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# Morningstar Sustainability Atlas

Sustainability is not just for rich countries. Some emerging markets have reached European standards of ESG practices.

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## Morningstar Inc.

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## Author

Dan Lefkowitz  
Morningstar Indexes Strategist  
+312 696-6649  
dan.lefkowitz@morningstar.com

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## Executive Summary

This report examines the sustainability profiles of Morningstar's 46 country-specific equity indexes using company-level environmental, social, and governance scores. The country indexes, which span developed and emerging markets and represent 97% of global market capitalization, vary significantly across ESG criteria. Through a series of maps, we demonstrate the range of country index scores — including overall Portfolio Sustainability and its sub-components: Controversy Scores and scores at the Environmental, Social, and Governance levels. Key company-level drivers are highlighted. This edition also focuses on country index-level exposure to thermal coal, a carbon-intensive energy source, utilizing new product involvement screens available in Morningstar Direct.

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## Key Takeaways

- ▶ The Netherlands is the world's leading market for company-level sustainability. Dutch companies especially distinguish themselves with regards to governance.
- ▶ Colombia, Taiwan, Hungary, and Turkey uphold high standards of ESG, with South Africa, Brazil, and Chile posting strong scores as well. This proves that emerging markets companies can be leaders in sustainability.
- ▶ The U.S., U.K., and Swiss markets are especially heavy on companies embroiled in ESG-related controversies.
- ▶ Eurozone and Nordic markets are the globe's green leaders.
- ▶ Social practices are strongest within Europe, but Colombia, Australia, and Taiwan also score highly.
- ▶ Australia scores well on sustainability factors, especially in the area of governance.
- ▶ China, Russia, and the Middle Eastern markets have the most work to do when it comes to sustainability.
- ▶ Exposure to thermal coal is heaviest in the Czech Republic, Chile, and Portugal.

## Introduction

The Morningstar Sustainability Atlas takes a bottom-up approach. National equity markets are scored on the basis of the companies constituting their equity market indexes. The same methodology that powers the Morningstar Sustainability Rating for funds is applied to assess the sustainability profile of indexes. As with funds, index Portfolio Sustainability Scores are weighted aggregates of company-level scores. Unlike funds, indexes do not receive the Morningstar Sustainability Rating, which compares portfolio holdings' ESG profiles with category peers using a 1- to 5-globe system. Indexes do, however, receive raw scores, which comprise both ESG Scores and Controversy Scores. Morningstar normalizes ESG scores to make them comparable across industry peer groups. This is a necessary step when scoring diversified portfolios, as scores vary by industry.

Sustainability assessments are provided to Morningstar by ESG researcher Sustainalytics. Sustainalytics assigns ESG Scores to 7,500 companies and Controversy Scores to 14,000 companies. Sustainalytics compares companies' ESG profiles with their global industry peers, based on industry-relevant indicators. Research is conducted across dimensions of preparedness, disclosure, quantitative performance, and qualitative performance. Thus, scoring is based on both words and deeds.

This report will review the sustainability profiles of Morningstar's entire suite of global equity indexes. The 46 indexes are all members of the Morningstar Global Markets Index, including both developed and emerging markets. Portfolio Sustainability Scores can only be calculated if more than 50% of market capitalization is covered with ESG Scores. Coverage far exceeds this threshold in the case of all Morningstar country indexes. Egypt has the lowest coverage, with 73% of its index weight carrying ESG Scores. Coverage for all other indexes exceeds 75% of index weight.

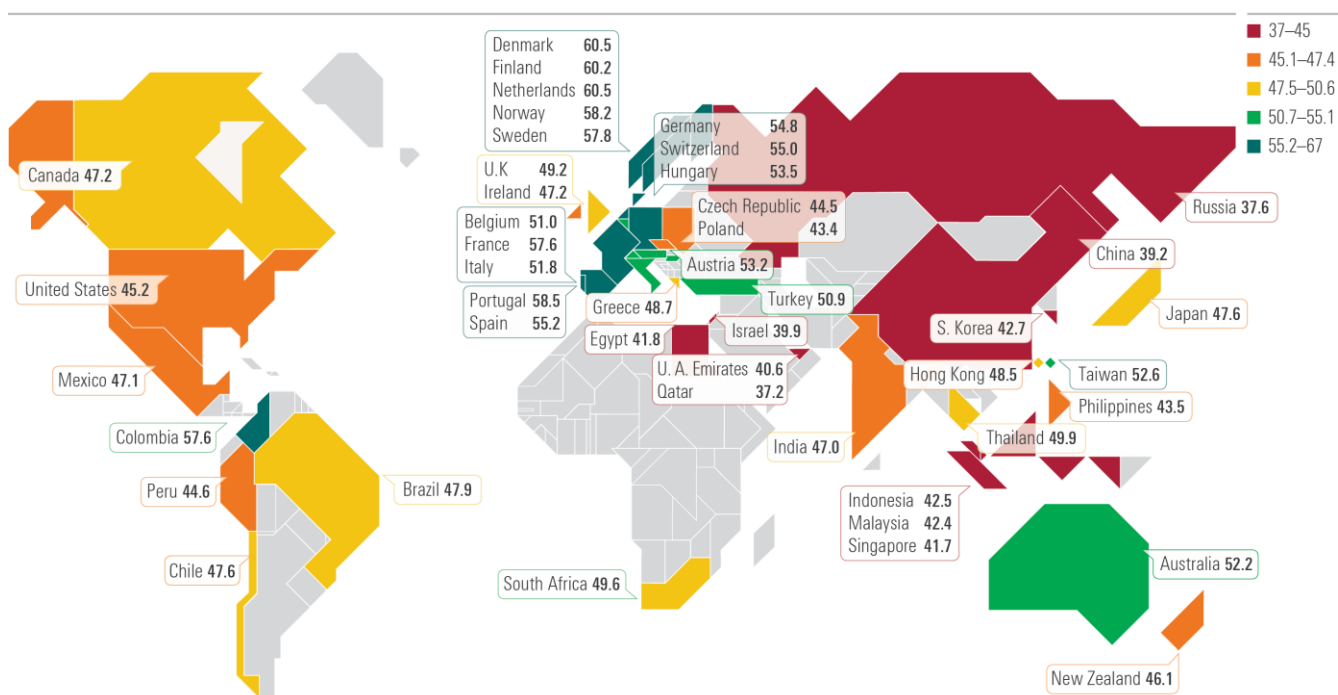
This report will discuss the overall sustainability profile of each country index and will also detail drivers, whether related to the Controversy Score or pillar-level (Environmental, Social, and Governance) scores. Thus, investors more interested in governance, for example, can home in on leaders and laggards in that area. The Sustainability Atlas may be used to identify which geographic areas present the best ESG-related opportunities and which might be avoided by sustainability-minded investors.

New to the Sustainability Atlas is the utilization of Morningstar Portfolio Product Involvement data, which allows sustainable investors to screen for and analyze exposure to a range of products, services, and business activities. The Sustainability Atlas displays the weighted percentage of country indexes' involvement in thermal coal—a carbon-intensive energy source.

### Map of Morningstar Country Indexes' Sustainability Scores

Sustainability Scores consider both ESG Scores and Controversy Scores. European markets continue to occupy most of the top two quintiles in terms of overall sustainability profiles. The Netherlands Index takes over the top spot thanks to such high-scoring companies as ASML Holding, ING Groep, Philips, and Ahold Delhaize. Nordic and many eurozone markets are not far behind. Colombia lands in the top quintile — the highest-scoring non-European market — thanks to Bancolombia, Ecopetrol, and Grupo Sura. Other emerging markets that score well include Hungary, Taiwan, and Turkey. On the flipside, emerging markets, such as China, Russia, Malaysia, and Indonesia, occupy the globe's bottom quintile. Australia boasts a strong sustainability profile. The United States scores poorly, below Japan, Brazil, and India. Korea continues to land in the globe's bottom quintile thanks largely to controversy.

**Exhibit 1** Map of Morningstar Country Indexes' Sustainability Scores

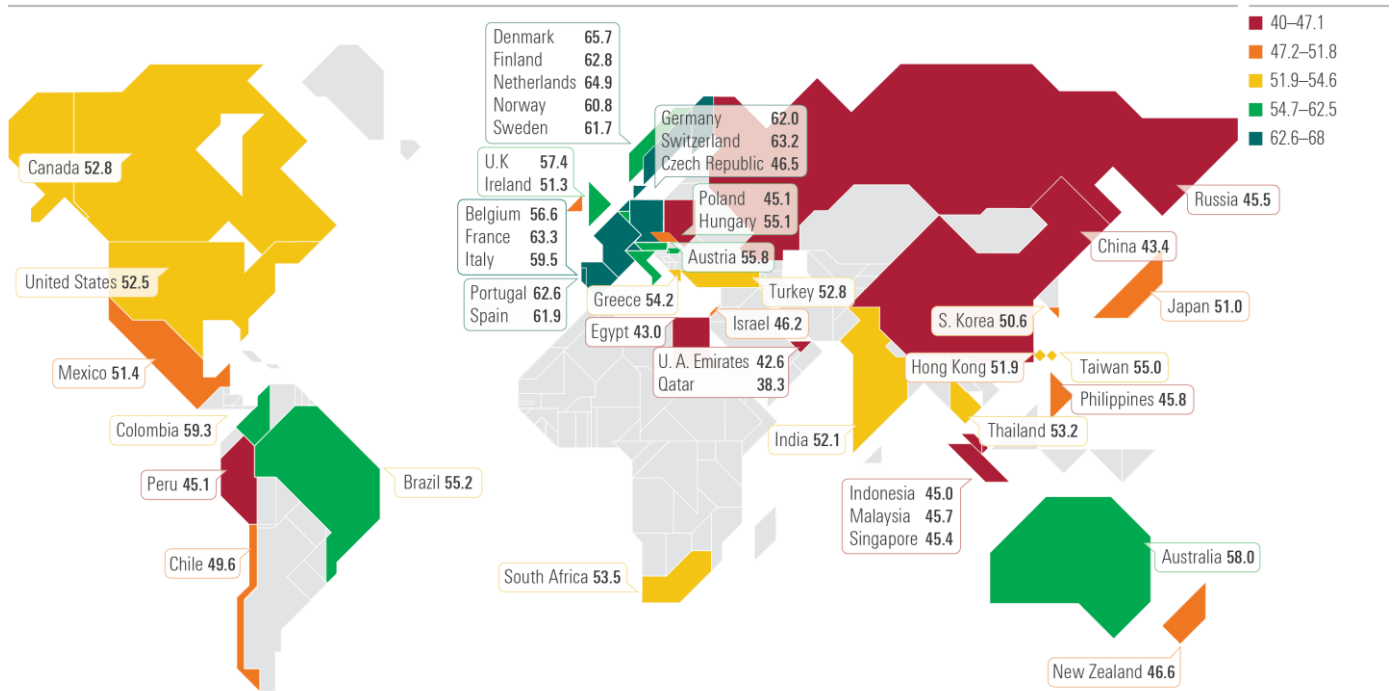


Source: Morningstar Direct. Data as of 28 February 2018.

### Map of Morningstar Country Indexes' ESG Scores

ESG Scores are rollups of Environmental, Social, and Governance pillar scores and ignore deductions made for controversial incidents. The top quintile is dominated by European markets, while Colombia, Australia, and Brazil occupy the second quintile. The United Kingdom has a solid ESG profile, though its overall Sustainability Score is dragged down by controversies. The U.S. also looks better on an ESG basis when controversies are not considered, on par with Canada. Singapore is the worst scoring developed market on ESG criteria, driven down by Jardine Matheson and Jardine Strategic Holdings. At the bottom of the list sit three Middle Eastern markets — Qatar, United Arab Emirates, and Egypt—owing mostly to the financial-services and telecom companies that dominate their indexes. China is dragged down by companies like Sinopec, PetroChina, and China Railway Group. Interestingly, large Chinese index constituents like Tencent, the big banks, and mobile phone companies are considered "Average Performers" by Sustainalytics.

Exhibit 2 Map of Morningstar Country Indexes' ESG Scores



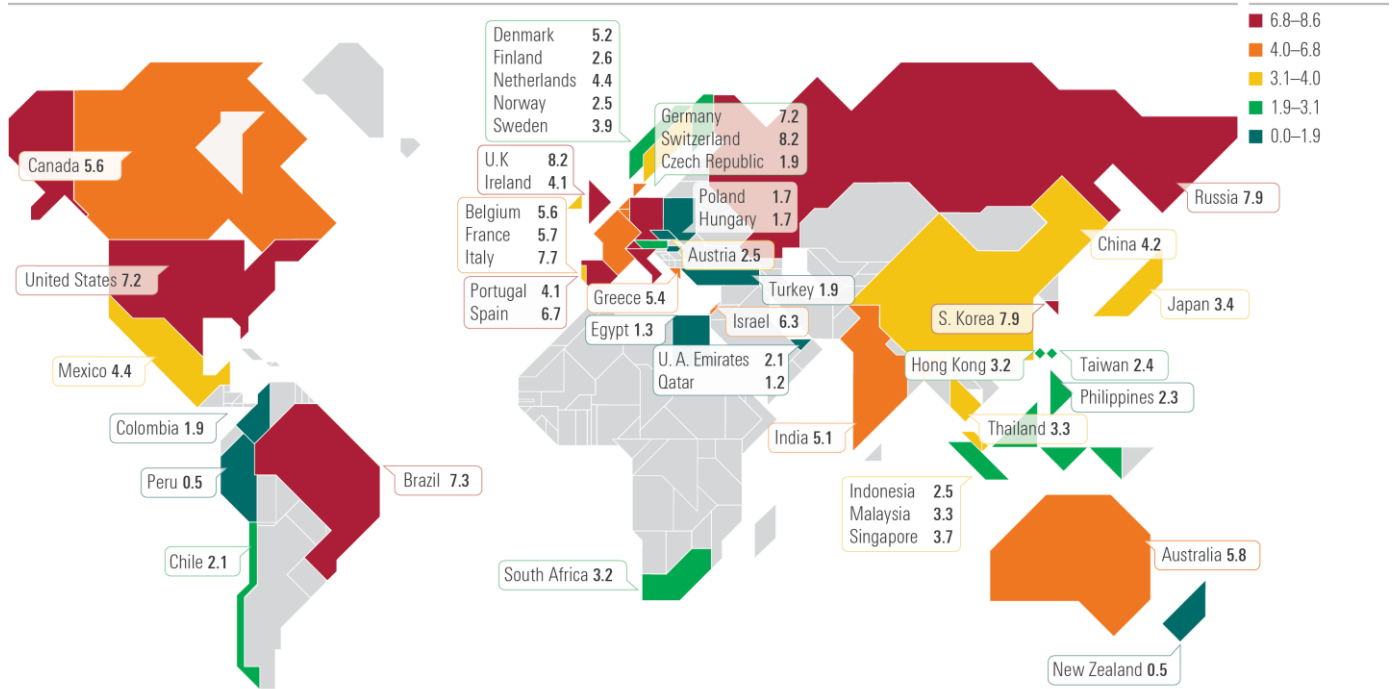
Source: Morningstar Direct. Data as of 28 February 2018.

### Map of Morningstar Country Indexes' Controversy Scores

Sustainalytics defines a controversy as any incident that has an impact on the environment or society and poses a risk to the company involved. Companies with current involvement in ESG-related incidents are penalized in Morningstar's methodology. Hence, higher Controversy Scores identify ESG-related risks. Sustainalytics assesses companies for their level of involvement in major controversies or incidents, which are categorized from low impact to severe impact.

Switzerland and the U.K. are the world's most controversy-plagued markets. Swiss market controversies include Novartis and UBS. Korea continues to be affected by controversies related to Samsung Electronics, but also key index constituents Posco and Hyundai. Key U.K. constituents facing "High" or "Severe" controversies include HSBC, Royal Dutch Shell, and GlaxoSmithKline. Within the U.S. market, Johnson & Johnson, Wells Fargo, and Apple all face controversy.

**Exhibit 3** Map of Morningstar Country Indexes' Controversy Scores

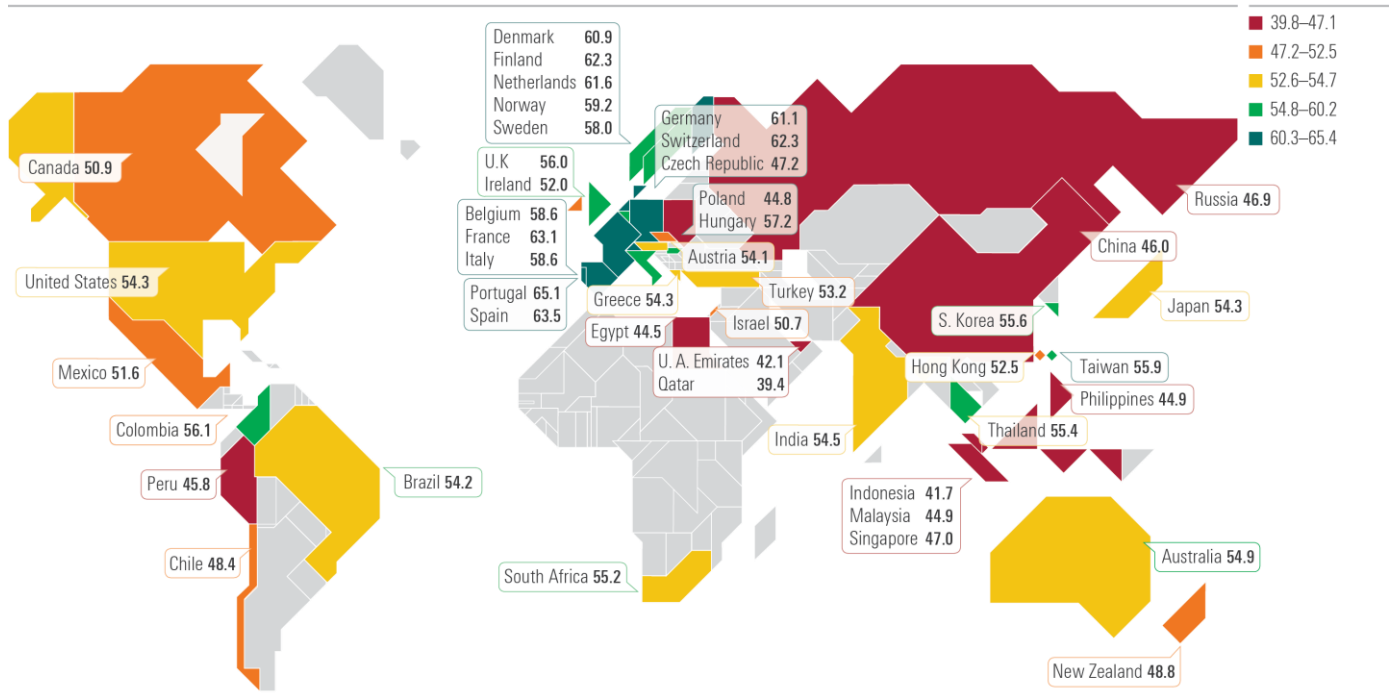


Source: Morningstar Direct. Data as of 28 February 2018.

### Map of Morningstar Country Indexes' Environmental Scores

The Environmental Score, the first pillar of ESG, incorporates assessments of carbon emissions, waste management, energy usage, and so on. Aggregating company-level Environmental Scores to the index-level reveals a mixed global picture. European markets are the clear global leaders. Portugal comes out on top, thanks to top holding Galp Energia, which is considered to be an industry leader among global energy players. France also scores well thanks to Total, Sanofi, BNP Paribas, and LVHM, which distinguish themselves within their industries. Colombia is the greenest non-European market, while Taiwan, Korea, and Thailand are green leaders within Asia. The U.S. and Japan are middling performers on environmental criteria. Developed markets Singapore, New Zealand, Israel, Canada, Ireland, and Hong Kong score poorly. The bottom quintile is occupied by emerging Asian countries, Middle Eastern markets, Peru, and Poland.

**Exhibit 4** Map of Morningstar Country Indexes' Environmental Scores

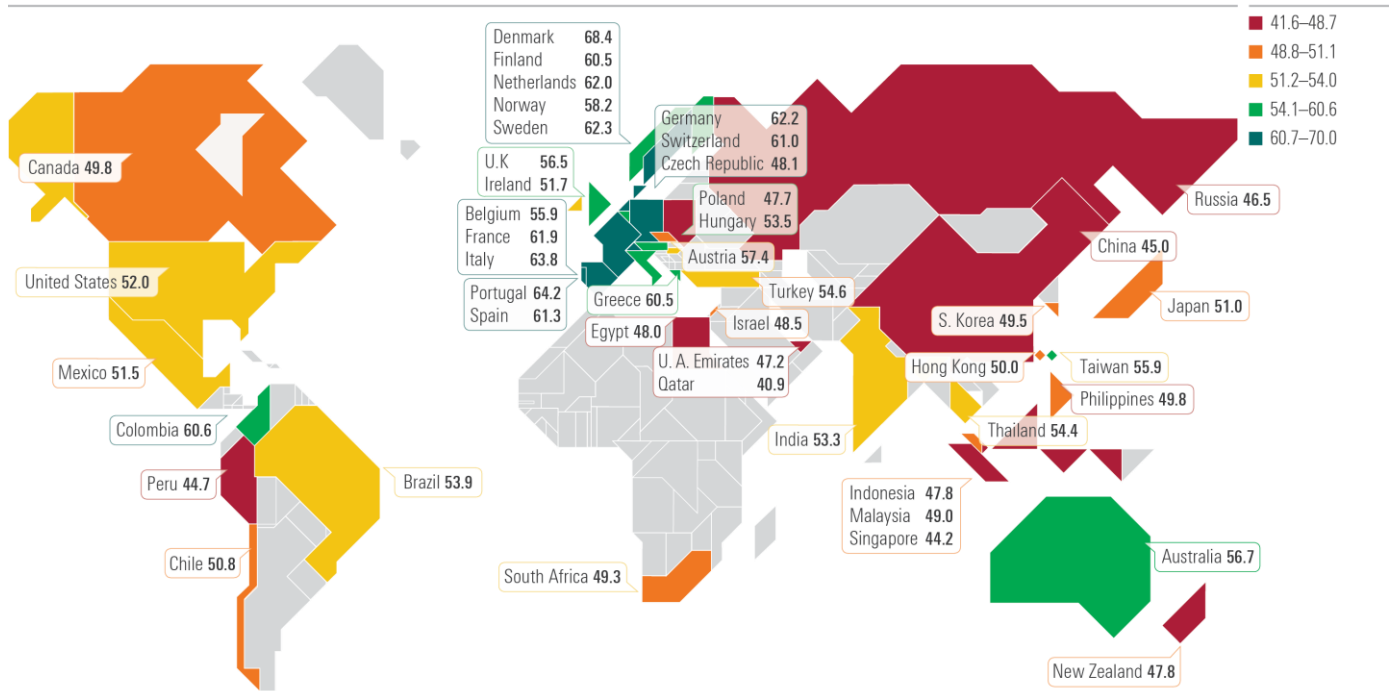


Source: Morningstar Direct. Data as of 28 February 2018.

### Map of Morningstar Country Indexes' Social Scores

The Social Score, the second pillar of ESG, encompasses product safety, labor standards, and supply chain management. The globe's entire top quintile comprises European markets. The narrow Morningstar Denmark Index scores well thanks to top holding Novo Nordisk. Italy is another global leader driven by top holdings Intesa Sanpaolo, Enel, UniCredit, and Generali. Colombia and Taiwan are leaders among emerging markets. The U.S. is a middling performer, though it scores higher than Canada and Japan. New Zealand and Singapore look especially weak on social criteria.

**Exhibit 5** Map of Morningstar Country Indexes' Social Scores

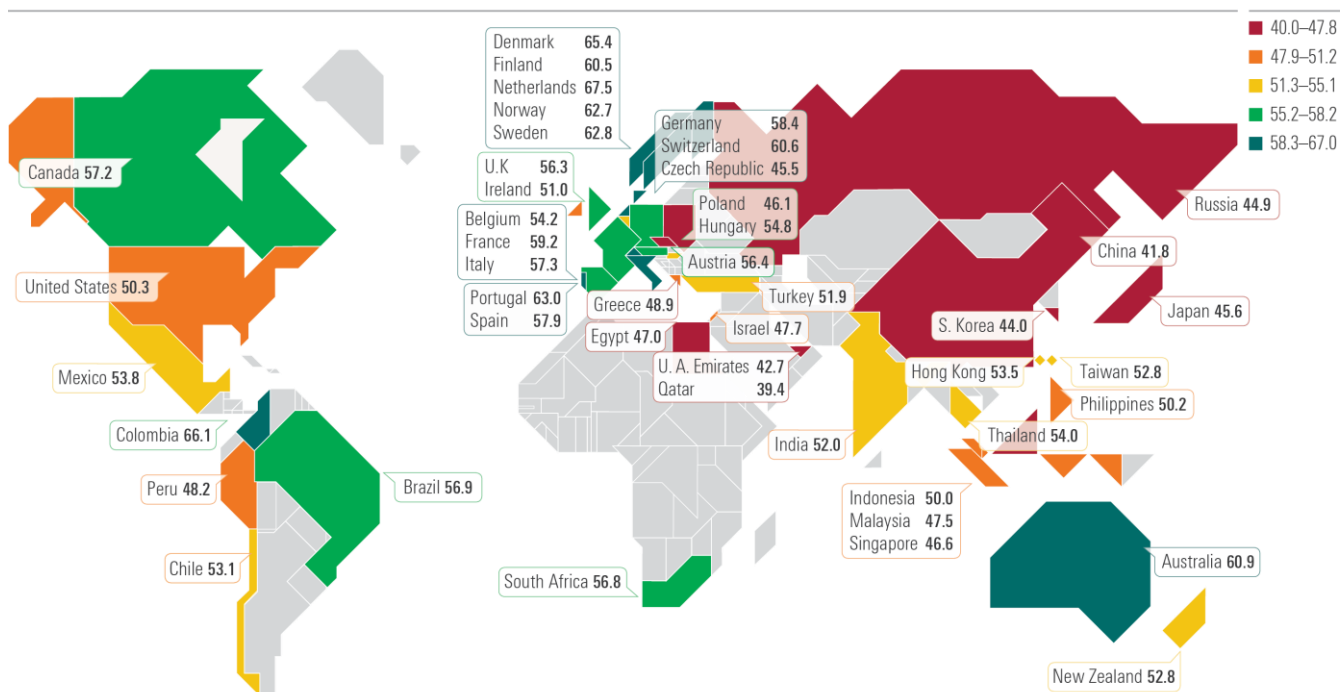


Source: Morningstar Direct. Data as of 28 February 2018.

### Map of Morningstar Country Indexes' Governance Scores

The Governance Score considers corruption, board independence, and business ethics. The Netherlands continues to serve as the world's leading market from a governance perspective. Australia and Colombia are the non-European markets in the globe's top tier. Australian banks Commonwealth Bank of Australia, Westpac, ANZ, and National Australia Bank are all considered standard bearers within their global peer group. Canada looks strong on the governance pillar. More surprising standouts include Brazil and South Africa. The U.S. looks weak on governance criteria, below India and Turkey and in the same range as the Philippines, Indonesia, and Peru. China scores near the bottom of the globe. Korea and Japan are especially weak on governance as well.

**Exhibit 6** Map of Morningstar Country Indexes' Governance Scores



Source: Morningstar Direct. Data as of 28 February 2018.



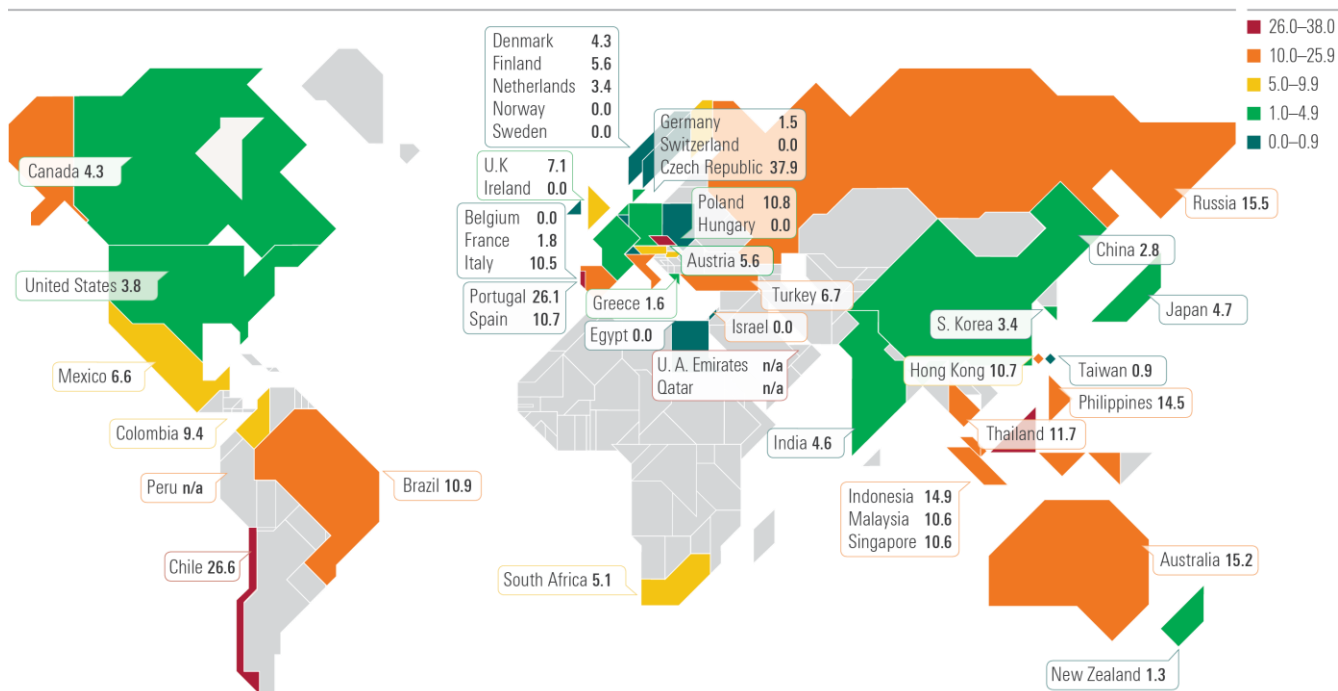
### Map of Morningstar Country Indexes' Exposure to Thermal Coal

Morningstar Portfolio Product Involvement data allows sustainable investors to screen for and analyze exposure to a range of products, services, and business activities. Product involvement is determined by Sustainalytics based mostly on the composition of revenue. Product areas include:

- ▶ Adult Entertainment
- ▶ Alcohol
- ▶ Animal Testing
- ▶ Abortion/Contraception/Stem Cell Research
- ▶ Controversial Weapons
- ▶ Fur and Specialty Leather
- ▶ Gambling
- ▶ GMOs
- ▶ Military Contracting
- ▶ Nuclear
- ▶ Palm Oil
- ▶ Pesticides
- ▶ Small Arms
- ▶ Thermal Coal
- ▶ Tobacco

This edition of the Sustainability Atlas will focus on thermal coal, a carbon-intensive energy source. Direct involvement includes companies that extract coal, while indirect involvement involves companies that generate electricity from coal. The Atlas measures involvement at the country index level based on weighted constituent-level exposure.

**Exhibit 7** Map of Morningstar Country Indexes' Thermal Coal Product Involvement



Source: Morningstar Direct. Data as of 28 February 2018.

**About Morningstar, Inc.**

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To learn more about the Morningstar Sustainability Rating, visit:

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22 West Washington  
Chicago, IL  
60602

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