From ESG ratings to stress tests aligned with the Paris Agreement and sustainable development goals

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Abstract:
Based on declarations and on multiple criteria for environmental, social and corporate governance, ESG ratings for big firms emerged at the turn of this century. The result is a database, big but barely legible because it has not been standardized. Firms determine the information (scope, methodology and indicators) to provide, thus making it nearly impossible to make comparisons within a single sector or from one data collection period to the next. Since 2015, when the Paris Agreement and the UN’s sustainable development goals were adopted, the ESG ratings have changed. The intent is now to measure the real impact, both negative and positive, of a firm’s activities and analyze its strategies in order to test its resilience for coping with the major environmental and social challenges it will have to face.

The rating of big, publicly traded firms based environmental, social and governance (ESG) criteria started in the first decade of the 21st century. At the time, there was talk about the “extrafinancial” dimension of business activities. Traditional bookkeeping data were to be completed with items providing information about a corporation’s actual operations. The subjects concerned were, for example, environmental management, training budgets, the policy of “diversity” and, not to be forgotten, governance, so as to make room for checks and balances within leadership circles and provide a framework for setting the pay of top executives.1

These new rating systems created new actors and standards, such as the Global Reporting Initiative (GRI). In France, Arese was founded by Geneviève Ferone in 1997; and Vigeo in 2002, under the leadership of Nicole Notat, former leader of the CFDT labor union. These agencies referred to a new model that broke with financial ratings. The ESG ratings were sold to asset management firms and investors, who bought them to design responsible investment strategies. Their intention was to eliminate from their portfolios firms rated poorly on these so-called extrafinancial criteria and to boost the better rated firms (the “best in class” methodology). These ratings rested on two pillars: a differentiated sectoral

1 This article, including any quotations from French sources, has been translated from French by Noal Mellott (Omaha Beach, France). The translation into English has, with the editor’s approval, completed a few bibliographical references. All websites were consulted in June March 2020.
approach (since environmental problems in the oil and gas industry are not the same as in agriculture or digital technology) and an analysis that reviewed and evaluated a firm’s public documents along with the responses to questionnaires that the firm had to answer to spare itself a poor score.

In France, this declarative ESG procedure was boosted by the first regulation about this sort of reporting: Article 116 of the NRE Act on “new economic regulations” in 2001. This pushed big listed firms to break their silence and publish ever more extrafinancial data on a series of topics, but without any precision about the scope or limits. Firms could thus opt to concentrate exclusively on headquarters without mentioning their other installations.

The most committed firms adopted the GRI standards or sought to uphold the OECD’s guidelines. Meanwhile, commitments were being voluntarily made, for instance to uphold the principles of the Global Compact (launched in 2000 by the United Nations) or the Charter of Diversity (launched in France in 2004 for boosting the recruitment of persons with diversified profiles in order to fight against discrimination in hiring practices on the basis of sex or origins).

The dilemma of ESG ratings: Declarative corporate reporting and a multicriteria analysis

The dilemma resulting from this trend soon gave rise to a new business environment in Europe. The horns of this dilemma are still pointed: the multicriteria analysis for covering all ESG dimensions and a rating system based on the declarations made by firms that have chosen their methodology and its zone of application, and decided how to communicate the results in their reports to stakeholders. What has resulted is a catalog of “good” actions with a narrow scope or else of “big” commitments usually without quantified objectives. For this reason, Article 225 of the Grenelle 2 Act of 2010 required that ESG data be verified by accredited auditors. Specialized rating agencies thus proposed analyzing the relevance and comparability of ESG data on certain themes (such as human rights or CO2 emissions) or by sector. The goal was to help investors use these data to select the firms (or projects and even states) with securities that they could place in their portfolio. The biggest asset management firms started developing their own ESG research teams once they noticed that new markets were opening, such as the market for green bonds.

Ten years ago, what was at stake was to cover as broadly as possible big, publicly traded firms. Vigeo, for example, presented its analysis from a perspective diametrically opposite that of corporations. It used a set of specifications “based on 38 criteria for a comparative analysis grouped in 6 fields subdivided into 41 lists of sectoral specifications; selecting for each of them the relevant objectives to be weighted. They are evaluated with 330 indicators related to precise principles of action for inquiring into managerial systems.” This rationale based on a wide range of indicators theoretically makes it possible to assess subjects as varied as labor rights among subcontractors, CO2 emissions or the number of women in a corporation’s top ranks. However its widespread development has had deviant effects, leading to a sort of “ESG big data” produced by a firm’s reporting teams, which are submerged under questionnaires from rating agencies and shareholders, or even specialized...
NGOs. Reporting has become a finality of its own for the purpose of obtaining “good scores” from specialized agencies. These scores are then put to use, in particular, to promote the firm through marketing campaigns.

Firms have thus adopted a positive stance for communications. They explain what they have done that is good and emphasize activities for which it is hard to make a cost-benefit assessment given the lack of standardized measurement methods. For CO₂ emissions, the most advanced firms proclaim the objective of reducing direct emissions (scope 1) by a given date in comparison with the base year that they have chosen (often a peak year). Even if this procedure yields a satisfactory indication of a reduction on its scale, it makes any comparison on this criterion with firms in the same branch or even over time impossible. Since a firm changes the criterion’s scope from report to report, it is even hard to compare its own performance from one year to the next.

Shareholders seldom use these declarative ESG ratings to identify actual, “material” ESG risks. These ratings can cost them their britches. A textbook case is Bayer purchasing Monsanto. Bayer is now paying a high price due to an environmental risk, namely the toxicity of the pesticide glyphosate. When it signed the purchase agreement in 2016, Bayer stated that it had exercised due diligence and that the innocuousness of glyphosate had been shown through a review of documents from international regulatory authorities and from Monsanto. It said that it had even obtained an expert opinion from a well-known law firm about these risks. The purchase was finalized on 7 June 2018, and the first conviction of Monsanto for dissimulating the risks of its flagship product occurred in August of the same year in the United States. Since then, Bayer has fallen 40% in the stock market; and the firm is worth less than prior to the purchase of Monsanto for $63 billion. Meanwhile, hundreds of lawsuits have been filed around the world, and the compensation to be paid could amount to millions of dollars. The firm’s public declarations are still reassuring, despite the rebellion of shareholders, who voted 55% against current management during their meeting in April 2019.

**Shifting paradigms: The analysis of ESG risks**

This spectacular failure of a merger-acquisition based exclusively on a financial analysis attests to the emergence of new expectations about ESG ratings. The switch has been made from the idea that a firm with a good rating was healthy, since it had not only good financial results but also a satisfactory environmental and social policy, toward an analysis based on the firm’s strategy. The objective of the new stress tests designed by specialized consulting firms, such as Carbone 4 in France, is to measure a firm’s exposure to ESG risks (e.g., climate change) and its resilience, its ability to adapt to major disruptions (in digital technology or the environment). The objective is to quantify the risks and opportunities ensuing from its business model and assess its possibility for continuing to create value in the medium and long runs.

This shift of paradigms started with the adoption of the Paris Agreement in December 2015, which had been preceded in September by the 17 Sustainable Development Goals (SDG) set by the United Nations. The two together established an internationally shared framework of
priorities. For the climate, the objectives are to remain below a global warming of 2°C degrees by the end of the century and to reach carbon neutrality by 2050. For sustainable development, the 169 targets set as part of the 17 goals are to be reached by 2030. The schedule is tight since, in both cases, it implies radically changing course during the coming ten years.

New specifications for new ambitions

Over the past four years, new ESG evaluation procedures have emerged that draw a path for the sustainable transformation of the economy and finance.

For the climate, the new specifications come from the Task Force on Climate Disclosure (TCFD).\(^2\) Drafted at the end of 2015 by and Michael Bloomberg and Mark Carney (president of the G20’s Financial Stability Board), the TCFD has the task of setting the standards for reporting on climate-related risks, standards applicable worldwide. The form of governance it proposed in 2017 is gradually being installed, even though the election of Donald Trump in the United States has kept the standard from being adopted by the G20 countries.

Climate-related risks are of three sorts: physical (because of ever more numerous natural catastrophes of all sorts), transition-related (owing to the imperative of adapting current business models, which depend on fossil fuels and a linear, global mode of production), and legal (along with the risks of depreciation as some activities turn out to be incompatible with

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\(^2\) [https://www.fsb-tcfd.org/]
the 2°C scenario and as very restrictive regulations are introduced). The capacity of firms to cope, in particular with the second type of risks, is to be analyzed. New organizations with new methods have sprung up for rating firms, for instance the Transition Pathway Initiative.³ Launched in 2017 by 45 investors representing $15 trillion, the TPI uses data (from FTSE Russel) to assess, sector by sector, the capacity of big firms to pass the transition toward a low-carbon economy. Its methodology, which is public, involves both analyzing governance in relation to the climate and producing data on greenhouse gas emissions.

![Diagram of Transition Pathway Initiative](image)

**Figure 2.**

In France, Carbone 4 has proposed to financiers methodologies that include references to the emissions avoided. The ADEME has launched an ACT program with the support of big public investors (e.g., Caisse des Dépôts) for assessing the capacity of firms to pass the transition.⁴

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³ [https://www.transitionpathwayinitiative.org/tpi/sectors#carbon-performance](https://www.transitionpathwayinitiative.org/tpi/sectors#carbon-performance)

⁴ [https://www.ademe.fr/](https://www.ademe.fr/)
Europe accelerates: The taxonomy of sustainable activities

Given the interaction and complexity of all these ESG items, the declarative model of ratings is outdated. We must now analyze a firm’s activities by measuring its whole, often globalized, supply chain, including its subcontractors. Not just its economic impact but also its environmental and social effects must be assessed. Regulations are in line with this trend. In October 2014, the European Union adopted a nonfinancial reporting directive (NFRD). The preamble states: “The undertakings which are subject to this Directive should provide adequate information in relation to matters that stand out as being most likely to bring about the materialisation of principal risks of severe impacts, along with those that have already materialised. The severity of such impacts should be judged by their scale and gravity. The risks of adverse impact may stem from the undertaking’s own activities or may be linked to its operations, and, where relevant and proportionate, its products, services and business relationships, including its supply and subcontracting chains.” This directive was transposed into French law in July 2017, whence a “declaration of extrafinancial performance” (DPEF), which firms have to file. On this declaration, a firm specifies its major material risks, explains the policies adopted in response, and specifies its key performance indicators (KPI).

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This setup has replaced the previous ESG reporting but has not yet proven its mettle. The requirements related to environmental and social themes have fostered a regulatory thicket. It is all the harder to wend one’s way through this thicket given the accompanying ESG big data, as previously mentioned, in which the volume of unstandardized data is ceaselessly swelling to the detriment of their legibility.

This is the situation in which a European taxonomy of sustainable activities is being adopted.\(^6\) This taxonomy is the backbone of the European Commission’s action plan for sustainable finance of March 2018. The idea is to reorient financial flows, public and private, toward a low-carbon, inclusive economy. This implies investing in altering the energy mix and our means of transportation, supporting a circular economy, and limiting the volume of wastes. The dissatisfaction with “business as usual” has major effects on firms that ESG ratings are to document. For this reason, to know more about the current orientation of a corporation’s activities, we need a common set of EU specifications about sustainable activities. This taxonomy, which is to be gradually extended to topics other than climate change, will eventually be integrated in ESG reporting. Firms will thus communicate reliable information about their green business activities.

To make this setup binding, it would be necessary to modify the directive on nonfinancial reporting; but member states are reluctant to do so. This modification is even more hypothetical given the strong resistance from firms that do not want to switch from declarative ESG ratings (a positive step but that they have ended up steering) to an

assessment of the real impact of their business activities. The models for ESG ratings on the
drawing board try to determine the balance between a firm’s positive and negative effects
and evaluate the path it has taken. This strategy heads in the right direction, toward
maximizing the positive effects and minimizing the negative so as to switch from a brown to
a green business model — one that is more circular and, therefore, more sustainable!

The model of ESG ratings is evolving toward a comparative and sectoral analysis of
corporate strategy to manage future risks for which data from the past are not very useful.
Very few firms in the world are prepared for this revolution. Future ESG rating agencies will
likely be specialists in analyzing big data that cross environmental and social data of all sorts
in order to attribute them to such and such a firm.