

INVOLVEMENT OF ESG IN THE FOUNDATION OF RESPONSIBLE FINANCIAL DECISIONS

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Dana-Claudia COJOCARU

University "Alexandru Ioan Cuza" of Iasi, Doctoral School of Economics and Business Administration

Abstract: *The topic we address in this research is highly topical and is of concern to all governments at the highest scientific, environmental, decision-making, and financial levels. The major challenge we face today is climate change, which is one of the greatest threats to the environment, the social framework, and the economic framework. The effects of climate change are increasingly visible globally and can be seen with the naked eye in the intense heat waves, droughts, floods, and fires that have been caused in recent years. There is therefore an urgent need to take effective and accelerated action to reduce greenhouse gas (GHG) emissions. The European Green Deal recognizes the crucial role of taxation in the transition to a green economy, and this could lead to the implementation of various financial instruments that can be significant in meeting the proposed targets. One such instrument is environmental taxes, also known as green taxes. Although these taxes have been introduced to reduce pollution, these fiscal measures have not always had the desired effect. In addition, the existence of the 'polluter pays' principle means that large sums of money collected for the budget 'overlook' the serious effects of climate change. Also, the existence of contradictory results in the studies analyzed leads us to undertake our statistical investigation.*

Keywords: *ESG, climate change, corporate social responsibility, governance, climate risk*

JEL classification: *Q01, Q53, Q54*

Introduction

"The issue of climate change and what we do about it will characterize us, our era, and ultimately our global legacy" Ban Ki-moon, Secretary-General of the United Nations, 2007

The last two decades have seen an increased focus on climate and sustainability issues. As well as being a considerable concern for institutions concerned with the environment, they have given rise to much debate and dispute in the economic literature about the causes of rising emissions, their impact on sectors around the world, and, by implication, how to reduce them. Climate change is the main challenge we face today, but only together can we act and solve this situation, as human activities have been the main cause of these events. As we all know, the negative effects of global warming are a threat to the entire population, but especially to countries with low economies, as they cannot afford the costly programs needed to adapt to climate change. In this case, rich countries are best placed to develop various innovative solutions to mitigate global warming.

In this context, the European Union has set itself an ambitious target: zero emissions by 2050. The European Union has expressed its vision in the Green Deal, which sets out, in a nutshell, a goal: "zero greenhouse gas emissions in the European Union in 2050, by stimulating the economy through environmentally friendly technologies, developing sustainable transport and industry and mitigating pollution". It all sounds difficult, but it is. If we continue to release huge amounts of greenhouse gases, the average

global temperature will continue to rise, and the consequences can be far greater for both the global economy and the future of humanity.

Methodology

The sources used for this research are a series of academic studies (books, specialist publications, and scientific articles). The articles used can be accessed on Google Academic, MDPI Journals, and The Journal of Finance - Wiley Online Library.

Decision-making under the influence of climate change

Global warming poses a severe threat to global sustainability and the speed at which it is increasing is a real challenge of our time. Today, climate change is no longer seen as a new phenomenon, having been caused and exacerbated by human activities since the industrial revolution. Greenhouse gas (GHG) emissions caused by human activities have posed an unprecedented global challenge to social development and impact on the natural environment. Every year the concentration of carbon dioxide in the atmosphere increases and even though energy is a fundamental driver of economic development, the evolution of demand at different stages of economic development requires a viable solution to environmental problems (Onofrei et al., 2022). Sustainability, also referred to in the literature as sustainable development, is changing the way we manage our economies and interact with changing ecological systems and environments (De Lucia et al., 2020). The interdependence of society, economy, and environment was included in the definition of sustainable development in the Brundtland Report (entitled "Our Common Future") in 1987. The report defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". However, it should be made clear that the 'needs' referred to in the definition are not only economic interests, but also the social and environmental foundations that underpin global prosperity. A few years later, in Rio de Janeiro in 1992, 172 countries met at the United Nations Conference on Environment and Development. That year's summit was a pivotal moment in bringing environmental and sustainable development issues to the public's attention. The context in which sustainable development was defined at this time was that the Earth, despite having countless natural resources, is in danger because of the way companies, particularly greenhouse gas-producing companies or those that clear forests uncontrollably, organize their production and distribution of goods. The conference in Rio de Janeiro resulted in an agreement on the United Nations Framework Convention on Climate Change (UNFCCC) to reduce greenhouse gas emissions.

We can say that one of the most important steps towards a sustainable global economy was the signing of the Paris Agreement to the United Nations Framework Convention on Climate Change (the Agreement was signed by 195 countries and organizations on 12 December 2015 and entered into force in 2016). To mitigate the impact of climate change claims, the Agreement agreed to reduce global temperatures well below 2°C, preferably below 1.5°C. To reach the target, greenhouse gas emissions must be reduced to zero by 2050, and EU countries have agreed to this ambitious target. As a result of these developments and the fact that we are in continuous evolution, the term ESG has emerged, which stands for environmental, social, and governance factors. ESG is an

acronym that was developed by 20 financial institutions in a 2004 United Nations (UN) report - "Who Cares Wins" - in response to a call by UN Secretary-General Kofi Annan. ESG refers to how corporations and investors integrate environmental, social, and governance concerns into their business models.

The ESG criteria are broadly divided into three groups, as the name of the concept suggests. Thus, the environmental criteria focus on issues related to climate change, water, biodiversity, energy, and everything related to environmental pollution. The social criteria deal with employee protection and involvement, safety, health, and how we make society fairer. Finally, governance criteria look at risk and reputation management, compliance, and corruption in the company.

Finally, corporate social responsibility (CSR) was the forerunner of ESG, and there is now a growing shift from the concept of corporate social responsibility to the use of criteria specific to the concept of ESG. But corporate social responsibility has traditionally referred to corporate activities in terms of being more socially responsible and being a better corporate citizen. ESG tends to be a broader terminology than corporate social responsibility, as ESG includes governance explicitly and CSR includes governance issues indirectly, as it relates to environmental and social considerations.

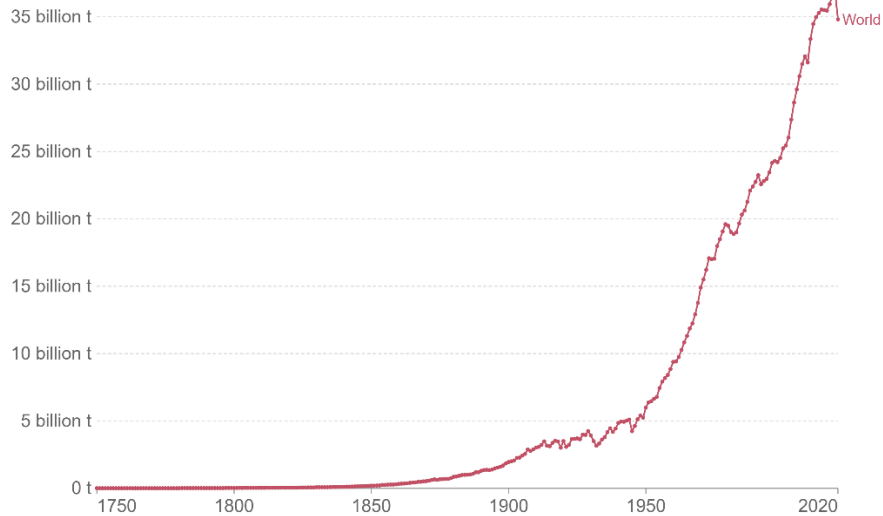
Using this non-financial indicator, all companies issue ESG reports disclosing their environmental impact. In this context, reporting has become an essential means of assessing how companies manage their climate and sustainability risks. In addition, it has been found that all companies that incorporate ESG into their business models have better governance, and care more about the environment and sustainability (Kumar, 2020). Today, climate change, sustainable finance, the integration of ESG factors into corporate financial reporting and the impact companies have on the climate are major topics being discussed and addressed at national and international levels.

It all starts with the fact that all the gases in the atmosphere that are responsible for maintaining a normal Earth temperature, namely carbon dioxide, nitrous oxide, and methane, are present in far too high quantities, at which point the atmosphere absorbs too much heat and thus increases the global average temperature. Although greenhouse gas emissions have been occurring since the beginning of the industrial era, they have increased sharply since the beginning of 1940 (Neagu et al., 2018).

Although it is almost impossible to accurately estimate the number of emissions that are produced each year, it is known that CO₂ is the main greenhouse gas, and as such is the main target of emission reduction efforts. Huge amounts of CO₂ are released by waste burning, industrial processes, agriculture, and most importantly by burning fossil fuels. Around 50 billion tonnes of CO₂ are emitted each year, and the transport industry and power generation account for about a third of all carbon dioxide emissions. In this case, when we talk about emissions, we have to think of two figures: 50 billion and 0. The number 50 represents the tonnes of gases that are emitted annually. This figure could go up or down from year to year, but the general trend is up, up. As for the second number, zero, that is our target to succeed in stopping global warming.

In the attached picture we have reported the evolution of CO₂ emissions at the global level, where you can see that before the Industrial Revolution emissions were very low (for example: in 1750 globally 9.35 million tonnes of CO₂ were emitted), but since the beginning of 1860, they have been increasing year by year. In 2020, around 34.81 billion tonnes of CO₂ were emitted.

Figure 1. Evolution of global carbon dioxide emissions, 1750-2020, in billion tonnes



Source: Global Carbon Project

An interesting observation from the attached picture is that small decreases in CO₂ emissions have occurred around events with a negative global impact, such as wars, recessions, the 1945 famine, the 1973 oil crisis, including pandemics (as an example we could mention the most recent global event, the SARS-CoV-2 pandemic). In the year 2020, when we are fighting the pandemic, there is a significant decrease in CO₂ emissions, a greater decrease than during the Financial Crisis and the Oil Crisis. Despite all the efforts made in recent years to reduce greenhouse gas emissions, except in 2020, they have seen year-on-year increases (Fridlingstein, 2019; Minx, 2021). Looking at the evolution of greenhouse gas emissions, we ask where these huge amounts of emissions come from and who is responsible for the year-on-year increases. Whether we assume it or not, climate change is the result of all human activities and we as a population are responsible for these huge increases.

Globally, the main producer of most greenhouse gas emissions is the energy sector, which accounts for about 73.2% of total emissions. Annex 1 shows the largest emitters by sector. As can be seen, most of the largest emitters are large economies, together accounting for more than 50% of the global population and 65% of the global GDP. The top three countries - China, the United States, and India - contribute around 43.6% of global emissions.

The European Union ranks fourth in this ranking, and this is because over the years it has managed to meet some of its emission reduction targets. For example, by 2020 it has set itself a target of a 30% reduction in emissions compared to 1990 levels, which by the end of the year had been achieved. In addition, 56% of electricity in the European Union comes from CO₂-free sources. The proportion of clean energy in the EU is increasing year after year as the EU meets its targets and, in particular, as coal and gas-fired power stations are replaced by renewable energy sources.

To combat climate change, the European Union adopted at the end of 2021 the "European Climate Act" which promotes the objectives set by the "European Green Pact", namely:

- Reducing greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels;
- Achieving climate neutrality by 2050.

In addition, to mitigate the risk of catastrophic events, in 2015 the United Nations set 17 Sustainable Development Goals that indicate the directions that the world's countries will follow to ensure a cleaner and healthier future for future generations. Goal 13 states that climate action is explained as a green transition, green economy, and the introduction of the principle that polluters will pay for the costs of the environmental damage they cause, more specifically, the polluter pays principle (PPP). This principle can be used to collect tax revenues from polluters through carbon pricing instruments, which can then be reinvested in maintaining environmental standards to reduce carbon dioxide emissions.

In this context, governments around the world have started to adopt various environmental policies to mitigate their effects, and here environmental taxation plays a key role, as it is seen as the right way toward a green economy and sustainable development. Environmental taxes are therefore increasingly seen as powerful tools to promote the transition to sustainable economies. Some authors (Bosquet, 2000; Do Vallet et al., 2012; Bostan et al., 2016) argue that environmental taxes contribute mostly through CO₂ taxes to global warming mitigation. For example, according to a study done on Iran, data shows that imposing a green tax will significantly reduce pollution, and also collecting such taxes will reduce fuel demand and act as a barrier to excessive energy consumption (Yu, 2019).

In the last two decades, most European countries Belgium (1996), Finland (1997), Denmark (1998), Germany (2000), and Italy (2000), have introduced various environmental taxes to help meet emission reduction targets. In countries such as Denmark and Belgium, green taxes account for more than 4% of GDP, while for Canada this figure is no more than 1% of GDP. Many researchers (Albrecht, 2006; Bruvoll, 2009; Fernandez and Colb, 2011; Heine et al., 2012; Oueslati, 2013) have paid particular attention to environmental taxes by analyzing them from different perspectives. An example could be Ding and Colab (2019) who studied the long-term scope of environmental tax scenarios and concluded from their research that the introduction of environmental taxes reduces carbon dioxide emissions by 28% in highly polluted economies. These findings are similar to the research results of author Yu et al. 2018.

Conclusion

The 2015 Paris Agreement and the Kyoto Protocol on climate change are international treaties that oblige world economies to reduce gas emissions and keep average temperatures below 1.5°C. In this context, integrating ESG factors into companies' business strategies is of paramount importance as achieving climate neutrality has to come as a priority for companies. Through non-financial reporting, all companies will issue ESG reports disclosing their environmental impact. So, as we have argued before, reporting has become an essential means of assessing how companies manage their climate and sustainability risks.

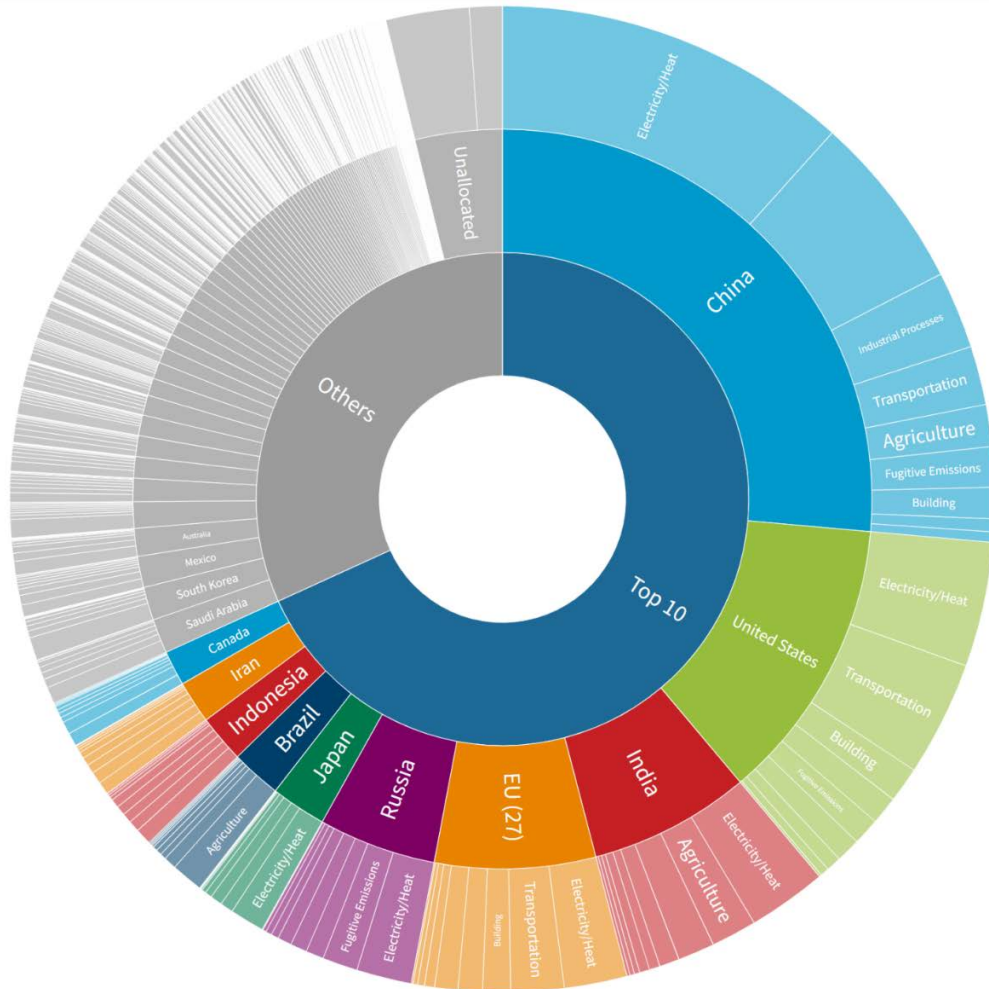
Businesses are going through a difficult period, a period of intense effort and major transformation to make the shift to responsible operating models by complying with new non-financial reporting requirements - ESG. Investors and shareholders are therefore becoming more aware of environmental issues, so the focus has been increasingly on sustainable models for the companies in which they are involved. ESG is about our and future generations' future on this planet to function better on a personal level and of course on a company level. I, therefore, see ESG as an area of great interest because mitigating climate change is a huge activity that requires collective action and no matter what measures states impose to reduce greenhouse gas emissions, without the participation of businesses and consumers as major players in the market, it is highly unlikely that the proposed goals will be achieved. In addition, imposing optimal carbon taxes is a sustainable tool that economies could use to reduce CO2 emissions.

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21. <https://www.iea.org>
22. <https://www.statista.com>

Annex 1. Main emitters of greenhouse gas emissions, June 2022



Source: World Resources Institute



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