since then, emerging countries have gained economic prominence, totaling 50% of the global GDP in 2022 and about two thirds of the world GDP growth in the past decade.[4]

Emerging financial markets offer valuable diversification opportunities for investors

On the one hand, emerging financial markets can offer higher returns and valuable diversification opportunities for investors.[5] Further, emerging countries' economies can present higher economic growth and interesting opportunities for companies. Expanding an investor's breadth and the number of independent bets is key to enhancing portfolio risk-adjusted performance.[6] This aligns with the fundamental law of active management, which states that investors can increase the performance of their portfolios by applying the same strategy successfully across different markets.[7]

Higher institutional void risks across emerging markets

On the other hand, emerging markets may also offer undervalued assets because risks are higher, driven by the absence of specialized intermediaries, regulatory systems, and contract-enforcing mechanisms, defined as 'institutional voids'.[8] As a result, investors must cope with increased economic and political instability and other aspects related to corruption and labor laws.

Improving the prospects of finding better culture, stakeholder relations, and governance

In a recent blog, long-time Morningstar analyst Jon Hale highlighted that ESG evaluations can help identify better emerging-market companies with more engaged and productive workforces and good stakeholder relations.[9]

Identifying companies with internal systems beyond the deemed HQ country minimum requirements

Our intuition is that ESG Risk Ratings could help identify companies with better internal structural systems. ESG ratings incorporate factors specific to the firm and those stemming from its ecosystem. For example, a firm could have good corporate governance that offsets risks from operating in a less effective legal system. The Sustainalytics ESG Risk Ratings framework gleans insights into policies and practices for managing ESG risk.

As ESG investing has broadly seen more comprehensive adoption worldwide, our analysis sheds light on the similarities and differences between ESG characteristics of emerging and developed markets.

# The Rise of Sustainable Investing Around the World

Since 2018, investors have shown an increasing appetite for sustainable investing. Exhibit 1 shows the assets under management (AUM) in sustainable funds (i.e., those meeting the Morningstar Sustainability Rating requirements) in developed and emerging markets. We consider sustainable equity and fixed-income funds as categorized (labeled) by Morningstar.[10]

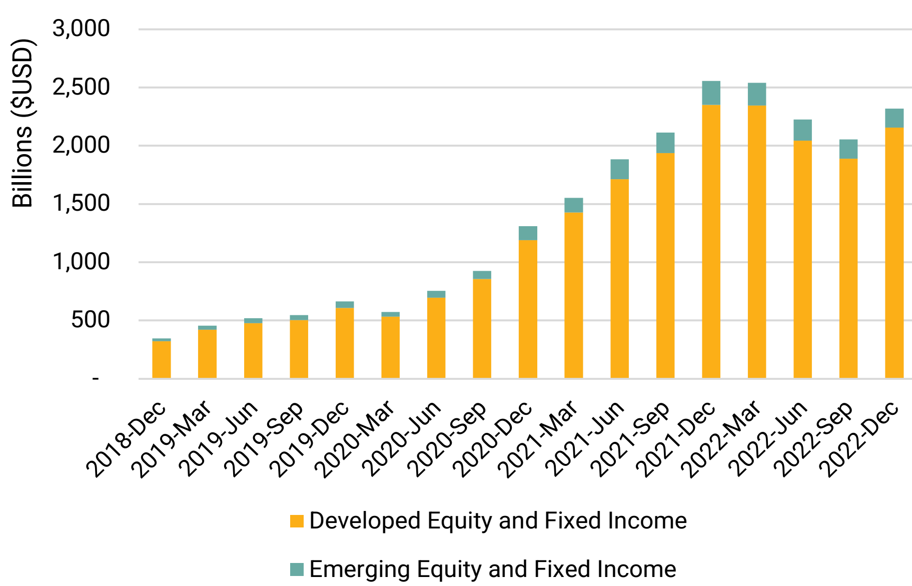
The percentage of growth in assets under management is higher in emerging markets

Sustainable investing has surged in emerging and developed markets over the past few years. In developed markets, AUM have increased more than six-fold from US$321 billion in 2018 to US$2,155 billion in 2022. Over the same period, AUM in emerging countries have grown almost seven-fold from US$23 billion to US$164 billion.

The percentage growth in AUM is slightly higher in emerging markets, despite the fact that AUM in sustainable investing is more substantial in developed markets than in emerging markets.

In 2022, AUM in sustainable funds markets were unevenly split between developed and emerging markets: 92.9% for developed versus 7.1% for emerging markets.

**Exhibit 1: Assets Under Management in Sustainable Investment Funds - Developed Versus Emerging Market Funds***

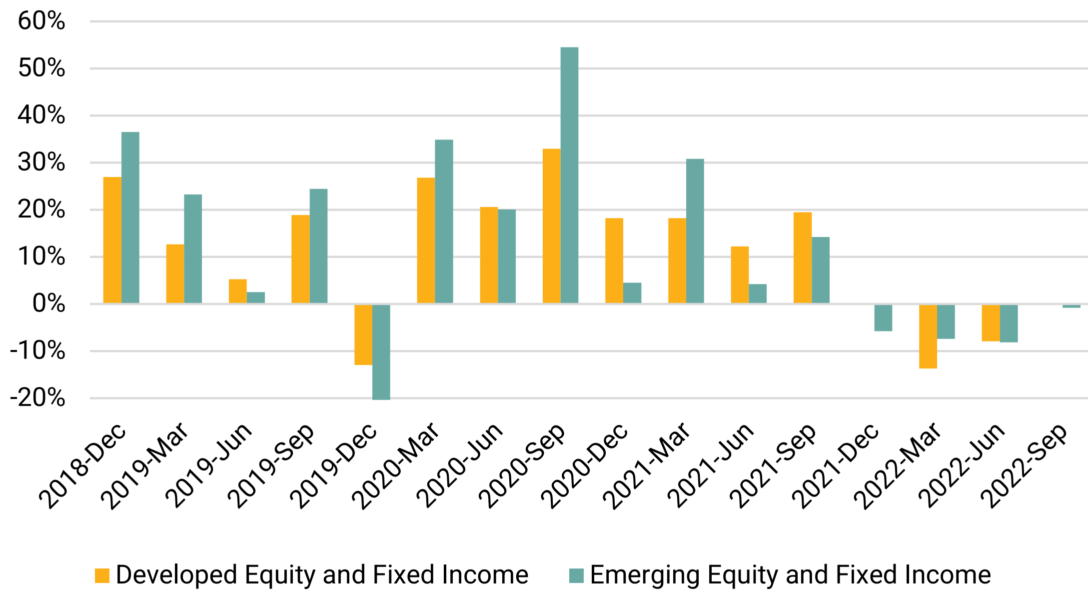



*AUM retrieved in Dec 2022 from Morningstar's Global Sustainable Investment Overall Flag.
**Total Funds in sample = 37,856.
Source: Morningstar Sustainalytics

AUM growth rate is, on average, higher in emerging markets than in developed markets

Extending on the AUM's analysis, Exhibit 2 depicts the quarter-to-quarter changes (growth rates). We find that the AUM growth rate is, on average, higher in emerging markets than in developed markets: 12.1% vs. 11.9%. Further, the quarterly growth rates reached all-time highs in December 2020, 55% for emerging countries and 33% for developed countries. Although sustainable investments in emerging markets grew at a comparable rate during the 2018-2020 period, flows to emerging markets have slowed and even turned negative in the last few quarters.

**Exhibit 2: Quarterly Change in Assets Under Management of Sustainable Investment Funds - Developed Versus Emerging Market Funds**




*AUM taken Dec 2022 from Morningstar's Global Funds Universe by totaling those funds meeting the Morningstar Sustainability Rating requirements.
**Total Funds in sample = 37,856.
Source: Morningstar Sustainalytics

## Developed Versus Emerging Markets: Background

Common factors in classifying emerging and developed markets

In our study, we follow Morningstar's developed- and emerging-market categorization, which is consistent with the World Bank's. The methodology assigns firms to developed or emerging countries or markets based on their headquarters locations.[11,12]

# Developed Versus Emerging Markets: ESG Trends

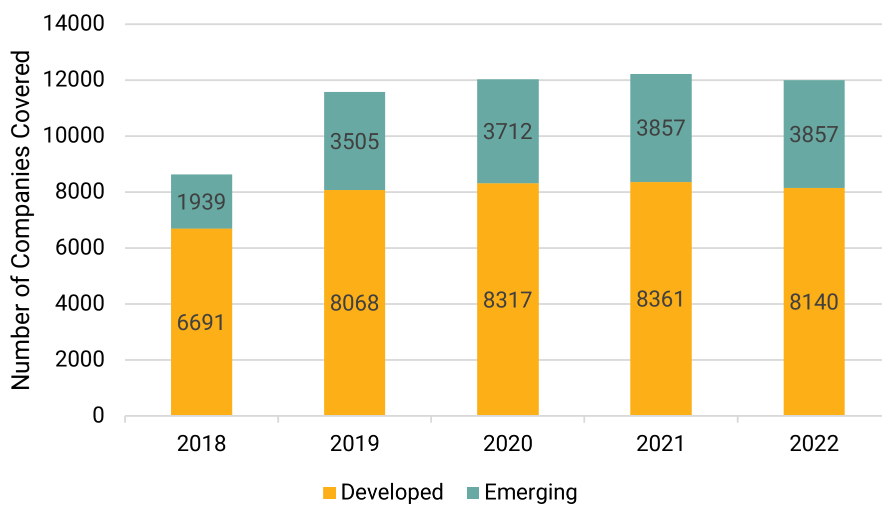
## Coverage Expansion

An increase in the coverage in emerging markets is narrowing the gap with developed markets

Exhibit 3 below shows that Morningstar Sustainalytics coverage in emerging markets has grown across the timeframe almost two-fold, while in developed markets, coverage has increased by merely 21% for the Ratings+ universe. As of 2022, companies in developed markets accounted for about two-thirds of the Ratings+ universe.

Due to better disclosure, more regulations, and increased awareness, coverage in emerging markets is narrowing the gap with developed markets.

**Exhibit 3: Number of Companies in the Developed and Emerging Markets**




* Source: Construction Rules for the Morningstar® Global Markets ex-US Index and Sustainalytics HQ location.
**Ratings+ universe as of December 2018 to 2022. Source: Morningstar Sustainalytics

## Improving ESG Risk Rating Trends Over Time

Measuring unmanaged risks: material ESG risk

The ESG Risk Ratings measure unmanaged risks: material ESG risk that has not been managed by a company and includes two types of risk:

- The unmanageable risk, which cannot be addressed by company initiatives and can be calculated by deducting Managed Risk from Exposure.
- The management gap, which represents risks that could be managed by a company through suitable initiatives, but which may not be managed yet.

ESG Risk Ratings scores range between 0 and 100, with 0 being the lowest ESG risk and 100 the highest.

Companies display better management of their ESG risk and less ESG unmanaged risk

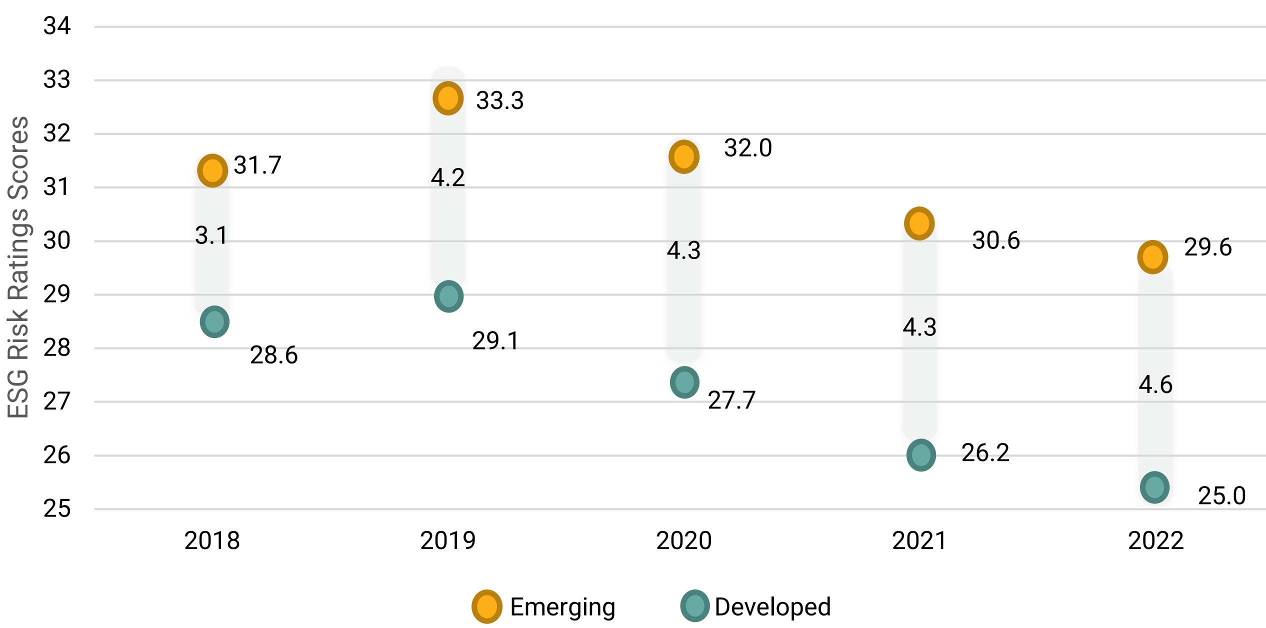
Since the launch of the Sustainalytics ESG Risk Ratings in 2018, the average ESG Risk Rating score for companies across the Ratings+ universe has experienced a downward trend, i.e., companies displaying better management of their ESG risk and less ESG unmanaged risk.

The gap in the average ESG Risk Ratings increased in 2019 between emerging and developed markets

Exhibit 4 below shows that developed market constituents have improved their ESG risk scores from an average of 28.6 in 2018 to 25.0 in 2022. In relative terms, this is a decrease in the ESG score of 12.4%. Likewise, emerging markets have reduced their ESG risk, moving from a risk score of 31.7 in 2018 to 29.6 in 2022, or a relative decrease of 6.1%

The gap in the average ESG Risk Ratings between emerging and developed markets increased in 2019, and remained relatively stable over the following years, as both groups are following a downward trend in their ESG Risk Ratings. In 2018, emerging-market companies had ESG Risk Rating scores higher by 3.1 than their developed-market counterparts. The same difference stands at 4.6 in 2022.

**Exhibit 4: Developed and Emerging Markets ESG Risk Ratings**




* We use Headquarters as the decision criteria to determine if a company is emerging or developed.
**Ratings+ universe as of December 2018 to 2022.

Source: Morningstar Sustainalytics

## Emerging Market Companies Can Achieve a Podium Position

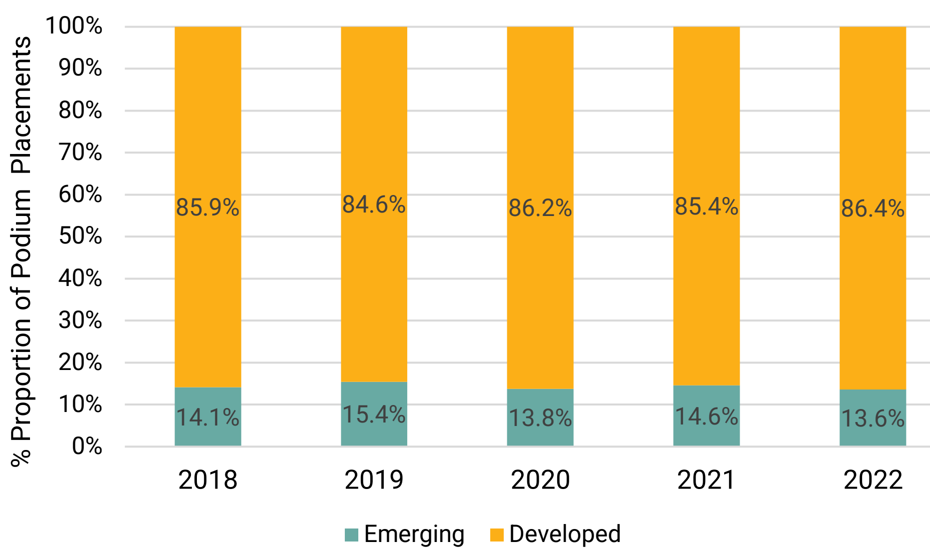
Some emerging-market companies outshined their developed-market counterparts

Although developed-market companies typically have more significant financial resources and operate in more ESG-friendly locations, some emerging-market companies have outshined their developed-market counterparts.

Exhibit 5 below breaks down the three best subindustry's ESG performers into emerging- and developed-countries companies. In 2022, 13.6% of the top three companies per subindustry are from emerging countries vs. 86.4% from developed countries. This fraction is also relatively stable over the period 2018-2022.

Podium Positions – top three ranked companies in the subindustry

**Exhibit 5: Proportion of Companies with a Podium Position in the Subindustry**




*Ratings+ universe from December 2018 to December 2022. Source: Morningstar Sustainalytics

New companies in emerging markets taking the podium positions

Notably, in the 2022 podium positions held by emerging-market companies, approximately 25% of companies ranked in the middle of the pack or worse in 2018. Further, 50% of the podium positions held by emerging market companies are newly covered companies within the ESG Risk Rating.

## ESG Risk Ratings for Small, Mid-Cap & Large Companies

The gap between small and large companies is more significant for developed markets

Exhibit 6 below reports the average ESG Risk scores for small-, mid-, and large-cap companies in developed and emerging markets. In both groups, large caps have lower ESG risk scores than small companies. However, the gap between small and large companies is more significant for developed markets. One explanation might be that the regulation is more resource-intensive in developed markets, and hence, only large companies have the necessary financial resources to address those needs. Also, the faster coverage growth in emerging markets is a key factor influencing score changes. Across the years, the difference between small and large caps has remained stable in developed markets, as all market-cap groups improved at a comparable pace. By contrast, this gap has narrowed for emerging markets.

**Exhibit 6: Average ESG Risk Ratings Grouped by Company Size: Developed Versus Emerging**

| | | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Developed | Large | 24.4 | 24.5 | 23.4 | 22.0 | 21.6 |
| | Mid | 27.8 | 28.0 | 26.8 | 25.5 | 24.6 |
| | Small | 30.8 | 31.8 | 30.1 | 29.0 | 27.7 |
| Emerging | Large | 29.9 | 31.5 | 31.0 | 29.6 | 28.8 |
| | Mid | 31.0 | 33.0 | 31.8 | 30.6 | 29.8 |
| | Small | 32.3 | 34.2 | 32.5 | 30.9 | 29.8 |

*For simplicity, we determine the market cap. category by taking a company's average market cap in USD from 2018 to 2022 as of the starting trading date in December of each year.
**Small market cap <1b, Mid-market cap 1b to 10b, Large market cap >10b.

Source: Morningstar Sustainalytics

## ESG Risk Ratings for Public and Private Companies

Improvements in emerging markets private sector are nearly as substantial as those in developed markets

Exhibit 7 compares the ESG risk scores of public and private companies. In the first two years of the analysis, 2018 and 2019, public companies had lower ESG risk rating scores than private companies in emerging and developed markets. After that, the gap has shrunk substantially to become positive; i.e., public companies having higher ESG Risk Ratings, although the difference remains small in the latter case.

Private companies in both market groups showcased higher ESG risk scores in 2018, which then closely converged to similar scores of public companies in their respective markets. Moreover, improvements in emerging market private companies are nearly as substantial as those in developed markets, improving 4.1 and 4.2 points, respectively.

**Exhibit 7: Average ESG Risk Ratings – Public and Private**

| | | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| Developed | Public | 28.5 | 29.1 | 27.8 | 26.3 | 25.1 |
| | Private | 29.4 | 29.3 | 27.6 | 26.2 | 25.2 |
| Emerging | Public | 31.4 | 33.3 | 32.0 | 30.6 | 29.7 |
| | Private | 33.6 | 34.0 | 32.9 | 31.1 | 29.5 |

*For simplicity, we determine the market cap. Category by taking a company's average market cap in USD from 2018 to 2022 as of the starting trading date in December of each year.
**Small market cap <1b, Mid-market cap 1b to 10b, Large market cap >10b.

Source: Morningstar Sustainalytics

## ESG Risk Ratings Across Risk Categories

Five ESG risk categories

Exhibit 8 below highlights the distribution across **ESG Risk Categories** over the past four years. A company's **ESG Risk Ratings Score** is assigned to one of five ESG Risk Categories: Negligible, Low, Medium, High, and Severe. For example, a company with an ESG risk score between 0 and 9.99 is considered to have a 'negligible risk' of material financial impacts driven by ESG factors.

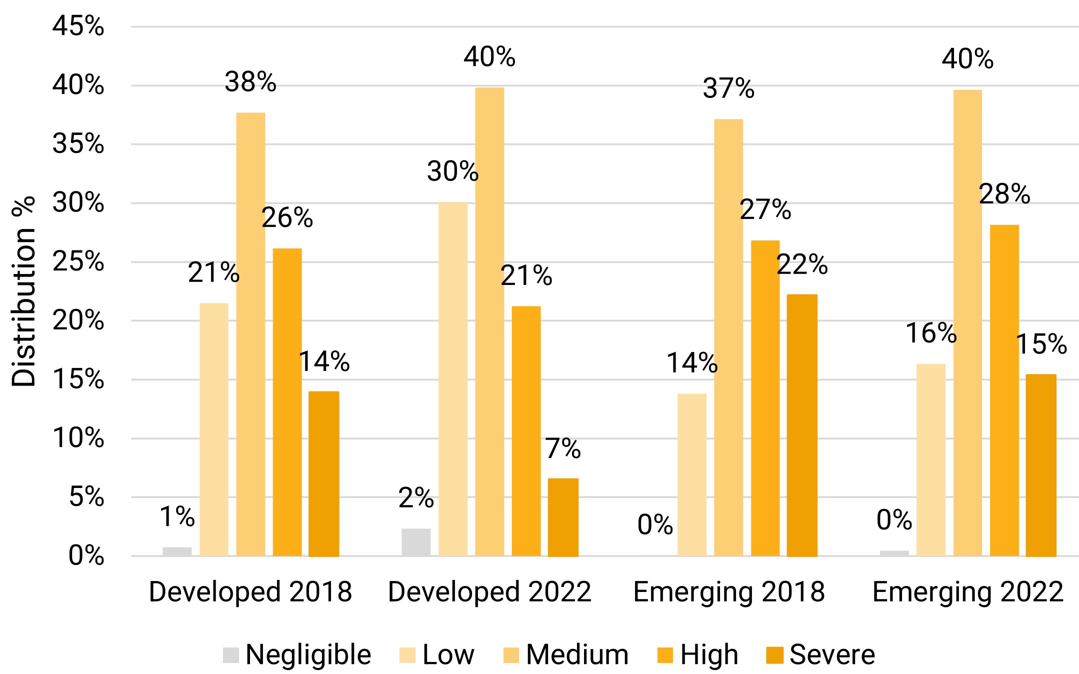
### The Five ESG Risk Ratings Categories

- **Negligible risk** (overall score of 0-9.99 points): Enterprise value is considered to have a negligible risk of material financial impact driven by ESG factors.
- **Low risk** (overall score of 10-19.99 points): Enterprise value is considered to have a low risk of material financial impact driven by ESG factors.
- **Medium risk** (overall score of 20-29.99 points): Enterprise value is considered to have a medium risk of material financial impact driven by ESG factors.
- **High risk** (overall score of 30—39.99 points): Enterprise value is considered to have a high risk of material financial impact driven by ESG factors.
- **Severe risk** (overall score of 40 points and above): Enterprise value is considered to have a severe risk of material financial impact driven by ESG factors.

The distribution of the emerging-market risk categories is lagging that of developed markets

The proportion of companies in the Severe Risk category was cut in half in developed markets and by approximately a third in emerging markets. Emerging-market companies are more resistant to moving to the left side of the distribution when compared to developed economies, which have a higher fraction in the low ESG Risk Rating category. Notably, the distribution of the emerging-market risk categories is trailing that of developed markets, as the snapshots of emerging markets in 2022 and that of developed markets in 2018 look similar.

**Exhibit 8: ESG Risk Ratings Across Risk Categories**




*Sample n = 8,630 (2018) n = 11,997 (2022).

Source: Morningstar Sustainalytics

## Insights into Top Improving Countries

### Top Improving Developed Countries

Sorting countries by the level of improvement

Exhibits 9 and 10 below present the average total change of the companies' ESG Risk Ratings at the country or market level, sorted from most improved (top) in absolute terms to least improved (bottom) in developed and emerging country groups.

Italy, Spain, and Ireland are leading the developed markets group

In the developed markets group, Italy, Ireland, and Spain take the top three titles for most improved, and Canada comes in fourth place. Switzerland to Italy have improved more vs. the world average, highlighting that the developed market economies contribute the most to the ESG risk change in the world average.

Italy is a clear winner, with the lowest average ESG risk rating by 2022

With an average improvement of -6.7 units, Italy displays the best improvement in average ESG Risk scores within the in-scope groups. Italy is unique because it is the best improver on percentage and absolute levels and has the lowest average ESG risk rating by 2022.

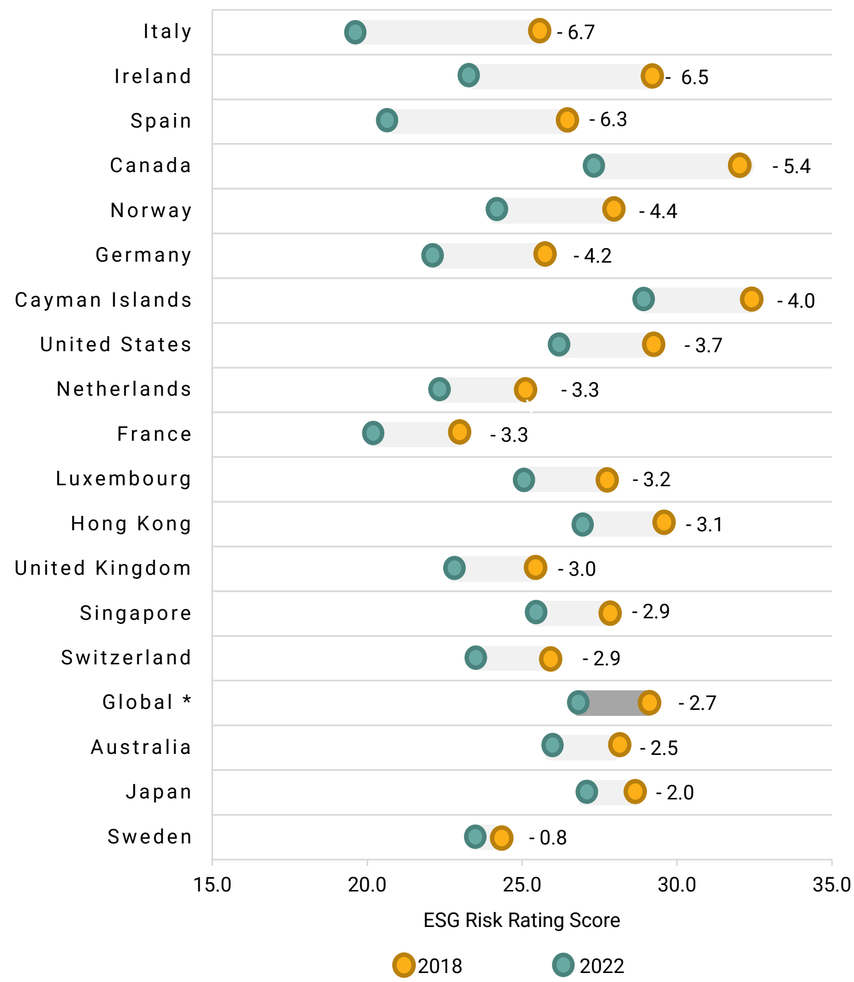
For Italy, a closer look highlights that the average company has showcased significant improvements in **Overall Management** scores. The management score relates to the management dimension and measures a company's handling of ESG risks across issues. It is expressed as a score that ranges from 0 to 100, with 0 indicating no (evidence of) management and 100 very strong management.

Financials and Industrials contribute most to Italy's improvements

At an average score of 52.3, Italian companies are 42% above our global management score average in the 2022 sample. The Financials and Industrials sectors contribute the most to this progress. Similarly, we see a performance boost by these sectors when looking at Brazil.

Italy leads in both lowest average score and as the top improver

**Exhibit 9: Developed Markets - ESG Risk Rating Scores from 2018 to 2022**




* Companies in our sample are inclusive of newly covered companies.
**Top 18 emerging markets by company coverage. Source: Morningstar Sustainalytics

## Top Improving Emerging Countries

Peru is the most improved, Russia historically has the most risk, and Qatar improved the least

Peru, Turkey, and UAE show the best improvements for the emerging markets group. Qatar, Russia, and South Korea are in the last three positions. Russia has the highest risk rating of the markets included in our analysis for 2022.

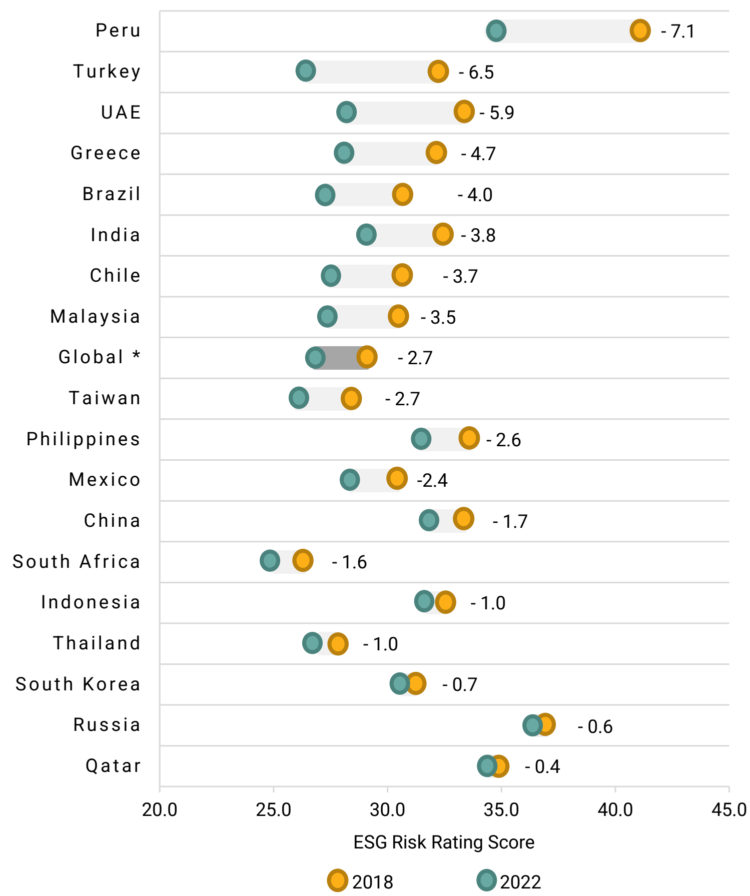
Two factors influence Peru's leadership: changes in sector composition and improvements in management scores

Meanwhile, the average score in Peru improved mainly due to changes in sector composition, with coverage concentration shifting away from Utilities and Materials and increased company coverage, bringing in new companies with lower Exposure, along with improvements in management scores of the initially covered Utility and Material sector companies.

Malaysia through Peru have showcased an ESR Risk score improvement higher than the worldwide average (-2.7).

Nine emerging markets improved their ESG Risk Ratings scores faster than the global average

**Exhibit 10: Emerging Markets - ESG Risk Rating Scores from 2018 to 2022**




*Companies in our sample are inclusive of newly covered companies.
**Top 18 emerging markets by company coverage.

Source: Morningstar Sustainalytics

## Developed Versus Emerging Markets: A Sector Analysis

Exhibit 11 below showcases that, for nearly all sectors, developed markets improved faster than emerging markets for average ESG Risk Rating scores from 2018 to 2022.

Emerging markets improved more in Industrials and Consumer Discretionary

Two sectors stand out where emerging markets showcase better results over the period: Industrials, improving at -12.3% (35.5 to 31.2) for emerging markets vs. -11.9% (29.8 to 26.2) for developed markets, and Consumer Discretionary, where the average score for emerging markets decreased by -5.1% (22.7 to 21.6) vs. -3.2% (20.6 to 19.9) for developed markets.

Emerging markets are three to six years behind developed markets regarding ESG risk

Another interesting part is that, in many instances, emerging markets have managed to catch up to a similar level that developed markets were four years earlier. A general impression is that emerging markets are three to six years behind developed markets regarding ESG Risk.

Stand out sectors: Consumer Staples, Healthcare, Telecom

Notably, the Consumer Staples and Healthcare sectors in emerging and developed markets are moving in opposite directions. Developed market energy companies started with higher ESG risk and then rapidly exceeded their emerging market counterparts. It is also worth noting that Telecom experienced upward pressure in ESG Risk Rating scores across developed and emerging markets.

**Exhibit 11: Average ESG Risk Ratings from 2018 to 2022 – Sector View: Developed and Emerging Markets**


*n = 11,997 (2022).

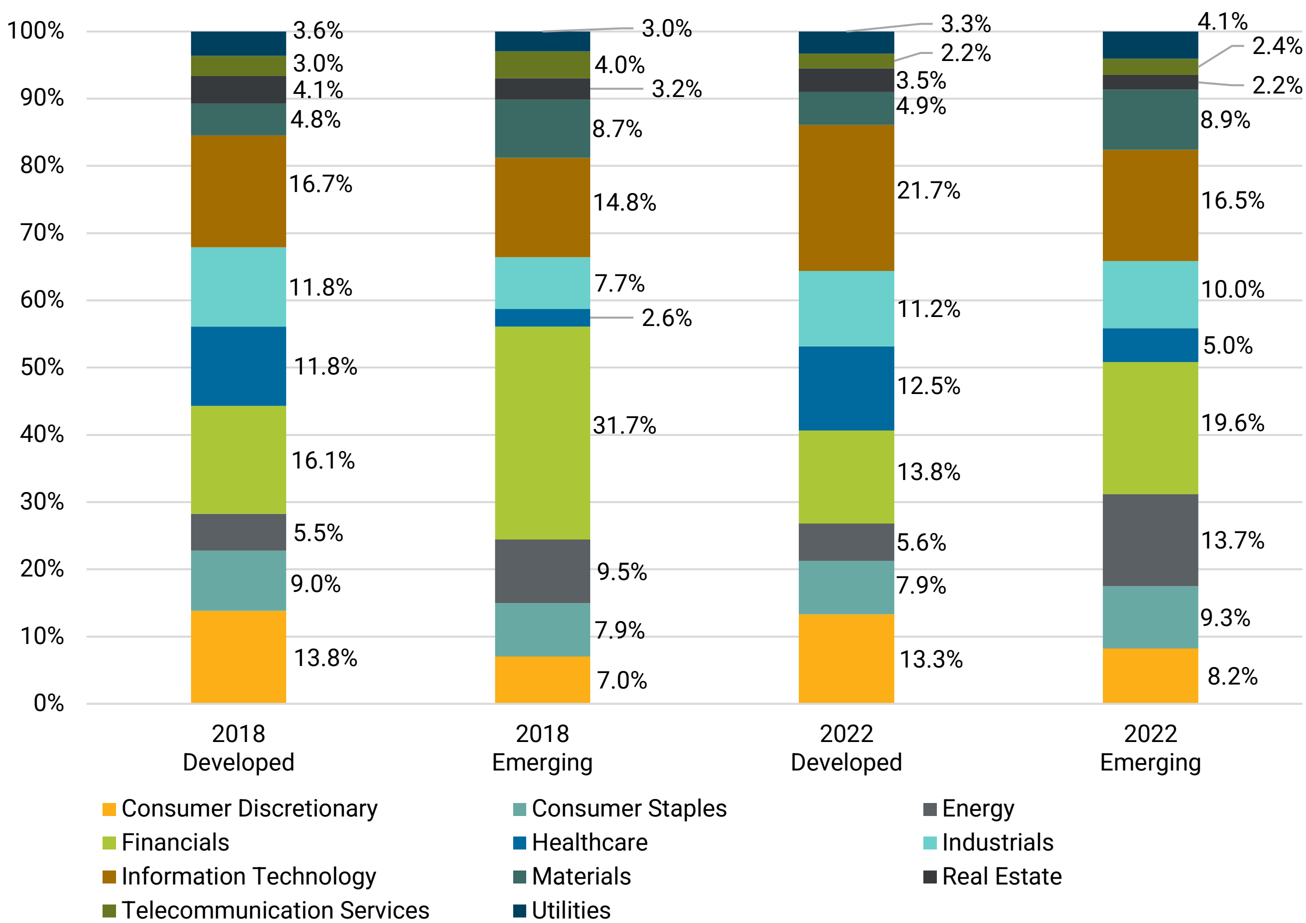
Source: Morningstar Sustainalytics

### Emerging and Developed Countries Overweight Sectors with Low ESG Risk

Market cap creates a different weighting in sector importance

Exhibit 12 shows that Financials were the most significant component of emerging markets in 2018, but have since then shrunk in importance. Energy would be a negative factor for emerging markets, as it has higher ESG risk, higher weightings than developed markets, and higher growth in percentage share in 2022 vs. 2018. Lastly, it is worth mentioning that lower ESG risk sectors, such as Information Technology and Financials, tend to make up a more significant level of the total weighting in a market-cap view.

**Exhibit 12: Sector Breakdown of Developed Markets by Market Cap**




Source: Morningstar Sustainalytics

## Insights into Top Improving Companies

Identifying superstar companies

Exhibits 13 and 14 below report the top ten companies with the best percentage improvement in ESG Risk Ratings for emerging and developed markets. In selecting these companies, we disregarded royalty companies and companies that have switched sub-industries and compare results back to 2018.

Top performers belong to different countries and sectors and have different past ESG Risk Rating levels

Exhibit 13 shows that top performers belong to different countries and sectors and have different past ESG Risk Rating levels. However, we have four companies headquartered in Germany and three in the Real Estate sector. One explanation is that ESG improvements are due to improved regulation and reporting in developed markets. Nonetheless, we also notice that each of the three German Real Estate companies has a top 3 placement score for their subindustry in three utterly different **Material ESG Issues (MEIs)**, showing there are distinct specialties at play.

Looking into the developed and emerging market companies with the most significant score changes

Elia System Operator SA, now known as Elia Group SA/NV, stands out as the company with the largest ratings delta in our sample. Elia had an 'average' management score of 33.2 in 2018, which improved to 63.8 in 2022. A 'strong' management score (50+) is assessed for seven of nine MEI's. The company does not have significant electricity generation operations, and 75% of the company's revenues are earned from regulated assets, resulting in a lower **Overall Beta** of 0.71 due to these two aspects. To conclude, it currently ranks in the 4th percentile for its subindustry.

**Exhibit 13: Top Ten Public Developed Companies for ESG Risk Rating Improvements**

| Name | Sector | Region HQ | ESG Risk Rating 2018 | ESG Risk Rating 2022 | ESG Risk Rating |
|---|---|---|---|---|---|
| **Elia System Operator SA** | Electric Utilities | Belgium | 42,3 | 16,3 | -26,0 |
| **Sparebanken Vest** | Diversified Banks | Norway | 39,0 | 13,4 | -25,6 |
| **DIC Asset AG** | Diversified Real Estate | Germany | 29,2 | 9,2 | -20,0 |
| **B2Holding ASA** | Consumer Finance | Norway | 28,4 | 9,3 | -19,1 |
| **Universal Display Corporation** | Electronic Components | United States | 24,3 | 7,6 | -16,7 |
| **Bulten AB (publ)** | Auto Parts | Sweden | 23,0 | 7,5 | -15,5 |
| **Schaeffler AG** | Auto Parts | Germany | 23,7 | 9,4 | -14,3 |
| **Vonovia SE** | Real Estate Management | Germany | 19,2 | 6,7 | -12,4 |
| **LEG Immobilien AG** | Real Estate Management | Germany | 20,0 | 7,8 | -12,3 |
| **Kimball Electronics Inc** | Electronics Manufacturing | United States | 12,6 | 4,8 | -7,8 |

*Note that we excluded companies that went through subindustry changes or that were labeled royalty companies.

Source: Morningstar Sustainalytics

Top ten ESG improvers are well diversified in terms of sector, location, and past ESG Risk Ratings

Exhibit 14 below shows that the top ten ESG improvers in emerging markets are well diversified in terms of sector, location, and past ESG Risk Ratings. These improvements are, hence, not necessarily driven by any of these factors.

Isolating some drivers for changes to exposure

Considering specific names, Bosch Ltd. may have benefited from its parent organization's ESG initiatives and directives from Germany. On the other hand, PixArt Imaging, Inc.'s exposure change is primarily affected by qualitative overlays, possibly due to having little manufacturing activity. These two situations highlight the need to consider the unique context surrounding score changes regarding parent company influence and product enhancement trends within the product.

**Exhibit 14: Top Ten Public Emerging Companies for ESG Risk Rating Improvements**

| Name | Sector | Region HQ | ESG Risk Rating 2018 | ESG Risk Rating 2022 | ESG Risk Rating |
|---|---|---|---|---|---|
| **Iochpe-Maxion S.A.** | Industrials | Brazil | 46,1 | 19,9 | -26,1 |
| **ICICI Prudential Life Insurance Co Ltd** | Financials | India | 39,9 | 16,7 | -23,1 |
| **UPL Ltd.** | Materials | India | 44,2 | 21,4 | -22,8 |
| **Bumi Armada Berhad** | Energy | Malaysia | 43,2 | 20,4 | -22,7 |
| **PixArt Imaging Inc.** | Information Technology | Taiwan | 43,1 | 20,4 | -22,7 |
| **Interconexión Eléctrica S.A. E.S.P.** | Utilities | Colombia | 35,6 | 15,3 | -20,3 |
| **Enel Américas S.A.** | Utilities | Chile | 37,3 | 17,7 | -19,7 |
| **Mando Corp** | Consumer Discretionary | South Korea | 32,2 | 12,9 | -19,4 |
| **Eurobank Ergasias S.A.** | Financials | Greece | 34,3 | 15,2 | -19,0 |
| **Bosch Limited** | Consumer Discretionary | India | 23,1 | 8,2 | -14,9 |

*Note that we excluded companies that went through subindustry changes or that were identified as royalty companies.

Source: Morningstar Sustainalytics

In emerging markets, to review one company as a standout, Iochpe-Maxion S.A. experienced a complete turnaround from its near bottom 92nd percentile ranking in 2018 to climb to the 6th percentile for its subindustry. The management score is the stand-out driver, improving from 15.3 to 65.4 on the back of a progressive Product and Service Safety Programme, QMS Certifications, and an improving Carbon Intensity Trend.

# Conclusion

Our research sheds light on the similarities and differences in ESG characteristics of emerging and developed markets.

Emerging markets are closely trailing the ESG risk of developed markets

We show that the coverage and AUM are growing more in emerging markets. Further, while companies in developed economies have faster improving ESG Risk Ratings, emerging markets still maintain a relatively close improvement pace and have been managing better in the Industrial and Consumer Discretionary sectors. Nine emerging markets have larger average ESG risk improvements compared with the global average. Taken together, our results show that emerging markets are closely trailing the ESG performance of developed markets.

Including emerging-market universes allows for more diversified investment strategies and a better coverage of lesser-looked-at markets, such as Peru or Turkey, home to companies that have substantially improved their ESG risks.

Supporting investors to make more informed decisions

With opportunities for significant returns in the face of heightened risk exposures in emerging markets, Sustainalytics ESG Risk Ratings can help investors make more informed decisions. Our forthcoming paper aims to explore new investment strategies when combining developed and emerging markets.

## Glossary of Terms

**ESG Risk Category**

A company's ESG Risk Ratings score is assigned to one of five ESG Risk Categories in the ESG Risk Ratings:

- Negligible risk (overall score of 0-9.99 points): enterprise value is considered to have a negligible risk of material financial impacts driven by ESG factors.
- Low risk (10-19.99 points): enterprise value is considered to have a low risk of material financial impacts driven by ESG factors.
- Medium risk (20-29.99 points): enterprise value is considered to have a medium risk of material financial impacts driven by ESG factors.
- High risk (30-39.99 points): enterprise value is considered to have a high risk of material financial impacts driven by ESG factors.
- Severe risk (40 and higher points): enterprise value is considered severe risk of material financial impacts driven by ESG factors.

Because ESG risks materialize at an unknown time in the future and depend on a variety of unpredictable conditions, no predictions on financial or share price impacts, or on the time horizon of such impacts are intended or implied by these risk categories.

**ESG Risk Ratings Score (Overall Unmanaged Risk Score, ESG Risk Ratings)**

The company's overall score in the ESG Risk Ratings; it applies the concept of risk decomposition to derive the level of unmanaged risk for a company, which is assigned to one of five risk categories. Scores are greater or equal to 0, with 0 indicating that risks have been fully managed (no unmanaged ESG risks). There is no boundary on the upper end, but practically speaking, scores are always less than 100, and this can be considered the highest level of unmanaged risk. It is calculated as the difference between a company's overall exposure score and its overall managed risk score, or by adding the Corporate Governance unmanaged risk score to the sum of the company's issue unmanaged risk scores.

**Exposure Score (Exposure)**

An assessment dimension that reflects the extent to which a company is sensitive to material ESG risks. Exposure can be considered as a sensitivity or vulnerability to ESG risks. Its final outcome is expressed in the Overall Exposure score.

**Material ESG Issues (MEIs)**

A core building block of the ESG Risk Ratings. An ESG issue is considered to be material within the rating if it is likely to have a significant effect on the enterprise value of a typical company within a given subindustry, and its presence or absence in financial reporting is likely to influence the decisions made by a reasonable investor. Material ESG issues were determined at a subindustry level through a structured consultation process with analysts but can be disabled for a company if the issue is not relevant to the company's business. Note: There are no specific predictions about financial impacts at the company level implied by the presence or absence of an issue as a material ESG issue

**Morningstar Sustainability Rating**

Morningstar assigns Sustainability Ratings by combining a Portfolio Corporate Sustainability Rating and Portfolio Sovereign Sustainability Rating proportional to the relative weight of the (long only) corporate and sovereign positions, rounded to the nearest whole number. Historical Sovereign Sustainability Scores and Historical Corporate Sustainability Scores are ranked and rated separately to represent the ESG risk of the portfolio relative to its peers for its respective corporate and sovereign positions and then combined by their relative weights for the Morningstar Sustainability Rating.

**Overall Beta**

A factor that assesses the degree to which a company's overall exposure deviates from its subindustry's overall exposure. It is calculated by dividing the company's Overall Exposure by the Overall Subindustry Exposure.

| | |
|---|---|
| **Overall Management** | The ESG Risk Ratings second dimension is Management. It can be considered as a set of company commitments, actions, and outcomes that demonstrate how well a company manages the ESG risks it is exposed to.<br><br>The Overall Management score for a company is derived from a set of management indicators (policies, management systems, certifications, etc.) and outcome-focused indicators. Outcome-focused indicators measure management performance either directly in quantitative terms (e.g., CO2 emissions or CO2 intensity) or via a company's involvement in controversies (represented by the company's event indicators). |
| **Sustainalytics ESG Risk Ratings** | Sustainalytics rating framework that measures the extent to which enterprise value is at risk, driven by environmental, social, and governance factors. The rating takes a two-dimensional approach. The exposure dimension measures a company's exposure to ESG risks, while the management dimension assesses a company's handling of these ESG risks. It is calculated as the difference between a company's overall ESG Exposure score and its overall Managed Risk score. |

# Endnotes

1 The authors would like to thank their Sustainalytics colleagues who helped prepare the report. A special thank to Liam Zerter for his contribution to the current document. Feedback on an earlier draft of the paper was provided by Hendrik Garz, Claudia Volk, and Alyssa Stankiewicz. Cristina Zabalaga performed the editorial review.

2 Text that is highlighted in bold teal indicates a term that is explained in the Glossary in the Appendix.

3 Kowalewski, P., (2019); The brief history of emerging economies; obserwatorfinansowy.pl; accessed (09.05.2023) at: https://www.obserwatorfinansowy.pl/in-english/macroeconomics/the-brief-history-of-emerging-economies/#:~:text=That%20is%20why%20it's%20worth,that%20term%20would%20eventually%20get.

4 24 countries make up the emerging markets; accessed (09.05.2023) at: https://www.worldeconomics.com/Regions/Emerging-Markets/#:~:text=World%20Economics%20has%20combined%2024,years%20(2012%2D2022).

5 Bouslama, O., Ouda O. (2013); International Portfolio Diversification Benefits: The Relevance of Emerging Markets; International Journal of Economics and Finance; Vol. 6, No. 3; 2014; accessed (02.10.2023) at: https://pdfs.semanticscholar.org/5ad8/eb4d6abe4a2deebc560736e4ef9eca823484.pdf.

6 Ding, Z (2010); The Fundamental Law of Active Management: Time Series Dynamics and Cross-Sectional Properties; Fuller & Thaler Asset Management; accessed (02.10.2023) at: https://math.nyu.edu/~avellane/FundamentalLawFT.pdf.

7 In its original form, active management states that investors can increase the breadth of their portfolios by increasing the number of bets.[1] As investors generally cannot easily improve their forecasting skills or information sources, they can maximize their wealth by increasing the number of bets. This is possible by enlarging the investment universe and trading more frequently.

8 Khanna, T., Palepu, K., et. al. (2005); Strategies That Fit Emerging Markets (hbr.org); Harvard Business Review; accessed (02.10.2023) at: https://hbr.org/2005/06/strategies-that-fit-emerging-markets

9 Hale, J. (2022); Sustainable Investing in Emerging Markets Can Help Returns and Make a Difference; Morningstar (2022); accessed (02.10.2023) at: https://www.morningstar.ca/ca/news/225454/sustainable-investing-in-emerging-markets-can-help-returns-and-make-a-difference.aspx

10 For more information on the Morningstar Sustainability Rating see; accessed (14.12.2023) at: https://www.morningstar.com/sustainable-investing/morningstar-sustainability-rating-explained

11 More information about the Morningstar methodology for developed and emerging markets can be found here: Methodology & Product Architecture - 20220323_Morningstar_Global_Markets_Index_Family_Rulebook_Final.pdf - All Documents (sharepoint.com)

12 The United Nations (U.N.) and the International Monetary Fund (IFM) offer categorizations of countries into developed and emerging countries:

- The United Nations (U.N.) categorizes countries into 'developed economies', 'economies in transition', and 'developing economies' based on their level of development as measured by per capita gross national income. Countries are also grouped into high-income, upper-middle-income, lower-middle-income, and low-income categories.
- The International Monetary Fund (IMF) categorizes countries into 'advanced economies', 'emerging-market economies', and middle-income economies'. The IMF describes emerging countries as countries with higher economic growth than developed countries yet with more volatile exchange markets. Emerging markets are generally transitioning in important demographic characteristics, such as fertility rates, life expectancy, and educational status. Typically, they are transitioning in the nature and depth of their economic and political institutions.

# About Morningstar Sustainalytics

Morningstar Sustainalytics is a leading ESG research, ratings, and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Morningstar Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The firm also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices, and capital projects. With 17 offices globally, Morningstar Sustainalytics has more than 1,800 staff members, including more than 800 research analysts with varied multidisciplinary expertise across more than 40 industry groups. For more information, visit www.sustainalytics.com.