SMALL AND MEDIUM ENTERPRISES IN EMERGING ECONOMIES: THE ACHILLES’ HEEL OF CORPORATE ESG RESPONSIBILITY PRACTICES?
SMALL AND MEDIUM ENTERPRISES IN EMERGING ECONOMIES: THE ACHILLES’ HEEL OF CORPORATE ESG RESPONSIBILITY PRACTICES?
Small and medium enterprises in emerging economies: The Achilles’ heel of corporate ESG responsibility practices?

Matteo Ferrazzi, Annamaria Tueske

March 2022

Short Abstract

The information contained in the Enterprise Survey—administered by the World Bank (WB), the European Bank for Reconstruction and Development (EBRD), and the European Investment Bank (EIB)—is used to build a firm-level “Corporate Environmental, Social, and Governance Responsibility” composite indicator. The novelty of the indicator, compared with the corporate social responsibility scores and environmental, social, and governance (ESG) scores already available, is due to its unique coverage, namely, a large number of private sector small and medium-size enterprises in selected emerging economies (more than 40 economies covered by the Enterprise Survey). The composite indicator summarizes information on private sector actions on environmental, social, and governance factors. The analysis shows that the actions of private sector small and medium-size enterprises in emerging economies to foster sustainability and green growth significantly lag in the transition to a more sustainable business environment, and large gaps persist. Among emerging economies, those in the Middle East and North Africa—which deserve special attention due to the urgent need to green their growth model—are among the worst performers. Larger companies in the Middle East and North Africa show better environmental, social, and governance performance than small and medium-size enterprises in other areas; but smaller firms in the Middle East and North Africa show extremely weak performance in many aspects, even if controlling for the relative level of economic development. The weakness of environmental, social, and governance practices among firms in the Middle East and North Africa is due to the social (with large gaps in female participation in the workforce and management) and environmental topics. This calls for urgent policy action to address such weaknesses and exploit the full potential of the region.

JEL codes: C43, M14, Q56, R11

Keywords: ESG, environmental, social, governance, sustainability, corporate responsibility, SME, Middle East and North Africa, index aggregation

1 m.ferrazzi@eib.org, Senior Economist, European Investment Bank, Economics Department; a.tueske@eib.org, Economist, European Investment Bank, Economics Department. The opinions expressed in this paper are those of the authors only and do not necessarily reflect those of the European Investment Bank (EIB). All errors and omissions are the authors’ responsibility. We are thankful to Francesca Maritati (EIB Corporate Responsibility) and other colleagues from EIB, EBRD and World Bank for comments. We would also like to thank the participants of two workshops hosted by the World Bank, EBRD, and EIB for their feedback.
1 Introduction

Environmental, social and governance (ESG) considerations play a key role in companies’ business strategy worldwide. They guide investors, financial institutions, customers and suppliers to understand the capability of companies to produce value for a broad range of stakeholders (not only for companies’ shareholders, but also communities, workers, consumers, the environment, etc.) in a long-term perspective.

Investors are generating an increased and more sophisticated demand for ESG information, but producing such information is generally complex. Disclosure of ESG information by firm is very limited everywhere; it is mainly done by listed companies. However, SMEs not only represent 98% of firms, and 67% of total employment in Europe (Saez-Martinez, 2016) and even more in emerging countries (ILO, 2019), they are also responsible for 60%-70% of pollution globally (Hillary, 2017, and Miller, 2011). Smaller companies, despite a large number of initiatives, have neither legal obligations, resources, nor relevant incentives to put in place systems to give full disclosure of ESG-relevant information. The picture is even more complex in emerging countries, where only a small number of firms is listed, the average company size is smaller, and ESG information is even more limited if not totally absent. For SMEs (typically not covered by ESG rating agencies) and especially for emerging countries, the urgent need for ESG firm-level information and disclosure is in sharp contrast with its scarce availability.

Between 2018 and 2020, the World Bank Group (WBG), the European Bank for Reconstruction and Development (EBRD), and the European Investment Bank (EIB) fielded the Enterprise Survey (ES) in 41 countries in the Middle East and North Africa (MENA), Southern Europe, Central, Eastern and Southeastern Europe, and Central Asia. More than 28,000 interviews were completed, answered by business owners and top managers. The survey addresses formal (registered) companies with more than 5 employees, in the manufacturing and (selected) services sectors. The ES covers a broad range of business environment topics, including access to finance, innovation, trade participation, and performance measures.

In various aspects, the ES questionnaire is compatible with some components of ESG ratings, even though the ES questionnaire has not been designed following any ESG standards, nor for possible use on any aspects of ESG topics. However, the questionnaire has a number of questions related to the environmental component of ESG in a special Green Economy Module, and useful inputs concerning the firms’ governance and social aspects as well. For this reason, the information derived from the ES can be a precious source of information regarding these topics: looking at the characteristics of ES firms in different macro-regions, sectors, and size classes can improve the understanding of where firms stand in terms of climate transition, social responsibility and sustainability.

Leveraging on the firm-level information of the ES, we built a “Corporate ESG Responsibility” composite indicator, which is an “ESG-type” and “sustainability-type” score, partially inspired by ESG scores produced by ESG rating agencies. Our aim is not to reproduce ESG scores of listed, large companies to serve investors' needs, but to shed some light on these aspects related to smaller

---

2 On corporate climate governance, for instance, non-binding guidelines and reccomendations were put forward, for instance, by the Task Force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board; by the Network for Greening the Financial System (NGFS); and by the EU Technical Expert Group on Sustainable Finance (TEG, Haralampieva, 2020).
unlisted companies in emerging countries. The indicator is unique, being the only one based on a wide sample of ES respondents.\(^3\)

By analyzing the actions of private sector SMEs in emerging countries to foster sustainability and green growth, we aim to better understand their contribution to the transition towards a more sustainable business environment. Given the increasingly ambitious social and environmental goals, measuring what matters for the planet and for people is something that cannot be ignored any longer, despite the obstacles of obtaining the relevant information for SMEs in emerging countries. The firm-level composite indicator helps to understand the performance of countries, sectors and size classes in each of the ESG pillars. Moreover, the determinants of the “Corporate ESG Responsibility” composite indicator can help to identify the drivers of the ESG performance in emerging countries as well as to understand how much ESG aspects are contributing to firms’ performance in the various dimensions.

In particular, we focus on MENA countries for a number of reasons. First, the region is significantly exposed to climate change - in terms of water scarcity, exposure to heat and in some cases to sea level rise - and to social developments (with relevant gender issues). Second, MENA countries need to green their growth model, as the region has seen CO2 emissions in absolute terms and even in per capita terms rising during the last years (between 2005 and 2018, absolute CO2 emissions increased by almost 50 percent). Finally, given the need to step up the climate ambition in MENA, there are relevant investment opportunities for adaptation and mitigation.

This contribution is structured as follows. Section 2 underlines the challenges of assessing ESG components and presents a high level literature review on ESG topics. In section 3, we discuss the methodology and in section 4, we show some results for emerging economies with a particular focus on the MENA region, where firms are showing the worst results across emerging markets.

2 The challenges of assessing ESG: A review of existing methodologies

Under increasing regulatory and market pressure, firm-related ESG disclosure developed significantly over the last couple of years. However, while ESG topics require consistent and comparable metrics in order to compare firms’ performances, a consensus has not been reached on the relevant dimensions to assess the performance of firms.

Typically, ESG rating agencies\(^4\) use firm-level quantitative and qualitative information to produce ESG ratings. They engage with firms directly – often using questionnaires to obtain financial and non-financial data – and they also review public information (produced by the company or by by

---

\(^3\) Survey information is widely used for assessing ESG/Sustainability ratings. It is normally complementing financial information, hard data and public domain information.

\(^4\) The main ESG rating agencies are the following: Vigeo Eiris, which is part of Moody's (Moody's acquired a majority stake of Vigeo Eiris in April 2019); ISS-oekom (Institutional Shareholder Services group of companies - “ISS”) which has been integrated with oekom research in 2018; Sustainalytics, which is part of Morningstar; MSCI ESG Rating (which in 2019 acquired Carbon Delta, a Zurich-based environmental fintech and data analytics firm specializing in climate change scenario analysis).
other sources of information). Such direct, full assessment of the ESG practices of each counterpart is not always feasible given the large amount of information to be processed and the large number of firms. The spectrum of firms covered by the main rating agencies is very wide, as each agency may cover from 1,000 to 10,000 companies (Moody’s, 2021). However, the coverage of smaller companies, less regulated industries and emerging countries by the main rating agencies is particularly patchy.

To address the data constraints issues related to SMEs, Moody’s is complementing its firm-level approaches with another methodology, namely with a “deductive” top-down approach (“ESG Score Predictor”). It developed a model of ESG ratings for a set of companies whose metrics are known, which it then applies to “unscored” companies (Moody’s, 2021). By this method, it enlarges the spectrum of companies with an ESG rating (potentially to an infinite number). It does so by leveraging on only 3 firm-level dimensions: company size (based on assets or turnover), location and industry (615 NACE4 industries). The firm-level information (size, location and industry) is complemented with numerous country level data (more than 50 criteria) on socioeconomic indicators and scores. If size, location and industry are known, the model leverages on these three inputs to generate an ESG rating for any company. Hence the Moody’s ESG Score Predictor methodology, which is very partial (with less information available, it generates an output covering by far more firms compared to “traditional” ESG ratings), does not rely on any firm-level ESG-related information, as the full assessment of each company is not possible. This is different from our methodology, which is entirely based on firm-level information of the Enterprise Survey and does not leverage any country data, despite the availability of ESG country data for numerous emerging countries (World Bank, 2021).

The rating methodologies provided by the main ESG rating agencies differ from each other significantly (in terms of building blocks, materiality assessment, weights used to aggregate the information, etc.) and cannot be reconciled under one single approach. The main building blocks utilized by the ESG rating agencies are typically the following (sometimes similar concepts appear under different names):

- **Environmental:****
  - Environmental strategy or green management
  - Environmental impact or footprint
- **Social:**
  - Gender
  - Human resources, including education and training
  - Labor conditions
  - Community involvement
- **Governance:**
  - Corporate governance and stakeholders
  - Audit and internal controls
  - Management remuneration policies
  - Business ethics and business behavior

In all these aspects, ESG rating agencies are using significantly different approaches (Berg et al., 2020; Chatterji et al., 2016; Gibson, 2019; Durand and Touboul, 2014). ESG scores provided by different agencies have very low correlation with one another (Berg et al., 2019) and there are
widespread changes to the historical ratings, generating an “unpredictable past” of ESG ratings (Berg et al., 2020).

This lack of an “industry standard”, or “surprising lack of agreement” among agencies (Chatterji et al., 2016), or even “aggregation of confusion” (Berg et al., 2020) which is determining the “alphabet soup” (derived from the acronym-heavy measurement and reporting standards) in the ESG rating realm makes it problematic to build an indicator relying only on one of the agencies’ methodologies.

Even the choice of a standard among the various, existing frameworks is a challenge, as the field is populated by different players and frameworks. The main ones include:

i. The Sustainability Accounting Standards Board (SASB) guides companies to disclose sector-specific and financially-material sustainability information to investors. In November 2020, SASB announced that it would merge into a unified organization with the International Integrated Reporting Council (IIRC) to create the Value Reporting Foundation (VRF).

ii. The Global Reporting Initiative (GRI) is an independent, international organization providing the world’s most widely used standards for sustainability reporting – the GRI Standards.

iii. The Carbon Disclosure Project (CDP) runs a global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

iv. The Task Force on Climate-related Financial Disclosures (TCFD), which was created by the Financial Stability Board, aims to improve and increase reporting of climate-related financial information (rather than to develop standards) to support informed capital allocation.

v. The Principles for Responsible Investment (PRI) were developed by an international group of institutional investors reflecting the increasing relevance of environmental, social and corporate governance issues to investment practices. In signing the six Principles, investors commit to adopt and incorporate ESG factors into their investment and ownership decisions.

While most of the above organizations are collaborating to achieve a more standardized version of sustainability reporting (World Economic Forum, 2020), there are still significant differences and deviations in their approaches. Different accounting requirements in terms of ESG may add costs, complexity and risk to companies and investors, and they cannot be ignored. Moreover, the idea of standardized ESG reporting remains highly contested, as companies argue that the unique nature of their operations will make comparisons difficult (Financial Times, 2021). At the same time the “Big Four” accounting firms (KPMG, EY, Deloitte, PwC), responding in part to a rise in clients’ budgets for developing net zero emissions plans and other sustainability initiatives, have been working to set new international principles for measuring sustainability and to push forward the sustainability consulting business (Financial Times, 2021).
SASB has developed a complete set of 77 globally applicable industry standards, providing sector-specific guidance on an extensive range of ESG topics. The main building blocks of SASB standards are the following: Environmental (E), Social and Human Capital (S), Business Model & Innovation and Leadership & Governance (G). We have aggregated these five dimensions into the three main dimensions of E, S and G. Next, we adapted the SASB methodology to take into account the structure of the ES questionnaire. In particular, the SASB subcategories were converted and aggregated into broader categories (for example, Energy Management, Water & Wastewater Management and Waste and Hazardous Material Management appear under a unified category called Green Management). This eclectic approach - which reflects the SASB framework, takes into account the approach of ESG rating agencies, and adapts to the structure of the ES questions – made it possible to match the survey’s questions with the ESG frameworks already in use.

ESG regulation is also evolving fast and is becoming more ambitious. Sustainability disclosure is among the priorities of the world’s largest investors, and the evolution of regulation is accompanying it. In most of the cases, these new regulations or standards are not only regulatory requirements, but “business imperatives” for companies and financial institutions, to serve the growing needs of investors and consumers.

The European Union is in the lead on ESG disclosure and the European Commission is developing extensive regulation both to provide a common language for environmentally sustainable activities, and to accelerate mainstreamed ESG disclosures:

- The Taxonomy Regulation (in force since July 2020) provides a common classification system for determining whether an economic activity qualifies as “environmentally sustainable”. The Taxonomy applies to (i) financial market participants, (ii) entities in scope of the Non-Financial Reporting Directive (NFRD), and (iii) Member States and the Union when setting out requirements for financial products considered environmentally sustainable.
- The European Green Bond standard proposal (July 2021) will create a voluntary “gold standard” for issuers seeking to use green bonds to raise funding on the capital markets.
- The Sustainable Finance Disclosure Regulation (SFDR, in force since 2019) requires financial markets participants and financial advisers to report sustainability-related information at entity and product level for the use of end investors.
- The Non-Financial Reporting Directive (NFRD, in force since 2014) applies to large public-interest companies with more than 500 employees, who need to disclose information on environmental protection, on social responsibility, on respect for human rights, and on respect for public health and safety.

<table>
<thead>
<tr>
<th>SASB Dimensions and Categories</th>
<th>Dimension</th>
<th>General Issue Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>GHG Emissions</td>
<td>Air Quality</td>
</tr>
<tr>
<td></td>
<td>Energy Management</td>
<td>Water &amp; Wastewater Management</td>
</tr>
<tr>
<td></td>
<td>Waste &amp; Hazardous Materials Management</td>
<td>Ecological Impacts</td>
</tr>
<tr>
<td></td>
<td>Human Rights &amp; Community Relations</td>
<td>Customer Privacy</td>
</tr>
<tr>
<td></td>
<td>Data Security</td>
<td>Access &amp; Affordability</td>
</tr>
<tr>
<td>Social Capital</td>
<td>Product Quality &amp; Safety</td>
<td>Customer Welfare</td>
</tr>
<tr>
<td></td>
<td>Selling Practices &amp; Product Labeling</td>
<td>Labor Practices</td>
</tr>
<tr>
<td>Human Capital</td>
<td>Employee Health &amp; Safety</td>
<td>Employee Engagement, Diversity &amp; Inclusion</td>
</tr>
<tr>
<td>Business Model &amp; Innovation</td>
<td>Business Model Resilience</td>
<td>Supply Chain Management</td>
</tr>
<tr>
<td></td>
<td>Materials Sourcing &amp; Efficiency</td>
<td>Physical Impacts of Climate Change</td>
</tr>
<tr>
<td></td>
<td>Business Ethics</td>
<td>Competitive Behavior</td>
</tr>
<tr>
<td>Leadership &amp; Governance</td>
<td>Management of the Legal &amp; Regulatory Environment</td>
<td>Critical Incident Risk Management</td>
</tr>
<tr>
<td></td>
<td>Systemic Risk Management</td>
<td>Source: SASB</td>
</tr>
</tbody>
</table>
rights, on diversity, on anti-corruption and bribery, as well as on diversity on company boards.

- The Corporate Sustainability Reporting Directive (CSRD, not yet in force) is a proposal adopted by the Commission in April 2021 to amend the reporting requirements of the above-mentioned NFRD, with the aim of bringing sustainability reporting on a par with financial reporting. The CSRD (i) extends the scope of NFRD to all large companies and all companies listed on regulated markets (except listed micro-enterprises), (ii) requires the audit (assurance) of reported information, (iii) introduces more detailed reporting requirements according to mandatory EU sustainability reporting standards, and (iv) requires companies to digitally ‘tag’ the reported information. Companies will have to report both on how sustainability issues affect their business as well as on the impact of their activities on the environment and on people.

The Taxonomy Regulation, together with the NFRD and the SFDR are the central components of the sustainability reporting requirements underpinning the EU’s sustainable finance strategy.

**Figure 1 - Sustainability reporting requirements underpinning the EU’s sustainable finance strategy**

![Diagram](image.png)

Until now, SMEs have largely been left out from sustainability reporting. Although the new CSRD proposal – planned to enter into force in 2023 - will extend the scope to include listed SMEs, the majority of smaller companies would not have this obligation (although they can report on a voluntary basis) (i) significant impacts of companies on the environment and society do not depend on their size or legal status, and (ii) the redirection of investments towards green activities should not be limited to listed firms.

In the United States, any implementation of an ESG disclosure framework by a company remains voluntary (Clarkin, Sawyer and Levin, 2020), despite public companies facing mounting pressure from investors. The picture is direr for emerging countries, which tend to have less stringent regulations and lag in implementing them (Moody’s, 2021). While in the EU, current and upcoming

---

5 Many influential institutional investors have indicated that they are in support of companies making ESG disclosures aligned with SASB and TCFD frameworks.
regulation will gradually bring some standardization of ESG information, in other countries (and particularly emerging economies) this could take much longer, in some countries even decades.

3 Methodology

The aggregation of the components of ES to obtain “sustainability-type” scores is an exercise facing problems similar to those encountered by the ESG rating agencies, and in most of the cases not fully solved by the same ESG rating agencies, i.e. i) how to assess materiality, ii) what weight to put on the components, iii) the relevance of company size.

Materiality: When selecting the relevant dimensions, it is of primary importance to assess the materiality: what is relevant for one business or one sector may be less important for another (for instance, the consumption of gasoline is significantly impacting a company active in the transport sector, but is not so relevant for an IT company). In addition, the concept of materiality should be interpreted in a dual way (the “double materiality”), accounting for both the impact that a given company has on the environment and the society, as well as the impact that ESG factors have on the company itself. Materiality typically differs across sectors: sustainability issues are likely to affect the financial conditions or operating performance of companies in a very different way across sectors.

The ES has information on the 4-digit industry the firm generates most of its revenue in, but in most countries, the sample is representative at the level of Manufacturing, Retail and Other Services (in bigger countries, the sample representativeness is more detailed, both within manufacturing and other services).

Weights: Weighting the different components (i.e. attributing importance to each component) to obtain an aggregated score is a non-trivial exercise (OECD-JRC, 2008). The ES is composed of more than 200 questions, with a subset relevant for this exercise. The redundancy of indicators may cause an underestimation of the relevant ones, as their weight in the score decreases. The main ESG rating agencies attribute significantly different weights to each component. For instance, the weight of the E component may vary from 12% to 60%. However, the divergence in ratings across the different ESG rating agencies is mainly driven by the scope of categories and their different measures, and less by the weights (Berg, Kölbl, Rigobon, 2020).

Relevance of companies’ size: Firm size is a determinant of ESG practices: larger companies typically have better ESG ratings compared to SMEs. This is partially due to not only their intrinsic ability to have more sustainable business models and better management practices, but also their ability to provide the ESG rating agencies with adequate information (Berg, Kölbl, Rigobon, 2020).

Our novel “Corporate ESG Responsibility” composite indicator derived from the ES is inspired by the ESG ratings produced by the ESG rating agencies, but it does not follow any of them closely. It relies more on the structure of the Sustainability Accounting Standards Board (SASB).

---

6 This is recognized by some ESG rating agencies and some Standards. For instance, the Sustainability Accounting Standard Board provides a matrix for assessing the materiality (SASB Materiality Map).

7 Utilities, financial companies, and public sector entities are excluded from ES.
Taking into account the above mentioned challenges and the available benchmarks, the “Corporate ESG Responsibility” composite indicator has been built taking the following steps:

i. Assess the entire questionnaire of the Enterprise Survey (more than 200 questions) and select the questions related to ESG practices, allocating them to each pillar (E, S, or G).

ii. Identify the sub-pillars of E, S and G, and the respective variables, based on relevant frameworks such as SASB and on their relevance in the assessments of the main ESG rating agencies, aiming at identifying a “common denominator” among agencies and standard frameworks.

iii. Match the topics (i.e. set of questions) covered by the ES with the main building blocks and the sub-pillars used by SASB and ESG rating agencies.

iv. Align the sub-pillars with SASB standards to the maximum possible extent. We included 3 sub-pillars for E (Environmental awareness, Green management practices, Green measures\(^8\)), 3 for S (Gender, Education & skills, Training), and 5 for G (Corporate governance, Management practices, Internal controls & audit, Compensation, Innovation).

v. Manage missing data,\(^9\) use imputation when possible (in line with the OECD-JRC Handbook on Constructing Composite Indicators methodology; OECD-JRC, 2008). In the case of filter questions, answers are imputed to replace some missing values when this is logically straightforward. Answers in the Enterprise Survey can be binary (yes/no), discrete (when various answers are possible), or continuous (a percentage for instance). Others were transformed into percentages.

vi. Reduce the 60 ESG-related initial questions to 40, for one of the following reasons: i) too many missing data: if more than 55% of answers are missing, (e.g. because some questions are not asked from all firms due to eligibility or based on the sector they belong to), the component is excluded; ii) redundancy of some of the questions: if highly correlated with other variables/questions, they are not adding relevant information.

vii. Transform the variables (21 related to E, 6 to S and 13 to G for a total of 40) into z-scores with mean 0 and standard deviation 1 (a z-score of 1.0 would indicate a value that is one standard deviation from the mean) over the sample including all 41 economies and companies covered in the ES.

viii. Calculate sub-pillar, pillar (E, S, G), and the overall composite indicator (ESG index) aggregating the z-scores.

ix. Weigh the main building blocks (E, S, G) and the sub-pillars taking into account their relevance; the components within each sub-pillar, however, are equally weighted. The weight for E has been set at 40%, the one for S at 25%, the one for G at 35%.\(^10\)

x. Perform various other robustness checks:
  - Correlation matrices
  - Benchmarking of different versions of scores built using different definitions in terms of: 1. Inclusion, or not, of specific sub-pillar; 2. Different weights

---

\(^8\) “Environmental awareness” is related to monitoring and target setting; “Green management” is related to the strategic objectives, to managerial responsibility of green targets and to green certifications; “Green measures” are the investments done by firms to improve their environmental impact. The latter can be pure green investments (energy management, waste minimization, air pollution control measures, more climate-friendly energy generation on site, etc.) or mixed green investments (that reduce the environmental impact as a byproduct of achieving other objectives: heating and cooling improvements, machinery and equipments upgrades, upgrade of vehicles, improvements of lighting system, etc.) (EBRD, 2020).

\(^9\) Missing values partially result from directly instructing companies to answer only questions relevant to them rather than receiving non-response from them. Answers can include refusal or don’t know, which are also typically treated as missing in the analysis, but can sometimes be used as valid information – this is determined on a question-by-question basis.

\(^10\) Scores where each component has the same importance have been tested as well.
xi. Generate the final output, represented by firm level “Corporate ESG Responsibility” scores and its building blocks (E, S, and G).

xii. Aggregate firm-level scores by sector, economy and company size for analysis and comparisons.

**Figure 2 - Building the firm-level “Corporate ESG Responsibility” composite indicator**

**Figure 3 - “Corporate ESG Responsibility” composite indicator: building blocks (left) and Enterprise Survey questions (right)**

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Sub-pillar</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Environmental Awareness</td>
<td>Monitor/ external audit/ targets of energy consumption, CO2, water pollution</td>
</tr>
<tr>
<td></td>
<td>Green Management</td>
<td>Strategic objectives mentioning environment, manager responsible, certifications</td>
</tr>
<tr>
<td></td>
<td>Green Measures</td>
<td>Heating and cooling improvements, upgrade of machines and of vehicles, etc.</td>
</tr>
<tr>
<td>S</td>
<td>Gender</td>
<td>Female owners, female top managers, female employees</td>
</tr>
<tr>
<td></td>
<td>Education and Skills</td>
<td>Secondary school completion</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>Formal training programs</td>
</tr>
<tr>
<td>G</td>
<td>Corporate Governance</td>
<td>Written business strategy with KPIs, board of directors, meeting with suppliers</td>
</tr>
<tr>
<td></td>
<td>Management Practices</td>
<td>Monitor performance indicators, production targets, promotion of non-managers</td>
</tr>
<tr>
<td></td>
<td>Internal Controls &amp; Audit</td>
<td>Certified fiscal statement, internationally-recognized quality certification</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>Performance bonuses for managers</td>
</tr>
<tr>
<td></td>
<td>Innovation</td>
<td>R&amp;D, purchase of fixed assets, use of technology from foreign company</td>
</tr>
</tbody>
</table>

Note: E – environmental; S – social; G – governance.

4 Main results: Small and medium-size enterprises in MENA show significant gaps

Looking at the average performance of our firm-level “Corporate ESG Responsibility” composite indicator, firms in emerging economies are lagging behind significantly in terms of ESG practices. South EU and Central and Eastern Europe perform better, followed respectively by Central Asia,
Eastern Neighborhood\textsuperscript{11} and Western Balkans, while firms in MENA, the Russian Federation and Turkey are among the worst performers. Among emerging economies, we focus on Middle East and North African countries: as mentioned, MENA countries are exposed to climate change (heat, water scarcity, sea level rise) and they are in urgent need to green their growth model (the region has seen CO2 emissions in absolute terms and even in per capita terms rising during the last years). Some of the MENA countries are the worst performers across the entire spectrum of the countries covered by the Enterprise Survey. The average MENA country’s performance is significantly worse than the average of both the Upper Middle Income countries (UMI) and the Lower Middle Income countries (LMI) as well. At the same time, MENA economies may also offer a potential for larger improvements of the ESG practices once the problem is recognized and appropriate policy actions are taken into consideration.

**Figure 4 - Average quality of Corporate ESG Responsibility composite indicator in emerging countries (z-score)**

![Diagram showing z-scores for different regions](image)

Note: Z-scores are calculated based on the entire Enterprise Survey sample. Corporate ESG weights: 40% for E, 25% for S, 35% for G. The abbreviations refer to the following countries: CEE: Central and Eastern Europe; WB: Western Balkans; CA: Central Asia; EN: Eastern Neighborhood. Source: Authors’ calculations based on Enterprise Survey data

Within the MENA region, the Arab Republic of Egypt and the West Bank and Gaza have the highest potential for improvement in terms of firms’ ESG practices, followed by Lebanon and Morocco. Egypt and the West Bank and Gaza appear to be not only the worst among MENA economies, but also the worst across the 41 economies covered by the ES. Lebanon and Morocco also appear to be in a weak position compared with other emerging countries. Jordan and Tunisia are the best performers among MENA economies, thanks to relatively positive results on firms’ governance, but their performance is not better than the average of emerging economies.

\textsuperscript{11} Central and Eastern Europe (CEE): Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia; Western Balkans (WB): Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia; Central Asia (CA): Kazakhstan, Mongolia, Tajikistan, Uzbekistan; Eastern Neighborhood (EN): Armenia, Azerbaijan, Belarus, Georgia, Moldavia, and Ukraine.
Figure 5 - Average quality of Corporate ESG Responsibility composite indicator (z-score)

Note: Z-scores are calculated based on the entire Enterprise Survey sample. Corporate ESG weighted: 40% for E, 25% for S, 35% for G. Source: Authors’ calculations based on Enterprise Survey data.

Figure 6 - Average quality of Corporate ESG Responsibility composite indicator, by country (z-score)

Note: Z-scores are calculated based on the entire Enterprise Survey sample. Corporate ESG weighted: 40% for E, 25% for S, 35% for G. Source: Authors’ calculations based on Enterprise Survey data.

The absolute level of the Corporate ESG Responsibility composite indicator should be considered taking into account the level of economic development of the country. The Corporate ESG Responsibility composite indicator is positively correlated with income levels (expressed in the chart below in terms of GDP per capita of 2020, in Purchasing Power Parity): higher incomes are correlated with better average ESG practices. Jordan, Tunisia and Morocco appear to have average quality of ESG practices coherent with their level of income (low income, low ESG). Lebanon, the West Bank and Gaza, and Egypt, on the other hand, have lower average quality of ESG practices than expected given their level of economic development.
Figure 7 - Average quality of Corporate ESG Responsibility composite indicator and income levels (in terms of per capita GDP, in PPP, 2020)

Note: Z-scores are calculated based on the entire Enterprise Survey sample. Corporate ESG weighted: 40% for E, 25% for S, 35% for G. Regression line is based on the sample of the 41 countries covered in the Enterprise Survey. Source: Authors’ calculations based on Enterprise Survey data and IMF (World Economic Outlook, October 2021).

Figure 8 - Average quality of Corporate ESG Responsibility pillars (composite indicator, z-score)

Note: Z-scores are calculated based on the entire Enterprise Survey sample. Corporate ESG weighted: 40% for E, 25% for S, 35% for G. Source: Authors’ calculations based on Enterprise Survey data.

Assessing the ESG pillars separately, MENA countries’ poor performance is mainly driven by the environmental component and the social component. From the weak performance on green aspects among MENA economies – the lowest performance after Russia – Morocco is the only exception, with a better environmental score. The governance component, on the other hand, has a better performance than the E and S among MENA firms, due to the positive results of Jordan, Lebanon and Egypt.
**Figure 9 - Average quality of Corporate ESG Responsibility pillars in MENA countries**

(composite indicator, z-score)

![Average quality of Corporate ESG Responsibility pillars in MENA countries](image)

Note: Z-scores are calculated based on the entire Enterprise Survey sample. Corporate ESG weighted: 40% for E, 25% for S, 35% for G. Source: Authors’ calculations based on Enterprise Survey data.

MENA countries’ social component score, on the other hand, is the lowest among all regions. The gender subcomponent – which, together with education and training of the workforce, is determining the S component – is particularly weak. Female participation in the workforce in MENA countries is low: the share of female workers in MENA (considering the firms that are part of the Enterprise Survey) is 25%, significantly lower than in the other areas (apart from Turkey). The female representation in management is poor: only 5% of MENA firms have females in management, while this ratio is more than 20% in Russia, Central and Eastern Europe and Central Asia. At the country level, Morocco and Tunisia have more female participation in the workforce (higher than 30% of total workforce in the Enterprise Survey sample) and Tunisia has a better performance in terms of presence of female management as well (10% of the firms). In this respect, the West Bank and Gaza and Jordan have the lowest presence of females in management (1% and 3% of firms respectively), with Lebanon, Morocco and Egypt around 5%-6%.

**Figure 10 – Female participation** (percentage on total)

![Female participation](image)

Source: Authors’ calculations based on Enterprise Survey data.
As described earlier, ESG practices differ by sector. Since the ES sample is representative in a relatively small number of sectors, there is limited room for deeper analysis. Firms in the manufacturing sector tend to have the highest “Corporate ESG Responsibility” composite indicator, while firms in the retail sector tend to have the lowest. Firms in MENA countries have a poor performance across all sectors, with the retail segment - where small companies are more prevalent - showing the worst results. The manufacturing sector in MENA is significantly weaker than manufacturing in most of the other regions in terms of ESG practices.

Figure 11 - Average quality of Corporate ESG Responsibility, by sector and region (composite indicator, z-score)

Our “Corporate ESG Responsibility” composite indicator not only confirms that company size matters for Corporate ESG Responsibility practices - SMEs are the weakest in terms of ESG performance - but it also gives an idea of the relevance of the gaps. It is well documented that company size appears among the relevant drivers of a firm’s ability and willingness to implement sustainable business practices (Moody’s, 2021). Especially for social and governance aspects, larger companies tend to be more structured in terms of procedures, audits and control systems, and they are scrutinized in more detail by authorities, unions and investors, in terms of labor rights and other social and governance aspects (and in recent years also regarding environmental practices). Governance practices are by far more developed for large, listed companies. Large firms tend to appear greener perhaps because they are more resourceful (Oh and Noh, 2021). Such findings even raise the question of whether the way the ESG scores measure corporate sustainability gives an advantage to larger firms with more resources, while not providing the investors with the information needed to make informed decisions (Drempetic, Klein and Zwergel, 2020).
The “Corporate ESG Responsibility” composite indicator shows that small companies (with fewer than 20 employees) are the weakest in terms of ESG performance in each region. Small firms in MENA are the worst performers across all economies and categories. Medium-sized firms (20-99 employees) in MENA are the worst among medium-sized firms in other countries, with the exception of Turkey and Russia. In addition, firms with at least 100 employees (“Large” according to Enterprise Survey definition) in practically any region score better than small firms in the best performing regions of South or Central and Eastern Europe.

**Figure 12 - Average quality of Corporate ESG Responsibility, by size and region** (composite indicator, z-score)

![Graph showing average quality of corporate ESG responsibility by size and region](image)

**Z-score calculation is based on the Enterprise Survey sample of 41 countries. Corporate ESG weighted: 40% for E, 25% for S, 35% for G. CEE: Central and Eastern Europe; WB: Western Balkans; CA: Central Asia; EN: Eastern Neighborhood; MENA: Middle East and North Africa. Source: Authors’ calculations based on Enterprise Survey data.**

There are several factors that may explain the large differences in corporate ESG responsibility composite indicator scores across firms within a given country. Besides the firm’s sector, these include other firm characteristics such as size, age and ownership, as well as external factors such as customer or regulatory pressure, and experiencing environmental and climate change-related problems.

Looking at firms in MENA, customer pressure is the most important determinant of the quality of corporate ESG responsibility practices. Indeed, estimates from a firm-level regression (Figure 11) indicate that firms whose customers require environmental certifications or adherence to certain environmental standards as a condition of doing business with them on average have better corporate ESG responsibility practices than firms whose customers do not require this. This is closely followed by whether a firm is an exporter. Several other determinants also play a role, such as being a large, old firm, having experienced monetary losses due to pollution by others or due to extreme weather events, or having at least 25% foreign ownership. Such results regarding the determinants of the “Corporate ESG Responsibility” composite indicator for firms in MENA countries are similar to those of the entire sample of emerging economies in the ES. The only relevant differences appear being a listed firm (as listed companies have better ESG practices.

---

12 The Enterprise Survey thresholds are small – fewer than 20 employees; medium-sized – 20-99 employees; large: at least 100 employees.
among emerging markets but not in MENA) and being subject to the energy tax (firms subject to energy tax have better ESG performance in emerging markets but not in MENA).

**Figure 13 - Determinants of “Corporate ESG responsibility” composite indicator for MENA countries**

![Figure showing determinants of corporate ESG responsibility](image)

Note: This figure shows the standardised coefficients from a regression estimated using weighted ordinary least squares. The dots represent standardised coefficient estimates, and the lines represent the 95% confidence intervals. Regression includes the variables shown in the figure and controls for locality size; it also includes country, sector, accuracy and truthfulness fixed effects, and uses robust standard errors. Young firms are defined as those less than 5 years old. SMEs have fewer than 100 employees. Foreign-owned firms are those with at least 25% foreign ownership. Sectors are based on ISIC Rev. 3.1. Emission-intensive sectors include paper and paper products (21), printing and publishing (22), coke and petroleum (23), chemical products (24), rubber and plastic products (25), non-metallic mineral products (26), basic metals (27), land transport (60), water transport (61) and air transport (62).

Source: Enterprise Surveys and authors’ calculations.

### 5 Conclusion

The information (i.e. set of questions and respective answers) contained in the Enterprise Survey (ES) - administered by the World Bank (WB), the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB) – has been used to build a firm-level “Corporate ESG Responsibility” composite indicator. The indicator contains a large set of firm-level information on private sector actions regarding environmental, social and governance practices. The survey’s questions, which were asked before the Covid-19 pandemic, have been aggregated to match the main Environmental, Social and Governance (ESG) pillars and sub-pillars and generate a synthetic index. Such composite indicator does not fully match any ESG standard, including the variegated approaches of ESG rating agencies, but it is based on a similar logic and it is inspired by such methodologies (especially by SASB standards). The aim of building such composite indicator is not to reproduce ESG scores of listed large companies to serve investors’ needs or to add another ingredient to the “alphabet soup” (the ESG acronym-heavy measurement and reporting standards), but to shed some light on the ESG aspects related to smaller companies in emerging countries, which are not covered by ESG agencies.
The main advantage of such approach is indeed related to its unique coverage, as it captures 28,000 firms, mainly Small and Medium Enterprises (SMEs), in selected emerging countries (more than 40 countries covered by the Enterprise Survey), which is exceptional among the ESG scores already available on the market. Indeed, ESG disclosure covers mainly large, listed firms, while the large majority of companies is neither subject to it nor is assessed regarding ESG aspects. EU regulation, which is the most advanced worldwide on ESG topics, will gradually enlarge the spectrum of companies covered, but SMEs’ disclosure will remain extremely limited. In the United States, any ESG disclosure remains voluntary, while the situation in emerging countries is by far worse (no visibility on ESG topics of non-listed firms).

The “Corporate ESG Responsibility” composite indicator suggests that firms in emerging economies lag significantly in terms of ESG practices. South EU and Central and Eastern Europe perform better, followed respectively by Central Asia, the Eastern Neighborhood, and the Western Balkans, while firms in Middle East and North Africa (MENA), Russia and Turkey are among the worst performers. Among emerging economies, our analysis focused on firms in the Middle East and North Africa as some of those countries are in urgent need to decarbonize their economies. They have seen their CO2 emissions rising in absolute terms and also in per capita terms during the last years, and are significantly exposed to climate change (especially to climate “chronic” risk, and heat and water scarcity in particular) and the social development (including gender issues) is lagging. MENA economies are the worst performers across the entire spectrum of the economies covered by the ES in terms of Environmental, Social and Governance practices. Egypt and the West Bank and Gaza appear to be the worst among the MENA economies, followed by Lebanon, but also the worst among the 40 economies covered by the ES. MENA economies’ poor performance is mainly driven by the social component (worst performer among all regions, especially due to the gender subcomponent, as female representation in the workforce and among management is much lower than in other areas) and by the environmental component (second worst performer after Russia). Jordan, Tunisia and Morocco have ESG scores more in line with their level of economic development (represented by their per capita income).

Our composite indicator shows that SMEs’ Corporate ESG Responsibility practices lag those of large firms, particularly in emerging economies such as those in MENA. SMEs, which provide a staggering 70% of employment worldwide (ILO, 2019), face major challenges when it comes to working conditions, productivity and informality. Small firms in MENA are the worst performers across all economies and categories.

Poor ESG practices in emerging countries, especially for SMEs, call for urgent policy action to address such weaknesses:

SMEs’ ESG aspects, but also those of micro enterprises, cannot be neglected or addressed at a later stage. The challenges of the green and social transitions cannot be met without the timely involvement of SMEs.

ESG practices should not be left solely in the realm of financial investors: commercial banks also need to assess the ESG performance of borrowers, SMEs included; insurance companies need to evaluate the ESG risks; and public authorities, national and local, must also be interested in the ESG risks of the non-listed companies in their territories. Consequently, disclosure and target setting on ESG topics cannot be confined to large, listed firms (mainly in developed markets), as
is currently happening. And it cannot be confined to the European Union markets, which is setting numerous standards in this regard.

ESG information disclosure should become “at par” with financial information – sharing the same rigor, level of implementation and enforcement, quality control systems and IT infrastructures.

In this sense, it is important to evaluate and quantify the gaps and take action subsequently, designing a roadmap for SMEs and emerging markets on ESG topics.

Governments or international financial institutions should scale up support to improve SMEs’ ESG practices and provide help on the ground to fill the biggest gaps.

In conclusion, the transition towards a more sustainable business environment at the global level cannot be successful unless a broader spectrum of companies - including SMEs in emerging economies - are fully part of the game.

6 References


European Banking Authority (EBA), On management and supervision of ESG risks for credit institutions and investment firms, EBA Discussion Paper, EBA/DP/2020/03, 2020


Financial Times, Big Four accounting firms rush to join the ESG bandwagon, 30 August 2021 Big Four accounting firms rush to join the ESG bandwagon | Financial Times (ft.com)


Haralampieva, V., Ramping Up Climate Action by Enhancing Companies' Governance Framework, Law in Transition Journal, 2019  [Articles | EBRD LiT 2019 (lit-ebrd.com)]

ILO, Small matters, Global evidence on the contribution to employment by the self-employed, micro-enterprises and SMEs, International Labour Organization, 2019

ILO, The power of Small: Unlocking the potential of SMEs, International Labour Organization, October 2019


Moody's, ESG Score Predictor: Applying a Quantitative Approach for Expanding Company Coverage, July 2021  
60ec66d0af57878032604495_ESG Score Predictor_090721.pdf (website-files.com)

SASB, SASB Conceptual Framework and Rules of Procedure  
[Academic ESG data review | PRI Web Page | PRI (unpri.org)]


## 7 Annex

Enterprise Survey: questions used to build the “Corporate ESG Responsibility” composite indicator

<table>
<thead>
<tr>
<th>Component Sub-Component</th>
<th>Question</th>
<th>N. Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>S Gender</td>
<td>Amongst the owners of the firm, are there any females?</td>
<td>28,161</td>
</tr>
<tr>
<td>S Gender</td>
<td>What percentage of the firm is owned by females?</td>
<td>8,136</td>
</tr>
<tr>
<td>S Gender</td>
<td>Is the Top Manager female?</td>
<td>28,161</td>
</tr>
<tr>
<td>S Gender</td>
<td>How many full-time seasonal or temporary employees were female (in %)?</td>
<td>6,666</td>
</tr>
<tr>
<td>S training</td>
<td>Did this establishment have formal training programs for its permanent, full-time employees?</td>
<td>28,157</td>
</tr>
<tr>
<td>S education</td>
<td>% of full-time permanent workers employed which completed secondary school</td>
<td>15,710</td>
</tr>
<tr>
<td>G Corp Governance</td>
<td>Does this firm have formalized, written business strategy with clear key performance indicators?</td>
<td>27,732</td>
</tr>
<tr>
<td>G Corp Governance</td>
<td>Does the firm have a board of directors or a supervisory board?</td>
<td>27,732</td>
</tr>
<tr>
<td>G Corp Governance</td>
<td>Was this establishment formally registered when it began operations?</td>
<td>28,161</td>
</tr>
<tr>
<td>G Corp Governance</td>
<td>In a typical week, how often does the top manager meet with suppliers?</td>
<td>8,553</td>
</tr>
<tr>
<td>G Manag. Practices</td>
<td>how many performance indicators were monitored at this establishment?</td>
<td>9,476</td>
</tr>
<tr>
<td>G Manag. Practices</td>
<td>Did this establishment have production targets?</td>
<td>14,825</td>
</tr>
<tr>
<td>G Manag. Practices</td>
<td>What was the primary way non-managers were promoted?</td>
<td>14,825</td>
</tr>
<tr>
<td>G Audit</td>
<td>Does this establishment have an internationally-recognized quality certification?</td>
<td>28,161</td>
</tr>
<tr>
<td>G Audit</td>
<td>Did this establishment have its financial statements checked and certified by an external auditor?</td>
<td>28,158</td>
</tr>
<tr>
<td>G Compensation</td>
<td>Did this establishment have performance bonuses for managers?</td>
<td>14,825</td>
</tr>
<tr>
<td>G Innovation</td>
<td>Does this establishment use technology licensed from a foreign-owned company (excl. software)?</td>
<td>28,160</td>
</tr>
<tr>
<td>G Innovation</td>
<td>Did this establishment spend on research and development activities within the establishment?</td>
<td>27,731</td>
</tr>
<tr>
<td>G Innovation</td>
<td>Did this establishment purchase any new or used fixed assets (such as machinery, vehicles, etc.)?</td>
<td>28,159</td>
</tr>
<tr>
<td>E Green manag.</td>
<td>did this firm have strategic objectives that mention environmental or climate change issues?</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green manag.</td>
<td>whom did the manager responsible for environmental issues directly report to?</td>
<td>2,823</td>
</tr>
<tr>
<td>E Green manag.</td>
<td>did any of the customers require environmental certifications as a condition to do business?</td>
<td>27,383</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>How often did this establishment monitor its energy consumption?</td>
<td>14,620</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>Did this establishment complete an external audit of its energy consumption?</td>
<td>14,620</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>Over the last three years, did this establishment emit CO2?</td>
<td>27,381</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>did this establishment monitor CO2 emissions along its supply chain?</td>
<td>27,383</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>what sort of targets for energy consumption did this establishment have?</td>
<td>7,158</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>what sort of targets for CO2 emissions did this establishment have?</td>
<td>1,355</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>Did this establishment adopt any measures to enhance energy efficiency?</td>
<td>27,383</td>
</tr>
<tr>
<td>E Environ. Awareness</td>
<td>Did this establishment use energy from its own renewable sources?</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Heating and cooling improvements</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: More climate-friendly energy generation on site</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Machinery and equipment upgrades</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Energy management</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Waste minimization, recycling and waste management</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Air pollution control measures</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Water management</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Upgrades of vehicles</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Improvements to lighting systems</td>
<td>27,383</td>
</tr>
<tr>
<td>E Green measures</td>
<td>Measures adopted: Other pollution control measures</td>
<td>27,383</td>
</tr>
</tbody>
</table>

Note: number of observations is representing the number of firms answering to the specific question (before imputation – see chapter 3 on methodology)