

# The Role of ESG During Financial Crises: Evidence from Western Macedonia, Greece

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**Abstract:** *Over the past decade, Greece has experienced a series of severe and successive economic crises. Beginning in 2010 with the market-wide Greek sovereign debt crisis – one of the most significant within the Eurozone – the country faced the threat of a potential “Grexit” and the implementation of stringent fiscal adjustment measures. Greek governments, supported by the European Union and the International Monetary Fund, were compelled to enact harsh and socially demanding reforms.*

*Following a brief period of strained relations with the European Union and the banking crisis of 2015, the Greek economy began to show signs of recovery after eight to nine difficult years. However, this fragile recovery was abruptly disrupted by the global COVID-19 pandemic, which triggered a new financial crisis affecting Greece alongside the rest of the world.*

*After a decade marked by continuous and overlapping economic crises, a critical question arises: is Greece capable of aligning with global climate change mitigation policies, or does the pursuit of such measures represent a luxury that the Greek economy cannot afford?*

**Keywords:** *ESG, Accounting, Economy, Economic Crisis, Crisis Management*

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## I. Introduction

Sustainable practices are now very high on the business agenda. This is due both to the obvious effects that we are all already experiencing from the climate crisis, but also to the many legislative regulations that introduce various kinds of obligations. The necessity of the so-called green transition is intensified by other, global crises, such as the energy crisis.

Environmental Social Governance (ESG) is the new environmental statement for encouraging companies for responsible action about sustainability and environmental protection mainly from air pollution. Based on Business Ethic, Corporate and Social governance, companies are forced to act more responsible for the environment protection.

## **II. The Corporate Sustainability Reporting Directive (CSRD)**

The Corporate Sustainability Reporting Directive, entered into force on 5<sup>th</sup> January 2023. According to the EU law, large companies and all listed companies (except listed micro-enterprises) to disclose information on what they see as the risks and opportunities arising from social and environmental issues, and on the impact of their activities on people and the environment. The investors, consumers, society organizations and stakeholders in that way, can evaluate, as part of the European Green deal, a deal that transform the European Union into a modern resource-efficient and competitive economy, the sustainability performance of companies.

The Corporate Sustainability Reporting Directive (CSRD), strengthens and modernizes the rules for the social and environmental information that companies must report and publish with the financial statements. Reporting on the sustainability is now an obligation for most of the listed companies.

According to the European Commission, *the new rules will ensure that investors and other stakeholders have access to the information they need to assess the impact of companies on people and the environment and for investors to assess financial risks and opportunities arising from climate change and other sustainability issues. Finally, reporting costs will be reduced for companies over the medium to long term by harmonizing the information to be provided.* First application of new rules will be in the reports published in 2025, for the financial year of 2024.

Companies subject to the Corporate Sustainability Reporting Directive, will have to report according to European Sustainability Reporting Standards (ESRS). The standards are developed in a draft form by the European Financial Reporting Advisory Group (EFRAG), an independent body found in 2001, supported by the European Commission, to serve the public interest.

## **III. The Time – Line of adoption CSRD**

CSRD modify the unities of Directive 20138/34/EU, that concern the non-financial reports that were originally introduced from the Directive NFRD. The commands of sustainability that described in the 1<sup>st</sup> article of CSRRD will be applied gradually from 2024 to 2028 for 4 distinct categories of companies.

1. From January 2025 (for the year 2024), companies that are already under the NFRD and have more than 500 employees.
2. From January 2026 (for the year 2025), companies that meet two of the following criteria: either employ more than 250 employees, have a net turnover of more than 50 million euros or have more than 25 million euros in assets.
3. From January 2027 (for the year 2026), listed European SMEs (and are not micro-enterprises) must comply.
4. From January 2029 (for the year 2028), non-EU parent companies with at least one European branch and a turnover of EUR 150 million in the EU for each of the last two financial years must also comply with the non-financial reporting requirements.

## **IV. The impact of CSRD in Enterprises and especially in SMEs**

The CSRD Directive imposes reporting requirements for environmental and social impact activities on large companies and listed SMEs, meaning that these companies must describe impacts related to their value chain - including business relationships and supply chains . Therefore, should companies subject to the directive collect extensive sustainability information from their suppliers – information that may be exempt for non-listed SMEs.

## **V. Environmental Sustainability Reporting Standards (ESRS)**

### **ESRS Compliance**

In terms of reporting standards, the CSRD requires companies to implement a detailed set of sustainability reporting standards - a proposal agreed to by the European Parliament and the Council. The first set of ESRS are already in place and companies need to prepare for the upcoming reporting obligations while awaiting further developments in sector-specific standards.

This means companies must focus on implementing the first set of ESRS developed by EFRAG, which includes environmental, social and governance aspects and addresses issues such as climate change, pollution, working conditions and business conduct. In addition, recognizing concerns about "Greenwashing", the CSRD includes provisions for (initially limited) third-party verification of sustainability information.

That means that unlisted SMEs are not required to comply with CSRD immediately, while listed SMEs do not have to comply until 2027. However, their role in the supply chain – and their interaction with large companies that are required to report by the 2025 – leads them to de facto reporting obligations!

### **ESG**

Undoubtedly, the environment protection is the most several problems for the sustainability of environment and climate change, with tremendous results, such as catastrophic weather conditions (floods, mega-fires etc). In that way, there is no growth and development for the companies, in a destroyed planet.

For those reasons, the main target for enterprises, is the environment protection, following the principles for Environmental and Social Governance. The principles for Environmental, Social and Governance, has been developed two decades ago, in 2004.

More and more researchers were engaged with the ESG. Chatterji and Toffel (2010) explained the impact of ESG scoring on improving corporate environmental performance. Koh et al. (2014) engaged the risk prevention role played by ESG and Flammer et al. (2019) studied the binding effect of social responsibility contracts on executives. Li et al (2021), present an examination and comprehensive summary of progress in the research into ESG combined with an analytical literature review. Also, there is a significant issue for the investors. According to Broadstock et al (2021), investors are interested on ESG, by focusing on ESG investing, ethical investment practices are actively promoted and ESG investing is increasingly, considered to enhance the performance of a managed portfolio, increasing returns and reducing portfolio risk.

### **The Environmental case of Greece**

Based in Kyoto protocol and Paris Agreement, European union set the target for a sustainable and successful transport to a climate neutrality until 2050. For Greece, the Kyoto protocol was accepted in 2002 and the Agreement of Paris in 2016. In 2019, the Greece government vote the National Energy and Climate Plan (NECP). According to the strategic plan of NECP (Ministry of Environment and Energy), there are specific acts that Greek government must follow to 2030, to accomplish energy and climate targets. Also, the NECP develop the long-term strategy of Greece to 2050, to achieve goals as Greece is part of European Union and there is the European target of continuously and sustainable development transition to a climate neutrality until 2050 for the entire Europe. So, for Greece long term strategic plan, the target point is 2030 and until there must achieve specific targets of NECP.

The main target is the full de-use lignite, of brown coal. Greece energy production mix was based in the previous years, mainly in the brown coal and collaterally in renewable energy sources. The last decade (from 2010 until 2020) from the

liberality of trading of energy, the renewable energy sources was increased, especially in solar and wind parks, small and bigger. But the main source of production of energy was the lignite.

Greece, through the main producer of electric energy, the leader of electricity production and supply in Greece for 70 years, PPC (DEI), had invested many millions in factories of burning lignite, brown coal, for energy productions. Most of these factories of PPC, was settled in Western Macedonia, and especially in the cities of Ptolemaida and Agios Dimitrios, Aminteo, and Kardia in Kozani and in Florina. Other city with these types of factories, was Megalopoli in Peloponnese. So according to the main target of this long-term strategy of Greece, was the total de-use of lignite from the mix of producing energy and replacement from renewable energy sources and closing these factories. PPC is the leading South East European electric utility, with activities in electricity generation, distribution and sale of advanced energy products and services in Greece Romania and North Macedonia. It is the largest power supplier in Greece and Romania, servicing 8.8 m customers in total, providing them with approximately 33TWh of energy.

According to the Public Company of Electricity (DEI), Greece decided to close the energy factories with lignite (these at Ptolemaida – Aminteo – Kardia – Megalopoli) and leave the more environment friendly factories, with natural gas (Aliveri – Lavrio – Megalopoli and Komotini) and oil as a raw material to produce energy. Still the renewable energy sources, primary the solar parks and subsequently the wind parks, are not in a such satisfying level, to cover all the needs of the country. Until today, a total of 30% of energy production is from brown coal, 10% from oil, 27% from natural gas, 10% from hydroelectric power plant, only 6% from renewable natural sources and 17% from other hostages countries like Bulgaria, Italy, Democracy of North Macedonia, Albania and Turkey. As it is obvious, the mix of energy production, for a country like Greece, is not suitable according to geography of country, the sunshine and the climate conditions in most of the Greek territory. In the strategic plan of DEI for the next years, the adoption of ESG and Kyoto's protocol and Paris Agreement is obvious. The main target is the de-use of lignite (delignitization) with parallel investment in renewable energy sources, until 2025, ending the pollutant factories with brown coal, total energy production of 3,4GW, and replaced them with renewable energy sources until 2026 with production capability over 8,9GW.

Greece uses the just development transition of European Union to face the economic, social and environmental consequences in the area of Western Macedonia, where most working people was in this sector, on these factories.

### **External factors**

The last decade (2010-2020) was very hard for Greece and the greek people. Continuously crises starting from the economic crisis and the almost bankruptcy of Greek economy and the help from the IMF and the European Union, after that, the political crisis and the Memorandum of Understanding with the European union that brings new taxes, cut-off on salaries and finally, when the bank crisis of 2015 and the case of exit of Greece from the european monetary union, also known as GREXIT.

After the bank crisis in 2015, follows 3 years of smoothly development, for the Greek economy and the Greek companies, until 2019 that the global pandemic crisis, start from China and spread all over the world, triggered a new financial crisis, for almost all the companies all over the world. Especially in Greece, for many of the Greek companies, that just come out from the previous crises, the health crisis was the "last straw" and many of them was driven to bankruptcy.

Most of the companies, with standered that situation, due to financial support of Greek government or due to financial support from banks.

After the health crisis of Corona Virus (COVID-19), companies faced the toughest face of elimination. But all the efforts of the Greek government and European Union, helped to survive. at the end of the health crisis, most companies,

believed in their business resurrection and their recovery, from the open borders, the increased number of tourists and the needs of all the international markets. But in that point, the global market, faced another crisis. The war in Ukraine.

Russia and Ukraine are two of the major players of energy market. Especially Russia, is the second oil exporters globally. After Russian attack in Ukraine, the EU and USA, imposed trade embargo. After that, for small countries, that depends on import of Russian oil and gas, such Greece, that embargo was the last straw, especially in the energy sector.

### **The Case of Greece and Western Macedonia**

Despite Greece had a deadline, according to the plan until 2029, for the full delignitizing the energy production, the increase in the cost of CO<sub>2</sub> pollutants imposed by the European Union on energy production with lignite fuel, forced PPC to accelerate the closing of the units by 6 years. Depended in a critical degree from the import oil and gas, for the energy, Greek manufacture and tourist sector (hotels, restaurants etc.), the increasing price of energy due to the EU embargo, was catastrophic for the already hitter Greek economy. Simultaneously, Greece must follow the plan for closing the polluting energy lignite factories. But, that choice, led to inflation due to the increased energy cost. And the most critical economic issue was to follow the plan and pay high cost for import energy or restart the production of energy in the polluting energy lignite factories. Even if not all the factories (Amintiao – Ptolemaida – Kardias Kozanis – Florina) start over again, the cost of Greek economy, would be much lower and the environmental imprint will not be so important.

Taking into consideration the major investment in that obsolete technology the previous years; to be builded these factories, the destruction of which maybe is not the appropriate strategic plan for Greece. If these factories, remained to operate as a backup -plan, in situations, that the production of energy with renewable sources will not be capable to fulfill the needs, and simultaneously these factories covered with solar panels, in order to produce pure and renewable energy, that would be the perfect mixture to have the plenty of energy, safe (means no dangerous nuclear energy), for a small economy like Greece.

Operating, only in a small part, of this already investment in these factories, would provide energy, supporting the major production of energy in either natural gas factories or oil factories. Thus, if the today mixture of 30% energy production from brown coal and 6% from renewable natural sources, was changed into 10% from brown coal and 26% from renewable natural sources, would help, a small country fully depending on import energy, such as Greece, to stand in their own efforts. Technically, for at least 1 energy factory with lignite (Agios Dimitrios with 5 total powers of 1595MW), had licenses to produce, until 2042. But according to the plan of stop use brown-coal, these units stopped at 2023.

### **VI. Conclusion**

Undoubtedly, the Environment protection is the major strategic key for rescue the planet and thus for the survival of companies. There is no reason to act and growth in a destroyed planet. The Environmental Social Governance is a very critical map for all the companies to achieve a major target. But there must be another backup-plan, because countries still depend on oil. And oil production is still in a few countries, many of them are in a special category according to the international diplomat affairs with the other countries, such as Russia.

For that reason, countries like Greece, Romania, Bulgaria and others in Europe, in which the energy production is not independent and not fully count on renewable sources, and until the last decade, depend on other non-environmental-friendly sources, like the black coal, there must be more flexible deadlines, about compliance with international rules of environmental protection, like the ESRS and CSRD and full adoption of ESG.

## *The Role of ESG During Financial Crises: Evidence from Western Macedonia, Greece*

If we examine and the crises, such as Health Crisis (COVID-19) and the economic crisis of war in Ukraine and in Israel, lead to a high-risk mix for increased prices and that lead to non-sustainable business cycles for the companies. Especially in Greece, in the area of Western Macedonia, there was a situation, non-environmental-friendly, of produce energy based in black coal. Instead of full stop these factories and until the stabilization of product energy from renewable sources, there must be a transitory period of simultaneously production with black coal, even in a lower degree.

For that reason, maybe the EU schedule, especially for small countries depended in a significant way from import energy and especially from Russia, should be reevaluated to reduce, the inflation and the total productive cost. Greece is in a difficult situation, because of the import of oil and gas. A mix in the production of energy, would be the perfect solution, both for the environment and for the economy. The investment in factories is there, do not let to be fully discredited.

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