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Impact of 2023 ESG norms reinforcement on sectors

EXECUTIVE SUMMARY

Coface Economic Research department's first study dealing with the impacts of Environmental, Social, and Governance (ESG) norms pursues two main objectives. The first is to explain how we analyse their impact on sectors for which we produce risk assessments (**see Table 1**). The second is to explain whether there are 'frontrunners' and 'laggards' within these sectors, notably through the path to net zero, which is definitely of utmost importance when one wants to consider the ESG framework.

It is worth mentioning that our sector risk assessment methodology incorporates aspects related to ESG, in the "sector structural changes" criteria². Through the latter, we also analyse other elements, such as the impact of transformative innovations in a selected sector. We can quote the emergence and rapid expansion of electric vehicles worldwide in the automotive sector or the future development of autonomous cars as examples.

Several actors, both public and private, have promoted ESG related concepts for a long time, particularly the necessity to reduce greenhouse gas (GHG) emissions due to human activities. Moreover, in many advanced economies, companies' executives have to disclose some insights on social and governance issues within their organization. Finally, in this context, they have to make sure the company's functioning complies with national labour laws and social regulations in place.

Since the first COP³ in 1995 at least, and the establishment of the UN Sustainable Development Goals (SDG) in 2015 (**see Table 2**), public regulators worldwide have been working to push private sector companies to reduce their GHG emissions and to contribute to the SDG achievement. The key question is: what is new in the ESG criteria framework and why do companies have a strong incentive to comply?

There are two main reasons for them to comply. First, the reputational risk for companies should they not respect ESG criteria. Contrary to the previous way of looking at GHG emissions of a company or a product's 'carbon footprint', these ESG criteria look at the whole value chain of a company and its products are taken into account, in a holistic way (through the whole life cycle). Second, by complying with these criteria, companies gain greater access to financing, since monetary authorities are starting to scrutinize them. For instance, in October 2022, the European Central Bank (ECB) started the purchase of corporate bonds, guided by climate scores. This is part of the ECB's wider objective to include climate change considerations in the Euro system monetary policy. In practice, and given these developments, financial actors (banks, insurers) have a strong incentive to look at the compatibility of their clients' activities with the ESG framework, having in mind those criteria from now on, even if some of them are not yet targeted by ESG-related regulations. Looking forward, they are likely to be increasingly reluctant to finance activities or companies that do not comply with ESG criteria. In a way, 'green finance'⁴ is gradually spreading to the entire financial system.

1 - According to the UN Climate Action definition, net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.

2 - See Coface Barometer, A cold chill on the global economy, October 2022, for an overview on our Sector risk assessment (SRA) methodology p.13.

3 - For nearly three decades, the United Nations (UN) has been bringing together almost every country for global climate summits – called COPs –, which stands for 'Conference of the Parties'.

4 - According to the World Economic Forum, at its simplest, green finance is any structured financial activity – a product or service – that has been created to ensure a better environmental outcome.

It includes an array of loans, debt mechanisms and investments that are used to encourage the development of green projects or minimize the impact on the climate of more regular projects, or a combination of both.

End 2022, the European Union parliament adopted new reporting rules for large companies, named Corporate Sustainability Reporting Directive (CSRD)⁵. CSRD's objective is to ensure that the transparency on environmental, social affairs and governance matters will become the norm for all large firms in the European Union (EU). The new EU sustainability reporting requirements will apply to all large companies, whether listed on stock markets or not. It will also apply to some subsidiaries of large foreign corporates. Consequently, all large companies in the EU will need to disclose data on the impact of their activities on people and the planet, as well as on any sustainability risks they face. With this directive, the EU authorities want to make sure that investors would have access to reliable data regarding sustainability reporting. The directive came into force this month, although the new rules would start applying between 2024 and 2028.

EU authorities are indeed at the forefront of those regulations. 2023 will be a key year, since similar regulations will be adopted in other regions, like in Asia, to push companies to proceed with these extra financial information disclosures. For now, regulations tend to focus on the Environmental dimension of ESG. Therefore, so does this article.

In the long-term, the question of the harmonization of these different regulations is at stake. A market for ESG risk rating businesses has developed, with several companies providing services to large and listed companies currently targeted by those regulations, particularly in Europe and in the US. Obtaining such ESG risk ratings contributes to companies' potentially good communication on their corporate social responsibility (CSR) policies⁶. However, academic researchers highlight some limits at this stage in the methodologies used with ESG ratings. It seems that the wealthier a company is, in terms of sales, the higher its ESG ratings tend to be. Indeed these companies have resources to dedicate for consultants and internal resources to communicate at best on both their CSR policies and extra financial sustainability results. This raises the question of the relevance and possibility for smaller companies (SMEs) to comply with ESG criteria, when they will be formally targeted by the regulations. This situation might partly explain why SMEs do not fall yet under the scope of the EU regulations.

Regarding the need to reduce GHG emissions, companies in sectors that are structurally heavy GHG emitters (if you look at scope 1 and 2⁷, linked to direct and indirect emissions in a sector) will clearly be the most affected. For sectors we look at, the most at risks are petrochemicals and power generator (related to fossil fuels) companies in the energy sector⁸. Moreover, among them, companies that have not embarked on transition to develop business opportunities in other types of energies are particularly exposed. The metals sector, another big GHG emitter for its production processes, lies in an odd situation. On the one hand, as a large emitter, it could belong to the most at risk group, but on the other, it is a key sector for the 'net zero' transition. Renewable energy equipment such as solar panels are made with rare earths, while electric vehicle batteries (EV) require lithium or cobalt. For instance, the latter is largely extracted in the Democratic Republic of Congo (DRC), where there have been allegations of child labour⁹ in local artisanal mines. This highlights the limits, contradictions and difficulties to identify clearly 'winning sectors'. Among sectors we monitor, frontrunners are some subsectors such as the EV industry (part of the automotive sector), the agricultural segment of the agri-food sector (with organic and sustainable agricultural activities), as well as the wood sector. These are sectors where companies have dealt with ESG-related issues at an early stage. Therefore, they are somewhat better prepared to adapt to ESG regulations.

Another challenge while looking at energy transition issue lies in potential conflicts of interest between governments' national interests in implementing restrictive ESG norms targeting their large GHG emitting national companies, which are also important employers and/or large contributors to public revenues through taxes. Moreover, with those regulations, public authorities have to deal with the necessity to boost the global economy's transition toward 'net zero', while heavy GHG emitting fossil energies remain necessary and are currently hard to entirely substitute.

In the long run, beyond contributing to the SDG achievement, the global economy's 'net zero' transition and its implementation can also create huge opportunities for some companies. This is the case, for instance, for companies in the construction sector in Europe, with the EU Renovation Wave, which is part of the European Green deal and plans the renovation of 35 million building units by 2030. Similarly, the large investment plan worth USD 550 billion of new expenses as part of the US Bi-partisan Infrastructure Act, signed in 2021 for a period of over 10 years, is another example. The 'net zero transition' in itself is also 'auto generating' an ecosystem of new businesses and economic opportunities, including activities aiming to ensure energy efficiency, or that take part to the circular economy¹⁰, promoting the sale of recycled products. This is notably the case in the retail and textile-clothing sectors, with the large development of second hand markets for many years¹¹.

Table 1 - Sectors covered by Coface's Sector Risk Assessment methodology



Table 2 - UN Sustainable Development Goals



Source: United Nations

5 - <http://data.europa.eu/eli/dir/2022/2464/oj>.

6 - Besides, it is worth mentioning that Coface, as a private multinational company, is committed to corporate social responsibilities, that can be assessed using ESG criteria. Coface CSR policy is available public web site: <https://www.coface.com/Group/Corporate-Social-Responsibility>.

7 - See definitions p4 of this study.

8 - The chemicals sector for Coface's SRA methodology integrates three different type of activities: petrochemicals, specialty chemicals and fertilizers. For the energy sector, in our methodology, we take into account companies operating in renewables and fossil fuel activities. Empirically, as part of their transition toward 'net zero emissions', some multinational companies that have historically dealt with fossil fuels have also developed renewables activities.

9 - Despite NGOs and authorities' efforts to address the issue.

10 - As per the EU parliament definition, the circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended. In practice, it implies reducing waste to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible. These can be productively used repeatedly, thereby creating further value.

11 - Energy efficiency can be defined as the ability of an entity (company, households etc.) to reduce its energy consumption while performing a task, notably by reducing waste.

Insights of ESG norms that apply to companies

What do ESG and CSR mean?

The internationally recognized acronym ESG stands for Environmental, Social and Governance. It is a concept closely linked to the Corporate Social Responsibility (CSR).

ESG designates criteria that allow an extra-financial analysis of a company. By reading them, anyone can find out whether a company is implementing a socially responsible strategy, and in particular, how it behaves with the environment and its stakeholders, that is to say its employees, partners, subcontractors and customers. In other words, we call ESG analysis the measurement performance of a company.

The environmental criterion will display, among other parameters, a company's waste management policy, its efforts to reduce greenhouse gas (GHG) emissions in its activities, and whether it is committed to prevent all environmental risks in its activity. The social criterion takes into account the prevention of accidents and psychosocial risks, staff training, respect for employee rights, the organization of the subcontracting chain and the quality of social dialogue (see Box 1). The governance criterion verifies the independence of the board of directors, the distribution between men and women within the management team, the management structure and the presence of an audit committee.

Added to a purely financial evaluation, these criteria therefore make it possible to enlighten the investor, in another way, on the strategy of a company. These ESG criteria are at the heart of the labelling process for Socially Responsible Investment (SRI) funds, thus ensuring a balance between the search for performance and the responsible orientation of one's savings.

Classification of GHG Emissions: scope 1, 2 and 3

The GHG Protocol Corporate Standard¹² classifies a company's GHG emissions into three 'scopes'. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions (not included in Scope 2) upstream and downstream in the value chain, including that of end users. Scope 1 and 2 are those on which an organization has the most control: companies will normally have the source data needed to convert direct purchases of gas and electricity into a value in tons of GHGs. For many businesses, Scope 3 emissions account for more than 70% of their carbon footprint.

Main GHG emissions directly linked with human activities, as defined by the Kyoto Protocol¹³, include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and F-gases (that is to say: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆); used in insulating aerosols, foams and semiconductors, and formerly in refrigeration systems).

Box 1

WHAT ABOUT SOCIAL AND GOVERNANCE ISSUES IN ESG?

As mentioned earlier in the study, when looking at ESG norms, so far, regulators tend to focus on environmental aspects. Three main reasons explain that. First, in democratic countries in particular, there are official labour and social laws that apply to social and governance (S&G) issues in organizations, notably the private sector. Moreover, at the supranational level, some S&G issues are also captured by the UN International Labour Organization norms.

Finally, part of the S&G norms that are analysed in the ESG framework were previously captured by other types of company risk assessment methodologies. For instance, ratings agencies' corporate rating methodologies incorporated criteria related to social and governance issues before the progressive formal integration of ESG norms such as Fitch's ESG Relevance Scores. These metrics show to what extent ESG issues affects corporate credit ratings scores.

Obviously, the social and governance aspects of ESG have more impact because they are supported by public authorities and, in the long-term, can have financial consequences for companies that would not comply. A company that would face a reputational risk for breaching ESG norms, because of a scandal for example, could face financial consequences, as its reputation would have been damaged. For instance, Teleperformance, a French subcontractor of Byte Dance -the Chinese company that commercialized TikTok -, faced in end-2022 a controversy over its management practices in Colombia (inadequate psychological support, impossible performance targets), despite overall good ESG ratings. The Colombian authorities started investigating the issue. Then the company's share fell by 35% last November, due to the financial markets reacting to news about an investigation led by the Colombian ministry of Labour.

Since the EU authorities are at the forefront of ESG norms worldwide, we take the example of how they approach S&G criteria in this box. Following consultation and discussions at European level, metrics were added at the end of November 2022 in the European Sustainability Reporting Standards, available on the EFRAG web site. A first wave of companies will be affected by the publication in 2025 of reports on the year 2024.

Through the proposals presented to public consultation in April 2022, the European technical body EFRAG outlines social and governance topics to be integrated into companies' non-financial reports', such as:

- With regard to employees, working conditions (training, work-life balance, social security, health, fair income, number of hours), equal opportunities (discrimination, equal pay, permanent jobs, enjoyment of the abovementioned working conditions) and employment rights (freedom of association, collective bargaining, child and forced labour, right to confidentiality, housing adequacy) must be explained.
- More broadly, concerning workers in the value chain, the company must be able to describe and anticipate the effects as well as the risks and opportunities of its products on workers, its activities and the supply chain; its dependency on workers; the effects on value-added of worker-related risks.
- Regarding the populations, the company must be able to prove its compliance with the laws in force (economic, social, cultural, civil, political and indigenous customary rights).
- Regarding consumers and end users, the company must be able to demonstrate its vigilance on issues related to information (confidentiality, freedom of expression and access to information), safety (for the user, health, and protection of children) and inclusiveness (non-discrimination in design and equal access to products).
- Regarding business conduct, the company is accountable on corporate culture, management of relationship with suppliers, corruption, lobbying, protection of whistle-blowers, animal welfare and payment practices (especially late payment to SMEs).

¹² - The Greenhouse Gas Protocol Initiative is a multi-stakeholder partnership of businesses, non-governmental organizations (NGOs), governments, and others convened by the World Resources Institute (WRI), a U.S.-based environmental NGO, and the World Business Council for Sustainable Development (WBCSD), a Geneva-based coalition of 170 international companies. Launched in 1998, the initiative's mission is to develop internationally accepted greenhouse gas (GHG) accounting and reporting standards for business and to promote their broad adoption.

¹³ - In short, the Kyoto Protocol operationalizes the United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions, in accordance with agreed individual targets. It was adopted in 1997. Owing to a complex ratification process, it entered into force in 2005. Currently, there are 192 Parties to the Kyoto Protocol.

The EU is a global frontrunner when it comes to ESG criteria

Historically, Europe has been at the forefront to produce these norms within the EU taxonomy (see Table 3).

End-2022, the European Union parliament adopted new reporting rules, named CSRD, for multinational companies. CSRD's objective is to ensure that disclosure on environmental, social affairs and governance matters will become mandatory for all large firms in the European Union (EU). The new EU sustainability reporting requirements will apply to all large companies, whether listed on stock markets or not. Companies that will have to comply are those which meet the following criteria, as established at the time of writing this article:

- a balance sheet total exceeding EUR 20,000,000;
- a net turnover exceeding EUR 40,000,000;
- an excess of 250 employees on average during the financial year

The abovementioned large companies will indeed need to disclose data on the impact of their activities on people and the planet, and on sustainability risks they face. With this directive, the EU authorities want to make sure that investors would have access to reliable data regarding sustainability reporting.

The new directive came into force this month. In practice, the new rules would start applying between fiscal years 2024 and 2028. Moreover, as of 2026, listed "small" and "medium-sized enterprises" will be targeted by the regulation. They will have to submit reports in 2027 (with the ability to opt-out until 2028).

2023 a key year for ESG criteria regulations

The EU authorities are at the forefront when it comes to producing ESG regulations. 2023 will be a key year since similar regulations will be adopted in other regions, like in Asia, to push companies to proceed with extra financial disclosure this year. For instance, in October 2022, the European Central Bank (ECB) started the purchase of corporate bonds guided by climate scores. This is part of the ECB's wider objective to include climate change considerations in the Euro system monetary policy. The latter includes adjusting corporate bond holdings in the Euro system's monetary policy portfolios and its collateral framework, to introduce climate-related disclosure requirements and to enhance its risk management practices.

The Bank of England (BoE) is also quiet active on this question. For instance in 2021, it released its plan on how to 'greening' its Corporate Bond Purchase Scheme (CBPS). Last June, it made public its approach to manage the risks from climate change across its policy functions and operations. Objectives it to achieve net zero emissions associated with the CBPS portfolio by 2050 and the intermediate target of 25% reduction in the weighted average carbon intensity on the CBPS portfolio by 2025.

In the US, The Federal Reserve (Fed) has a more mixed posture. On the one hand, it will conduct its first climate stress tests this year. The Fed will indeed lead on a pilot climate scenario analysis, with six of the US' largest banks, to assess their resilience to climate-related risks. It already mentioned that the results would have no capital or supervisory implications from this pilot exercise. On the other hand, its chairman stated this month that the FED has a narrow role to play on climate change issues; concentrates on core objectives like ensuring price stability.

In Asia, Taiwan announced ESG disclosure and labelling rules for both onshore and offshore funds. A sizeable amount of countries in Asia will apply mandatory ESG disclosures from 2023. Moreover, the ASEAN¹⁴ plans to harmonize regulations among its members, including its attempt to define a common green taxonomy. There is a willingness from regulators worldwide to tackle greenwashing¹⁵ on those issues.

The implementation of these norms in all regions raises the question of the harmonization of rules that apply to companies. There is no harmonized ESG framework and definition at the global level yet.

The private sector has organized itself in order to be able to suggest insights on the harmonization process, with the establishment of the International Sustainability Standard Board (ISSB). The ISSB's creation was announced end 2021 under the IFRS¹⁶ Foundation, whose mandate is the creation and development of sustainability-related financial reporting standards, to meet investors' needs for sustainability reporting. The organization aims at working towards a greater harmonization of ESG norms. It is comprised and financed by private companies.

Table 3: Broad overview on the EU Taxonomy

DEFINITION	The EU Taxonomy is a classification system, which establishes a list of sustainable economic activities.
OBJECTIVE	Address greenwashing by enabling market participants to identify and invest in sustainable assets with more confidence.
MEANS	To qualify as "sustainable", activities need to contribute to one of the EU's sustainability objectives, meet the "do no significant harm" requirement and comply with minimum social safeguards.
METRICS	For each activity, the Technical Screening Criteria (TSC) lays out thresholds to define compliance with the Do No Significant Harm (DNSH) principle. TSC defines the specific requirements and thresholds for an activity to be considered as significantly contributing to a sustainability objective. Each sector is assigned specific metrics (e.g. carbon emitted per output, reduction trajectories, etc.).
SCOPE	Companies subject to CSRD and SFDR regulations, as well as financial products emitted under EU Green Bond Standard.
EXCEPTIONS	Within the activities that substantially contribute to one or more environmental objectives, the Taxonomy also defines two classification categories: enabling activities and transitional activities. These were added to allow activities, which may not otherwise have been considered sustainable, to contribute to the overall objective of promoting sustainability.

Source: UE, S&P, JP Morgan, Coface / SFDR: Sustainable Finance Disclosure Regulation Solutions

14 - The Association of South East Nations (ASEAN) comprises Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

15 - Greenwashing are behaviours or activities that make people believe that a company is doing more to protect the environment than it really is.

16 - International financial reporting standards.

A key aspect that is at stake for companies with ESG criteria compliance is to avoid the reputational risk and difficulties for financing access

Sectors that are heavy GHG emitters as per scope 1 and 2, (see Chart 1) have long been subject to regulations aiming to reduce their negative impact on the environment. Sectors concerned include chemicals, automotive¹⁷ and power generator (related to fossil fuels) companies in the energy sector.

For instance, in the automotive sector, traditional carmakers have had to speed up investments in order to organize the transition towards electric vehicles while being challenged by the arrival of new actors like Tesla. Global carmakers plan to invest USD half a trillion into electric vehicle and battery technologies by 2030, to comply with stringent regulations in Europe, the US and some countries in Asia.

Beyond the environmental considerations, companies have strong incentives to comply with those norms for better financing conditions and to prevent reputational risks. As ESG criteria norms spread worldwide, potential investors would have access to many companies' extra financial data. Moreover, as previously mentioned, some regulators aim to look at these criteria in their financing decisions.

ESG norms spur deep transformations in all sectors in a holistic way, not only regarding GHG emissions

Big GHG fossil fuel related power generating and petrochemicals activities will be negatively impacted by ESG frameworks

Power generating companies are among the biggest GHG emitters worldwide (see Chart 1), only considering scope 1 and 2. Moreover, extracted fuels are used by several industrial activities (power utilities, chemical, carmakers, etc.) and thus their emissions (through the scope 3 definition), putting major fossil fuel energy companies in the spotlight regarding their impact on the environment and on local communities.

This is a tricky situation for public authorities as they have to deal with the necessity to enhance regulation

to boost the global economy's transition towards 'net zero', notably by targeting fossil fuel companies, while at the same time, heavy GHG emitting fossil fuels remain necessary and currently hard to entirely substitute.

Petrochemicals activities that require derivatives of oil and gas as inputs are also concerned. The automotive sector and transport¹⁸ activities more broadly - given the necessity to use fossil fuels as inputs and their intrinsic way of functioning - are also at risk with these regulations. Since the different types of transport, as defined by Coface's methodology, require energy (notably fossil fuels or electricity), they can be considered as large GHG emitters. However, there are strong heterogeneities between the different means of transport regarding GHG emissions. For instance, according to IEA¹⁹ regarding passenger transport, rail emits 19 g/ passenger-km of CO₂ equivalent (eq), while air transport emits 123 g/ passenger-km of CO₂eq.

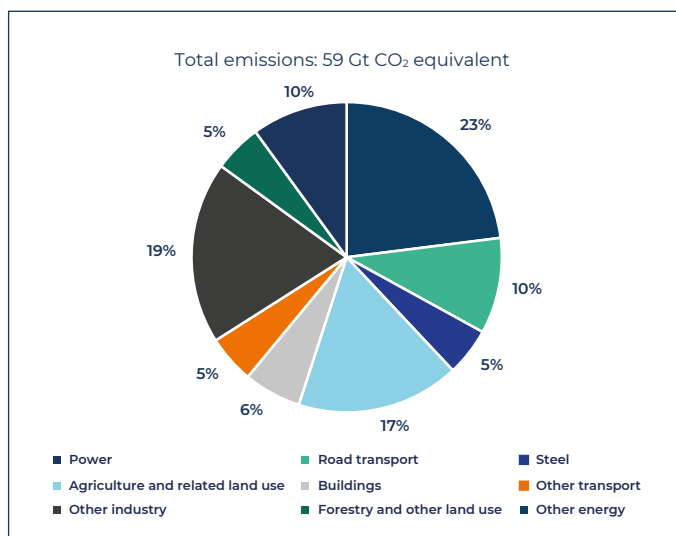
Regulations in the automotive sector were strengthened after the 2015 Volkswagen (VW) cheating scandal on diesel emissions, which affected not only the group, but also many other suppliers in the value chains. Following judiciary procedures, the total cost for the company for misreporting has been around USD 35 billion, as per estimates at end 2020.

It is unclear whether there will be 'winners' but frontrunner sectors, where ESG type criteria were implemented at an early stage. Companies in those sectors are certainly better prepared for the 'net zero' transition, despite the challenges.

Looking at the example of the automotive industry, traditional carmakers have had to invest financially in order to accelerate the 'decarbonization' of their industry to adapt to regulations, as mentioned above. Moreover, they also had to accelerate the development of electric vehicles (EV), in the context of the emergence of new actors like Tesla. EV market shares have significantly risen since 2019, notably in the main markets, and, according to IEA, this trend should continue until 2030 (see Chart 2). In other sectors, such as wood, where the issue of deforestation and processes of certification have existed for a long time, companies appear to be better prepared overall to integrate ESG criteria.

For instance, preventing deforestation and promoting sustainable wood products was already a concern

Chart 1 - Greenhouse gas emissions by sector



Source: IEA, Coface / Gt: Gigatons

Chart 2 - EV sales & forecast (in volume)



Sources: IEA, Coface

17 - See Coface Focus Article, The global automotive industry and enhanced regulations: a very steep path ahead, K. Ait-Yahia, December 2019.

18 - As per Coface sector risk assessment methodology, the transport sector includes air, rail, maritime and road transport (freight and passengers for each segment).

Since they all require energy (fossil fuels or electricity), they can be considered as large GHG emitters.

19 - IEA, 2021 data.

during the Kyoto protocol discussion in the 90's. The role of forests as a carbon sink has been known for a long time. More recently, the Sustainable Wood for a Sustainable World (SW4SW) initiative, implemented in 2018, aims at a sustainable use of forests (including preventing deforestation). Therefore, companies in the sector are somewhat better prepared to take into account ESG-related regulations. However, the SW4SW initiative's functioning processes are similar to that of the COP, which can be long without necessarily leading to concrete decisions.

The current numerous ESG risk-rating businesses will require more harmonization and clarity on methodologies going forward

Various companies have embarked on the ESG risk-rating business: the specialized ones like MSCI or Sustainalytics or those already operating in the financial services rating

business, such as Moody's and S&P. Moreover, many other financial actors and data providers are developing ESG rating assessments or methodologies. Companies are generally eager to buy and communicate on those ratings, when they are favourable, as part of their positive communication on non-financial insights.

So far, academic research²⁰ has some reserves regarding the way these ESG ratings are built, notably on the relative weight attributed to each criteria on the final ratings, which lacks transparency. Overall, companies that can afford to dedicate human resources to implement actions surrounding ESG issues and communicate on them (see Chart 3 below) are the larger and wealthier ones. This raises several issues, such as the difficulties to assess companies' real ESG performances. Looking forward, we anticipate that supranational entities will need to contribute to a harmonization of those assessments.

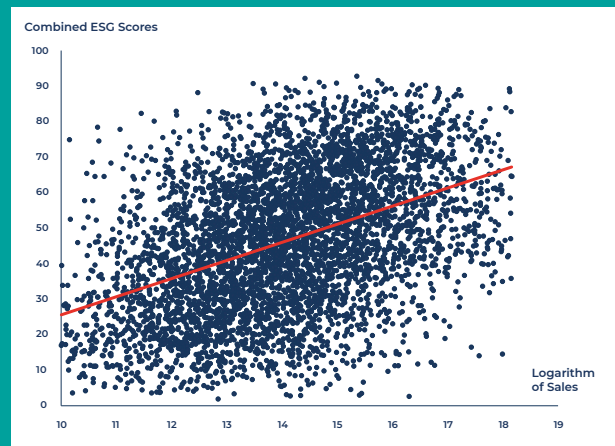
Box 2

THE BIGGER A COMPANY IS, IN TERMS OF SALES, THE BETTER ITS ESG SCORE IS

Chart 3 represents a scatter plot examining the relationship between the logarithm of corporates' sales in 2020 and their respective combined ESG scores. These data are produced and computed by Refinitiv on a yearly basis, and the data universe represents corporates worldwide²¹, irrespective of the country and the business sector.

Main findings from Chart 3: The concentration of companies represented in a scatter plot is a mild correlation: the bigger a company is, in terms of sales, the better the score is, even though the correlation is not high. Although the data are quite sparsely dispersed in some regions of the chart, the logarithm of sales and ESG scores show a concentration. Standard statistical practice recommends applying the logarithm function (in base 10 here) to support a better visualization of the data's shape.

Chart 3 - Scatter plot of the logarithms of sales and Combined ESG Scores



Source: Refinitiv Datastream, Coface

The 'net zero' transition challenges mirror global macroeconomic, social and geopolitical issues

A product or its industry might be 'net zero', its ecosystem might not be

The appetite for electric vehicles is an interesting example of what challenges related to the 'net zero' transition can be. These include the production process itself, the socio-political concerns in countries where the needed commodities are produced, its life cycle, and the impact of the energy crisis, notably in Europe, an important market. First, the inputs used to produce EV batteries include several metals. Some, like cobalt, are extracted in the DRC, where there have been documented proofs of child labour in artisanal cobalt mines (although the government and NGOs have worked to improve the situation). Then, the most used commercial EV batteries (Lithium-Ion batteries) require a lot of lithium, and processing in the global lithium value chain is highly concentrated and dominated by China. As per 2021 data, China provided 60% of refining globally, 77% of battery cells and 60% of battery

components. Therefore, the industry is very dependent on Chinese exports, which represents a risk, as there are trade tensions between the US and China due to the race for global technological leadership. Moreover, EV batteries seem to be difficult to recycle over time, which raises concerns over their life cycle sustainability. It is worth mentioning that although EV penetration in the medium to long-term is promising and is likely to be supported by public financial incentives, some challenges remain in the short-term. Indeed, the development and the use of electric vehicles in Europe might be impacted, among other factors, by the ongoing energy crisis and high electricity prices²².

ESG objectives might sometimes be in conflict with states' immediate interests or societies' needs

Some companies and sectors that are more likely to be 'underperformers' when it comes to ESG criteria can also be, in some cases, important taxpayers for states. This is the case for large multinational leaders in fossil fuels (and heavy GHG emitters as per scope 3), which tend to be large taxpayers in their home country, as well as large employers both in their headquarters and in the countries where they operate. For instance, listed oil and gas exploration and production companies worldwide

20 - See for example Massachusetts Institute of Technology (MIT) article: Berg, F., Koelbel, J. F., & Rigobon, R. (2019). Aggregate confusion: The divergence of ESG ratings. Forthcoming Review of Finance.

21 - We find preliminary results from this chart interesting and useful to illustrate this relation between companies' revenue and their level of ESG ratings, even if of course, the large spectrum of companies considered worldwide necessarily entails some bias, at least due to the limited level of granularity here.

22 - See Coface Barometer article, A cold chill on the global economy, October 2022.

recorded important profits last year. In 2022 (and in 2021 to a lesser extent), their profitability ratio grew by four percentage points between Q3 2021 and Q3 2022 (28.6% vs. 24.2%), while the net debt ratio declined by eight pp over the same period. Therefore, in the run up to achieve the 'net zero' transition, some governments might be reluctant to support measures that would go against their national economic interests.

ICT²³ activities are another good example. Their critical importance have been apparent during the worst moment of spring 2020, when half of humanity was under lockdown due to the COVID-19 health crisis. The acceleration of the digitalization of the global economy has triggered an increase in use of ICT products and services, particularly media and telecommunications. While they have been essential to reduce the use of paper (thus less trees being cut), they also produce negative environmental externalities. For instance, data centres that are critical for services such as 'the cloud' require a lot of energy. Data centres and data transmission networks, for instance, account for 1-1.5% of global electricity use, according to the International Energy Agency.

While so far ESG norms concentrate on the 'E' environmental aspects, they can highlight social issues...

In recognition of the difficulties that the most vulnerable are facing, several governments in advanced economies, for instance across Europe, are subsidizing households' fossil fuel purchases to cope with the energy crisis. This is in contradiction with the ESG objectives. By doing so, they are taking into account lessons learnt from social movements related to this issue. The 'yellow vest' movement in France in 2018, which led to important demonstrations and social tensions from both financially vulnerable populations and part of the middle-class for several weeks after the French government announced measures to increase oil energy tariffs, is an emblematic example. Therefore, political leaders bear in mind the need to consider social challenges when implementing ESG criteria.

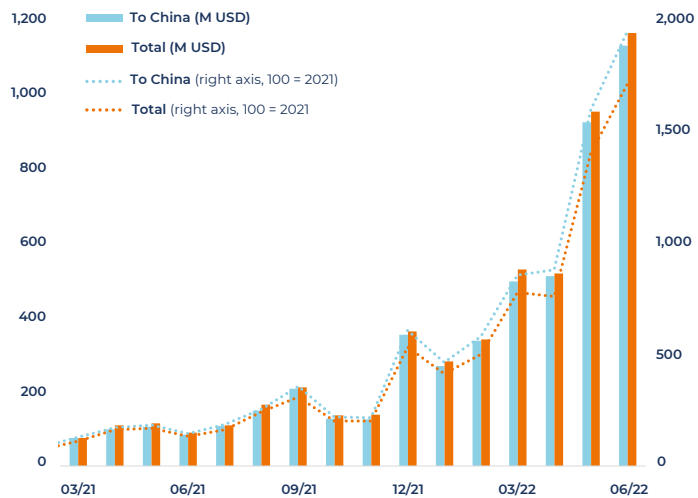
From the perspective of low-income and developing economies' governments, whose contributions to worldwide GHG emissions are among the lowest, there is a willingness to have the most advanced economies finance the global 'net zero' transition. Moreover, some of them in the 'global south' consider that they need to continue emitting a certain level of GHG emissions to be able to sustain their economic development. Such tensions will be a key element of the upcoming debates, and will also enable more in depth and granular analysis of country/sector performances on those issues.

... but can trigger new business opportunities for companies even creating positive externalities

The construction industry is a good example, although some of its inputs require the use of petrochemical products. In Europe, the policy regarding construction targets energy efficiency²⁴ and savings by increasing the rate of building renovations. It is part of the European Green deal and plans the renovation of 35 million building units by 2030. According to the EU Commission, 220 million building units were built before 2001, of which 75% are not energy efficient. Moreover, in the EU, 40% of total energy consumption and 36% of greenhouse gas emissions come from buildings. EU authorities consider that renovation could reduce energy consumption by 5-6% and CO2 emissions by 5%.

In the US, the large USD 550 billion of new expenses as part of the 'Bi-partisan Infrastructure Act' plan over 10 years, signed in 2021, is another example of opportunities for companies, beyond the construction sector. These ambitious plans represent business opportunities for

Chart 4 - Australia lithium exports



Source: Australian Bureau of Statistics, Coface

construction sector companies, and potentially for renewable energies, wood companies, etc. In fact, these initiatives have the ability to trigger positive externalities in a large spectrum of sectors, create new jobs and fuel innovations.

Moreover, the 'net zero transition' in itself is 'auto generating' an ecosystem of new businesses, which, for instance, aim at ensuring energy efficiency. It also boosts the circular economy, promoting the sale of recycled products. This is notably the case in the retail and textile-clothing sectors, with the large development of second-hand markets for many years. Since 2012, commercial exchanges of second-hand items have been multiplied by three globally. According to Statista, the second-hand apparel market could amount to USD 126 billion by 2026. There are also opportunities for companies in other sectors, particularly strategic ones, such as energy and ICT. For the energy sector, there are important prospects for companies in the area of energy efficiency activities and they recognize the necessity to invest in this area. According to the European Investment bank, in 2019, European firms spent 10% of their total investment on energy efficiency improvements, while the proportion for US firms was 12%. Moreover, for instance, the World Bank dedicates a sizeable amount of its project lending to energy efficiency. It reported that it had contributed to 2.8 million megawatt hours of energy savings annually for its clients (countries, firms) in the fiscal years from 2011 to 2020.

As per the ICT sector, the second-hand market is also developing fast, notably with the recycling of equipment pieces. For instance, according to IDC, worldwide shipments of used and refurbished smartphones reached 282 million units in 2022, up from 253 million in 2021, but far from the 413 million forecast for 2026.

23 - Coface's sector assessment methodology for the Information and Communication Technologies (ICT) sector incorporates several segments: telecommunications, electronics, media and a final segment comprising computers, software and IT equipment.

24 - Energy efficiency can be defined as the ability of an entity (company, households etc.) to reduce its energy consumption in the flow of performing a task, notably by reducing waste.

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