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Sustainability Reporting in a Regulated Setting: Evidence from the European Union

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To my beloved parents, whose unconditional love and support has accompanied me throughout my educational journey.

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ABSTRACT

The general objective of this dissertation is to deepen the understanding on the effects of regulation on sustainability reporting, and sustainability and financial performance. Specifically, the Directive 2014/95/EU or also known as the Non-Financial Reporting Directive (NFRD) is considered as the mandatory requirement for companies in the European Union (EU) to disclose sustainability information. This dissertation includes three main chapters which explore i) the state of research related to the NFRD and draws a research agenda, ii) the sustainability reporting before and after the NFRD with a focus on quantity and quality of disclosure, and iii) the mandatory sustainability reporting impact on companies' sustainability performance and financial performance. The first chapter presents a systematic literature review on the research related to the NFRD, representing the first attempt to systemize literature around the topic and draw an agenda for further research. The research agenda identifies four avenues of research such as: i) the potential impact of the NFRD on sustainability reporting and financial performance, ii) the role of contextual aspects in addressing mandatory sustainability reporting, iii) the interplay between the binding NFRD and non-binding guidelines, and iv) theorising in regulation studies. The second chapter, drawing on the institutional theory and the notion of normativity, explains how the quantity and quality of disclosure of a banking group developed prior and after the regulation. While the regulation has caused the quantity of information to increase, the quality instead is enhanced only for thematic disclosure with high importance for the banking group. Such results suggest that the different institutional mechanisms co-existed in the banking group to drive sustainability reporting. However, the production of normativity was achieved as a result of internal beliefs and the sense of appropriateness, thus leading some certain thematic disclosure to be much more developed than the others. The third chapter aims at understanding the impact of the NFRD on both sustainability and financial performance by conducting a difference-in-differences (DiD) analysis. The results suggest that subsequent to the regulation, the sustainability performance of EU companies has significantly improved, relative to the control sample. Instead, the financial performance of EU companies worsened after the NFRD came in place. Companies need to maintain their legitimacy and comply to the NFRD and as such, they expand sustainability actions which gives them the opportunity to signal a good performance. However, employing new sustainability actions and adjusting to disclosure is reflected economically. The results of this study show that the short-term effects of the NFRD on financial performance are negative. Consequently, maintaining legitimacy and signalling good sustainability performance as a response to a regulation can be expensive.

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LIST OF ACCRONYMS

CFP: Corporate Financial Performance

CSR: Corporate Social Responsibility

CSRD: Corporate Sustainability Reporting Directive

DiD: Difference-in-Differences

EC: European Commission

ESG: Environmental, Social, and Governance

EU: European Union

GRI: Global Reporting Initiative

IPSF: International Platform on Sustainable Finance

NFD: Non-Financial Disclosure

NFI: Non-Financial Information

NFRD: Non-Financial Reporting Directive

NGOs: Non-Governmental Organizations

PIEs: Public Interest Entities

PSM: Propensity Score Matching

SED: Social and Environmental Disclosure

SMEs: Small and Medium-sized Enterprises

VIF: Variance Inflation Factor

INTRODUCTION

Research topic, objectives, and structure

1. Introduction

1.1 The emergence of sustainability reporting

In the last few decades, attempts to account for social and environmental impacts have been increasing from companies worldwide. The concept of conducting business in a sustainable manner is gaining predominance and has proliferated with the publication of Brundtland Report in 1987 (Bebbington et al., 2014). Specifically, in 1992, in the United Nations Conference on Environment and Development in Rio de Janeiro, the need for a sustainable way of conducting business was emphasized. According to Brundtland report, "Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNWCED, 1987, p. 43). Therefore, the Brundtland report emphasized the role of humans and their impact in the environment, globally. However, this report did not only emphasize the issue but also called for change of practices and behaviour that leads to the destruction of resources (Bebbington and Larrinaga, 2014). In the context of sustainable development, businesses are seen as crucial to respond to global challenges (Hamann, 2003). Related to this, companies are increasingly under the microscope and required to be held responsible for their actions. As a result of the significant attention on companies' actions on society and environment, the need for sustainability communication arose. According to Godemann and Michelsen, "the task of sustainability communication lies in introducing an understanding of the world, that is of the relationship between humans and their environment, into social discourse, developing a critical awareness of the problems about this relationship and then relating them to social values and norms" (Godemann and Michelsen, 2011, p. 6). Sustainability communication got off the ground around the late 80s and early 90s, in addition to financial information reporting. Therefore, companies started to extend their reporting practices to also including information on social and environmental aspects (Milne and Gray, 2010). This new reporting information was at first appearing as part of annual reports to later emerge also as a stand-alone report. As part of the annual reports, entities merged information regarding social, environmental, and financial aspects, also referring to the 'triple bottom line' reporting. (Elkington, 1997). The "tiple bottom line" was first introduced by Elkington in 1997 proposing an accounting framework which includes three aspects of companies' performance: social, environmental, and economic. Thus, it differs from traditional reporting frameworks as it also integrates the environmental and social dimensions (Elkington, 1997). The triple bottom line approach involves assessing companies' values, strategies, and practices and how they can be used to achieve economic, environmental, and social objectives.

Some early examples of sustainability communication include the first value report of the Body Shop International in 1995 which included environmental and social-related information (Ioannou and Serafeim, 2017). Therefore, in the next years, the triple bottom line approach was slowly being incorporated into corporate reporting with the aim to ensure a rigorous sustainability reporting.

Corporate rationales for sustainability reporting range from legitimacy reasons (Deegan, 2002; Patten, 1992), reputation and risk management (Bebbington et al., 2008), signalling (Spence, 1973; Connelly et al., 2010), stakeholder pressures (DiMaggio and Powell, 1983) and stakeholder thinking (Laplume et al., 2008; Freeman, 2010). Legitimacy is defined by Lindblom (1993, p.2) as:

"A condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy."

In the sustainability reporting context, transparency and accountability towards stakeholders is seen as a legitimate action which gives organizations a license to operate. When stakeholders are not satisfied with how an organization is operating, it can immediately be reflected by for instance, costumers not buying anymore, financial institutions not supporting financially and non-governmental organizations lobbying for regulations (Deegan, 2014).

Another rationale as recognized by research which drives sustainability reporting is reputation and risk management issue (Bebbington et al., 2008). Good reputation is seen as an asset for companies which instead might bring tangible benefits ranging from premium prices for products to loyal employees and customers. However, reputation should be formed and managed throughout the business cycle. From a sustainability perspective, reputation could also pose a risk for companies if social and environmental aspects are ill-managed and as a result, stakeholders' perceptions become negative. Research shows that sustainability reporting is often used to manage reputational risk (Friedman and Miles, 2001; Bebbington et al., 2008). Related to reputational reasons to disclosure is signalling which according Adomßent and Godemann (2011) represents a willingness to communicate and deal with societal and environmental issues and might serve as creating the basis for a continuous communication

with stakeholders. Usually, good performers in sustainability engage in disclosure to signal their superior performance as without proper communication, it can lead to information asymmetry. Therefore, to reduce information asymmetry, companies proactively start reporting on sustainability information (Hahn and Kühnen, 2013).

Finally, stakeholder pressure and thinking are two other interconnected rationales for sustainability reporting. Stakeholder pressures aim at the institutionalization of sustainability reporting within organizations. The influence of stakeholders with ideas and practices within organizations could bring homogenization which is known as isomorphism by DiMaggio and Powell (1983). Isomorphism is driven by three different mechanisms such as mimetic, coercive and normative. Mimetic mechanisms drive organizations to behave by mimicking the behaviour of other organizations, especially those who are seen as successful. Coercive mechanisms instead include both formal pressures such as regulatory requirements to comply to certain laws and adopt certain behaviour. The normative mechanism instead is based on values and norms, pushing organizations to behave with professionalization in order to act according to society expectations. Stakeholder theory instead is concerned with the relationship between the company and its stakeholders (Freeman, 2010). Stakeholder thinking posits organizations as serving the needs of society and stakeholders at broad. Therefore, an organization has to meet the various expectations of all stakeholders and not only shareholders following the logic that organizations do not only have economic performance but also social and environmental accountability. According to Michelon (2011), sustainability reporting helps in this regard by facilitating the dialogue between the company and its stakeholders with the aim to provide transparency and accountability.

1.2 Voluntary sustainability reporting

The trend of sustainability reporting gained predominance with the development of the so-called "de-facto" reporting standards, the Global Reporting Initiative (hereafter the GRI) (Hahn and Kühnen, 2013). Its importance is acknowledged by researchers, characterizing the GRI as the main driver of voluntary sustainability reporting (Vormedal and Ruud, 2009). The first version of the GRI guidelines was introduced in 1999 with the aim to offer a globally shared framework of concepts, language, and metrics to communicate sustainability maters (GRI, 2011). The GRI guidelines suggest disclosure on the three main areas: economic, social and environmental. In 2000, 44 companies used the GRI guidelines to report sustainability information while ten years later (in 2010), the number of companies voluntarily reporting

increased to around 2,000 (Ioannou and Serafeim, 2017). Up to date, the GRI is considered the most used reporting standards worldwide (KPMG, 2020). Thus, the development of the GRI framework has indeed been a success to drive sustainability reporting further. However, in addition to the development of the GRI, other reporting standards were increasingly born. In 2010, the formation of the International Integrated Reporting Committee (IIRC) took place where the Integrated Reporting <IR> was introduced. The <IR> was peculiar because of its objective to provide a concise report by incorporating both financial and non-financial information (IIRC, 2012). Pioneers in integrated reporting are considered the Novo Nordisk and the South African King Commission (de Villiers et al., 2014). Novo Nordisk started developing integrated reporting with the objective to measure and account for social and environmental responsibility and expand their accountability from shareholders to all the stakeholders. Instead, on a country level, in South Africa, the disclosure of non-financial information gained prominence using the integrated reporting framework. King III urged businesses to adopt the integrated thinking and understand that the strategy, governance, and sustainability are closely interconnected (de Villiers et al., 2014). Up to date, integrated reporting is mandatory for all listed firms in the Johannesburg Stock Exchange (JSE) (Conway, 2019). In addition to the development of the GRI and the <IR>, other reporting frameworks emerged such as Sustainability Accounting Standards Board (SASB) standards, Carbon Disclosure Project (CDP) and the recommendations from the Task Force on Climate-related Financial Disclosure (TCFD).

Sustainability-related reporting practice is mainly provided voluntarily such that companies are flexible when disclosing information. However, research characterized the voluntary nature of sustainability reporting as lacking comparability and standardization (Jeffrey and Perkins, 2013; Korca and Costa, 2021). To tackle issues of comparability and data asymmetry, new regulations are being developed worldwide. The report published by the International Platform on Sustainable Finance (IPSF) has emphasized the rise of mandatory disclosure, including both existing and planned policy measures (IPSF, 2021). Therefore, many jurisdictions are moving towards mandatory sustainability reporting.

1.3 Mandatory sustainability reporting

As noted above, mandatory disclosure measures are increasing in many jurisdictions worldwide (IPSF, 2021; Michelon, 2021). A broader set of stakeholders, including the investment community, is now demanding a more active and substantive role by governments in the

sustainability reporting field (Ioannou and Serafeim, 2017). Stakeholders are those who can affect and/or be affected by the operations of an organization. Therefore. Stakeholder involvement in the context of sustainability reporting is crucial to identify what matters for a whole range of stakeholders and communicate risks, impacts and opportunities related to these matters. Diverse stakeholder groups with sustainability expectations towards organizations may include shareholders, investors, insurers, banks, customers, suppliers, employees, NGOs, trade unions and the media (Rinaldi et al., 2014). Recently, regulators in certain jurisdictions are actively participating in drawing new regulatory requirements towards companies for sustainability reporting. South Africa is considered among the pioneers in mandatory sustainability reporting. In 2009, through the King Code of Corporate Governance Principles, known as "King III", disclosure of non-financial information was mandated for listed companies in the JSE (Conway, 2019). The aim of mandating social and environmental disclosure in addition to the financial statements was to provide investors with a concise report (integrated reporting) where all dimensions of an organization (economic, social, and environmental) are presented and thus, investors could make more informed decisions (de Villiers et al. 2014).

The European Union (EU) represents another jurisdiction which has been long engaged in putting sustainability into businesses' agenda. Starting with the program developed in 1992 "Towards Sustainability", the EU initiated the idea that resources need to be used in a way in a sustainable way that future generations can access that too. It was a momentum to start acknowledging the need for a sustainable way of doing business. In addition, in 2001, the European Commission (EC) published its recommendations to organizations to start recognizing, measuring, and disclosing their environmental impacts (EC, 2001). Two years later, the recommendations of 2001 were followed by Directive 2003/51/EC (also known as the "Accounting Modernisation Directive") which suggested that entities report on their social and environmental aspects, where appropriate. In the upcoming years, new Directives were tabled such as Directive 2013/0110 amending Council Directives 78/660/EEC and 83/349/EEC regarding disclosure of nonfinancial and diversity information by certain large companies and groups. Up to date, the EC has undertaken various initiatives with the aim ensure higher transparency, information comparability and direct capital towards sustainable companies and projects. Directive 2014/95/EU or also known as the Non-Financial Reporting Directive (NFRD) was issued in 2014 and requires disclosure of social and environmental information from large companies, on a mandatory basis (EU, 2014). Therefore, EU companies have been

complying to the NFRD starting from 2018 (with reference to the financial year of 2017). In addition to the NFRD, in 2021, the EC has introduced new regulations and proposals for sustainability reporting. From March 2021, the Sustainable Finance Disclosure Regulation (SFDR) applies to all financial market participants which offer investment products, and financial advisers (EU, 2019). Disclosure on sustainability risks and adverse impacts is required both at the entity and product and/or service level. In April 2021, a proposal for the Corporate Sustainability Reporting Directive (CSRD) was published. The CSRD is intended to amend the NFRD by incorporating some changes such as the scope, reporting framework and disclosure content (EC, 2021). For instance, the CSRD aims to expand its scope by requiring all large companies and all listed (including small and medium enterprises) to report information on certain aspects, including value chain matters, sustainability targets and intangibles. The EU is developing its reporting standards which will be mandatory to follow and tailored to specific industries and company size (EU, 2021).

1.4 Normativity in sustainability reporting

The sections above highlighted how sustainability reporting developed over years in two different settings, voluntary and mandatory. However, research found a black box beyond the voluntary and mandatory reporting regimes (Larrinaga and Senn, 2021). Often, formal laws have not been sufficiently impactful in corporate reporting (Chauvey et al., 2015; Korca et al., 2021) while voluntary practices have sometimes shown examples of norm development in sustainability reporting (Bebbington et al., 2012; Korca et al., 2021). Considering this "grey area" (Larrinaga and Senn, 2021, p.138) in sustainability reporting research, the production of normativity by the NFRD has been questioned over the last years. The NFRD represents the current regulation mandating sustainability reporting in the EU but its success in driving more transparency and high-quality disclosure (EU, 2014) is still under scrutiny.

The notion of normativity relates to how rules are seen as binding and legitimate (Bebbington et al., 2012) such that effective compliance is ensured. However, normativity is not only expected by formal laws such as directives but can also come from informal forms of regulating behaviour such as soft law (Bebbington et al., 2012; Korca et al., 2021). At times, previous experience in sustainability reporting might support formal laws and regulations to produce normativity (Korca, 2021; Korca et al., 2021). However, normativity may change over time until coming at a point when it is taken for granted (Bebbington et al., 2012; Chauvey et al.,

2015). According to Bebbington et al. (2012, p. 79), normativity comes through a three-stage process:

It starts with emergence of norms, characterized by the innovation of norm entrepreneurs, followed by diffusion leading to a ‘‘tipping point’’ after which the norm cascades to reach a point at the end of the life cycle where norms are internalised and acquire a taken-for-granted quality.

It is important to acknowledge that the emergence of norms in an environment is not isolated from other factors such as pre-existence of experience on sustainability reporting, non-binding guidelines and other pre-existing or accompanying factors. Studies have shown that in the sustainability reporting context, a combination of voluntary and mandatory elements has led to internalization of sustainability reporting and production of normativity (see Bebbington et al., 2012; Chelli et al., 2018; Korca et al., 2021; Larrinaga and Senn, 2021). Thus, the diffusion stage, leading to a "tipping point" (Bebbington et al., 2012, p.79) might take place combining different elements such as voluntary disclosure and emergence of regulatory requirements. Voluntary disclosure is usually a product of soft law, therefore rules which are legally non-binding and influenced by international bodies (i.e., those developing voluntary reporting standards). Instead, mandatory disclosure is characterized by compliance with binding rules and response to coercive requests (Larrinaga and Senn, 2021). Figure 1 shows the dynamics of normativity represented linearly starting from norm emergence to norm diffusion, leading to a tipping point, to then the norm potentially becoming internalized (Bebbington et al., 2012; Larrinaga and Senn, 2021). However, as noted by previous research, norm creation up to norm internalization is not always a clear and linear process (Larrinaga and Senn, 2021; Korca et al., 2021).

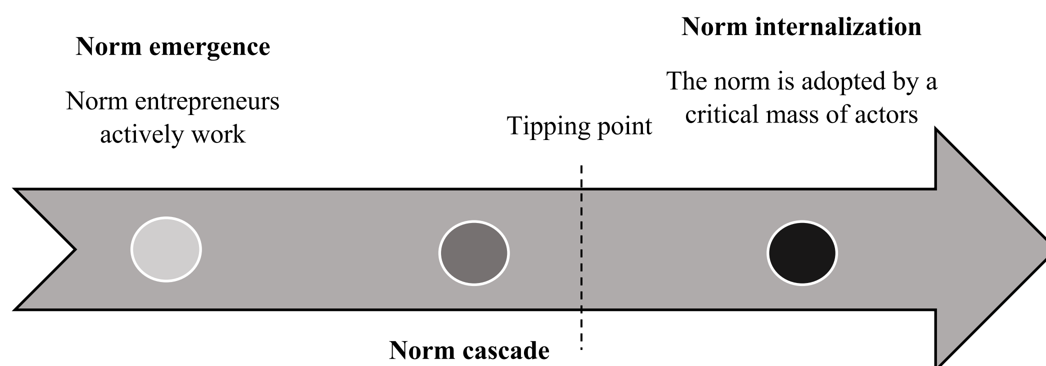

Figure 1. Normativity production dynamics (from Larrinaga and Senn, p. 146).

The following section outlines this dissertation's objectives and structure which aims to understand if and how normativity is constructed in the European context, following the introduction and compliance with the NFRD.

1.5 Dissertation's objective and structure

As highlighted above, sustainability reporting is gaining predominance rapidly around the globe. It has started on a voluntary basis and up to date, there is an increasing trend towards mandatory requirements for sustainability reporting (IPSF, 2021; Michelon, 2021). As one of the pioneer jurisdictions to mandate sustainability reporting, the EU is continuously developing their policies towards corporate transparency and sustainability. Due to its longstanding focus on sustainability, the EU is considered a leading region for policy measures on reporting (Carrots and Sticks, 2020). Considering the latest regulatory developments such as the NFRD, it remains relevant to explore its contribution to normativity creation in sustainability reporting. The main objective of this dissertation is to deepen the understanding on the effects of the NFRD on sustainability reporting, and sustainability and financial performance. This dissertation includes three main chapters as follows:

i) Systematic Literature Review with the aim to identify gaps in the literature and future research avenues related to the NFRD
ii) Longitudinal case study to explore the sustainability reporting in two different regimes, voluntary and mandatory
iii) Study investigating the impact of the NFRD on both sustainability and financial performance

The first chapter analyses the current state of research around the NFRD with the aim to identify gaps in the literature and offer future research directions. This study conducts a systematic literature review of 78 studies spanning seven years (2014–2020) that address the NFRD. Four main stages are followed to conduct the literature review as follows: 1) searching for articles, (2) collection of published articles, (3) screening and (4) analysis. Searching for articles both in Google Scholar and Scopus, resulted in 2,600 studies. The collection phase took place by excluding studies which are (1) written in a language other than English, (2) bachelor's, master's, or Ph.D. theses, (3) book chapters, (4) studies that mention the Directive only in citations and (5) conference papers. As a result of this exclusion criteria, only 78 studies

remained as eligible for analysis. The third phase included screening the information from these 78 studies following ten categories (Guthrie et al., 2012; Fatma and Rahman, 2015; Adams and Larrinaga, 2019) such as (1) the year of publication, (2) author, (3) title, (4) journal, (5) the aim of the study, (6) country of analysis, (7) theory, (8) methods used, (9) time frame of the analysis and (10) organisational focus. After gathering the information for all the articles following the ten categories, the analysis took place. The analysis was based on two main steps. First, with the help of the ten categories, publications were grouped into six themes (Fatma and Rahman, 2015) as follows: (1) distribution of articles by year, (2) distribution of articles by country of analysis, (3) main focus of articles, (4) methodology, (5) organisational focus and (6) theoretical contribution. Grouping the articles into themes has helped to better understand what the current state of research is following the NFRD. The second step was to identify gaps in the literature and draw future research directions. According to this study, future research could focus on addressing issues related to the NFRD's potential impacts, both in terms of disclosure and companies' financial performance. Second, considering that context plays an important role in defining the regulation's impact, future research should consider these contextual factors in sustainability reporting. Third, further research should investigate the interplay between the binding requirements of the Directive and the non-binding guidelines suggested to implement it. Finally, future research would do well to employ additional theoretical approaches in order to interpret the Directive's diverse effects for various countries, organisations and timelines.

Following on the results from the first chapter, the aim of the second chapter is to explore sustainability reporting in a banking group over eight years, both during voluntary (2013-2017) and mandatory disclosure (2018-2020). The research question is how the sustainability reporting has evolved during two reporting regimes in terms of both quantity and quality. To answer the research questions, this study is based on a single case study (Yin, 2014) conducted from 2013 until 2020 on an Italian banking group. The banking group has been disclosing sustainability information on a voluntary basis starting from 2013 and from 2018, it was required to comply to the NFRD. Both primary and secondary data are used to conduct the research. First, a content analysis was conducted on eight non-financial report (or sustainability reporting). Second, as primary data, semi-structured interviews are conducted, and seminars are attended to better understand the development and processes underlying sustainability reporting in two regimes. Results are interpreted in the light of institutional theory as it allows to better understand the institutional forces (DiMaggio and Powell, 1983) which influenced disclosure quantity and quality in both voluntary and mandatory basis. It was found out that sustainability

reporting volume significantly increased after the regulation which was not the case for the quality. The improvement in quality is low except for themes which are seen as relevant by the banking group. An interplay of institutional mechanisms co-existed within the bank, not only to drive disclosure differently in the two reporting regimes, but also for certain disclosure topics to be developed more than the others such that normativity is produced.

The last chapter of the dissertation undertakes a quantitative approach with the aim to explore the impact of the NFRD on both sustainability and financial performance. The empirical setting allows for a thorough examination on the effects that NFRD produced. By employing a difference-in-differences (DiD) approach and propensity score matching (PSM), differences are observed in the treated companies, compared to the control group, subsequent to the regulation. This study uses a sample of European companies from different sectors for ten years (2011 to 2020) as the treatment group and US companies as the control group. The unmatched sample contains 16,990 firm-year observations and after the PSM, it is reduced to 7,278 firm-year observations. Results suggest that treated firms have higher sustainability performance, specifically on environmental and social aspects in contrast to companies in the control group. Therefore, the impact of the NFRD on sustainability performance is significant and positive. Instead, regarding financial performance, opposite results are demonstrated. From this analysis, it is shown that there is a significant and negative effect on two financial performance proxies, return on assets and market value measured by Tobin's Q. Drawing on the legitimacy and signalling theory, the EU companies have responded to the regulation by complying with it by using a transparency-action approach (Li and Jia, 2021). To maintain legitimacy, companies have not only disclosed information but have employed sustainability actions to signal a positive performance. However, in terms of economic consequences, in the short-term, this approach of EU companies to respond to the NFRD is reflected negatively.

References

Adams, C. and Larrinaga, C. (2019). Progress: engaging with organisations in pursuit of improved sustainability accounting and performance. *Accounting, Auditing and Accountability Journal,* 32 (8), 2367-2394.

Adomßent, M. and Godemann, J. (2011). Sustainability Communication: An Integrative Approach. In Godemann, J. and Michelsen, G. (eds), *Sustainability Communication*. Springer, Dordrecht.

Bebbington, J and Larrinaga, C. (2014). Accounting and sustainable development: An exploration, *Accounting, Organizations and Society*, 39 (6), 395-413, https://doi.org/10.1016/j.aos.2014.01.003.

Bebbington, J., Kirk, E. and Larrinaga, C. (2012). The production of normativity: A comparison of reporting regimes in Spain and the UK. *Accounting, Organizations and Society*, 37(2), 78–94. https://doi.org/10.1016/j.aos.2012.01.001.

Bebbington, J., Larrinaga, C. and Moneva, J. M. (2008). Corporate social reporting and reputation risk management. *Accounting, Auditing and Accountability Journal*, 21, 337–361.

Bebbington, J., Unerman, J. and O'Dwyer, J. (2014). Introduction to sustainability accounting and accountability. In Unerman, J., Bebbington, J. and O'Dywer, B. (Eds), *Sustainability Accounting and Accountability*, (pp. 3-14). Routledge: London.

Carrots & Sticks. (2020). Sustainability Reporting Policy: Global trends in disclosure as the ESG agenda goes mainstream. https://www.carrotsandsticks.net/.

Chauvey, J.-N., Giordano-Spring, S., Cho, C. H. and Patten, D. M. (2015). The normativity and legitimacy of CSR disclosure: Evidence from France. *Journal of Business Ethics,* 130(4), 789–803. https://doi.org/10.1007/s10551-014-2114-y.

Chelli, M., S. Durocher, and A. Fortin. (2018). Normativity in Environmental Reporting: A Comparison of Three Regimes. *Journal of Business Ethics*, 149, 285–311.

Connelly, B. L., Trevis C. S., Ireland, D. R. D and Reutzel, R. Ch. (2011). Signaling Theory: A Review and an Assessment. *Journal of Management,* 37 (1), 39–67.

Conway, E. (2019). Quantitative impacts of mandatory integrated reporting. *Journal of Financial Reporting and Accounting*, 17(4), 604–634. https://doi.org/10.1108/JFRA-08-2018-0066.

De Villiers, C., Rinaldi, L. and Unerman, J. (2014). Integrated reporting: insights, gaps, and an agenda for future research. *Accounting, Auditing and Accountability Journal*, 27 (1), 1042-1067. https://doi.org/10.1108/AAAJ-06-2014-1736.

Deegan C. (2014). An overview of legitimacy theory as applied within the social and environmental accounting literature. In Unerman, J., Bebbington, J. and O'Dywer, B. (Eds), *Sustainability Accounting and Accountability*, (pp. 248–272). Routledge: London.

Deegan, C. (2002). Introduction: The legitimizing effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311. https://doi.org/10.1108/09513570210435852.

DiMaggio, P. J. and Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. https://doi.org/10.2307/2095101.

EC (2021). European Commission Proposal for a Directive of The European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting. Retrieved in June 2021 from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0189.

EC. (2001). COMMISSION RECOMMENDATION of 30 May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32001H0453

Elkington J. (1997). *Cannibals with forks: the triple bottom line of 21st century business*. Oxford: Capstone.

EU (2019). Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector. https://eur-lex.europa.eu/eli/reg/2019/2088/oj.

EU. (2014). DIRECTIVE 2014/95/EU OF THE EUROPEAN PARLIAMENTAND OF THE COUNCIL of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095.

Fatma, M. and Rahman, Z. (2015). Consumer perspective on CSR literature review and future research agenda. *Management Research Review,* 38 (2), 195-216.

Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Pitman.

Friedman, A. L and Miles, S. (2001) Socially Responsible Investment and Corporate Social and Environmental Reporting in the UK: An Exploratory Study, *The British Accounting Review,* 33 (4), 523-548, https://doi.org/10.1006/bare.2001.0172.

Godemann J. and Michelsen G. (2011). Sustainability Communication – An Introduction. In Godemann, J. and Michelsen, G. (eds), *Sustainability Communication*. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-1697-1_1.

GRI, (2011). Sustainability Reporting Guidelines: Version 3.1. Amsterdam.

Guthrie, J., Ricceri, F. and Dumay, J. (2012). Reflections and. Projections: a decade of intellectual capital accounting research. *The British Accounting Review*, 44 (2), 68-82.

Hahn, R. and Kühnen, M. (2013). Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production,* 59, 5-21.

Hamann, R. (2003). Mining companies' role in sustainable development: The 'why' and 'how' of corporate social responsibility from a business perspective. *Development Southern Africa*, 20 (2), 237-254, DOI: 10.1080/03768350302957.

IIRC. (Ed.) (2012). Prototype of the International /IRS Framework, IIRC.

Ioannou, I. and Serafeim, G. (2017). The Consequences of Mandatory Corporate Sustainability Reporting, working Paper, Harvard Business School Research, Boston.

IPSF (2021). State and trends of ESG disclosure policy measures across IPSF jurisdictions, Brazil and the US. Retrieved from https://ec.europa.eu/info/files/international-platform-sustainable-finance-esg-disclosure-report-2021_en.

Jeffrey, C. and Perkins, J.D. (2013). Social norms and disclosure policy: implications from a comparison of financial and corporate social responsibility reporting. *Social and Environmental Accountability Journal*, 33 (1), 5-19.

Korca, B. (2021). Thematic Review on the Concept of Normativity in Environmental Reporting, Social and Environmental Accountability Journal. 10.1080/0969160X.2021.1955508.

Korca, B. and Costa, E. (2021). Directive 2014/95/EU: Building a research agenda. *Journal of Applied Accounting Research*, 22(3), 401–422. https://doi.org/10.1108/JAAR-05-2020-0085.

Korca, B., Costa, E. and Farneti, F. (2021). From voluntary to mandatory non-financial disclosure following Directive 2014/95/EU: an Italian case study. *Accounting in Europe,* 18(3), 353-377. 10.1080/17449480.2021.1933113.

Laplume A. O., Sonpar K., and Litz R. A. (2008). Stakeholder Theory: Reviewing a Theory That Moves Us. *Journal of Management*, 34(6), 1152-1189. 10.1177/0149206308324322.

Larrinaga, C. and Senn, J. (2021). Norm development in environmental reporting. In Bebbington, J., Larrinaga, C., O'Dwyer, B. and Thomson, I. (Eds), *Routledge Handbook of Environmental Accounting*, (pp.137-150). Routledge.

Li, Z. and Jia, J. (2021). Effect of mandatory sustainability disclosure announcements: cross-country evidence. *Pacific Accounting Review*, ahead-of-print (ahead-of-print). https://doi.org/10.1108/PAR-09-2020-0141.

Lindblom, C.K. (1993). The implications of organizational legitimacy for corporate social performance and disclosure. *Proceedings of the Critical Perspectives on Accounting Conference,* New York, NY.

Michelon, G. (2011). Sustainability Disclosure and Reputation: A Comparative Study. *Corporate Reputation Review*, 14, 79–96. https://doi.org/10.1057/crr.2011.10.

Michelon. G (2021). Financial markets and environmental information. In Bebbington, J., Larrinaga, C., O'Dwyer, B. and Thomson, I. (Eds). *Routledge Handbook of Environmental Accounting*, (pp. 165-178), Routledge.

Milne, M. and Gray, R. (2010). Future prospects for sustainability reporting. In J. Unerman, J. Bebbington, and O'Dwyer, B. (Eds.), *Sustainability accounting and accountability*, (pp. 184–207). London: Routledge.

Patten, D.M. (1992). Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory. *Accounting, Organizations and Society*, 17 (5), 471-475, https://doi.org/10.1016/0361-3682(92)90042-Q.

Rinaldi, L., Unerman, J. and Tilt, C. (2014). The role of stakeholder engagement and dialogue within the sustainability accounting and reporting process. In Bebbington, J., Unerman, J. and O'Dwyer, B. (Eds), *Sustainability Accounting and Accountability*, (pp. 86-107) Routledge, London.

Senn, J. and S. Giordano-Spring. (2020). The Limits of Environmental Accounting Disclosure: Enforcement of Regulations, Standards and Interpretative Strategies. *Accounting, Auditing & Accountability Journal*, 33 (6), 1367–1393.

Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87(3), 355-374.

UNWCED (1987). Report of the world commission on environment and development: Our common future. Oxford: Oxford University Press.

Vormedal, I. and Ruud, A., (2009). Sustainability Reporting in Norway: an assessment of performance in the context of legal demands and socio-political drivers. *Business Strategy and the Environment*, 18, 207-222.

CHAPTER ONE

Directive 2014/95/EU: Building a Research Agenda

Co-authored with Ericka Costa
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ABSTRACT

This paper discusses the current state of research into Directive 2014/95/EU and non-financial disclosure, with the aim of offering a future research agenda. The authors have conducted a systematic literature review of 78 studies spanning seven years (2014 to 2020) that address Directive 2014/95/EU. The literature review revealed four main avenues for future research. First, future studies could focus on addressing issues related to the EU directive's potential impacts, both in terms of non-financial disclosure and companies' financial performance. Second, because context plays an important role in defining the regulation's impact, future research should consider these contextual factors in non-financial disclosure. Third, further research should investigate the interplay between the binding requirements of the Directive and the non-binding guidelines suggested to implement it. Finally, future research would do well to employ additional theoretical approaches in order to interpret the Directive's diverse effects for various countries, organisations, and timelines. This paper presents the first systematic literature review considering the current state of research into the EU Directive, thus drawing a future research agenda. Focusing on the Directive's implementation across countries and organisations with a longitudinal approach, this paper could indicate whether mandatory reporting enhances non-financial information disclosure, and consequently, organisational actions. This work could inform both companies' and policy-makers' approach to disclosure, whether mandatory or otherwise.

Keywords: Directive 2014/95/EU, EU Directive, systematic literature review, non-financial disclosure, research agenda

315. Introduction

In recent decades, social and environmental disclosure (SED) has inspired academic debate, with many scholars and practitioners seeking to understand the activities undertaken for organisations' environmental, social, and economic sustainability (Guthrie and Parker, 2017; Lehner and Harrer, 2019). Over 90 percent of the world's 250 largest companies report non-financial information (KPMG, 2017) with the purpose of demonstrating responsible behaviours in environmental, social, and governance issues (Pichler and Lehner, 2017). Although corporate SED has increased significantly, the majority is still provided on a voluntary basis (Costa and Agostini, 2016). The debate surrounding voluntary versus mandatory disclosure remains valid both at academic and policy levels. Indeed, on one hand, many scholars favour voluntary SED because it allows greater flexibility for companies' specific contexts and needs (Larrinaga et al., 2002; Day and Woodward 2004; Criado-Jiménez et al., 2008); on the other hand, some scholars support mandatory SED because it can ameliorate the lack of neutrality, objectivity, and comparability among companies (Hibbitt and Collison, 2004; Jeffrey and Perkins, 2013). Within this climate, the European Commission (EC) in 2001 began to outline a Corporate Social Responsibility agenda with the aim of implementing mandatory disclosure across European countries (EC, 2011); this agenda sought to support reliable, clear, comparable, and valid information. More recently, the EC introduced Directive 2014/95/EU (hereafter EU Directive) on non-financial and diversity information disclosure. This regulation aims to increase transparency on social and environmental issues (EU, 2014) and ensure consistent, comparable, and relevant information provision between companies (Lehner and Harrer, 2019). The EU Directive applies to large undertakings, public interest entities (PIEs), and organisations with more than 500 employees (CSR Europe and GRI, 2017). This European law mandates that organisations must report on environmental, social, employee, human rights, and diversity issues as well as anti-corruption and bribery matters. In providing this reporting, undertakings may choose the framework of their disclosures. In this direction, the EU has issued non-binding guidelines (EC, 2017) to assist undertakings disclose non-financial and diversity information. EU member states had to comply with the regulation starting in 2018 with reference to the financial year of 2017 (EU, 2014). The latest development regarding the EU Directive occurred in February 2020 when the EU launched a public consultation session to gather stakeholder feedback with regard to the Directive.

Many scholars have begun addressing the Directive in the SED research stream. Previous studies have adopted different perspectives in order to understand application of the EU

Directive (Pichler and Lehner, 2017). Many scholars have investigated the Directive's implementation at the single-country level (Szabó and Sørensen, 2015; Venturelli et al., 2017; Matuszak and Różańska, 2017; Dumitru et al., 2017; Tiron-Tudor et al., 2019), producing contrasting views regarding its application and impact. Some opponents of the law have emerged, while others remain more optimistic. From the former perspective, Szabó and Sørensen (2015) argue that the EU Directive will likely have little effect because it does not offer details on how to collect information or how to proceed with the disclosure. Other scholars note that the new directive is more specific in terms of its structure and requirements compared to prior attempts at regulating non-financial disclosure (NFD) (Costa and Agostini, 2016). The existing studies have helped to understand the Directive's application across Europe while simultaneously contributing to a bigger "puzzle."

Therefore, in order to provide a comprehensive and holistic understanding of the implementation of Directive 2014/95/EU across Europe, this study adopts a systematic literature review exploring the issues, countries, theories, and methods employed by the current body of research. It then builds toward a future research agenda. From a methodological viewpoint, the systematic literature review developed in this paper has involved four main processes: i) selection, ii) collection, iii) screening, and iv) analysis. Our analysis of the existing literature provides four broad research avenues that could be addressed in future studies, including i) the potential impact of the EU Directive on NFD and financial performance, ii) the role of contextual aspects in addressing mandatory NFD, iii) the interplay between the binding Directive and non-binding guidelines, and iv) theorising in regulation studies.

The slaminder of this study is structured as follows. Section 2 offers a thorough overview of Directive 2014/95/EU and its position in the broad field of SED. Section 3 explains the methods used to conduct the systematic literature review, while Section 4 provides a discussion of the findings. Section 5 offers a future research agenda before section 6 concludes the study.

2. Directive 2014/95/EU and Non-Financial Disclosure

Corporate disclosures have increased rapidly, changing both in terms of economic and financial drivers and in terms of non-financial disclosures (NFD) regarding social and environmental information (Cho et al., 2015; Guthrie and Parker, 2017). In order to track and share the impact that one company might have on both the environment and society at large, NFD has evolved over the last forty years. According to Gray (2002), NFD involves several different terms, such

as corporate social disclosure, social responsibility disclosure, social audits, and others. In the late 90s, non-financial reporting/disclosure initially emerged as companies' voluntary actions to share information about social and environmental aspects (Milne and Gray, 2007). According to Gray et al. (1996), this broad disclosure was a form of accountability, a "moral" duty to justify the actions taken by companies to impact different stakeholders. To date, this form of social and environmental reporting/disclosure has been primarily voluntary in Europe. These non-legally binding actions, such as "Towards Sustainability" in 1992 (EC, 1992) sought to bring attention to NFD and transparency regarding social and environmental matters. After many years of voluntary SED implementation and a great deal of research highlighting its lack of neutrality, objectivity, and comparability (Hibbitt and Collison, 2004; Jeffrey and Perkins, 2013), the EU started to foster corporate reporting in non-financial matters via some form of mandatory Directive and binding requirements. The first European Directive, 2013/34/EU, focused on policies, risks, and outcomes regarding environmental matters as well as employee-related aspects (Costa and Agostini, 2016). More recently, Directive 2014/95/EU has introduced a mandatory NFD requirement at the European level (EU, 2014). Compared to the previous initiative, this Directive includes more specific requirements.

Directive 2014/95/EU, which amends Directive 2013/34/EU, requires the disclosure of non-financial information (hereafter NFI) and diversity information from certain large undertakings. The European Parliament approved the EU Directive on the 15th of November 2014 and began applying it on the 5th of December 2014. However, member states had until the 6th of December 2016 to transpose the directive into their national laws. Therefore, European undertakings had to comply with this law starting from 2018, with reference to the financial year of 2017. The EU Directive aims to ensure that organisations report NFI that is relevant to investors and other stakeholders seeking to gain a better understanding of the organisation's development and impact (EU, 2014). The organisations expected to comply with the law include large undertakings, public interest entities (PIEs), and companies with more than 500 employees (CSR Europe and GRI, 2017). According to Directive 2013/34/EU, large undertakings include companies, which on the balance sheet, meet at least two of these three criteria: a) a balance sheet totalling €20.000.000; b) a net turnover of € 40.000.000; and c) an average number of employees of 250 during the financial year. For their part, PIEs include a) entities that trade transferable securities on a regulated market within EU member states; b) credit institutions; c) insurance companies; and d) other entities labelled by the member states as PIEs (EU, 2014).These undertakings are expected to share information about their business model,

policies, outcomes, risks, and key performance indicators (KPIs) regarding a) environmental matters; b) social and employee matters; c) respect for human rights; and d) anti-corruption and bribery matters (EU, 2014). For each of the four matters, companies shall disclose the following information: a) a description of the business model; b) a description of the policies that the group uses in relation to the matters above, including due diligence processes; c) the results of those policies; d) the principle risks related to the matters above linked to the group's operations including, where relevant and proportionate, its business relationships, products, or services that are likely to cause adverse impacts in those areas, and how the group manages those risks; and e) non-financial KPIs relevant to the business operations (EU, 2014). Though the EU Directive is not overly specific in terms of requirements (Szabó and Sørensen, 2015), the EC has issued some guidelines intended to assist organisations in reporting NFI. These guidelines align to many national and international frameworks utilised for reporting NFI. The main purpose of these guidelines was to support companies in providing NFI in a concise, comparable, and consistent way (EC, 2017). The guidelines are not binding; organisations can choose freely whether or not to follow them. According to the Directive's requirements, the key principles for reporting NFI include a) disclosure of material information, b) fair, balanced, and understandable information, c) comprehensive but concise information, d) strategic and forward-looking information, e) stakeholder-oriented disclosure, and f) consistent and coherent reporting (EC, 2017). The EC (2017) also provides suggestions with regard to frameworks that can be used. Many reporting frameworks already exist to assist organisations in sharing their social and environmental information. The EU guidelines have proposed that undertakings can decide whether to use national, EU-based, or international frameworks (EC, 2017) in structuring their information.

In February 2020, the EC launched a consultation session about Directive 2014/95/EU, which lasted until June 2020. While the Directive might undergo changes, it remains relevant to explore the Directive's implications over the last few years. Therefore, to better understand what is already offered in the literature and what still needs to be addressed, this study offers a systematic literature review, and as a result, provides a path to follow in conducting future research.

3. Methods

The main rationale for conducting this systematic literature review relies on the need for a thorough consideration of publications addressing the EU Directive and NFD. This regulation marks an important attempt by the EU to build greater company transparency; thus, it is crucial to explore what the body of literature has uncovered and left for further investigation. As such, building on previous literature reviews in the field of SED (Parker, 2005; Dienes et al., 2016; Adams and Larrinaga, 2019; Vanini and Rieg, 2019), this paper adopts a systematic literature review in order to examine the current research contributions with regard to the EU Directive and to offer future research suggestions. This research follows Denyer and Tranfield definition of a systematic literature review as “a specific methodology that locates existing studies, selects and evaluates contributions, analyses and synthesises data, and reports the evidence in such a way that allows reasonably clear conclusions to be reached about what is and is not known” (Denyer and Tranfield, 2009, p. 671). To this end, the review passed through four primary processes: (i) search, (ii) collection, (iii) screening, and (iv) analysis. Figure 1 offers a visualisation of the research process for the systematic literature review.

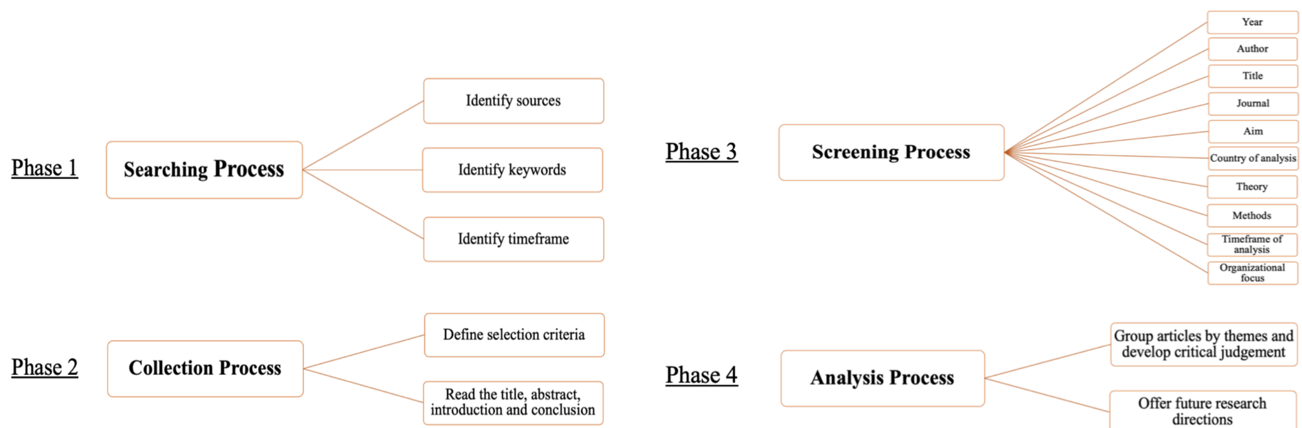

Figure 1. Research process for the literature review

The search process forms the first phase of the literature review. To begin searching for the material, we first needed to identify sources, ultimately adopting both Google Scholar and SCOPUS as sources for investigating scientific published papers. We then sought to identify keywords for the search (Fatma and Rahman, 2015; Dienes et al., 2016). As the purpose of the systematic literature review was to specifically consider articles addressing the latest EU directive, we chose the following keyword: “Directive 2014/95/EU”. In total, Google Scholar and SCOPUS yielded 2,660 results. However, after limiting the publication time frame to 2014-

2020, the number of results decreased to 2,600. The reason to consider this particular timeframe was because the EU Directive was issued in 2014 (EU, 2014), and the analysis includes studies published until the end of October 2020.

The slamid phase of the literature review is the collection process. This process involved the application of five main criteria to exclude material for the literature review. Studies excluded from the collection include the following: (i) those written in a language other than English, (ii) bachelor's, master's, or Ph.D. theses, (iii) book chapters, (iv) studies that mention the Directive only in citations, and (v) conference papers. To select the studies for the review process, articles' titles, abstracts, introductions, and conclusions were read. Ultimately, the search yielded 78 articles in total, published in 35 journals, over seven years (2014-2020). The references in the selected articles were cross-checked but did not result in new articles for the literature review.

The third phase of the literature review is the screening process. Consistent with previous studies (Guthrie et al., 2012; Fatma and Rahman, 2015; Adams and Larrinaga, 2019), ten categories were created in order to screen the content of the articles. The screening process involved collecting information from the publications, including a) year of publication, b) author, c) title, d) journal, e) aim of the study, f) country of analysis, g) theory, h) methods used, i) timeframe of the analysis, and j) organisational focus. This information was stored in an Excel file to be used in the analysis process. Table I offers an example of the information collected for the ten categories during the screening process.

Year	In which year is the article published?	2019
Author	Who is/are the author/s of the article?	Javier Andrades Peña and Manuel Larran Jorge
Title	What is the title of the article?	Examining the amount of mandatory non-financial information disclosed by Spanish state-owned enterprises and its potential influential variables.
Journal	In which journal is the article published?	Meditari Accountancy Research
Aim of the study	What is the main aim of the study?	Examine the extent of mandatory non-financial information disclosed by Spanish state-owned enterprises (SOEs) and barriers to and/or drivers of such disclosures.
Country of analysis	Which country is subject to analysis?	Spain
Theory	Does the article apply a theory and if yes, which?	Legitimacy theory

Methods	Which research methods are used in the article?	Content analysis of the website disclosures
Timeframe	What is the timeframe of the analysis?	2016
Organizational focus	Which industry/sector is subject to analysis?	State-owned enterprises

Table 1. Example of the screening process

The final phase of the review process involved analysing articles in order to draw conclusions. The analysis process therefore involved two main steps. Firstly, with the help of the ten categories introduced above, publications were grouped into six themes (Fatma and Rahman, 2015) as follows: i) distribution of articles by year, ii) distribution of articles by country of analysis, iii) main focus of articles, iv) methodology, v) organisational focus, and vi) theoretical contribution. The emergence of these themes is particularly relevant considering the topic of this literature review. Because the literature review focuses on papers related to regulation (in this case Directive 2014/95/EU), these themes highlight important information in the extant literature. For example, by analysing the year of publication, we come to an understanding of when scholars began analysing the Directive after it came into force. Knowing if the analysis undertakes a longitudinal approach as suggested by the literature (Dumitru et al., 2017; Matuszak and Różańska, 2017; Tarquinio et al., 2020) and not only one year after the Directive, contributes to understanding how the maturity of Directive is impacting companies' disclosure. As another example, the theme of organisational focus enables understanding of organisations because the Directive specifies the entities that have to comply (EU, 2014). Analysis of this theme provides insight into gaps in the literature in terms of organisations of focus. Indeed, all of the identified themes have assisted in determining the current state of studies addressing the EU Directive. Based on the current state of research with regard to the Directive, we can identify future avenues for research.

4. Findings and Discussion

The aim of this study is to provide research avenues in NFD on the basis of the recent EU Directive. To this end, the paper adopts a systematic literature review of the research addressing the EU Directive in terms of the articles' a) distribution by year, b) distribution by country of analysis, c) main focus, d) methodology, e) organisational focus, and f) theoretical contributions.

4.1 Distribution of articles – yearly

The articles considering the EU Directive were quite dispersed across the years. Starting from 2014 when the law was enacted until 2020, the published articles seem to have followed an unstable trend. Figure 2 shows how the academic research regarding the EU directive has developed over the years.

Perhaps because the EU Directive was issued in 2014, no article addresses it during this initial year. This finding shows that the academic community was not sufficiently informed on the arrival of the EU Directive to provide relevant feedback on its development (Garcia-Torea et al., 2019); studies published on NFD in 2014 did not have a chance to comment on the new upcoming Directive. However, research in this direction increased in subsequent years, reaching a peak in 2018. In 2015, the number of articles increased to 2, in 2016 to 9, and in 2017 to 11. The increasing trend of publications signals that the mandatory requirement on NFD attracted scholars' attention during this time. This observation was reinforced in 2018 with the number of articles increasing to 21, almost doubling compared to 2017. It seems that the EU Directive received the most attention in 2018, likely because it marked the first year of application in EU member states. As noted above, EU countries had to comply with the NFD law starting from 2018, with reference to the financial year of 2017 (EU, 2014). Over the next few years, research on the EU Directive decreased from 18 articles in 2019 to 16 in 2020.

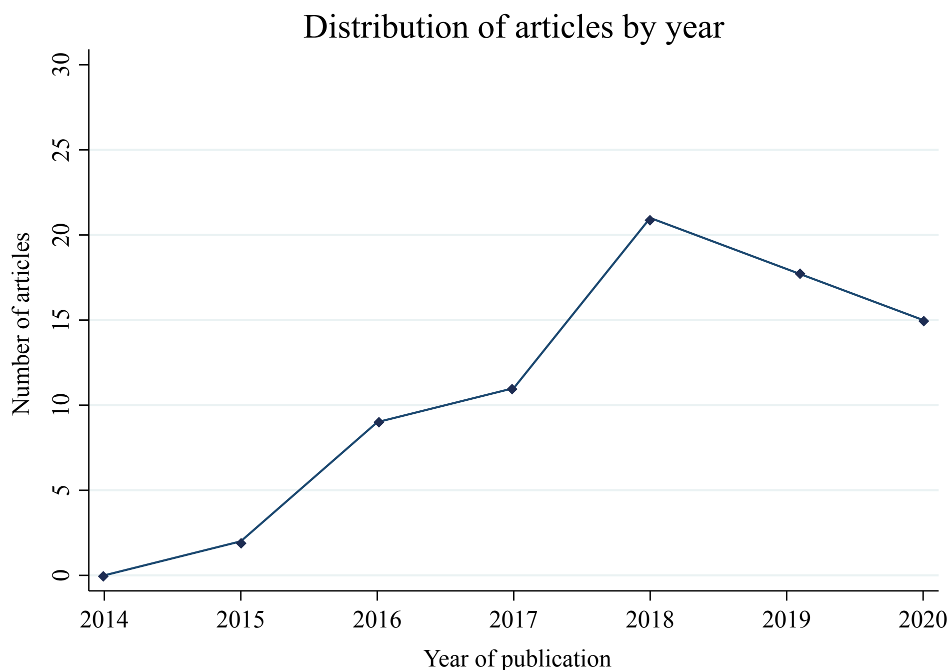

Figure 2. Distribution of articles by year

4.2 Distribution of articles by country of analysis

Because the Directive on NFD applies to all EU member states (EU, 2014), the analysis focuses on the distribution of research across these countries, with the aim of assessing if research into the EU Directive has provided insights from all member states. Such an analysis may contribute to our understanding of the Directive's impact at the European level. Table II offers an overview of the publications and their focuses in different countries.

Of the 28 countries of the EU, only 64% of countries are covered with research regarding the EU Directive. With 23 studies written about it, Italy has been the most researched country. After reading research from the Italian context, it became clear why this country is so highly represented by studies on the EU Directive. Scholars argue that there was a need to evaluate the effects of this regulation in a country like Italy where no previous regulation in this area existed (Caputo et al. 2019). The second most-analysed country is Poland, with 14 articles. Similar to the previous example, the Polish context also previously lacked similar regulations (Matuszak and Różańska, 2017; Krasodomska et al., 2020). The third country receiving attention from scholars is Germany, with 10 articles published during the seven years. It is interesting to see that Germany holds the third place with most articles regarding the EU Directive as during the negations process, one of the countries opposing the issue of EU Directive was Germany (Kinderman, 2019). The EU Directive is represented in studies of Spain, the United Kingdom, and France via 8, 7, and 7 articles, respectively. Other European countries are considered, but with less than 5 articles per country. Finally, some EU countries have been completely neglected in this area, including Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, and Slovakia.

Country	2014	2015	2016	2017	2018	2019	2020	Total
Austria	-	-	-	-	1	-	1	2
Belgium	-	-	-	-	1	-	1	2
Bulgaria	-	-	-	-	-	-		-
Croatia	-	-	1	1	-	-		2
Cyprus	-	-	-	-	-	-		-
Czechia	-	-	-	-	-	-		-
Denmark	-	1	-	-	1	1	1	4
Estonia	-	-	-	-	-	-		-
Finland	-	-	-	-	-	1	1	2
France	-	-	1	1	3	-	2	7
Germany	-	-	2	-	6	1	1	10

Greece	-	-	-	-	1	-		1
Hungary	-	-	-	-	-	-		-
Ireland	-	-	-	-	1	-		1
Italy	-	-	2	4	3	5	9	23
Latvia	-	-	-	-	-	-		-
Lithuania	-	-	-	-	-	-		-
Luxembourg	-	-	-	-	-	-		-
Malta	-	-	-	-	-	-		-
Netherlands	-	-	-	-	2	-	1	3
Poland	-	1	1	5	3	1	1	14
Portugal	-	-	-	-	1	-	1	2
Romania	-	-	-	1	1	2		4
Slovakia	-	-	-	-	-	-		-
Spain	-	-	1	-	3	3	1	8
Sweden	-	-	-		2	1	1	4
United Kingdom	-	-	1	1	2	1	2	7
Non-EU countries[1]								
Australia	-	-	-	-	1	-		1
Norway	-	-	-	-	1	1	1	3
Russia	-	-	-	-	1	-		1
South Africa	-	-	-	-	1	-		1
Switzerland	-	-	-	-	1	-	1	2
Turkey	-	-	-	-	1	-		1
Ukraine	-	-	1	-	1	-		2

Table 2. Research distribution by country of analysis

Even though the EU Directive targets only EU countries, this review indicates that some studies have considered the Directive while analysing non-EU countries, including Australia, Norway, Russia, South Africa, Switzerland, Turkey, and Ukraine. For instance, Demir et al. (2016) assessed the SED trend in Turkey. This study highlights Directive 2014/95/EU as an example of a "comply-or-explain" approach similar to what Turkey implemented in 2003, which became mandatory for listed firms in 2011 (Demir et al., 2016). In essence, the content of these non-EU studies is mostly comparative, taking the EU Directive into account as an example of a European regulation but not specifically addressing its impact or companies' compliance.

[1] Non-EU Countries are considered the ones not making part in the European Union.

4.3 Main focus of articles

To determine the main objective of studies on the EU Directive, both authors conducted an independent analysis that was later discussed collaboratively to reduce discrepancies and achieve consensus on the categories (Pesci and Costa, 2014). As a result of this analysis, the studies are grouped into the following themes: (i) SED, (ii) regulation, (iii) compliance, (iv) impact, and (v) other. Figure 3 shows the number of articles merged into five groups, based on their focus of research.

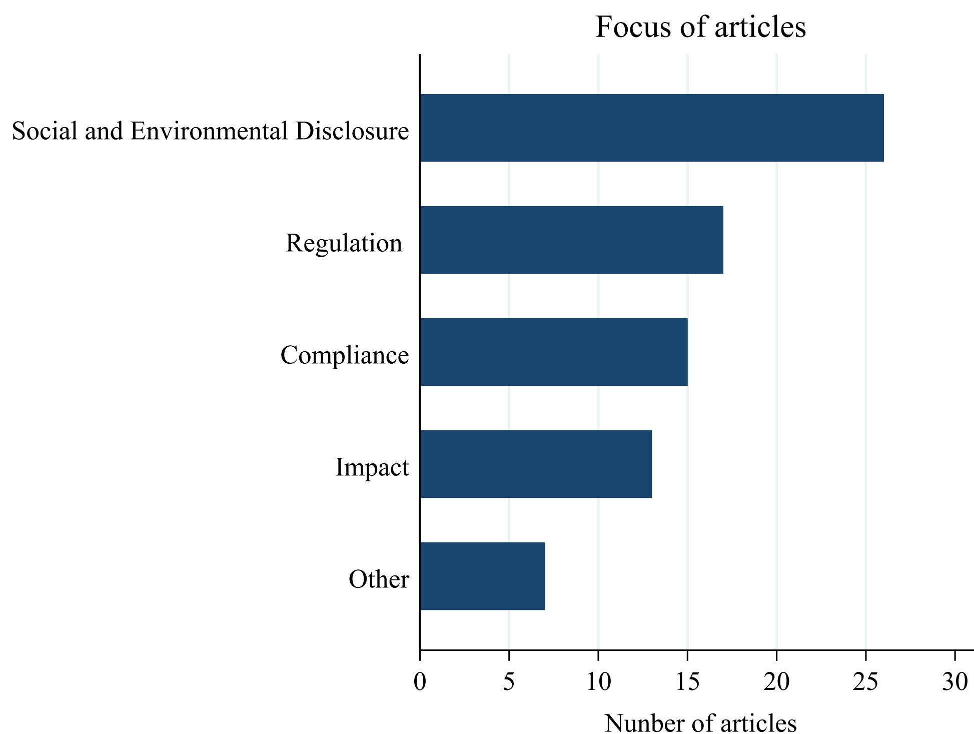

Figure 3. Focus of publications

The bulk of the publications fell under the theme of SED, with 26 (33.3%) out of 78 articles belonging to this group. Studies merged into this group consider the EU Directive within a broad discussion of SED but do not necessarily assess the Directive, its impact, or compliance with it. For instance, Dyduch and Krasodomska (2017) look at the various elements, such as company size, profitability, financial leverage, industry environmental sensitivity, board size, women on the board, internationalisation, and reputation, exploring how these variables could impact social and environmental disclosure. Measurement of the SED variable involved

considering the Directive's requirements, with the authors finding that industry environmental sensitivity significantly impacts SED. Another study falling into this group examined NFD in two CEE countries (Poland and Romania) prior to the EU Directive coming into force (Dumitru et al., 2017). The study followed institutional theory and indicated that institutional factors and isomorphism mechanisms have impacted NFD in these two countries. The overall NFD prior to the EU Directive was higher for Romania than for Poland.

The regulation theme contains 17 (21.8 %) studies out of 78 in the sample. Studies are merged into this group if considering the issue process of the EU Directive, either from countries' perspective or other actors such as academics. For instance, Kinderman (2019) assessed the European countries' positions in drawing the Directive on NFD, noting that Germany was a strong opponent, France supported the Directive, and the UK fell between the two positions. In another example, Garcia-Torea et al. (2019) analysed the role of academics in the regulative processes on SED in Spain, with a particular focus on the EU Directive. Their findings suggest that, while academics in the SED field have been willing to contribute to regulative processes over the years, their voice has not been heard or appreciated sufficiently.

The other identified theme is compliance, involving 15 (19.2%) out of 78 articles. Generally, studies that are merged into the compliance group assess the level of NFD on organisations that have to comply with the EU Directive. Matuszak and Różańska (2017) analysed the NFD of 150 companies listed in the Warsaw Stock Exchange and their compliance with the requirements of the EU Directive. Their results suggest that the majority of companies are not keen on following the Directive's requirements. Likewise, Biondi et al. (2020) assess whether or not companies can comply with Directive 2014/95/EU using de facto reporting frameworks. They found that, for reporting frameworks to be widely used, they have to be supported by the regulation in place.

The theme labelled impact groups the publications that address the impact of the EU Directive on NFD. Thus, 13 (16.6%) out of 78 articles give attention to the impact of the EU Directive. Quinn and Conolly (2017) argued that it is possible for the Directive not to act as a stimulus for companies to become more socially responsible. However, considering the lack of mandatory requirements for NFD in Europe, it is expected that the EU Directive will increase companies' disclosure. This finding is in line with Carini et al. (2018) who have analysed the level of NFD in the oil and gas sector; they found that the reporting has reached a satisfactory level, indicating that the Directive could increase NFD. In contrast to previous studies assessing the quantity of

disclosure, Mion and Adaui (2019) have analysed the effect of the EU Directive on the quality of NFD in Italy and Germany. The analysis was conducted prior to and after introduction of the regulation. The results of 132 observations suggest that the quality of NFD has increased after implementation of the Directive.

Finally, the other publications that could not be grouped with at least one other were labelled other. Seven (8.9%) out of 78 publications were identified as other studies that did not fall into any of the previously developed themes. For instance, Hategan et al. (2018), assessed the relationship between CSR and profit, finding that employing CSR strategies yields better financial results for companies. As future research directions, Hategan et al. (2018) suggested considering NFD when complying to the Directive to explore if and how reporting changes. In another example, Baboukardos (2018) offered insights on the relevance of companies' environmental performance for market valuation. The author utilised a sample of 692 observations on French-listed firms given the country's mandatory NFD following Directive 2014/95/EU. The author found that investors positively value the environmental performance of firms; meanwhile, integrated reporting seems to have implications for market valuation (Baboukardos, 2018).

4.4 Methodology

Following on previous studies (Guthrie et al., 2012; Dumay et al., 2016), an analysis of the methods used has been conducted by grouping them into seven categories as follows: (i) case/field study, (ii) interviews, (iii) content analysis, (iv) survey/questionnaire, (v) commentary/policy, (vi) literature review, and (vii) other empirical. Table III illustrates the methods employed over the years in studies regarding the EU regulation on NFD.

	2014	2015	2016	2017	2018	2019	2020	Total
E1. Case/field study	-	1	-	1	2	2	-	4
E2. Interviews	-	-	2	3	4	2	2	13
E3. Content analysis	-	-	3	4	4	6	7	24
E4. Survey/questionnaire	-	-	2	1	1	1	1	6
E5. Commentary/normative/policy	-	1	1	3	5	2	-	12
E6. Literature review	-	-	3	1	1	1	2	8

E7. Other empirical	-	-	4	5	11	5	9	34
Total	0	2	15	18	28	19	21	

Table 3. Research Methods

In 2015, the methods included case/field study and commentary/normative/policy approach. While the case/field study approach might be rather straightforward, the commentary/normative/policy approach requires further explanation. This category includes studies that do not provide empirical research but rather offer critical summaries related to Directive 2014/95/EU as a normative framework or policy-related intervention. An example is the above-mentioned study by Kinderman (2019) about the EU countries' position in the issue process of the EU Directive. Thus, the study offers no empirical research, instead providing commentary regarding the different attitudes in EU countries regarding NFD legal interventions.

In 2016, as the number of publications increased, so did the variety of methods used, with examples of each of the methods presented in Table III, aside for case/field study. Luque-Vilchez and Larrinaga (2016) utilised both a content analysis and interviews in their study. The authors analysed the evolution of a Spanish law on NFD (Sustainable Economy Law 2/2011) issued prior to the EU Directive, conducting a content analysis on companies' sustainability reports to explore the evolution of reporting due to the regulation. Furthermore, the researchers conducted semi-structured interviews with members in companies, NGOs, unions, and academic institutions to explore the regulatory process. Still other studies employed questionnaires/surveys in relation to the EU Directive. Krištofík et al. (2016) conducted a study to determine motives for NFD by consulting both the literature and conducting surveys. The surveys and literature review confirmed the hypothesis that communication with stakeholders is the main motive for reporting NFI.

All of the methods identified in Table III appear in 2017, 2018, and 2019. For instance, Pichler and Lehner (2017) conducted a multiple case study exploring the development of sustainability reporting in light of Directive 2014/95EU. The authors selected companies that already were reporting NFI, finding that the new regulation caused more standardisation in reporting (Pichler and Lehner, 2017). In 2018, many empirical studies were conducted. Bergmann and Posch (2018), for example, conducted a study evaluating how German companies perceive the EU Directive and mandatory reporting. The authors expected size to be a significant factor in how the organisations evaluated mandatory reporting. The researchers conducted surveys and

analysed the results with t-tests and simple linear regression. In 2019, many studies used content analysis as a primary methodology. According to Abbot and Monsen, “A content analysis is a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories for deriving quantitative scales of varying levels of complexity” (Abbott and Monsen, 1979, p. 504). In relation to the Directive, Mion and Adaui (2019) assessed the level of NFD quality one year prior to and one year after the Directive by conducting a content analysis on sustainability reports.

In 2020, most methodology categories appear, with the exceptions of case/field study and commentary/normative/policy. As an example, Masiero et al. (2020) use interviews in their case study with an Italian insurance company to explore the role of dialogical communication with stakeholders in order to provide enhanced NFD and accountability. Critiques are directed towards the EU Directive and its non-bindings guidelines for not being enough helpful for companies to provide more accountability (Masiero et al. 2020).

4.5 Organisational focus

This section provides an analysis of the organisational focus of the publications. Table IV presents the distribution of research by the number of articles and percentage across seven categories of organisational focus. Thus, the publications related to the EU Directive are grouped into the following organisational categories: (i) private – SMEs, (ii) private – large enterprises, (iii) publicly-listed companies, (iv) public sector, (v) NGOs, (vi) documents/articles, and (vii) others.

	Total	**%**
Private – SMEs	3	3.8%
Private – Large enterprises	19	24.3%
Publicly listed companies	30	38.5%
Public sector	11	14.1%
NGOs	2	2.6%
Documents/articles	11	14.1%
Other	2	2.6%
Grand total	**78**	**100%**

Table 4. Organizational focus

Table IV shows that the majority of studies have focused on publicly listed companies and private large enterprises, 36.6% and 25.3%, respectively. This focus might result from the fact that the regulation on NFD targets large companies with more than 500 employees and public

interest entities (PIEs) in Europe (EU, 2014). With 11 articles (15.5%) focusing on the Directive, the other industry analysed is the public sector or state-owned enterprises. Peña and Jorge (2019) examined the level of NFD of Spanish state-owned enterprises (SOEs) under two laws: Spanish Law 19/2013 and Sustainable Economy Law 2/2011. This study found that SOEs disclose less NFI when compared to private undertakings. Furthermore, size seems to be a significant variable impacting the NFD of Spanish SOEs (Peña and Jorge, 2019).

Given that this literature review analyses research related to Directive 2014/95/EU, the results often extend beyond organisations to include previous regulation or documents related to Directive 2014/95/EU. As a result, the review includes the theme of document/articles. Present in 9 studies, it composes 12.6% of the sample. Further, small and medium-sized enterprises (SMEs) are included despite the fact that the regulation does not target SMEs. Studies with this organisational focus account for around 4% of the sample. For instance, Persic and Halmi (2016) considered Croatian companies with 400+ employees in 2016 under the assumption that the number slamiyees would increase until 2018 when compliance with the Directive was required. Therefore, in their study sample, SMEs are included, among others. These results highlight that the possible regulatory effects could extend beyond the target organisations. Indeed, the systematic literature review conducted in this paper shows that, even if SMEs were not targeted by the Directive, some research papers addressed the regulation's impact on such organisations. Finally, non-governmental organisations (NGOs) and other studies have a presence in the sample with 2.8 % each.

4.6 Theoretical approaches

The other theme emerging from the publication analysis was the theoretical approach. It was interesting to note the use of theories in these regulation-related studies. Surprisingly, very few studies have followed a theoretical approach. Figure 4 offers an overview of the most-used theories in the publications with regard to the Directive. Legitimacy theory has appeared the most throughout the years (Bianchi et al., 2016; Dyduch and Krasodomska, 2017; Manes-Rossi et al., 2018; Peña and Jorge, 2019), starting from 2016 and continuing to 2020. Manes-Rossi et al. (2018) analysed the level of compliance for 50 European companies, interpreting the results through the lens of legitimacy theory. The study results suggest that disclosure on social and environmental matters prevails as a way for companies to maintain legitimacy (Manes-Rossi et al., 2018).

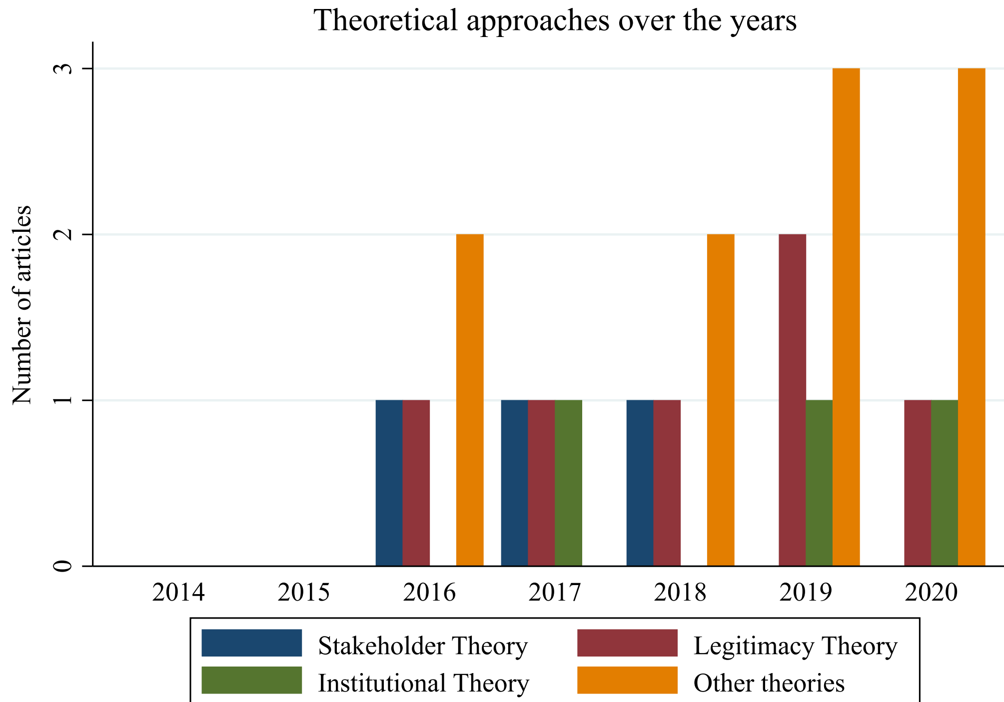

Figure 4. Research methods by year

The second-most used theories include stakeholder theory, which appeared in studies from 2016 to 2018 (Silvestri et al., 2017; Bergmann and Posch, 2018), and institutional theory (Dumitru et al., 2017; Tiron-Tudor et al., 2019; Tarquinio et al., 2020), which was used in Directive studies from 2017 to 2020. For example, Tiron-Tudor et al. (2019) assessed the levels of NFD in Romania, prior to and after the Directive using institutional theory. The authors found that coercive isomorphism did not play a role in fostering NFD; it was driven primarily by mimetic isomorphism (Tiron-Tudor et al., 2019). Instead, theories which have appeared only once among publications are grouped into "other" category, including process theory (Monciardini, 2016), stewardship theory (Dumay et al., 2019), agency theory (Mio et al., 2020), and social identity theory (Krasodomska et al., 2020) and others. For instance, Krasodomska et al. (2020) look at the Polish accountants' attitudes on NFD, focusing on three main aspects: general understanding of the concept, gender, and work experience. Interpreting the results under the social identity theory, the authors indicate that the accountants' knowledge on NFD is insufficient but suggest that governments and changes to accounting laws could play a role in reshaping accountants' social identity.

In sum, the analysis conducted highlighted that, immediately following the Directive's introduction, many papers were published in order to discuss, comment, and critically analyse

the Directive, also with an intent to compare its applicability in different EU countries. Many different methods – both quantitative and qualitative – were applied in order to collect data and better investigate the effects of the Directive on various countries, companies, and sectors. Finally, some researchers interpreted results by adopting rather established theories, such as legitimacy theory, institutional theory (Adams and Larrinaga, 2019), and stakeholder theory. The insights offered by previous studies undoubtedly contribute to an increased understanding Of the Directive's implications. To continue in this direction, the current study identifies several research gaps to be addressed in the future. The next section offers a detailed description of these prospective research avenues.

5. Building a Research Agenda

While the number of studies with regard to the Directive is slowly decreasing, there remain many issues to be explored. Overall, the systematic literature review has identified a number of studies exploring issues regarding the EU Directive. After thoroughly reviewing the offerings and limitations of these studies, the current researchers were able to identify four main themes for future elaboration: i) the potential impact of the EU Directive on NFD and financial performance, ii) the role of contextual aspects in addressing mandatory NFD, iii) the interplay between the binding Directive and non-binding guidelines, and iv) theorising in regulation studies.

5.1 The potential impact of the EU Directive on NFD and financial performance

The mandatory obligation for NFD following Directive 2014/95/EU has attracted the attention of scholars who interpret it within the broad academic debate on mandatory versus voluntary NFD (Szabó and Sørensen, 2015; Costa and Agostini, 2016; Quinn and Connolly, 2017). In this long-standing discussion, different attitudes prevail regarding the two reporting regimes, ranging from the proponents of a voluntary approach (Larrinaga et al., 2002; Day and Woodward, 2004; Criado-Jiménez et al., 2008; Matuszak and Różańska, 2017) to the supporters of the mandatory approach (Deegan, 2002; Jeffrey and Perkins 2013; Ioannou and Sarafeim, 2017). At the European level, the mandatory approach has been fostered with the aim of ensuring transparency via organisations' NFD (EU, 2014). In addition to the impact that the EU expects the Directive to have on NFD, greater transparency may also have positive results for financial aspects (EC, 2017). Taking this assumption into consideration, this study suggests moving in two main directions in order to assess the impact of the EU Directive. First, future

research should address how the legal intervention has impacted the NFD of European companies, and second, it should consider how mandatory NFD has impacted the financial performance of such companies.

Regarding the impact of the Directive on NFD, few studies have looked at the differences in NFD one year prior to and one year after the regulation (Dumitru et al., 2017; Matuszak and Różańska, 2017). Tarquinio et al. (2020) assessed how NFD changed two years after the Directive; nonetheless, the need for a longitudinal analysis remains (Dumitru et al., 2017; Matuszak and Różańska, 2017; Tarquinio et al., 2020). Within the long-standing academic discussion on two reporting regimes, Owen et al. (1997) have provided a unique perspective on how the mandatory disclosure could remain as an administrative reform or it could foster an effective institutional reform toward the SED. In more detail, Owen et al. (1997) argued that an administrative reform (like the EU Directive in this case) might act as a mechanism to increase SED. However, to achieve a substantial change and ensure transparency via NFD (EU, 2014), the administrative reform must be accompanied by institutional reform (Owen et al., 1997). Complying only with the minimum required by the Directive will not have the slamit that it is designed to produce. For the institutional reform to function, it must establish dialogue with stakeholders and ensure a deeper accountability beyond simply reporting NFI (Larrinaga et al., 2002). In order to better understand the impact of the EU Directive on NFD, the slamict study supports the idea of reinforcing the analyses with a longitudinal approach focusing on the reporting shift from voluntary to mandatory. Observing the shift from voluntary to mandatory NFD with a longitudinal study could shed light on the transition from the administrative reform to a potential institutional reform (Owen et al., 1997). For a regulation to reach the maturity phase and potentially achieve change, more time is needed. Therefore, assessing the reporting path only before and after the administrative reform (i.e., the EU Directive) is insufficient in analysing the real impact that a mandatory requirement could have on organisations' NFD.

With regard to mandatory NFD, the other aspect not sufficiently explored by the academic community, considering NFD on a mandatory basis, is the relationship between NFD and Corporate Financial Performance (CFP). The literature has long emphasised the need to consider a firm's long-term sustainable performance as the decisive corporate purpose (ACCA, 2013; Quinn and Connolly, 2017). As a result, scholars have looked extensively at the relationship between NFD and CFP (Preston and O'Bannon, 1997; Soana, 2011; Khlif et al., 2015), while NFD was being provided voluntarily. However, based on the current Directive,

experts expect that NFD will undergo further changes to ensure transparency, relevance, and comparability (EU, 2014). Thus, a potential change in European NFD (a potential institutional reform) could impact CFP differently and provide varying results on the relationship between NFD and CFP than what has previously been seen. Future studies could focus on how a potential institutional reform (Owen et al., 1997) fostered by the EU Directive could impact CFP. Therefore, in addition to assessing the Directive's impact on NFD, future research should also assess if mandatory NFI disclosure is providing results in terms of financial performance as claimed by the EC (2017).

5.2 The role of contextual aspects in addressing mandatory NFD

The prior section suggested the need to assess NFD over a longer period to understand if the shift from an administrative to an institutional reform (Owen et al. 1997; Larrinaga et al. 2002) is occurring. This standpoint leads to the second theme, which points towards the consideration of contextual aspects. The EU Directive applies to 28 EU countries and various companies coming from a range of sectors. To date, researchers have considered a limited number of countries (see Table II) in addressing the EU Directive, with varying results depending on the country of analysis. While complying with the Directive is compulsory for all member states (EU, 2014), broad discretion regarding certain aspects is given to either individual countries or individual companies. For instance, with regard to provision of assurance on NFD, states are allowed to decide individually if they want to make it mandatory (La Torre et al., 2018). Italy is one of the countries requiring NFD to be verified by an independent assurance provider (Aureli et al. 2020); however, it is voluntary in most other EU countries. On a company level, NFD can be undertaken by relying on a range of national or international reporting frameworks (EU, 2014). The EU provided some non-binding guidelines to this end (EC, 2017); however, organisations can choose whether or not to follow them. These two examples on the discretion given to countries and companies underscore the differences that could exist in companies' NFD, even when complying with a regulation. Considering this flexibility related to compliance with the Directive, careful reflection on contextual aspects is encouraged when looking at the Directive's impact on NFD. In this regard, Adams and Larrinaga (2019) reinforce the role of contextual elements (i.e., geographical, cultural, economic) in conducting accounting research (Adams and Larrinaga, 2019; Lehner and Harrer, 2019). Not accounting for contextual elements might deprive the researcher of discovering the truth about organisations' NFD paths (see Tinker and Neimark, 1987; Adams and Harte, 1998). Therefore, future studies addressing the Directive and its impact on NFD should pay attention to the context in which companies are

operating in order to give more meaning to their results. To date, there is a lack of research on the interplay between contextual factors and the EU Directive. This finding aligns Adams and Larrinaga (2019) observation that often, context and its relevance are ignored. To this end, the current study supports the idea of considering different elements that might be country- or company-specific, in order to contextualise the findings and provide more meaningful results. It is important that future studies cover all of the countries where the Directive applies, considering aspects, such as (i) how the Directive is transposed into national law and how it impacts NFD compared to other countries that have transposed the Directive into their national law differently; (ii) how sector-specific factors impact compliance with the Directive and the evolution of certain disclosure topics compared to others (i.e., social over environmental disclosure); (iii) how the previous experience of companies on NFD impacts Directive compliance; and iv) how the country's culture relates to NFD and regulatory compliance. Further research in this direction could help to better tailor future EU Directives in order to include national and sector-related peculiarities, allowing them to be as effective as possible in application.

5.3 The interplay between the binding Directive and non-binding guidelines

More research is needed in order to investigate the interplay between the binding requirements included in the EU Directive (EU, 2014) and the non-binding guidelines/framework (EC, 2017) that can be implemented to address the Directive. Indeed, the purpose of the Directive is to foster reliable, clear, comparable, and valid information to all European countries (EU, 2014). In order to achieve this goal, the last Directive on non-financial and diversity information introduced the obligation to report on environmental issues, social and employee factors, human rights concerns, anti-corruption, and bribery matters (EU, 2014). Considering its mandatory nature, the EU Directive serves as an administrative reform (Owen et al., 1997). However, it allows each organisation in every EU country to select the most proper measurement based on the non-binding guidelines offered (EC, 2017). This lack of clarity means that each company can measure a given category in different ways, thus allowing a "cherry-picking" approach that inevitably limits comparability and clarity across Europe. Hence, the content to be disclosed according to the Directive is indeed an administrative reform (Owen et al. 1997); however, for this content to be comparable, similar measures should be adopted across organisations over the years. Previous research has not sufficiently explored this aspect, and consequently, new insights are needed in order to investigate the interplay between the binding requirements included in the EU Directive (EU, 2014) and the non-binding guidelines/framework (EC, 2017).

Further research in this direction could shed light on how the Directive might achieve its aim, and as such, distinguish between voluntary reporting, which lacks comparability (Hibbitt and Collison, 2004; Jeffrey and Perkins, 2013), and mandatory reporting, which is supposed to foster comparability (EU, 2014). As it stands today, the EU Directive could induce changes in the topics and quality/quantity of NFD, but without an administrative reform on the reporting guidelines/frameworks, comparability cannot be achieved. Therefore, future studies could explore the possibility of better harmonisation of these differences (La Torre et al., 2018), a change that could affect the overall impact of the EU Directive. Exploring how to better match the Directive's content with the measures undertaken in order to share such content could indeed contribute to greater accountability and an evolution from the administrative reform to an institutional reform (Owen et al. 1997; Larrinaga et al., 2002).

5.4 Theorising in regulation studies

The current study reveals that few publications on the Directive employ a theory as a means of support or interpretation of findings. This observation is in line with Gray (2007) who argued that scholars in the field of SED tend to dislike using theories. The current study shows that the small portion of studies adopting a theoretical approach utilise existing and mainstream theories in the field of SED. Specifically, many authors have employed either legitimacy theory (Bianchi et al., 2016; Dyduch and Krasodomska, 2017; Manes-Rossi et al., 2018; Peña and Jorge, 2019), institutional theory (Dumitru et al., 2017; Tiron-Tudor et al., 2019; Tarquinio et al. 2020) or stakeholder theory (Silvestri et al., 2017; Bergmann and Posch, 2018). Few studies have stepped out of mainstream practices and thus have adopted the process, agency, or social identity theory. This reflection finds confirmation in Adams and Larrinaga (2019), who acknowledge that studies in the SED field tend to employ traditional theories, such as legitimacy and institutional theory. In studies addressing the Directive, institutional theory is used in a rather traditional form, implying that coercive mechanisms only impact NFD when exercised on a mandatory basis (Tarquinio et al., 2020). Currently, no research considers the idea that an interplay of mechanisms could impact NFD at a certain point in time and depending on the topic of disclosure. Assessing the impact of the Directive by considering country or company-specific elements, in the light of a theory, allows the researcher to dig deeper into pre-established theories and critique their reasoning. This process is known as "level-four" theorising, which occurs by actually looking at certain practices while also considering the environment and setting in which these practices take place (Llewellyn, 2003). According to Llewellyn (2003), there exist different levels of theorising, from level one (metaphors) to level five (theorising

structures). Level four is particularly relevant to theorising settings, therefore giving meaning to organisational practices based on their setting. In such a way, attention can be placed on the context in which a particular event takes place (Lewellyn, 2003).

To continue building knowledge with regard to the Directive, it is possible to theorise more, which could then lead to the next step, offering new conceptualisations of existing theories (Adams and Larrinaga, 2019). Theorising in qualitative research is considered to be a "value-added" (Llewelyn, 2003, p. 662) to any study. However, in addition to using existing and mainstream theories in the field of SED, scholars need to consider offering novel theorisations rather than limiting themselves to "established theories" (Adams and Larrinaga, 2019, p. 2385). Stepping out of the mainstream practice of considering established theories to be a given could leave room for interpreting reality, rather than adopting to the stories told before. In this regard, an interdisciplinary approach is also encouraged in order to understand how normative processes, such as the EU Directive, impact organisations and why different NFI topics are disclosed in different ways. To date, the rationales and motives that lead organisations to comply with non-financial regulation are not sufficiently investigated. Future studies could explore additional behavioural and cognitive theories to support the traditional managerial theories, thus encouraging future NFD regulation to be more effective.

6. Concluding comments

This paper has aimed to build a research agenda in order to open future avenues of research in the SED field in light of EU Directive 2014/95/EU. To this end, the paper developed a systematic literature review in order to analyse the current scientific work on the EU Directive, define the contributions provided by the authors, and highlight gaps in the literature. Thus, this study serves as a guide for future research aimed at addressing the latest EU Directive on NFD. From the analysis, four broad themes emerged to guide future research: i) the potential impact of the EU Directive on NFD and financial performance, ii) the role of contextual aspects in addressing mandatory NFD, iii) the interplay between the binding Directive and non-binding guidelines, and iv) theorising in regulation studies.

Filling these gaps will have policy-related and practical implications. Indeed, assessing the impact of the EU Directive on both NFD, and potentially, CFP, would help policymakers to decide whether or not to develop laws in this direction in the future. The proposed research agenda should assist policymakers by fostering an understanding of how and what could be

changed in future NFD regulation. By focusing on impacts, contextual factors, and the interplay between binding requirements and non-binding guidelines, future researchers could use critical theories to help the EC in developing future regulations. Directive 2014/95/EU comes after Directive 2013/34/EU, which was deficient in its impact on EU companies (Costa and Agostini, 2016). A similar risk exists with Directive 2014/95/EU, without further research. Academics can indeed provide insightful input for the development, implementation, and monitoring of NFD regulation (Garcia-Torrea et al., 2019). As a result, future research could inform regulatory processes and guide policy decisions from the EU governing bodies in the field of accounting and SED in particular.

In terms of practical and managerial implications, more research on the EU Directive and its implementation across countries and organisations could show how mandatory reporting enhances or diminishes NFD, and consequently, organisational actions. In this regard, analysing the regulation's impact over a longitudinal period (prior to and after the regulation) could also help organisations view NFD implementation as a process that can be improved continuously over time. In this regard, a collaborative approach between companies and EU governing bodies through structured consulting events could positively impact the adoption and impact of SED regulation. It is worth remembering that, only recently (from February to June 2020), the EC managed a consulting session with regard to Directive 2014/95/EU. Therefore, it is important to observe what emerges from this engagement process in order to foster future managerial implications.

References

Abbott, W. F., and Monsen, R. J. (1979). On the Measurement of Corporate Social Responsibility: Self-Reported Disclosures as a Method of Measuring Corporate Social Involvement. *Academy of Management Journal*, 22 (3), 501 – 515.

ACCA (2013). What do investors expect from non-financial reporting. Available at http://www.accaglobal.com/content/dam/acca/global/PDF-technical/sustainability-reporting/tech-tp-wdir.pdf (accessed on 05.11.2020).

Adams, C. A. and Harte, G. (1998). The changing portrayal attime employment of women in British banks' and retail companies' corporate annual reports. *Accounting, Organizations and Society*, 23 (8), 781–812.

Adams, C. and Larrinaga, C. (2019). Progress: engaging with organisations in pursuit of improved sustainability accounting and performance. *Accounting, Auditing & Accountability Journal,* 32 (8), 2367-2394.

Aureli, S., Del Baldo, M., Lombardi, R. and Nappo, F. (2020). Nonfinancial reporting regulation and challenges in sustainability disclosure and corporate governance practices. *Business Strategy and the Environment.*

Baboukardos, D. (2018). The valuation relevance of environmental performance revisited: The moderating role of environmental provisions. *The British Accounting Review*, 50 (1), 32-47.

Bergmann, A. and Posch, P. (2018). Mandatory Sustainability Reporting in Germany: Does Size Matter? *Sustainability*, 10 (11), 3904.

Bianchi, M, Corvino, S., Doni, A.F. and Rigolini, A. (2016). Relational capital disclosure, corporate reporting and company performance: evidence from Europe. *Journal of Intellectual Capital*, 17 (2), 186-217.

Biondi, L., Dumay, J. and Monciardini, D. (2020). Using the international integrated reporting framework to comply with EU directive 2014/95/EU: can we afford another reporting façade?. *Meditari Accountancy Research.*

Caputo, F., Leopizzi, R. and Pizzi, S. (2020). The non-financial reporting harmonization in Europe: Evolutionary pathways related to the transposition of the directive 95/2014/EU within the Italian context. *Sustainability*, 12 (1), 92.

Carini, C., Rocca, L., Veneziani, M. and Teodori, C. (2018). Ex-ante impact assessment of sustainability information-the directive 2014/95. *Sustainability,* 10, 560.

Cho CH., Michelon, G., Patten, D.M. and Roberts R.W., (2015). CSR disclosure: the more things change…? *Accounting, Auditing & Accountability Journal*, 28 (1), 14-35.

Costa, E. and Agostini, M. (2016). Mandatory disclosure about Environmental and Employee Matters in the Reports of Italian-listed corporate groups. *Social and Environmental Accounting Journal*, 36, 10-33.

Criado-Jiménez, I., M. Fernàndez-Chuliàn, F. J. Husillos-Carqués and Larrinaga-Gonzàlez, C. (2008). Compliance with Mandatory Environmental Reporting in Financial Statements: The Case of Spain (2001–2003). *Journal of Business Ethics*, 79, 245–262.

CSR Europe and GRI, (2017). Member state implementation of Directive 2014/95/EU, available at https://www.accountancyeurope.eu/wp-content/uploads/1711-NFRpublication-GRI-CSR-Europe.pdf.

Day, R., and T. Woodward. (2004). Disclosure of Information about Employees in the Directors' Report of UK Published Financial Statements: Substantive or Symbolic? *Accounting Forum*, 28, 43–59.

Deegan, C. (2002). The legitimizing effect of social and environmental disclosures: a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15, 282–311.

Demir, G., Cagle, M.N. and Dalkılıç, A.F. (2016). Corporate social responsibility and regulatory initiatives in Turkey: Good Implementation Examples. *Accounting and Management Information Systems,* 15 (2), 372-400.

Denyer, D. and Tranfield, D. (2009). Producing a systematic review. In Buchanan, D. and Bryman, A. (Eds), *The Sage Handbook of Organizational Research Methods*, (pp. 671-689) Sage Publications, London.

Dienes, D., Sassen, R. and Fischer, J. (2016). What are the drivers of sustainability reporting? A systematic review. *Sustainability Accounting, Management & Policy Journal*, 7 (2), 154-189.

Dumay, J., Bernardi, C., Guthrie, J. and Demartini, P. (2016). Integrated reporting: a structured literature review. *Accounting Forum*, 40 (3), 166-185.

Dumay, J., La Torre, M. and Farneti, F. (2019). Developing trust through stewardship: implications for IC, integrated reporting, and the EU directive 2014/95/EU. *Journal of Intellectual Capital*, 20 (1).

Dumitru, M., Dyduch, J., Gusę, R., and Krasodomska, J. (2017). Corporate reporting practices in Poland and Romania–an ex-ante study to the new non-financial reporting European directive. *Accounting in Europe*, 14 (3), 279-304.

Dyduch, J. and Krasodomska, J. (2017). Determinants of Corporate Social Responsibility Disclosure: An Empirical Study of Polish Listed Companies. *Sustainability*, 9 (11), 1934-1951.

EC. (1992). Towards Sustainability. A European Community programme of policy and action in relation to the environment and sustainable development. Available at https://ec.europa.eu/environment/archives/action-programme/env-act5/pdf/5eap.pdf.

EC. (2011). A renewed EU strategy 2011-14 for Corporate Social Responsibility. Available at http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0681&from=EN.

EC. (2017). Guidelines on non-financial reporting. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705(01).

EU, (2013). Directive 2013/34/EU. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013L0034.

EU, (2014). Directive 2014/95/EU. Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095.

Fatma, M. and Rahman, Z. (2015). Consumer perspective on CSR literature review and future research agenda. *Management Research Review*, 38 (2), 195-216.

Garcia-Torea, N., Larrinaga, C. and Luque-Vílchez, M. (2019). Academic engagement in policy-making and social and environmental reporting. *Sustainability Accounting, Management and Policy Journal*, 11 (2), 281-290.

Gray, R., Owen, D. and Adams, C., (1996). Accounting and Accountability: Changes and Challenges in Corporate Social and Environmental Reporting. London: Prentice-Hall.

Gray, R. (2002). The social accounting project and Accounting Organizations and Society. Privileging engagement, imaginings, new accountings and pragmatism over critique. *Accounting, Organizations and Society*, 27 (7), 687 – 708.

Gray, R. (2007). A few thoughts on theory, methodology and research design in social accounting: (or why is social accounting so difficult? Part II). *Social and Environmental Accountability Journal*, 27 (1), 17-22.

Guthrie, J. and Parker, L. D. (2017). Reflections and projections: 30 years of the interdisciplinary accounting, auditing and accountability search for a fairer society. *Accounting, Auditing & Accountability Journal*, 30 (1), 2-17.

Guthrie, J., Ricceri, F. and Dumay, J. (2012). Reflections and. Projections: A decade of intellectual capital accounting research. *The British Accounting Review*, 44 (2), 68-82.

Hategan, C. D., Sirghi, N., Curea-Pitorac, R. I. and Hategan, V.P. (2018). Doing Well or Doing Good: The Relationship between Corporate Social Responsibility and Profit in Romanian Companies. *Sustainability*, 10 (4).

Hibbitt, C., and D. Collison. (2004). Corporate Environmental Disclosure and Reporting Developments in Europe. *Social and Environmental Accountability Journal*, 24 (1), 1–11.

Ioannou, I. and Serafeim, G. (2011). The consequences of mandatory corporate sustainability reporting", working Paper, Harvard Business School Research, Boston.

Jeffrey, C., and J. D. Perkins. (2013). Social Norms and Disclosure Policy: Implications from a Comparison of Financial and Corporate Social Responsibility Reporting. *Social and Environmental Accountability Journal*, 33 (1), 5–19.

Khlif, H., Guidara, A. and Souissi, M. (2015). Corporate CSR disclosure and corporate performance: Evidence from South Africa and Morocco. *Journal of Accounting in Emerging Economies*, 5, 51–69.

Kinderman, D. (2019). The tenuous link between CSR performance and support for regulation: Business associations and Nordic regulatory preferences regarding the corporate transparency law 2014/95/EU. Business and Politics.

KPMG. (2017). The KPMG Survey of Corporate Responsibility Reporting 2017, available at https://home.kpmg/dk/en/home/campaigns/2017/10/survey-of-corporate-responsibility-reporting-2017.html.

KPMG (2020). The time has come. KPMG Survey of Sustainability Reporting 2020. https://home.kpmg/xx/en/home/insights/2020/11/the-time-has-come-survey-of-sustainability-reporting.html

Krasodomska, J., Michalak, J. and S wietla, K. (2020). Directive 2014/95/EU: Accountants' understanding and attitude towards mandatory non-financial disclosures in corporate reporting. *Meditari Accountancy Research*.

Krištofík, P., Lament, M., and Musa, H. (2016). The reporting of non-financial information and the rationale for its standardisation. *E+M Ekonomie a Management*, 19 (2), 157-175.

La Torre, M., Sabelfeld, S., Blomkvist, M., Tarquinio, L. and Dumay, J. (2018). Harmonising non-financial reporting regulation in Europe: Practical forces and projections for future research. *Meditari Accountancy Research*, 26 (4), 598-621.

Larrinaga, C., Carrasco, F., Correa, C., Llena, F. and Moneva, J. (2002). Accountability and accounting regulation: the case of the Spanish environmental disclosure standard*.* *European Accounting Review*, 11(4), 723-40.

Lehner, O. and Harrer, T. (2019). Accounting for economic sustainability: environmental, social and governance perspectives. *Journal of Applied Accounting Research*, 20 (4), 365-371.

Llewelyn, S. (2003). What counts as "theory" in qualitative management and accounting research? Introducing five levels of theorizing. *Accounting, Auditing & Accountability Journal*, 16 (4), 662-708.

Luque-Vilchez, M. and Larrinaga, C. (2016). Reporting Models do not Translate Well: Failing to Regulate CSR Reporting in Spain. *Social and Environmental Accountability Journal*, 36 (1), 56–75.

Manes-Rossi, F., Tiron-Tudor, A., Nicolò, G. and Zanellato, G. (2018). Ensuring More Sustainable Reporting in Europe Using Non-Financial Disclosure—De Facto and De Jure Evidence. *Sustainability*, 10 (4), 1162 – 1182.

Masiero, E., Arkhipova, D., Massaro, M. and Bagnoli, C. (2020) Corporate accountability and stakeholder connectivity. A case study. *Meditari Accountancy Research.*

Matuszak, L. and Różańska, E. (2017). CSR disclosure in Polish listed companies in the light of Directive 2014/95/EU requirements: Empirical evidence. *Sustainability*, 9 (12).

Meutia, I., Mustika, S. and Adam. M. (2018). Cultural Relevance to Sustainability Reporting in Asian and European Banking. *Journal of Accounting, Business and Finance Research*, 4 (1), 9-19.

Milne, M. J. and Gray, R. H. (2007). The future of sustainability reporting. In J. Unerman, B. O'Dwyer, & J. Bebbington (Eds.), *Sustainability accounting and accountability*. London: Routledge.

Mio, Ch., Fasan, M. Marcon, C and Panfilo, S. (2020). The predictive ability of legitimacy and agency theory after the implementation of the EU Directive on non-financial information. *Corporate Social Responsibility and Environmental Management*, 27 (6), 2465-2476.

Mion, G. and Adaui, C.R.L. (2019). Mandatory Nonfinancial Disclosure and Its Consequences on the Sustainability Reporting Quality of Italian and German Companies. *Sustainability*, 11 (17).

Monciardini, D. (2016). The 'Coalition of the Unlikely' Driving the EU Regulatory Process of Non-Financial Reporting. S*ocial and Environmental Accountability Journal*, 36, 76–89.

Owen, D., Gray, R. and Bebbington, J. (1997). Green Accounting: Cosmetic Irrelevance or Radical Agenda for Change? *Asia-Pacific Journal of Accounting*, 4 (2), 175-198.

Parker, L. (2005). Social and environmental accountability research. *Accounting, Auditing & Accountability Journal,* 18 (6), 842-860.

Peña, J. A. and Larrán-Jorge, M. (2019). Examining the amount of mandatory non-financial information disclosed by Spanish state-owned enterprises and its potential influential variables. *Meditari Accountancy Research.*

Persic, M., and Halmi, L. (2016). Disclosing non-financial information in companies' reports in Croatia. *Copernican Journal of Finance & Accounting*, 5 (2), 181–200.

Pesci, C. and Costa, E. (2014). Content Analysis of Social and Environmental Reports of Italian Cooperative Banks: Methodological Issues. *Social and Environmental Accountability Journal,* 34 (3), 157-171.

Pichler, K. and Lehner, O.M. (2017). European commission – new regulations concerning environmental and social impact reporting", *ACRN Oxford Journal of Finance and Risk Perspectives*, 6 (1), 1-54.

Preston, L. E., and O'Bannon, D. P. (1997). The corporate social–financial performance relationship. *Business & Society*, 36 (4), 419–429.

Quinn, J. and Connolly, B. (2017). The Non-Financial Information Directive: An Assessment of its Impact on Corporate Social Responsibility. *European Company Law*, 14 (1), 15–21.

Silvestri, A., Veltri, S., Venturelli, A. and Petruzzelli, S. (2017). A research template to evaluate the degree of accountability of integrated reporting: a case study. *Meditari Accountancy Research*, 25 (4), 675-704.

Soana, M. G. (2011). The relationship between corporate social performance and corporate financial performance in the banking sector. *Journal of Business Ethics,* 104, 133–148.

Szabó, D. G. and Sørensen, K. E. (2015). New EU Directive on the Disclosure of Non-Financial Information (CSR). *European Company & Financial Law Review*, 12, 307–316.

Tarquinio, L., Posadas, S.C. and Pedicone, D. (2020). Scoring Nonfinancial Information Reporting in Italian Listed Companies: A Comparison of before and after the Legislative Decree 254/2016. *Sustainability*, 12, 4158.

Tinker, T. and Neimark, M. (1987). The role of annual reports in gender and class contradictions at General Motors 1917-1976. *Accounting, Organizations and Society*, 12, 71-88.

Tiron-Tudor, A., Nistor, C. S., Ştefănescu, C. A. and Zanellato, G. (2019). Encompassing Non-Financial Reporting in A Coercive Framework for Enhancing Social Responsibility: Romanian Listed Companies' Case. *Amfiteatru Economic,* 21, 590–606.

Vanini, U. and Rieg, R. (2019). Effects of voluntary intellectual capital disclosure for disclosing firms: a structured literature review. *Journal of Applied Accounting Research,* 20 (3), 349-364.

Venturelli, A., Caputo, F., Cosma, S., Leopizzi, R. and Pizzi, S. (2017). Directive 2014/95/EU: Are Italian Companies Already Compliant? *Sustainability*, 9 (8).

CHAPTER TWO

From voluntary to mandatory non-financial disclosure following Directive 2014/95/EU: an Italian case study

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ABSTRACT

This study investigates the non-financial disclosure in an Italian banking group following Directive 2014/95/EU over a period of eight years, from its voluntary (2013–2017) to mandatory (2018– 2020) implementation. The paper relies both on primary and secondary data sources. It first adopts a content analysis on non-financial reports while considering other relevant available material. Second, the study relies upon semi-structured interviews and seminars to gather primary data. The analysis has been interpreted in light of institutional theory in order to understand the institutional forces driving nonfinancial disclosure. Results show that non-financial disclosure significantly increased in quantity after the regulation; however, the improvement in quality is fairly low, with the exception of themes relevant to the company under investigation. Through the lens of institutional theory, it emerges that an interplay of institutional mechanisms co-existed within the bank, during two periods of reporting for different topics of disclosure.

Keywords: Directive 2014/95/EU; regulation; non-financial disclosure; institutional theory; voluntary; mandatory

315. Introduction

In recent decades, companies have started to voluntarily provide Social and Environmental Disclosures (SED) with the aim of extending financial accountability to shareholders with non-financial information (NFI) for a broad set of stakeholders (Gray et al., 1996). SED involves a variety of non-financial reporting mechanisms, disclosing a company's broad social and environmental impacts to stakeholders and society at large. Today, SED is provided both at voluntary and mandatory levels in different contexts and countries (Carrots and Sticks, 2020). Following European Directive 2003/51/EC regarding non-financial disclosures (NFD), the European Commission intervened in the broad debate about regulating companies' SED by introducing Directive 2014/95/EU (hereafter Directive). As a legal requirement that affects all European Union (EU) countries, the latest Directive seems to have opened a new stream of research into the inter-connected arenas of accountability, disclosure, and regulation.

Several previous studies have investigated the role of SED both in mandatory (Larrinaga et al., 2002; Criado-Jiménez et al., 2008) and voluntary regimes (Kolk, 2005; KPMG, 2011), but there remains no consensus regarding the proper way to undertake SED. On one hand, many scholars favour mandatory SED because it is believed to ameliorate the lack of neutrality, objectivity, and comparability among companies (Hibbitt and Collison, 2004; Jeffrey and Perkins, 2013). On the other hand, several other studies, favour voluntary SED because often companies fail to comply with disclosure mandates (Larrinaga et al., 2002; Llena et al., 2007; Criado-Jiménez et al., 2008), and when they do comply, the quality of SED remains fairly low (Criado-Jiménez et al., 2008). More recently, several studies have examined the Directive's effect on NFD as a mandatory requirement across EU countries (Matuszak and Różańska, 2017; Venturelli et al., 2017; La Torre et al., 2018; Manes-Rossi et al., 2018; Tarquinio et al., 2020), broadly highlighting the Directive's impacts both on the quantity and quality of overall disclosure. These preliminary studies have investigated differences in disclosure in the years prior to and after the Directive's implementation, but the need for a longitudinal analysis remains (Venturelli et al., 2017; Dumitru et al., 2017; Tarquinio et al., 2020; Cosma et al., 2021; Korca and Costa, 2021). Despite calls to undertake a longitudinal analysis, no studies have focused on banks and how NFD has developed during two reporting regimes. Because financial institutions must comply with the Directive (EU, 2014) and are crucial to sustainable development (Lentner et al., 2015; Löw et al., 2020), it is particularly relevant to examine their NFD processes, both in a voluntary and mandatory setting. To fill this gap in the literature, the current case study addresses the following research question: How has the NFD evolved during two different

regimes (voluntary and mandatory) in terms of both quantity and quality? To address this question, this paper investigates the process of NFD's implementation both before and after the introduction of Directive 2014/95/EU and analyses the quantity and quality of NFD by interpreting the results using institutional theory.

The research is based on a single case study (Yin, 2014) conducted from 2013 until 2020 on an Italian banking group. This banking group is one of the largest in Italy and has been disclosing NFI on a voluntary basis since 2013. According to the Directive, starting from 2018, the bank was required to disclose NFI on a mandatory basis, with reference to the financial year of 2017. The data needed for analysis included both primary and secondary data. The analysis was first conducted on eight non-financial reports in both voluntary and mandatory regimes, and other available material is consulted. Second, as primary data, semi-structured interviews have been conducted with the company's CSR manager and seminars are attended to better understand the rationales and processes underlying the NFD in the Italian context. This study adopts institutional theory (DiMaggio and Powell, 1983) to frame the case and to provide meaning to both periods; this analysis sought to provide insight into how voluntary and mandatory reporting processes have been driven by external pressures for the organisation to become isomorphic with the environment in which it operates.

This study contributes to the SED literature in three main ways. First, with the longitudinal analysis of non-financial reports, the study aims to explore how the quality and quantity of NFD changed in two reporting regimes (voluntary and mandatory) for different topics of disclosure. The unique contribution of this approach is that instead of considering only one year (Dumitru et al., 2017; Matuszak and Różańska, 2017; Venturelli et al., 2017) or one year prior to and after the Directive (Mion and Adaui, 2019; Sierra-Garcia et al., 2018), the current study employs an analysis covering eight years, both before and after the Directive. This examination over a longer time horizon sheds light on NFD development in Europe (Manes-Rossi et al., 2018), which leads to the second contribution of the study. The debate on voluntary versus mandatory reporting (Szabó and Sørensen, 2015; Costa and Agostini, 2016; Quinn and Connolly, 2017) has been ongoing for many years now; however, the introduction of the Directive has fuelled the debate by encouraging a new strand of research in this direction. The longitudinal analysis contributes to this debate, increasing our understanding of how two reporting regimes contribute to the development of NFD (Chelli et al., 2018), both in terms of quantity and quality. Finally, this study provides a theoretical reflection on the transition of reporting from voluntary to mandatory by employing institutional theory. Instead of

considering the NFD as a homogenous process, this study reflects on NFD as a process occurring in two periods and for different topics with unequal organisational relevance. Thus, through the lens of institutional theory, an interplay of institutional mechanisms could explain the complex development of NFD.

The remainder of this paper is structured as follows. Section 2 discusses the current literature on NFD in Europe, with a focus on the latest Directive. Section 3 outlines institutional theory, while section 4 presents the background and context of this study. Section 5 describes this study's research design and methods before moving into sections 6 and 7 which offer a presentation and discussion of our findings. Finally, section 8 concludes the study.

2. Voluntary and Mandatory Disclosure and Directive 2014/95/EU

2.1 The Recent Directive 2014/95/EU and its Impact on Corporate SED

In the European context, NFD has been encouraged for almost three decades through voluntary and, more recently, mandatory regimes. The EU's most prominent initiative was a programme entitled, 'Towards Sustainability.' Introduced in 1992, it aimed to encourage the idea of passing on the environment and resources to future generations by ensuring sustainable development (EC, 1992). In 2001, the European Commission released recommendations on the recognition, measurement, and disclosure of environmental issues in companies' annual accounts and reports (EC, 2001). These recommendations were then followed by Directive 2003/51/EC (Costa and Agostini, 2016), the so-called Accounting Modernisation Directive (Hibbitt and Collison, 2004). Several additional regulations have focused on non-financial and diversity information disclosure, including Directive 2013/0110 and Directive 2014/95/EU, the latter of which includes greater specificity in terms of its requirements (Costa and Agostini, 2016).

Though many companies across Europe had acknowledged the importance of NFD and transparency, there remained a need for mandatory disclosure. Mandatory reporting was reinforced with the Directive 2014/95/EU on non-financial and diversity information disclosure. The European Parliament recognised the importance of companies' reporting non-financial and diversity information to identify sustainability risks and increase investor and consumer trust (EU, 2014). As stated in the Directive, 'Disclosure of non-financial information is vital for managing change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection' (EU, 2014, paragraph 3). Its

scope of adoption includes certain large undertakings, such as public interest entities (PIEs) with 500 or more employees during the financial year. As defined by the Accounting Directive (EU, 2013, article 2(1)), PIEs include listed companies, credit institutions, insurance companies, and other entities defined by member states in varying ways. The Directive requires that the information in the report cover environmental, social, and employee-related matters, respect for human rights, and anti-corruption and bribery concerns (EU, 2014). This information can be disclosed based on national, union-based, or international frameworks; the Directive left this decision open to the undertakings. To provide guidance on the methodology for reporting NFI, the European Commission has offered non-binding guidelines with the aim of supporting companies in disclosing high-quality, relevant, useful, consistent, and comparable information (EC, 2017). Each European country had to integrate the Directive into national laws by 2016. Following this change, Aureli et al. (2019) offered insights into the transposition of the EU Directive in three countries: the UK, France, and Italy. The Italian government transposed the Directive into national law on the 30th of December 2016. Thus, undertakings falling into the Directive's scope had to comply with the regulation starting in 2018, with reference to the financial year 2017.

Despite that the Directive is considered as an essential step toward corporate transparency in Europe (EU, 2014), some researchers remain sceptical about the level of enhancement it will provide to sustainability (Szabó and Sørensen, 2015; Quinn and Connolly, 2017; Doni et al., 2020). Consequently, the latest Directive has received considerable attention, opening up novel avenues for research. On one hand, Quinn and Connolly (2017) state that the Directive will likely fail to stimulate companies to become more socially responsible. Given that most EU countries have set the provision of assurance as optional, La Torre et al. (2018) expressed concerns that the Directive will fall short of enhancing organisational accountability via NFD. The Directive's minimum requirements, which are not supported by detailed rules, are expected to have little or no effect on achieving its goals (Szabó and Sørensen, 2015). On the other hand, considering previous European attempts to regulate NFD, the latest Directive is perceived to be more specific in terms of its structure, setting clearer requirements (Costa and Agostini, 2016; Szabó and Sørensen, 2015). Further, the Directive requires the information provided to be reliable; ultimately, it must be verified by an assurance service provider (EU, 2014; Aureli et al., 2020).

2.2 Voluntary and Mandatory Disclosure Debates Surrounding Directive 2014/95/EU

While the debate on voluntary versus mandatory reporting has been ongoing for many years (Larrinaga et al., 2002; Chauvey et al., 2015; Cordazzo et al., 2017; Luque-Vilchez and Larrinaga, 2016), the issuance of the Directive has introduced a new dimension to the discussion. Many researchers question whether or not companies should be allowed to decide on the publication of non-financial statements or if these disclosures should be regulated from higher institutional bodies (Doni et al., 2020; La Torre et al., 2020). In this regard, some scholars have acknowledged the importance of mandatory reporting as a driver to enhancing the quality and quantity of NFD (Deegan, 2002; Matuszak and Różańska, 2017). For instance, Matuszak and Różańska (2017) have investigated how mandatory reporting of NFI (following the Directive) impacts both the extent and quality of information. Their results suggest that, due to the introduction of the Directive, disclosure quantity and quality has been enhanced among Polish-listed firms (Matuszak and Różańska, 2017). However, some scholars remain pessimistic about the impact of regulation in fostering NFD. According to La Torre et al. (2018), regulating NFD does not necessarily lead to greater accountability and higher quality reporting. Along the same lines, Doni et al. (2020) have confirmed that the transition from voluntary to mandatory NFD failed to result in greater organisational accountability regarding social and environmental matters. The varying findings on this matter once again emphasise the fact that there is no agreement on voluntary versus mandatory reporting. This discussion continues in the literature considering previous normative frameworks; however, with regard to the Directive, there remains much to investigate. Fully grasping the implications of the last European Directive on NFD requires longitudinal observation (Dumitru et al., 2017; Venturelli et al., 2017; Cosma et al., 2021; Korca and Costa, 2021). Though there is a vast number of studies analysing NFD during both voluntary and mandatory regimes (Dumitru et al., 2017; Venturelli et al., 2017; Manes-Rossi et al., 2018; Tarquinio et al., 2020), no longitudinal study has yet covered a range of years involving both voluntary and mandatory reporting, with a focus on the Directive. Within this context, Venturelli et al. (2017) analysed Italian companies' compliance through their level of NFD at the end of 2015. Most recently, Tarquinio et al. (2020) assessed how the quantity of non-financial information has 356 B. Korca et al. changed because of the Directive. Compared to other studies considering one year prior to and one year after the Directive (Sierra-Garcia et al., 2018; Mion and Adaui, 2019), Tarquinio et al. (2020) instead analysed these changes over a period of three years. Although the present studies contribute to our understanding of the Directive's effects on short-term reporting, none have yet responded

to calls for a longitudinal analysis in this direction (Korca and Costa, 2021). The current case study fills this gap by taking a longitudinal approach (Yin, 2014), analysing the non-financial reporting practice of an Italian banking group over eight years of disclosure (2013–2020). It aims to analyse how a bank's NFD developed during two reporting regimes, voluntary (2013–2017) and mandatory (2018–2020), while investigating the institutional forces impacting such disclosure.

3. Institutional Theory

Researchers have applied institutional theory to understand an organisation's behaviour when performing standardisation and compliance (see DiMaggio and Powell, 1983; Scott, 1995). The main elements of institutional theory are 'institutions' and 'organisational fields', including rules, regulations, ideas, and cultural frameworks shaping organisational behaviour (Higgins and Larrinaga, 2014). This process of organisational changes in rules and structures as a response to institutional pressures is called isomorphism (DiMaggio and Powell, 1983; Higgins and Larrinaga, 2014). As classified by DiMaggio and Powell (1983), there are three main types of isomorphism: mimetic, coercive and normative. These three forces can occur concurrently within an organisation (De Villiers et al., 2014); therefore, it might be empirically impossible to distinguish their impacts in isolation (DiMaggio and Powell, 1983). Mimetic isomorphism refers to the practice of organisations emulating each other when facing uncertainty (DiMaggio and Powell, 1983), especially if one perceives the other to be successful. According to Tolbert and Zucker (1983), organisations tend to mimic more successful and legitimate organisations. An example of mimetic isomorphism involves firms adopting the GRI framework because they perceive it to be the standard for sustainability reporting (Higgins and Larrinaga, 2014). For instance, the GRI framework is being used by most companies in Europe (Alliance for Corporate Transparency Research Report, 2019), and companies have therefore come to believe that failing to adopt frameworks like the GRI will threaten their legitimacy. When companies mimic successful competitors, it results in the creation of rules (DiMaggio and Powell, 1983) that continue to guide the company in the future. The coercive type of isomorphism instead results from stringent laws and regulations (DiMaggio and Powell, 1983); it is a more formalised requirement for organisational change and institutionalisation. It thus includes rule setting, process monitoring, and punishment in cases of non-compliance (Higgins and Larrinaga, 2014). Coercive isomorphism pushes organisations to change and comply with rules, laws, directives, and other types of regulation. An example of a coercive mechanism impacting

NFD in Europe would be Directive 2014/95/EU, the subject of this study. The other institutional mechanism is normative isomorphism, which is driven by professionalisation, professional networks, and formal education pushing individuals to behave according to certain norms and values (DiMaggio and Powell, 1991). An illustration of normative isomorphism can be seen in US-based philanthropy. Society expects that organisations will donate to various causes (Higgins and Larrinaga, 2014) to demonstrate their social responsibility because it is a ‘standard’ or ‘proper’ behaviour embedded in the organisations’ culture over time. Therefore, normative isomorphism might help in explaining processes when organisations undertake actions according to the norms created by the environment, they make part of.

Several previous studies have applied institutional theory to explain the SED of organisations (De Villiers et al., 2014; Higgins and Larrinaga, 2014; Montecalvo et al., 2018). Higgins and Larrinaga (2014) describe how the three central mechanisms of isomorphism (mimetic, coercive, and normative) can explain the processes of institutionalisation in SED; they conclude that companies’ SED can involve a combination of the three mechanisms, with different impacts at various periods of reporting. Some authors frame the institutional theory in SED studies as a process that starts with the mimetic approach and proceeds to the coercive one before the organisation eventually develops a normative approach. According to De Villiers et al. (2014), when companies face uncertainty, they try to mimic other successful companies in order to overcome uncertainty. Over time, the pressures from a broad set of stakeholders, for instance, increase such that organisations are ‘forced’ to comply with certain rules and structures. Mimetic and coercive forces introduce a field and institutionalise it as the first phase (De Villiers et al., 2014). However, for a field to reach maturity, the normative mechanism has to play a role (Tuttle and Dillard, 2007). Complying with rules over a long period of time leads organisations to transform such practices into professionalised norms within the organisation, a process presented in Table 1. The current study adopts institutional theory and the three different forms of isomorphism in order to understand how an Italian banking group managed the slamic onn from voluntary to mandatory NFD in light of the recent Directive 2014/95/EU. Specifically, it considers how institutional forces have impacted the bank’s disclosure process and contents, both during voluntary and mandatory regimes.

	Mimetic isomorphism	Coercive isomorphism	Normative isomorphism
Description	Early stages characterised by uncertainty around the	Early stages but pressures are starting to formalise around new	Moving towards maturity through professionalisation driven by training and social

	appropriate response to pressures	regulations and demands from influential stakeholders	interaction between professionals
Processes	Benchmarking and identifying best practices	Formal and informal influence	Internalisation of new norms

Table 1. Maturation and convergence in the field of sustainability disclosure Adopted from de Villiers et al. (2014, p.12)

4. Background and Context: The Italian Banking System and the NFD

The 2008 financial crisis drew attention to the CSR activities of the financial sector and reinforced society's demand for trust, transparency, and accountability in business. In those years, banking systems underwent profound transformation, moving away from a standardised and impersonal model toward a more relationship-based banking model (Ayadi et al., 2010). These transformations have pushed banks and financial institutions to deal with SED to ensure accountability and transparency. Indeed, even if banks have a rather small direct impact on the environment because of their low levels of direct emissions and relatively limited use of resources compared to other industries (Löw et al., 2020; Weber et al., 2014), the banking sector's commitment to more sustainable practice has relevant implications. In fact, banks play an important role in economic development (Forcadell and Aracil, 2017) because they decide how to allocate financial resources to different firms and sectors, thus promoting the adoption of sustainable practices by potential borrowers. In this way, banks are crucial catalysts for sustainable development (Lentner et al., 2015; Löw et al., 2020). Despite the role of banks in promoting more responsible and sustainable development (Lentner et al., 2015), research on the SED of banks remains quite limited (Weber et al., 2014).

The existing body of literature on SED In the banking sector can be grouped into two main strands. The first strand adopts content analysis to examine SED themes, locations, and trends in banking institutions' annual and/or stand-alone social and environmental reports (Bravo et al., 2012). The second strand of literature investigates the relationship between corporate social performance and corporate financial performance (Wu and Shen, 2013; Mallin et al., 2014). While many recent studies have investigated how increasing SED can enhance firm reputation and performance (Forcadell and Aracil, 2017), few researchers have investigated how financial institutions and banks provide social and environmental disclosure. Recently, Löw et al. (2020) investigated the determinants of non-financial reports in 76 banks for the years 2017 and 2018, before and after the implementation of the EU Directive. The study highlighted two major

issues. First, Italian banks obtained the highest score both in 2017 and in 2018 in terms of the extent of disclosure, compared to other European banks. Second, the researchers noted that it was very difficult to understand the implementation of the EU Directive analysing only two years, particularly given conflicting results. Therefore, Löw et al. (2020) reinforced the need to more thoroughly investigate the process through which Italian banks more extensively produce the NFI required by the EU Directive. In this sense, a wider time frame is needed in order to better comprehend the development of NFD from the voluntary regime (until 2017) to the mandatory regime (since 2018).

Finally, it is important to remember that, in 2006, the ABI (Italian Banking Association) developed an industry-specific standard as a guide for developing stand-alone SED in the overall Italian banking system, for both commercial and cooperative banks (Costa et al., 2019). Therefore, the Italian experience in the NFD anticipated both the GRI industry-specific standards for the financial sector and the recent EU Directive.

5. Research Design and Methods

5.1 Research Methods

This paper adopts a single case-study (Yin, 2014) which allows for a thorough examination of the bank's reporting practice and NFD. Both primary and secondary data are used in obtaining a holistic view of the bank's reporting practices over an eight-year time horizon. First, a content analysis (Hooks and van Staden, 2011) is performed on non-financial reports and available online material such as interviews is consulted. Further, as primary data, semi-structured interviews are conducted, and seminars are attended. To analyse the NFD development in two reporting regimes (voluntary and mandatory), the study first examines NFD undertaken on a voluntary basis from 2013 to 2017; it then turns to the mandatory NFD from 2018 to 2020. The bank under investigation has indeed been reporting their social and environmental actions since 2013 when no formal requirement for such reporting existed. Since the introduction of the Directive and Italian Legislative Decree in 2016, the bank has been required to report on a mandatory level. Thus, in 2018, the bank issued its first consolidated non-financial statement in response to the requirements set forth in the Directive and Italian Legislative Decree 254/30. The latest available consolidated non-financial report is from 2020 with reference to financial year 2019.

5.1.1 Content analysis

Content analysis is a technique enabling the researcher to extract information within reports and make valid inferences as to the contexts of their use (Krippendorff, 2004). While accounting studies have thoroughly explored the reporting quantity (Matuszak and Różańska, 2017; Venturelli et al., 2017; Doni et al., 2020), research has shown that measuring reporting quality also provides rich insights (Beretta and Bozzolan, 2004; Chauvey et al., 2015). As a result, this study employs both an extent-based and quality-based approach (Hooks and van Staden, 2011) with the purpose of measuring the quantity and quality of NFD. Consequently, this study includes eight non-financial reports from 2013 to 2020. In order to assess the quantity of reporting, the number of sentences serves as the unit of measurement. Unerman (2000) noted that quantification may take many forms, such as the (a) number of documents referring to one particular category of disclosure, (b) number of words, (c) number of characters, (d) number of sentences, I number of pages, (f) proportion of report pages reserved for particular categories, and (g) proportion of NFD to total disclosure. Despite the variety of approaches, many consider numbering the sentences to be more accurate than counting words (Pesci and Costa, 2014; Costa et al., 2019). Therefore, for the purposes of this study, the number of sentences serves as the unit of measurement.

To measure the quality of reporting, this study focuses on the analysis of completeness (Al-Tuwaijri et al., 2004). The variable completeness assisted in assessing the comprehensiveness of information with regard to the categories derived from the coding protocol. It thus analyses how many sentences (per category) are presented vaguely (mention), descriptively (descriptive), and more extensively and numerically (evaluation). Following Al-Tuwaijri et al. (2004), weights (from one to three) have been assigned to each completeness sub-category according to its perceived structure. For instance, a weight of one is assigned for mention sentences, a weight of two for descriptive sentences, and a weight of three for evaluation sentences. If a disclosure related to a given item is absent, a score of zero is assigned. The weight is multiplied by the number of sentences, arriving at a score called the ‘product’. Finally, a total score is developed by dividing the sum of product values (mention, description, and evaluation) by the sum of sentences per type (mention, description, and evaluation). Higher total scores refer to more complete information, which is also presented in numerical terms. Prior research has suggested that detailed NFD presented quantitatively might actually be more than an impression management element (Cho et al., 2015). Table 2 offers further details on the scoring system, including examples.

The analysis was undertaken by reading the eight non-financial reports and codifying the information according to a coding protocol developed while taking into consideration the Directive's requirements for NFD (both 2014/95/EU and Italian Decree 254/30/2016). Both the measurement of quantity and quality of reports followed the coding protocol (Table 3). Table 3 provides examples taken from non-financial reports for each category of the coding protocol.

Variable	Category	Weight	Example
COMPLETENESS	Mention	1	"Our group has always promoted event and projects with a high social return"
	Description	2	"The rationalization and modernization of the group's fleet, based on green criteria, has continued for a number of years: whenever a vehicle comes to the end of its lifecycle, it is replaced by a new bi-fuel, hybrid or electric vehicle".
	Evaluation	3	"In 2019, the vehicle fleet of our group consists of 200 cars for business use and 220 cars for mixed personal-business use".

Table 2. Completeness used as the variable to assess NFD quality (with examples from sustainability reports)

The researchers conducted manual coding of the quantity and quality because it complemented the inductive nature of the study and enabled the researchers to better interpret the findings (O'Dwyer, 2004). In order to ensure reliability (Gray et al., 1995; Unerman, 2000), the three authors independently conducted the content analysis, discussing and resolving any discrepancies.

Categories		**Examples**
1.	Business model	"The Business Plan is based on five pillars supported by the same number of cross-cutting measures. Levers and actions that respond to the needs of local areas".
2.	Due diligence	No information was provided regarding due diligence.
3.	Assurance	"Pursuant to article 3, paragraph 10, of the Legislative Decree no.254 of December 30, 2016 (hereinafter the "Decree") and to article 4 of the CONSOB Regulation n.20267, we have carried out a limited assurance engagement on the Consolidated Non-Financial Statement of the Group and its subsidiaries as of December 31, 2017 prepared on the basis of article 4 of the Decree and approved by the Board of Directors on March 8, 2018."
4.	Diversity information	"In terms of equal opportunities, many activities supporting the recognition and enhancement of diversity within the Group have been in place."
5.	Environmental matters	"Today, 88% of the paper used in the offices and branches of the Group's banks is recycled, and an additional 8% of office paper and advertising material has an environmental quality mark."

6.	Social and employee matters	"The over 150 training proposals available to each employee, consistent with the other human capital development tools, are periodically reviewed in accordance with developments in people's jobs and roles.
7.	Respect for human rights	Despite the fact that the materiality analysis did not consider the issue of human rights to be significant, given the operational and regulatory context of the Group, it is covered by the Code of Ethics, within the Group's commitment to comply with the values of fairness and objectivity towards stakeholders.
8.	Anti-corruption and bribery matters	"There were no cases of corruption regarding group personnel in 2019".

Table 3. Coding protocol with examples from the sustainability reports

5.1.2 Interviews and seminars

Before conducting semi-structured interviews and attending seminars as primary data, the researchers consulted six interviews published online with regard to the bank's NFD. This type of data is considered to be secondary data, similar to non-financial reports (Costa et al., 2019; Deegan, 2002; Guthrie and Parker, 1990); it helped in obtaining an initial understanding of how the bank managed the NFD process from voluntary to mandatory regime over the years. Further, the secondary data helped to determine the themes for investigation during semi-structured interviews. Semi-structured interviews were conducted with the bank's CSR office manager. The interviewee was chosen based on his/her duties in planning and managing CSR activities and NFD. To conduct semi-structured interviews, an interview protocol was used to help the interviewer direct the conversation toward the topic of interest (Qu and Dumay, 2011). Therefore, the interview protocol included suggestions from the literature (Dumitru et al., 2017; Matuszak and Różańska, 2017; Venturelli et al., 2017), insights from the reports, and online interviews. Three interviews were performed from August 2018 to September 2020 (see Appendix I).

The main themes were sent to the interviewee a few days in advance via e-mail in order to allow him/her to become familiar with the main points for discussion. The adoption of semi-structured interviews intended to allow the interviewee to focus less on specific questions (Montecalvo et al., 2018) and more on general themes. The conversations were recorded via a digital device and then transcribed into a narrative form. For reliability and transparency, the transcribed interviews were sent to the interviewee for verification. Drawing on O'Dwyer (2004), our data analysis process embraced three sub-processes: data reduction, data display, and data interpretation. The analysis was initiated by reading the interview transcript three times while running the tape recording. This process helped to familiarise the researchers with the data by

paying close attention to details. While reading, the researchers also consulted their notes taken during the interviews. The aim of this initial process was to narrow the data and use key themes in the conversations. After identifying the main themes or patterns, the researchers undertook another round of reading, which helped to identify the 'core codes' (O'Dwyer, 2004) for all themes identified in the previous step. Finally, after conducting the analysis, the researchers considered their notes taken during the interviews and drew mind maps (O'Dwyer, 2004) in order to frame the big picture of the story.

Along with the face-to-face interviews, the researchers had the opportunity to attend three seminars introducing the bank, both for its activity as a commercial bank and for its sustainable and CSR-related initiatives (see Appendix I). Questions were posed to the presenters regarding their NFD processes in order to better understand how the bank managed voluntary and mandatory reporting. The seminars, questions, and answers were transcribed and coded following a similar process as the interviews (O'Dwyer, 2004). Attending these meetings over three successive years allowed for a more thorough understanding of the bank's reporting processes.

6. Findings

6.1 The Shifting Path from Voluntary to Mandatory NFD

The bank under investigation has been established as a group since 1992; as a group, it is currently obligated to issue a consolidated non-financial statement according to the European Directive 2014/95/EU. In the 2013–2017 reporting period, the bank reported NFI within an individual non-financial report. In addition to the voluntary provision of a non-financial report from 2013, according to the interviewee, the banking group has long been engaged in social projects: 'We, as a bank, have been contributing to social projects since a long time ago; however, our way of reporting was traditional. Anyway, seeing the market changing and others reporting non-financial information, our bank also started to think about and disclose sustainability reports' (Interview #1). However, in order to focus on sharing their social and [environmental] projects in a report, external pressure was exerted by peers and stakeholders: 'We faced requests from advisors, and the stock exchange changed. Stakeholders started to ask us to do sustainability governance, and therefore, our board decided that everything we do, needs to be strictly governed in a sustainable way. Therefore, the bank created an office with employees who have competencies in this field. Currently, we are a few people working in the

office, but we have collaborated with all the other employees. In the future, we plan to grow as office and continue our progress in reporting' (Interview #1). Therefore, the external pressure explains how the voluntary reporting was initiated and how, as a result, a CSR office was created inside the bank in order to manage CSR actions and, consequently, NFD. The bank under investigation experienced external pressure from a variety of stakeholders and the fact that many other banks started NFD, which led them to begin the voluntary NFD process. Indeed, according to La Torre et al. (2018), decisions regarding the NFD engagement are dependent on the degree of institutionalisation of that practice in companies operating in the same industry.

Voluntary NFD was then exercised for five consecutive years (2013–2017); in 2018, the bank was obligated to prepare a consolidated non-financial report according to the Directive's requirements (EU, 2014). According to the interviewee, this new requirement occasioned significant changes in the bank's reporting practices, as in many companies across Europe (Dumitru et al., 2017; Mion and Adaui, 2019). For the case under investigation, in addition to changes in reporting content, the process of framing the consolidated report was perceived as a challenging task: 'The first impact that the new law had on our reporting practice was that it required us to frame the consolidated report instead of the individual report we had been publishing on a voluntary basis. This has required very demanding work' (Interview #1). The process of shifting from voluntary to mandatory reporting seems to have been demanding in terms of activities undertaken to comply with the regulative requests. As an interview highlighted, 'Our banking group is made of 16 different companies. So, every year, each company has to give us information and data to create the consolidated report' (Interview #3). Like the interviewee, the CEO clearly emphasised the operational challenges associated with shifting from voluntary to mandatory NFD: 'In terms of specific banking activities, the year 2017 marked significant operational challenges. The regulation required that, in addition to the financial statements for the year, a consolidated non-financial statement be drawn up and submitted, illustrating the measures undertaken in certain well-defined areas: environmental impacts, personnel management, returns for the company and the territory, human rights, and the fight against corruption' (CEO, Sustainability Report 2018). In order to publish the 2018 consolidated report, the banking group organised several training activities with all the companies belonging to the group. 'It was very difficult because it is the first year that we are creating a consolidated report. I asked many indicators to 16 companies belonging to our group which did not see something similar before. Training has been organised but was not sufficient. The good thing is that we have been all working together in a cooperative way therefore I

believe our target is achieved' (Interview #1). Mandatory NFD has been exercised in the bank since 2018, resulting in three years of NFD according to the Directive's requirements. 'While the regulation is seen as a starting point, we acknowledge the importance of being positioned as a bank oriented towards sustainability' (Interview #3). In this regard, to further engage in CSR and sustainability-related actions, in 2020, the bank has started working on a sustainability plan for 2021 and began creating a CSR committee inside the bank. When asked about the sustainability plan for 2021, the interviewee stated, 'In our sustainability reports, we frame our targets using the Sustainable Development Goals (SDGs). Therefore, in our sustainability plan, we are working with these targets, to put Environmental, Social and Governance in the business. This plan touches all the SDGs because it enters in the core area of the bank—credit and investments—and is not only a sponsorship of an event or project but it aims to work with corporate clients and to help them improve their sustainability' (Interview #3). To improve the sophistication with which data is collected and to prepare the consolidated non-financial report, software will be soon acquired. 'We are buying new software to manage all the data with it. It will be used at different levels and a licence will be provided for colleagues that need to insert data or information' (Interview #3).

The shift from voluntary disclosure (2013–2017) to mandatory disclosure (2018–2020) impacted the bank's accountability process in several ways, as is reflected in the NFD contents. Therefore, an analysis of both the quality and quantity of the NFD is offered for both voluntary and mandatory periods.

6.2 The Quality and Quantity of NFD in two Periods (Voluntary and Mandatory)

Tables 4 and 5 show the analysis of the reports from both periods, voluntary (2013–2017) and mandatory (2018–2020). Table 4 clarifies the reporting path of the bank in terms of quantity (measured by the number of sentences), whereas Table 5 shows the reporting path in terms of quality (measured by the variable completeness).

Periods			**Period 1 (voluntary disclosure)**					**Period 2 (mandatory disclosure)**		
Years			**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Panels	Patterns	Categories								
		Diversity information	4	12	10	14	4	34	68	55

Panels	Patterns	Categories							
Panel A	Presence to presence	Environmental matters	22	25	34	37	1	129	153	160
		Social and employee matters	95	84	113	158	42	735	392	439
		Anti-corruption and bribery matters	4	20	23	23	0	50	73	44
Panel B	Absence to presence	Business model	0	0	0	0	0	14	21	27
		Assurance	0	0	0	0	0	31	36	31
		Respect for human rights	0	0	0	0	0	14	20	18
Panel C	Absent to absent	Due Diligence	0	0	0	0	0	0	0	0

Table 4. Content analysis on quantity of non-financial information measured by the number of sentences per category

Periods			**Period 1 (voluntary disclosure)**					**Period 2 (mandatory disclosure)**		
Years			**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Panels	Patterns	Categories								
Panel A	**Presence to presence**	Diversity information	2.25	2.3	2.2	2.14	2.5	1.91	1.82	1.84
		Environmental matters	2.4	2.4	2.29	2.32	2	2.07	1.98	1.98
		Social and employee matters	2.19	2.13	2.06	1.99	1.69	1.81	1.93	1.96
		Anti-corruption and bribery matters	2	2.05	1.96	1.86	0	1.92	1.9	1.88
Panel B	**Absence to presence**	Business model	0	0	0	0	0	2.07	1.95	1.96
		Assurance	0	0	0	0	0	2.06	2.05	2.064
		Respect for human rights	0	0	0	0	0	2.07	1.9	1.94
Panel C	**Absent to absent**	Due Diligence	0	0	0	0	0	0	0	0

Table 5. Content analysis on quality of non-financial information measured by the variable completeness per category

The following analysis reflects changes over the years and helped the researchers to observe and measure trends and patterns of disclosure. Ultimately, it maps out three different patterns in the regulation's implementation:

i) Panel A shows topics that were present in the voluntary disclosure (2013–2017) and remain present after the introduction of the regulation (2018–2020). These

topics are labelled 'presence to presence' and include diversity information, environmental matters, social and employee issues, anti-corruption, and bribery matters. The presence of such issues in both reporting periods (voluntary and mandatory) allowed for a trend analysis (see Figure 1) in mapping the reporting path in terms of both quantity and quality.

ii) Panel B shows topics introduced for the first time with regulation adoption. These topics are labelled 'absence to presence' and include business model, assurance, and respect for human rights.

iii) Panel C shows topics that were absent in the voluntary disclosure period and became compulsory after regulation introduction but with which the bank did not comply. These are labelled 'absence to absence' and refer to due diligence.

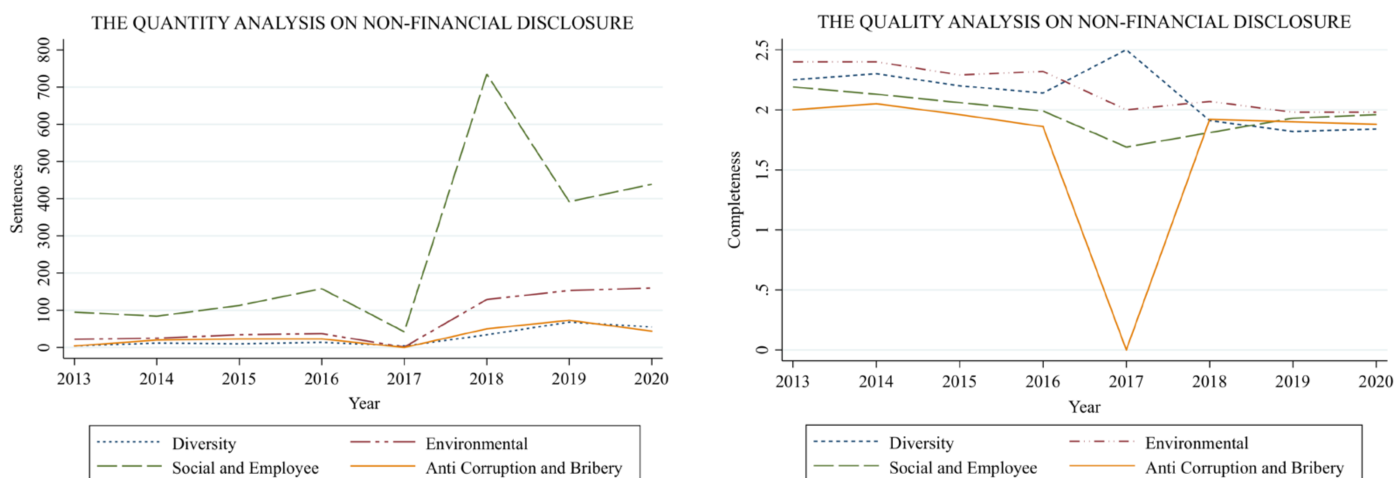

Figure 1. Trend analysis of NFD, in terms of both quantity and quality

6.2.1 'Presence-to-presence' aspects

The Directive stresses the importance of companies disclosing information about diversity matters (EU, 2014). Though some countries like the UK are proficient in disclosures regarding diversity matters (KPMG, 2017), Italy has fallen behind (Venturelli et al., 2017). Nonetheless, the Italian bank analysed in this study has been providing such information since 2013, since its first non-financial report. In terms of quantity, these disclosures increased from 2013– 2020, reaching a peak in 2019 (Figure 1).

The interviewee stated, 'Regarding diversity, we have seen that human resources are quite compliant with the Directive, and we cannot notice any inequality in our bank. The report may

not talk specifically about diversity information, but there is information about it throughout the report' (Interview #1). As for the quality analysis, diversity information seemed to become less complete following the EU legal intervention. Figure 1 shows how the quantity of diversity information has increased during the mandatory period, while the quality of such disclosures has been stable.

The category of environmental matters contains the second largest amount of information in the reports. In this study, reports increasingly share environmental information, except for 2017, when virtually no textual information was presented. During the mandatory period, there has been a significant increase in the amount of environmental information (Table 4, panel A) provided compared to the voluntary period. This result aligns with Manes-Rossi et al. (2018) who found a high degree of compliance by EU companies with regard to environmental disclosure. The increasing amount of disclosure regarding environmental matters also reflects the various pressures faced by the bank. As the interviewee pointed out, 'The European Commission is working hard on environmental matters. Thus, the EU asked the financial institutions to work on these topics and to include climate change matters in all the areas of the bank' (Interview #3). While coercive forces have driven the quantity of such information (DiMaggio and Powell, 1983), the quality of environmental information has not followed suit. A comparison of the quality between voluntary and mandatory periods (Figure 1), reveals no improvement since the arrival of mandatory reporting (Table 5, panel A). Indeed, the quality of such information appears to be lower since the legal intervention. The interviewee stated that 'the most difficult topics for the bank are environmental ones because we are a bank, and we have a social impact' (Interview #3). As a result, our findings underscore an increase in the quantity, but not in the quality of information as a response to various pressures.

The category of social and employee matters contains the most information disclosed throughout the years. When comparing the two reporting regimes, it becomes clear that the amount of social and employee information has been higher in the mandatory period than in the voluntary one. In 2018, which marked the first year of the Directive's application, the banking group shared an extensive amount of social and employee information (Table 4, panel A). The interviewee confirmed the importance of social and employee matters for the bank, noting that 'people and relationships are the most important aspect for us as a bank. It is worth mentioning that we have been engaged in social events, and we have been contributing to society for the last 150 years' (Interview #1). The CEO confirmed this observation, saying 'The bank has always sought to conduct its relationships with customers, shareholders, members, employees,

external staff, suppliers and, more generally, all stakeholders in a correct, formal and substantial manner' (Sustainability Report, 2015). Finally, a seminar held in 2019 again highlighted the importance of employees: 'All of our stakeholders are important to our bank, but employees are the most important. The reason why is that we offer financial services, and if our employees are not satisfied, we cannot offer good services to our customers' (Seminar #2). In contrast to other disclosure topics, the relevance of social and employee matters to the bank is also reflected in the quality analysis (Figure 1), with an increasing trend after 2017. Dedication to the disclosure of these matters was emphasised once again when the interviewee stated, 'We, as a bank, have a social impact, and therefore, it is the most important impact of our business' (Interview #3). Similar to our results, Manes-Rossi et al. (2018) found that EU companies are especially compliant with the Directive when it comes to social and employee matters disclosure. Finally, information on anti-corruption and bribery matters has been present since the bank's first non-financial report. In contrast to Polish companies, which have dedicated little attention to anti-corruption and bribery matters (Matuszak and Różańska, 2017), the Italian banking group in our study has been transparent on this subject for years now. Generally speaking, the amount of information on this matter has increased from 2013 to 2020, with the exception of 2017, when no information on anti-corruption and bribery matters appeared (Table 4, panel A). According to the interviewee, this increase occurred because the bank now prioritises anti-corruption information in reporting. 'For now, the topics which we have identified as a priority are anti-corruption and other related matters' (Interview #1). However, in terms of quality, the voluntary and mandatory periods were similar, with the exception of 2017 when no information was shared on this matter (Table 5, panel A).

6.2.2 'Absence-to-presence' aspects

The first absence-to-presence aspect is the business model, which is required by the Directive and represents a rather relevant subject in non-financial statements (Doni et al., 2020). Instances of business model references significantly increased between the two periods (voluntary and mandatory). From 2013–2017, there was no content dedicated to describing the bank's business model, but in 2018, the bank provided such information, as required by the Directive. According to the CEO, 'In terms of specific banking activities, the year of 2017 marked significant operational challenges; one of them was the launch of the new business plan, which is now at an advanced stage of development' (Sustainability Report, 2018). Because of the introduction of the Directive, the bank was 'forced' to reflect on its long-term planning and to make its business plan transparent in the 2018 non-financial report. Such information has increased in

2019 and 2020 reports. The CEO noted that ‘the new business plan includes, for the first time, in addition to economic objectives, some of the group’s sustainability projects’ (Sustainability Report, 2019). Indeed, as the CEO highlighted, the increased business model information in the 2019 report (compared to 2018) results from the introduction of sustainability information within this section. Despite the increasing amount of information on the business model (Table 4, panel B), the quality of this information has instead decreased from 2018 to 2020 (Table 5, panel B). With reference to assurance, no information about the assurance process was shared in nonfinancial reports during the voluntary period. From 2018 to 2019, information about assurance followed an increasing trend due to Italy’s mandatory provision of assurance in non-financial reports (Aureli et al., 2019) as required by Italian Legislative Decree 254/2016. The text volume increased from 2018 to 2019, but decreased in 2020; nonetheless, this information has remained present over the years (Table 4, panel B). While EU states were allowed to decide on this matter individually (La Torre et al., 2018), Italy chose to make assurance disclosure mandatory (Aureli et al., 2020). According to the interviewee, ‘Assurance was also present in previous years (during voluntarily reporting), but it was not included in the non-financial reports’ (Interview #1). Thus, the assurance statement was included for the first time in 2018 and continued in subsequent years. Similar to information about the business model, the quality of assurance information during the mandatory period has also decreased in scores (Table 5, panel B). However, the nature of assurance statements does not allow for much judgement regarding numerical information because they usually contain ‘mention’ or ‘description’ information. Along with business model and assurance information, another previously unreported category was information about human rights. In 2015, the non-financial report briefly mentioned human rights, but this topic only became more pronounced in the non-financial reports of 2018, 2019, and 2020 (Table 4, panel B). Therefore, the mandatory period of disclosure seems to have impacted the inclusion of such information in the reports. The interviewee commented that ‘an analysis is being conducted on human rights throughout the bank’s value chain’ (Interview #2). However, considering that it represents the least disclosed category in the reports, one might assume that this information is not a priority for the bank. This assertion finds support in the quality analysis, which shows decreasing scores from 2018 to 2020 (Table 5, panel B). Similarly, Matuszak and Różańska (2017) found that human rights disclosure received the least amount of attention from companies in the Polish context.

6.2.3 'Absence-to-absence' aspect

Due diligence seems to be a neglected category of reporting, particularly given that reports offered no information about it over the years (during both voluntary and mandatory periods). Despite the EU's legal intervention, there remains a lack of information on this matter. When questioned about due diligence, the interviewee stated, 'We do not employ due diligence processes right now. However, we are currently working on developing policies inside the bank on sustainability reporting. The internal audit office suggested that once we have developed these policies of sustainability reporting, we can employ due diligence processes' (Interview #1). Because no changes occurred in 2018 or 2019 (Table 4 and 5, panel C), the second interview featured questions on the topic of due diligence, but the interviewee responded similarly: 'We are working on a new policy about the way we develop sustainability reports. After getting this policy approved, we can start working on the due diligence process' (Interview #2). Because such information was not provided in 2020 either, the third interview once again included this matter, and the interviewee responded, 'Well, last year, we created internal guidelines to define how to prepare the reports. This year, for the first year, compliance has asked us to explain if these processes are good or if there are some mistakes and so on' (Interview #3). It appears that due diligence processes have not been applied officially this year either. Szabó and Sørensen (2015) argue that the Directive lacks sufficient explanation on the implementation of due diligence processes, which could explain why the bank has not undertaken such action. According to the interviewee, the bank will implement this process at a future date.

In sum, diversity information, environmental issues, social and employee matters, and anticorruption and bribery matters prevail when it comes to the topics given greater attention in the reports. Less information is shared regarding the business model, assurance, and respect for human rights. The reports share no information at all regarding due diligence processes. This finding partly aligns with the findings of Manes-Rossi et al. (2018). In their sample of 50 European companies, Manes-Rossi et al. (2018) found that the items most often disclosed include social, employee, and environmental matters. Similarly, in the current study, it seems that both social and employee as well as environmental matters remain relevant for the banking group, either because the bank itself sees them as relevant (i.e., social and employee) or because the bank needs to respond to external pressure for disclosure (i.e., EU pressures on environmental disclosure). While social, employee, and environmental information has increased since the legal intervention in terms of quantity, the same cannot be said when it

comes to quality. Social and employee matters is the only reporting category that has improved in terms of quality since the regulation. In a similar vein, Cosma et al. (2021) examined the reporting quality prior to and after the Directive (2016 and 2017) and found that information quality did not increase, despite the EU legal intervention.

7. Discussion

Traditionally, the lens of institutional theory has been used to explain the institutionalisation of a field in organisations such as the SED (Tuttle and Dillard, 2007; de Villiers et al., 2014; La Torre et al., 2018). However, considering the regulations in place, such as Directive 2014/95/EU, research has not provided a thorough account of how individual NFD topics have evolved over time to become institutionalised in organisations. Based on the current case study informed by institutional theory, this section discusses the interplay between the different institutional mechanisms—mimetic, coercive, and normative—that impacted the bank's reporting in two periods, voluntary and mandatory, for certain topics of disclosure. According to Higgins and Larrinaga (2014), 'It is likely that sustainability reporting is the result of a mixture of those three mechanisms, taking different weights in different contexts and in different stages of the institutionalisation of sustainability reporting' (p. 283). Therefore, examining the interplay of institutional mechanisms impacting NFD in the bank under investigation, not only over time but also in terms of disclosure content, provides new insight into institutional theory and its future use in SED studies. Consequently, the tables below explain how different institutional forces emerged to shape organisational behaviour during the two periods (Table 6) for different topics of disclosure (Table 7).

7.1 Mimetic and Coercive Mechanisms (Period-wise)

According to DiMaggio and Powell (1983), mimetic isomorphism occurs when organisations tend to model themselves after counterparts perceived to be examples of success. Thus, organisations tend to create some sort of benchmark to follow while operating in a certain field. In contrast, coercive isomorphism is driven by both formal and less formal forces (DiMaggio and Powell, 1983). Less formal coercive forces may be considered requests from investors or other stakeholders, while formal coercive forces include those mandated by law (Tuttle and Dillard, 2007). Considering both primary and secondary data, this study observes that mimetic and coercive mechanisms were present during the voluntary reporting period. The bank's voluntary disclosure was driven by 'how others are doing it' as well as by other, less formal

coercive forces, such as pressure from stakeholders. In terms of mimetic mechanisms, the data highlights that the bank started to formally prepare a nonfinancial report by emulating other competitors and peers. Therefore, it is a voluntary change performed by one entity while conforming with actions of another benchmark company (Tuttle and Dillard, 2007). The banking group has been engaged in social projects for a long time, but in terms of disclosure, they maintained only traditional financial statements. However, seeing the market and other companies change and thus embrace SED, the banking group initiated the same action. As Dumay et al. (2015) emphasised, organisations tend to practice voluntary NFD when their counterparts are doing the same. During the same time period (2013–2017), the bank faced various pressures from external stakeholders to introduce sustainable governance, which caused the banking group to create the CSR office and start their path into NFD. Therefore, voluntary reporting was brought about by both mimetic and informal coercive forces, which guided the bank for a period of five years before the regulations were put in place. Since the Directive came out, NFD became mandated by law for certain undertakings, and some specific content and issues became compulsory. One of the requirements of this formal coercive force is for the banking group to develop a consolidated report that includes information about environmental, social, and employee issues as well as human rights, anti-corruption, and bribery matters (EU, 2014). As the data analysis indicates, producing a consolidated report is considered one of the main impacts of the Directive, which has significantly changed the approach to reporting in the mandatory period. Thus, in contrast to the publication of an individual report in the voluntary period, the banking group had to draw a consolidated report starting in 2018. The data highlights that 2017 marked a challenging year for the bank considering the regulations in place and the requirement to prepare a consolidated report and to report on particular topics, such as environmental issues, human rights, fighting corruption and others. Considering the changes that resulted from binding requirements in the Directive, it is clear that coercive forces influenced the bank's NFD from 2018 to 2020, the mandatory period (DiMaggio and Powell, 1983). According to Dillard and Tuttle (2007), formal influences exerted by powerful bodies have the possibility to become mandated and lawful requests. The banking group sees the regulation as a starting point, although they acknowledge the importance of being positioned as a sustainable bank. Both the interviews and the non-financial reports highlight the changes during mandatory NFD; coercive forces influenced the disclosure of certain topics over others, as will be highlighted in the next section.

Two reporting regimes	Institutional forces
Voluntary (2013-2017)	Mimetic and coercive forces
Mandatory (2018 – 2020)	Coercive forces

Table 6. Institutional forces on two different reporting regimes

7.2 Mimetic, Coercive, and Normative Mechanisms (Content-wise)

In terms of the topics disclosed within the three patterns (presence to presence, absence to presence, and absence to absence), we noticed an interplay between the three different mechanisms: mimetic, coercive, and normative (Table 7). Observing both the quantity and quality of NFD through the lens of institutional theory (DiMaggio and Powell, 1991) provided insights on how NFD is presented differently for certain topics of disclosure and how specific contents become a norm in terms of disclosure. In the literature, NFD is usually considered to be a homogenous process within an organisation; however, our longitudinal observation of NFD provides insights on how the different institutional mechanisms interact and co-exist at different times and for different topics of disclosure such that normativity is produced (Bebbington et al., 2012). The data on NFD volume indicates that initially, mimetic and coercive forces prevailed, encouraging the continuous reporting of diversity, environmental, social and employee, and anti-corruption matters. After legally binding requirements acted as coercive mechanisms (DiMaggio and Powell, 1983), other topics began to be disclosed, such as business model, assurance, and respect for human rights. This finding is consistent with La Torre et al. (2018) who noted that companies disclose NFI because they are obliged to do so by law, a coercive force. Therefore, regulation has played a role in mandating the disclosure of certain topics that were completely neglected during the voluntary regime. Finally, due diligence seems to be a neglected item of disclosure, as this information was never emphasised during eight years of reporting. Analysing this situation through the lens of institutional theory, none of the three forces seem to have influenced the disclosure of due diligence. The data on NFD quality has further enriched our understanding of how institutional forces foster the bank's disclosure. It was possible to analyse trends in quality for the topics that have been disclosed voluntarily and continued to be disclosed on a mandatory basis (Figure 1). As such, the reporting category showing a relatively high score during the voluntary period and continuing to follow an increasing trend during the mandatory period is social and employee information. Both the primary and secondary data have highlighted the importance of these matters to the bank. The banking group considers people and relationships highly relevant, and social and

employee disclosure therefore prevails. Although all the topics of disclosure may have been impacted by either mimetic or coercive mechanisms, to publish complete information on a certain topic, it has to be perceived as a moral obligation (Bebbington et al., 2012) rather than simply a ticking box (La Torre et al., 2018). For instance, the banking group is under pressure from the European Commission to be transparent regarding environmental matters, among other issues, and it consequently responds to such pressures. The reports' analysis indicates that there is a great deal of information regarding environmental matters, but the quality of disclosed information is decreasing. As highlighted from the data analysis, environmental matters are challenging to report on because as a bank, they emphasise and believe in their social impacts compared to environmental ones. Thus, the creation of norms is strictly related to internal morality (Bebbington et al., 2012) and the belief that actions need to be undertaken because they are appropriate (March and Olsen, 2006) depending on the context and setting. Environmental matters are disclosed continuously because of the experience of various pressures, in contrast to social and employee disclosure, which is seen as 'high stakes' considering the role of the banking sector in the society. Despite regulatory pressures, companies do not fully conform if they are not considered appropriate and legitimate (Bebbington et al., 2012).

This discourse illustrates that the quality of information disclosed depends on the topic and the context of operation for the company. According to Scott (1995), social actions are impacted by the context and the setting in which they take place. It seems that regulation, in this case the EU Directive, might cause the disclosure of certain topics; however, it simply mandates the presence of certain information, rather than inducing complete and comprehensive disclosure. Considering how the bank feels about social and employee matters and its close relationship with people, the disclosure of such information seems to be mediated by normative mechanisms (Bebbington et al., 2012). The banking group believes that people and relationships make a crucial part of them and therefore attention is given to ensure best practices for stakeholders. A field evolves because of the beliefs and norms internalised by organisational members (DiMaggio and Powell, 1991). According to March and Olsen (2006), normative mechanisms are strictly related to what the organisation sees as the most appropriate action to undertake. Consequently, the banking group has been providing the requested information in most areas but places more emphasis on the disclosure of information material to them (social and employee matters), thus highlighting how the production of normativity is strictly related to the bank's internal values and beliefs (Bebbington et al., 2012). This study, therefore, proposes a

different form of adopting institutional theory to explain NFD evolution in organisations. The utilisation of institutional theory to inform how a field evolves over time and reaches maturity (de Villiers et al., 2014; Tuttle and Dillard, 2007) should embrace a more contemporary approach that looks beyond the development of a field as a whole. NFD consists of the disclosure of various items, which may hold various weights in an organisation and occur at different times. The data highlighted that not all areas of disclosure in the non-financial reports hold the same importance for the bank. Despite that mimetic and coercive forces have played a role in the disclosure of the majority of topics, however, complete and comprehensive information provided on specific matters is impacted by normative mechanism. Thus, NFD might come to a point where normative mechanisms emerge, but mimetic and coercive mechanisms remain (De Villiers et al., 2014). Specifically, social and employee disclosure, like most of the other disclosure topics, might have been prompted by mimetic and coercive mechanisms, but over time, normativity has been constructed as a manifestation of internal morality (Bebbington et al., 2012) and appropriateness (March and Olsen, 2006).

Topics of disclosure	**Institutional forces**
Social and employee matters	Mimetic, coercive, and normative forces
Environmental matters	Mimetic and coercive forces
Diversity information	
Anti-corruption and bribery matters	
Business model	
Assurance	
Respect for human rights	
Due diligence	No forces

Table 7. Institutional forces on various topics of disclosure

8. Conclusion

This study reflects on a longitudinal NFD process in an Italian banking group during two main periods, voluntary and mandatory. The bank has been reporting NFI on a voluntary basis since 2013. However, when the EU issued Directive 2014/95/EU, the bank fell within its scope, requiring the bank to comply with the Directive's requirements beginning in 2018. Considering this reporting process, the paper contributes to previous studies in three different forms. First, it extends previous research on the effect of Directive 2014/95/EU on NFD by considering the reporting period from 2013 to 2017 as voluntary and from 2018 to 2020 as mandatory. Second, while examining how the reporting has developed over time for specific areas of disclosure,

this study also contributes to the broad debate on voluntary versus mandatory reporting (Szabó and Sørensen, 2015; Costa and Agostini, 2016; Quinn and Connolly, 2017). Finally, following institutional theory (DiMaggio and Powell, 1983), it becomes clear that NFD is a complex process rather than a homogenous field that develops linearly which can be explained through an interplay of institutional mechanisms.

The analysis illuminated three patterns of disclosure. The 'present-to-present' pattern indicates that certain categories of disclosure were present in both the voluntary and the mandatory periods. The 'absent-to-present' pattern refers to certain categories of disclosure that emerged only in the mandatory reporting period. Finally, the 'absent-to-absent' pattern indicates that the disclosure of some categories remained unaffected by the law and thus never appeared in non-financial reports. In general, the shift from voluntary to mandatory has caused NFD volume to increase, but the same development has not occurred in terms of the quality of information offered, which is in line with Chauvey et al. (2015). Compared to previous studies investigating the preliminary effects of the Directive on the Italian context (Caputo et al., 2019; Mion and Adaui, 2019), the current paper points out that the Directive's impact can vary depending on the topics of disclosure. In contrast to Caputo et al. (2019) who highlighted that the Directive does not necessarily lead to greater NFD quality, the current case study clearly points out that the Directive has been able to enhance both the quantity and quality of disclosure for social and employee matters. Therefore, the paper emphasises that changes in the NFD from the voluntary to the mandatory regimes may have been affected by the internal morality (Bebbington et al., 2012) and sense of appropriateness (March and Olsen, 2006) developed by an organisation on specific topics of the disclosure.

Understanding how the bank reacted to the shift from voluntary to mandatory, both in terms of NFD quantity and quality, has also provided new insights that could enrich the ongoing debate regarding voluntary versus mandatory reporting (Szabó and Sørensen, 2015; Costa and Agostini, 2016; Quinn and Connolly, 2017). In SED studies, two main attitudes prevail with regards to the settings in which NFD takes place. While some scholars are in favour of regulations to mandate NFD (Hibbitt and Collison, 2004; Jeffrey and Perkins, 2013), others believe voluntary disclosure to be more appropriate (Larrinaga et al., 2002; Llena et al., 2007; Criado-Jiménez et al., 2008). The current study falls somewhere in the middle, acknowledging the importance of both regimes. According to Bebbington et al. (2012, p. 90), 'formal legislation alone cannot be sufficient to create a norm'; therefore, the current analysis of the bank's NFD over time reveals that there is no single 'best' approach. Voluntary experience with

NFD allows organisations to become familiar with the process before experiencing and responding to mandatory requirements. The findings indicate that some important topics for the bank have been present in voluntary reports, and after the Directive, disclosure on these topics increased in volume. Thus, it seems that both voluntary and mandatory NFD play an important role in organisations. An interplay between regulatory and non-regulatory regimes is seen as useful for triggering and enhancing NFD (Chelli et al., 2018). On the one hand, the voluntary reporting period allowed the organisation to introduce certain areas of disclosure before the emergence of legal requirements. Some topics reported on a voluntary basis over the years were embedded in the organisation as priorities such that after the legal intervention, these items achieved advanced levels of development (i.e., social and employee matters). At the same time, the impact of the Directive is obvious. Topics like business model, assurance, and respect for human rights were completely neglected during voluntary reporting; however, these items began to appear in 2018 when they became mandatory.

The paper contributes to the theoretical development of institutional theory by pointing out that an interplay of institutional mechanisms exists and guides the bank's NFD. Contextualising institutional theory at two different periods and for different NFD topics, this study offers a new conceptualisation of the theory, as reflected in Adams and Larrinaga (2019). Thus, institutional forces do not have a linear impact in the homogenisation process; rather, there is an interplay between various mechanisms. The data highlights that voluntary reporting was driven by counterparts undertaking the same actions. Thus, a mimetic mechanism seems to have played a role in driving the organisation into voluntary non-financial reporting. In addition, when there exists an actual law (i.e., the Directive), coercive forces dominate (La Torre et al., 2018) in the organisational processes. Therefore, from 2018 to 2020, coercive influences were ubiquitous for the bank. Regarding the topics of disclosure, the Directive has caused the appearance of certain topics in non-financial reports, whereas some others, such as due diligence matters, remained unaddressed. In terms of NFD quality, it appears that the introduction of the regulation caused little improvement. Social and employee matters represents the only category present since 2013 that has increased in quantity and, after the legal intervention, increased in quality as well. The insights garnered from the data suggest that social and employee matters are particularly relevant for the bank because they acknowledge their impact on society and people in general. As such, institutional theory enables the insight that although mimetic and coercive mechanisms remain in place (de Villiers et al., 2014), social and employee disclosure is influenced by normative forces. It is particularly important to acknowledge that institutional

mechanisms co-exist and that it is therefore possible to produce normativity (i.e., regarding social and employee disclosure). Normativity is a result not of one single regime but a mix of institutional pressures (Chelli et al., 2018) and beliefs. Therefore, its production needs to be traced via the previous elements contributing to that achievement (Bebbington et al., 2012).

In addition to our study's contribution to the literature in the inter-connected arenas of accountability, disclosure, and regulation, some policy and practical implications can be drawn. The findings suggest that the regulation has been effective in extending the NFD and introducing new topics of disclosure that were absent prior to regulation. However, to make the regulation effective, the legislation should be clear in its purpose and content. Indeed, the results presented in this research highlight that, where the regulation is not clear and specific (i.e., regarding due diligence), the organisation tends to not comply, thus making the regulation ineffective. In response to this issue, the Alliance for Corporate Transparency Research Report (2019) supports the mandatory due diligence disclosure as a future action in the EU agenda. In terms of practical implications, the paper points out that organisations need to experience voluntary reporting in order to gain more experience and respond to mandatory requirements; more generally, companies should experience both the voluntary and then the mandatory reporting path (Chelli et al., 2018) in order to potentially develop a normative approach to SED.

Certainly, no research is exempt from limitations, including the current study. Though the paper contributes with a longitudinal analysis of NFD, it was not possible to access further interviews with other bank employees. However, after a few informal conversations with experts in the SED field who were connected to the interviewee and the bank, it was possible to confirm that the interviewee was the main person in charge of the bank's CSR activities. Furthermore, the seminars attended helped to complement the information gathered from interviews. Considering the limitations of the current study, future avenues of research might focus again on longitudinal analyses, consider a multiple case study, and try to understand how the interplay of institutional forces impacts NFD in multiple organisations. Specifically, considering that concerns about quality on a mandatory disclosure remain high, studying multiple companies using a longitudinal approach might help to reveal whether the quality of NFD is enhanced as part of the normativity scheme. The current study has determined that normativity (Bebbington et al., 2012) regarding social and employee matters is produced because it has long been disclosed by the bank and has been considered relevant in both voluntary and mandatory periods. Future studies could assess whether the quality is being enhanced as a result of experiencing different institutional forces, such as coercive ones (i.e., those exerted by the

Directive), to later achieve normative levels at which the entities themselves consider high-quality disclosure appropriate (March and Olsen, 2006) and necessary. Much more investigation is needed to understand how institutional theory can support the interpretation of different accountability and reporting paths within a variety of organisations.

References

Adams, C. and Larrinaga, C. (2019). Progress: Engaging with organisations in pursuit of improved sustainability accounting and performance. *Accounting, Auditing & Accountability Journal,* 32(8), 2367–2394. https://doi.org/10.1108/ AAAJ-03-2018-3399

Al-Tuwaijri, S. A., Christensen, T. and Hughes, K. E. (2004). The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous approach. *Accounting. Organizations and Society*, 29(5/6), 447–471. https://doi.org/10.1016/S0361-3682(03)00032-1

Alliance for Corporate Transparency Research Report. (2019). An analysis of the sustainability reports of 1000 companies pursuant to the EU Non-Financial Reporting Directive, https://www.allianceforcorporatetransparency.org/

Aureli, S,, Del Baldo, M., Lombardi, R. and Nappo, F. (2020). Non-financial reporting regulation and challenges in sustainability disclosure and corporate governance practices. *Business Strategy and the Environment*, 29(6), 2392– 2403. https://doi.org/10.1002/bse.2509

Aureli, S., Magnaghi, E. and Salvatori, F. (2019). The role of existing regulation and discretion in Harmonising non-financial disclosure. *Accounting in Europe*, 16(3), 290–312. https://doi.org/10.1080/17449480.2019.1637529

Ayadi, R., Llewellyn, D. T., Schmidt, R. H., Arbak, E. and De Groen, W. P. (2010). Investigating diversity in the banking sector in Europe. Centre for European Policy Studies.

Bebbington, J., Kirk, E. A. and Larrinaga, C. (2012). The production of normativity: A comparison of reporting regimes in Spain and the UK. *Accounting. Organizations and Society,* 37(2), 78–94. https://doi.org/10.1016/j.aos.2012.01.001

Beretta, S. and Bozzolan, S. (2004). A framework for the analysis of firm risk communication. *The International Journal of Accounting,* 39(1), 265–288. https://doi.org/10.1016/j.intacc.2004.06.006

Bravo, R., Matute, J. and Pina, J. M. (2012). Corporate social responsibility as a vehicle to reveal the corporate identity: A study focused on the websites of Spanish financial entities. *Journal of Business Ethics*, 107(2), 129–146. https://doi. Org/10.1007/s10551-011-1027-2.

Caputo, F., Leopizzi, R., Pizzi, S. and Milone, V. (2019). The non-financial reporting harmonization in Europe: Evolutionary pathways related to the transposition of the Directive 95/2014/EU within the Italian context. *Sustainability*, 12 (1), 92. https://doi.org/10.3390/su12010092

Carrots & Sticks. (2020). SUSTAINABILITY REPORTING POLICY: Global trends in disclosure as the ESG agenda goes mainstream. https://www.carrotsandsticks.net/

Chauvey, J., Giordano-Spring, S., Cho and, C. H. and Patten, D. M. (2015). The normativity and legitimacy of CSR disclosure: Evidence from France. *Journal of Business Ethics*, 130(4), 789–803. https://doi.org/10.1007/s10551-014- 2114-y.

Chelli, M., Durocher, S. and Fortin, A. (2018). Normativity in environmental reporting: A comparison of three regimes. *Journal of Business Ethics*, 149(2), 285–311. https://doi.org/10.1007/s10551-016-3128-4

Cho, C. H., Laine, M., Roberts, R. W. and Rodrigue, M. (2015). Organized hypocrisy, organizational façades, and sustainability reporting. *Accounting, Organizations and Society*, 40, 78–94. https://doi.org/10.1016/j.aos.2014.12.003

Cordazzo, M., Papa, M. and Rossi, P. (2017). The interaction between mandatory and voluntary risk disclosure: A comparative study. *Managerial Auditing Journal*, 32(7), 682–714. https://doi.org/10.1108/MAJ-01-2016-1308

Cosma, S., Leopizzi, R., Pizzi, S. and Turco, M. (2021). The stakeholder engagement in the European banks: Regulation versus governance. What changes after the NF directive? *Corporate Social Responsibility and Environmental Management*, 28(3), 1091–1103.

Costa, E. and Agostini, M. (2016). Mandatory disclosure about environmental and employee matters in the reports of Italian-listed corporate groups. *Social and Environmental Accounting Journal,* 36(1), 10–33. https://doi.org/10. 1080/0969160X.2016.1144519

Costa, E., Pesci, C., Andreaus, M. and Taufer, E. (2019). Empathy, closeness and distance in non-profit accountability. *Accounting, Auditing & Accountability Journal*, 32(1), 224–254. https://doi.org/10.1108/AAAJ-03-2014-1635

Criado-Jiménez, I., Fernàndez-Chulià n, M., Husillos-Carqués, F. J. and Larrinaga-Gonzàlez, C. (2008). Compliance with mandatory environmental reporting in financial statements: The case of Spain (2001–2003). *Journal of Business Ethics*, 79(3), 245–262. https://doi.org/10.1007/s10551-007-9375-7

Deegan, C. (2002). Introduction: The legitimizing effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal,* 15(3), 282–311. https://doi.org/10.1108/ 09513570210435852

De Villiers, C., Low, M. and Samkin, G. (2014). The institutionalisation of mining company sustainability disclosures. *Journal of Cleaner Production*, 84, 51–58. https://doi.org/10.1016/j.jclepro.2014.01.089

DiMaggio, P. J. and Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. https://doi.org/10.2307/2095101

DiMaggio, P. J. and Powell, W. W. (1991). *The new institutionalism in organizational analysis.* University of Chicago Press.

Doni, F., Bianchi Martini, S., Corvino, A. and Mazzoni, M. (2020). Voluntary versus mandatory nonfinancial disclosure: EU directive 95/2014 and sustainability reporting practices based on empirical evidence from Italy. *Meditari Accountancy Research*, 28(5), 781–802. https://doi.org/10.1108/MEDAR-12-2018-0423

Dumay, J., Frost, G. and Beck, C. (2015). Material legitimacy: Blending organisational and stakeholder concerns through non-financial information disclosures. *Journal of Accounting & Organisational Chan*ge, 11(1), 2–23. https://doi. Org/10.1108/JAOC-06-2013-0057

Dumitru, M., Dyduch, J., Guse, R. and Krasodomska, J. (2017). Corporate reporting practices in Poland and Romania–an ex-ante study to the new non-financial reporting European directive. *Accounting in Europe*, 14(3), 279–304. https:// doi.org/10.1080/17449480.2017.1378427.

EC. (1992). Towards sustainability. A European Community programme of policy and action in relation to the environment and sustainable development. https://ec.europa.eu/environment/archives/action-programme/env-act5/pdf/5eap.pdf

EC. (2001). COMMISSION RECOMMENDATION of 30 May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies. https://eur-lex.europa.eu/%20LexUriServ/LexUriServ.do?uri=OJ:L:2001:156:0033:0042:EN:PDF

EC. (2017). Guidelines on non-financial reporting (methodology for reporting non-financial information). https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705(01)

EU. (2013). DIRECTIVE 2013/34/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013L0034.

EU. (2014). DIRECTIVE 2014/95/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095.

Forcadell, F. J. and Aracil, E. (2017). European banks' reputation for corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, 24(1), 1–14. https://doi.org/10.1002/csr.1402.

Gray, R. H., Kouhy, R. and Lavers, S. (1995). Methodological themes. Constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing & Accountability Journal,* 8 (2), 78–101. https://doi.org/10.1108/09513579510086812

Gray, R., Owen, D. and Adams, C. (1996). *Accounting and accountability: Changes and challenges in corporate social and environmental reporting*. Prentice-Hall.

Guthrie, J. and Parker, L. D. (1990). Corporate social disclosure practice: A comparative international analysis. *Advances in Public Interest Accounting*, 3, 159–175.

Hibbitt, C. and Collison, D. (2004). Corporate environmental disclosure and reporting developments in Europe. *Social and Environmental Accountability Journal*, 24(1), 1–11. https://doi.org/10.1080/0969160X.2004.9651708

Higgins, C. and Larrinaga, C. (2014). Sustainability reporting: Insights from institutional theory. In J. Bebbington, J. Unerman, & B. O'Dwyer (Eds.), *Sustainability accounting and accountability*. Routledge.

Hooks, J. and van Staden, C. J. (2011). Evaluating environmental disclosures: The relationship between quality and extent measures. *The British Accounting Review*, 43(3), 200–213. https://doi.org/10.1016/j.bar.2011.06.005

Jeffrey, C. and Perkins, J. D. (2013). Social norms and disclosure policy: Implications from a comparison of financial and corporate social responsibility reporting. *Social and Environmental Accountability Journal*, 33(1), 5–19. https://doi. Org/10.1080/0969160X.2012.748468

Kolk, A. (2005). Environmental reporting by multinationals from the triad: Convergence or divergence*? Management International Review*, 45, 145–166.

Korca, B. and Costa, E. (2021). Directive 2014/95/EU: building a research agenda. *Journal of Applied Accounting Research*, 22 (3), 401-422.

KPMG. (2011). KPMG. International survey of corporate responsibility reporting 2011. Amsterdam. https://home. Kpmg/ru/en/home/insights/2012/02/international-survey-of-corporate-responsibility-reporting.html

KPMG. (2017). The KPMG survey of corporate responsibility reporting 2017. www.kpmg.com/crreporting

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Sage.

Larrinaga, C., Carrasco, F., Correa, C., Llena, F. and Moneva, J. (2002). Accountability and accounting regulation: The case of the Spanish environmental disclosure standard. *European Accounting Review*, 11(4), 723–740. https://doi. Org/10.1080/09638180022000001000

La Torre, M., Sabelfeld, S., Blomkvist, M. and Dumay, J. (2020). Rebuilding trust: Sustainability and non-financial reporting and the European Union regulation. *Meditari Accountancy Research*, 28(5), 701–725. https://doi.org/10.1108/ MEDAR-06-2020-0914

La Torre, M., Sabelfeld, S., Blomkvist, M., Tarquino, L. and Dumay, J. (2018). Harmonising non- financial reporting regulation in Europe: Practical forces and projections for future research. *Meditari Accountancy Research*, 26(4), 598–621. https://doi.org/10.1108/MEDAR-02-2018-0290

Lentner, C., Szegedi, K. and Tibor, T. (2015). Corporate social responsibility in the banking sector. *Public Finance Quarterly*, 60(1), 95–103.

Llena, F., Moneva, J. M. and Hernandez, B. (2007). Environmental disclosures and compulsory accounting standards: The case of Spanish annual reports. *Business Strategy and the Environment*, 16(1), 50–63. https://doi.org/10.1002/bse. 466

Löw, E., Klein, D. E. and Pavicevac, A. (2020). Corporate Social Responsibility Reports of European Banks – An Empirical Analysis of the Disclosure Quality and its Determinants EBI Working Paper Series, n. 56.

Luque-Vilchez, M.and Larrinaga, C. (2016). Reporting models do not translate well: Failing to regulate CSR reporting in Spain. *Social and Environmental Accountability Journal,* 36(1), 56–75. https://doi.org/10.1080/0969160X.2016. 1149301

Mallin, C., Faraga, H. and Ow-Yong, K. (2014). Corporate social responsibility and financial performance in slamic banks. *Journal of Economic Behavior & Organization*, 103, S21–S38. https://doi.org/10.1016/j.jebo. 2014.03.001

Manes-Rossi, F., Tiron-Tudor, A., Nicolò, G. and Zanellato, G. (2018). Ensuring more sustainable reporting in Europe using non-financial disclosure—de facto and De jure evidence. *Sustainability*, 10(4), 1162. https://doi.org/10. 3390/su10041162.

March, J. G. and Olsen, J. P. (2006). Elaborating the 'new institutionalism'. In R. A. W. Rhodes, S. A. Binder, & B. A. Rockman (Eds.), *The Oxford handbook of political institutions*. Oxford University Press.

Matuszak, Ł. And Rózańska, E. (2017). CSR disclosure in polish listed companies in the light of Directive 2014/95/EU requirements: Empirical evidence. *Sustainability*, 9(12), 2304. https://doi.org/10.3390/su9122304.

Mion, G. and Adaui, C. R. L. (2019). Mandatory nonfinancial disclosure and Its consequences on the sustainability reporting quality of Italian and German companies. *Sustainability*, 11(17), 4612. https://doi.org/10.3390/su11174612

Montecalvo, M., Farneti, F. and de Villiers, C. (2018). The potential of integrated reporting to enhance sustainability reporting in the public sector. *Public Money and Management*, 38(5), 365–374. https://doi.org/10.1080/ 09540962.2018.1477675

O'Dwyer, B. (2004). Qualitative data analysis: Illuminating a process for transforming a 'messy' but 'attractive' 'nuisance'. In C. Humphrey & B. Lee (Eds.), *A real life guide to accounting research: A behind the scenes view of using qualitative research methods* (pp. 391–407). Elsevier.

Pesci, C. and Costa, E. (2014). Content analysis of social and environmental reports of Italian cooperative banks: Methodological issues. *Social and Environmental Accountability Journal*, 34(3), 157–171. https://doi.org/10.1080/ 0969160X.2014.904239.

Qu, Q. S. and Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting & Management*, 8 (3), 238–264. https://doi.org/10.1108/11766091111162070

Quinn, J. and Connolly, B. (2017). The Non-financial information directive: An assessment of its impact on corporate social responsibility. *European Company Law*, 14(1), 15–21.

Scott, W. R. (1995*). Institutions and organizations. Ideas, interests and identities*. Sage.

Sierra-Garcia, L., Garcia-Benau, M. A.and Bollas-Araya, H. M. (2018). Empirical analysis of non-financial reporting by Spanish companies. *Administrative Sciences*, 8(3), 29. https://doi.org/10.3390/admsci8030029

Szabó, D. G. and Sørensen, K. E. (2015). New EU Directive on the disclosure of Non-financial information (CSR). *European Company & Financial Law Review*, 12(13), 307–340. https://ssrn.com/abstract=2606557

Tarquinio, L., Posadas, S. C. and Pedicone, D. (2020). Scoring nonfinancial information reporting in Italian listed companies: A comparison of before and after the Legislative Decree 254/2016. *Sustainability*, 12(10), 4158. https://doi. org/10.3390/su12104158.

Tolbert, P. S. and Zucker, L. G. (1983). Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880–1935. *Administrative Science Quarterly*, 28(1), 22–39. https://doi.org/10.2307/ 2392383.

Tuttle, B. and Dillard, J. (2007). Beyond competition: Institutional isomorphism in U.S. Accounting research. *Accounting Horizons*, 21(4), 387–410. https://doi.org/10.2308/acch.2007.21.4.387

Unerman, J. (2000). Methodological issues: Reflections on quantification in corporate social reporting analysis. *Accounting, Auditing & Accountability Journal*, 13(5), 667–680. https://doi.org/10.1108/09513570010353756

Venturelli, A., Caputo, F., Cosma, S., Leopizzi, R. and Pizzi, S. (2017). Directive 2014/95/EU: Are Italian companies already compliant? *Sustainability*, 9(8), 1385. https://doi.org/10.3390/su9081385

Weber, O., Diaz, M. and Schwegler, R. (2014). Corporate social responsibility of the financial sector – strengths. Weaknesses and the Impact on Sustainable Development. *Sustainable Development*, 22(5), 321–335. https://doi.org/10. 1002/sd.1543.

Wu, M. W. and Shen, C. H. (2013). Corporate social responsibility in the banking industry: Motives and financial performance. *Journal of Banking & Finance*, 37(9), 3529–3547. https://doi.org/10.1016/j.jbankfin.2013.04.023

Yin, R. K. (2014). *Case study research design and methods (5th ed).* Sage Publications.

Appendix I. Primary data gathered

Type of primary data	Duration	Location	Length of interview transcription
Interview #1	60 minutes	The Bank's headquarters	1,600 words
Interview #2	60 minutes	University premises	1,800 words
Interview #3	60 minutes	Online due to Covid-19	2,700 words
Seminar #1	45 minutes	University premises	2,000 words
Seminar #2	45 minutes	University premises	2,100 words
Seminar #3	45 minutes	University premises	1,850 words
Total	315 minutes		12,050 words transcription

CHAPTER THREE

Does mandatory sustainability reporting impact sustainability and financial performance? Evidence from the EU

ABSTRACT

This study empirically investigates how the mandatory sustainability reporting affects companies' sustainability performance and financial performance in the European context, considering the Directive 2014/95/EU or also known as the Non-Financial Reporting Directive (NFRD). By employing a difference-in-differences (DiD) approach and propensity score matching (PSM), differences are observed in the treated companies, subsequent to the regulation, comparing it with the control group. The analysis considers a ten-year period (2011-2020) and a variety of companies from different sectors. Results suggest that after the NFRD, treated firms have higher sustainability performance, specifically on environmental and social aspects. Therefore, the regulation's impact on sustainability performance is significant and positive. In financial terms, the results show that there is a significant and negative effect on two financial performance proxies, ROA and Tobin's Q. These findings suggest that the NFRD enhanced sustainability performance which in the short-term turned financially detrimental.

Keywords: Directive 2014/95/EU; sustainability performance; financial performance; difference-in-differences; mandatory disclosure

1. Introduction

Sustainability reporting has been substantially increasing from around 50 reports in the early 90s (Ioannou and Serafeim, 2017) to 80% of companies worldwide reporting on sustainability matters (KPMG, 2020). It is provided under different regimes worldwide, either voluntary or mandatory, depending on the region and regulations in place. While for a long time it has been a voluntary practice of organizations, recently, it started to take a mandatory form in certain jurisdictions. New regulatory regimes are being developed to mandate the provision of sustainability reporting with the aim to enhance transparency and offer relevant and comparable information to its users. Among other initiatives worldwide to mandate sustainability reporting (IPSF, 2021), the European Union (EU) is considered dominant in setting the path for European companies to become more transparent and accountable (Carrots and Sticks, 2020; Christensen et al., 2021). The EU has been long engaged in sustainability matters starting from the 90s, with the "Towards Sustainability" program encouraging the preservation of environment and resources for future generations (EC, 1992). Few years later, the European Commission (EC) released recommendations on the recognition, measurement, and disclosure of environmental issues in companies' annual accounts and reports (EC, 2001). Such recommendations were followed by the Directive 2003/51/EC, also known as the "Accounting Directive" (Hibbit and Collison, 2004; Korca et al., 2021). In 2014, the EU imposed mandatory requirements for large companies to be more transparent on sustainability matters by introducing the Directive 2014/95/EU (EU, 2014). Directive 2014/95/EU or also known as the Non-Financial Reporting Directive (hereafter the NFRD) requires EU entities to disclosure information on certain matters such as environmental, social, employee-related, anti-corruption, bribery and, human rights (EU, 2014). Recently, the EU announced the publication of the Corporate Sustainability Reporting Directive (CSRD) which will serve as an update of the NFRD. Together with the CSRD, the EU sustainability reporting standards are being developed and are expected to be finalized at the end of 2022. Despite these announcements, currently, the NFRD remains the regulation in place. It represents the first mandatory requirement for sustainability reporting at the EU level and as such, it has attracted scholars' attention.

Given the introduction of the NFRD, the literature has mainly addressed first-order consequences such as the impact of regulation in sustainability reporting (Ottenstein et al., 2021). Recently, Korca et al. (2021) looked at the quality and quantity of non-financial disclosure by adopting a longitudinal Italian case study in the banking sector. The authors find that while the regulation has undoubtedly positively impacted quantity of information, the

quality instead has not been significantly improved. Similarly, Ottenstein et al. (2021) have found that the disclosure quantity of companies complying with the NFRD is higher than those not having to comply with a regulation. While the existing studies have offered valuable insights on the impact of regulation on sustainability reporting, yet there remains the need to explore the impact of regulation in the European context on sustainability performance and second-order consequences of the NFRD, financial performance (Ottenstein et al., 2021; Korca and Costa, 2021). In the non-binding guidelines by the EC, it is highlighted that the NFRD will produce effects not only on non-financial terms but also financially (EC, 2017). Thus, the EU expects that besides the effect that the NFRD will have in non-financial terms (i.e., sustainability reporting and/or sustainability performance), it will also impact firms financially. While the need to conduct such analysis is acknowledged by previous studies (Christensen et al., 2021; Korca and Costa, 2021; Ottenstein et al., 2021) no investigation has taken place yet. However, there exist insights on the regulation's effect on sustainability and financial performance from different jurisdictions other than EU. For instance, adopting the Indian context, Dharmapala and Khanna (2018) studied the ESG performance of companies after having complied with India's Company Act of 2013 which requires on a "comply-or-explain" for certain firms to spend a minimum of 2% on CSR-related activities. The authors find that after the regulation, companies' sustainability performance has increased. From a financial perspective, Chen et al. (2018) studied the impact of mandatory sustainability reporting on financial performance, in the Chinese context. The authors explore the mandate of 2008 and find out that mandatorily reporting firms suffered negative stock returns in contrast to the control group, after the regulation.

Considering the highlighted importance of the NFRD, not only as a regulatory setting for European companies but also serving as an example for jurisdictions aiming to enforce similar regulations, it is relevant to explore its effects. As highlighted by Michelon (2021), the recent regulatory developments on sustainability reporting make for an interesting setting to look at its effects. Furthermore, the EU is planning to publish soon the CSRD (depending on how the Parliament and the Council progress with their negotiations), and therefore understanding the effect of the current regulation in place might as well impact its amendment into the CSRD. Consistent with calls from prior research (Korca and Costa, 2021; Ottenstein et al., 2021; Christensen et al., 2021), the current study explores the impact of mandatory sustainability reporting on both non-economic (sustainability performance) and economic (financial performance) aspects. The study will employ a difference-in-differences (DiD) approach to

analyse the outcome between the treatment and the control group. To make both groups more comparable on the observable characteristics, a propensity score matching (PSM) is run (Rosenbaum and Rubin, 1984). The analysis undertakes a ten-year span (2011 to 2020) by accounting for years before and after the NFRD came in place, therefore by accounting for a changing institutional environment (Agostini et al., 2021) in terms of sustainability reporting.

The analysis yields relevant results which shed light to the effects of mandatory sustainability reporting. Relative to the control sample, treatment firms experienced an increase in sustainability performance after the regulation came in place. Thus, the results suggest that the NFRD enhanced the sustainability performance of the European firms. However, in terms of the economic effects, the same results do not hold. Subsequent to the regulation, financial performance of European firms worsened, relative to the control sample. Such results suggest that while mandatory disclosure causes firms to increase their sustainability performance, this comes with economic consequences in the short-term.

This study contributes to the literature on the i) impact of mandatory sustainability reporting on sustainability performance and on the ii) financial performance. Previous studies have mainly studied the impact of voluntary disclosure on sustainability performance (Hummel and Schlick, 2016; Rezaee and Tuo, 2017) or the impact of mandatory disclosure on sustainability performance in other jurisdictions than EU (Ren et al., 2020; Li and Jia, 2021). However, considering the rapid regulatory developments in the EU, it is important to understand how disclosure of information which is obligatory impacts sustainability performance. Therefore, the current study offers clear evidence on the impact of the NFRD on sustainability performance. In addition, this study sheds light on the consequences that mandatory sustainability reporting has on economic terms. While previous studies have mainly looked at the association between voluntary sustainability reporting and financial performance (Blacconiere and Patten, 1994; Qiu et al., 2016; Beck et al., 2018) the current study looks at if and how the mandatory disclosure can impact financial performance. Thus, the results provide evidence if mandatory disclosure might induce some changes in the financial performance (Korca and Costa, 2021) or also known as second-order consequences (Ottenstein et al., 2021).

The reminder of this study is structured as follows. Section 2 provides the background and hypotheses development. Section 3 presents the research design and the econometric models. Section 4 presents the main findings and the alternative analyses. Finally, section 5 discusses and concludes the study.

2. Theoretical background and hypotheses development

2.1 Mandatory sustainability reporting and sustainability performance

The link between sustainability reporting and sustainability performance was long explored by scholars in the field. However, such analyses have mostly investigated the voluntary forms of sustainability reporting considering that only few jurisdictions have enforced mandatory disclosure (Fiechter et al., 2018). Rezaee and Tuo (2017) explored the link between voluntary sustainability reporting and sustainability performance in 2010, in the United States companies. The authors report for a two-directional link between disclosure and performance. Specifically, more forward-looking sustainability reporting causes better sustainability performance in the next year while better sustainability performance causes more historical sustainability reporting. Thus, according to Rezaee and Tuo (2017), disclosure causes companies to better behave in terms of sustainability and better sustainability performance allows for good news on their historical disclosure. Similarly, Hummel and Schlick (2016), focusing on 195 European companies find that the link between sustainability reporting and performance is two-directional. Companies disclose high-quality information to signal their superior sustainability performance and those with worse sustainability performance usually disclose low-quality information. Undertaking analyses in another context, Herbohn et al. (2014) explored how sustainability reporting is correlated with performance in extractive industries in Australia. The authors found out that there is a strong positive link between the two, thus confirming once again the predictions that companies with better sustainability performance disclose more compared to under-performers.

Due to recent developments in the regulatory setting for sustainability reporting, few studies have explored the link between mandatory sustainability reporting and sustainability performance. Ioannou and Serafeim (2017) looked at how mandatory sustainability reporting is linked to sustainable actions in several countries such as Australia, France, Italy, Malaysia, Netherlands, and Sweden. The authors report for a positive relationship between sustainability reporting and sustainability performance on especially social and governance dimensions. In a similar vein, Dharmapala and Khanna (2018) studies how disclosure on CSR spending, due to a mandatory requirement, India's Company Act of 2013, impacted CSR activity. Using a difference-in-differences approach, authors report for an increase in CSR activity of companies affected by the mandatory requirement. Therefore, in line with Ioannou and Serafeim (2017), mandatory disclosure of sustainability information (in particular, expenditure) in Indian firms has led to an increase in sustainability performance.

In line with previous studies and signalling theory, it is expected that mandatory sustainability reporting will induce changes in sustainability performance because companies are obliged to report and thus, they would aim to signal a good performance (Chen et al. 2018). This argument is related with the transparency-action cycle (Weil et al., 2013; Li and Jia, 2021) which indicates that when companies are required to mandatorily share information, it might serve to alter their actions. According to Christensen et al. (2021), companies respond to regulatory requests by extending or adjusting their sustainability actions. Thus, it can affect entities' behaviour considering that stakeholders and especially, investors, make use of this information (Christensen et al. 2021) and as such, to maintain legitimacy to operate, companies turn towards a more sustainable business approach. In relation to previous literature and predictions made above, the current study offers the following hypothesis:

H1: Companies experience an increase in sustainability performance subsequent to mandatory sustainability reporting.

2.2 Mandatory sustainability reporting and financial performance

Scholars have been long exploring the link between companies' actions on CSR and financial performance (Cochran and Wood, 1984; Aupperle et al., 1985; Preston and O'Bannon, 1997; Waddock and Graves, 1997). To date, there is no agreement on the existence of such relationship and/or its sign. Some studies report a significant relationship between the two (Cochran and Wood, 1984; Waddock and Graves, 1997) while others emphasize the opposite; no significant relationship between CSR and corporate financial performance (Aupperle et al. 1985). Contrasting results do not only pertain regarding the existence of such relationship, but also on determining the sign of the existing relationship between the two (see Preston and O'Bannon, 1997; Waddock and Graves, 1997; Velte, 2017). In addition to the stream of literature on the link between CSR and financial performance, finance and accounting scholars have looked at the link of sustainability reporting and financial performance. Considering the emergence of sustainability reports on a voluntary basis from early 90s (Ioannou and Serafeim, 2017), scholars have been interested on how such communication of CSR-related actions is impacting companies' financial performance. Blacconiere and Patten (1994) investigated the link between environmental disclosure and firm values in the Indian listed firms, relative to an environmental catastrophe that occurred in the chemical industry. Companies which were

providing extensive environmental disclosure prior to the event experienced a less negative reaction from the market, compared to those companies with less disclosure. In this study, environmental disclosure was provided as part of financial reports. During time, sustainability reporting evolved to appear either as a separate section of annual reports or as stand-alone reports (Deegan et al., 2000; Unerman, 2000) while still being voluntarily published. In this regard, Qiu et al. (2016) have explored if social disclosure matters to investors by adopting the UK's institutional context. The authors find that extensive social disclosures yield higher market values. Undertaking a broader view on disclosure, Beck et al. (2018) found a positive association between CSR disclosure and financial performance in three jurisdictions: Australia, Hong Kong, and United Kingdom.

Considering the latest regulatory developments in sustainability reporting, it is important to move from assessing the relationship between voluntary sustainability reporting and corporate financial performance to accounting for changes that mandatory sustainability reporting might induce (Christensen et al., 2021). Although the existing studies on the link between voluntary sustainability reporting and financial performance offer rich insights, the literature call for studies on mandatory sustainability reporting and corporate financial performance (Korca and Costa, 2021; Christensen et al., 2021). In this regard, few studies have looked at the economic effects of mandatory reporting, from different contexts. For instance, Conway (2019) has investigated how the sustainability reporting using Integrated Reporting <IR> impacts financial performance of firms in the African Stock Exchange. The author investigated the relationship between mandatory sustainability reporting and financial performance considering that reporting is mandatory for South African listed firms through <IR> (de Villiers et al., 2014; Conway, 2019). Conway (2019) observed that from the introduction of mandatory reporting, the effect on financial performance is significant and negative (Conway, 2019). Similarly, Chen et al. (2018) posited that companies will experience a decrease in financial performance following the mandatory requirements for sustainability reporting. The authors have studied how the regulation for sustainability reporting in China enacted in 2008, has impacted financial performance of targeted companies. Chen et al. (2018) reported that firms' profitability after regulation has decreased, thus justifying that the pressure to extend sustainability reporting and as such, increase sustainability-related actions has resulted in higher costs (Eccles et al., 2014), decreasing profitability. Similarly, Christensen et al. (2021) argued that due to regulation, companies might adjust their behaviour by expanding their sustainability actions which in turn

might be costly. Consistent with the studies presented above studying the role of regulation in different contexts, the following hypothesis is presented:

H2: Companies experience a decrease in financial performance subsequent to mandatory sustainability reporting.

3. Research design and data

3.1 Sample and data

The data used in this study is obtained from the Refinitiv database. The sample used consists of two groups, the treatment and control group. The treatment group consist of companies affected by the NFRD, namely large and listed companies in the EU (EU, 2014). However, few countries in the EU are ahead the curve with sustainability reporting and therefore are excluded from the sample as the NFRD does not represent their first mandated disclosure. These countries include France, Spain, Denmark, United Kingdom and Sweden (Larrinaga and Senn, 2021). The control group consist of companies not affected by this regulation or similar, and therefore U.S companies are considered (Ioannou and Serafeim, 2017). The recent study by the IPSF (2021) shows that US is one jurisdiction which does not have any mandatory requirement towards companies for any publicly available sustainability reporting. Therefore, the absence of any regulatory requirement in the US for sustainability reporting justified the choice to use US firms as the control sample. The original sample in total has 16,990 firm-year observations, from which 3,890 are observations on the treated group and 13,100 on the control group. To make sure that the treatment group is similar to the control group on several features (Rosenbaum and Rubin, 1984), the PSM is conducted. Using the PSM technique, each treated observation is matched with a control one using the nearest neighbour matching method (Chen et al., 2018; Yu and Zheng, 2020). Appendix I shows the table on the effectives of the matching approach. The results present the effectiveness of the matching approach by lowering the differences between observations of the treatment group with observations of the control group, on several selected variables. By using the PSM technique, the matched sample has in total 7,278 firm-year observations where 3,639 belong in the treatment group and 3,639 in the benchmark group.

3.2 Dependent variables

To evaluate the outcome of regulation on i) sustainability performance and ii) financial performance, different variables were used. To explore the role of the NFRD on sustainability performance, the variable ESG score is used. The ESG score is obtained from Eikon Refinitiv database, and it represents the overall company score based on the self-reported information in the environmental, social, and corporate governance pillars. The ESG score is extensively used in the literature as the measure for ESG performance (Velte, 2017; Bătae et al., 2021; Nirino et al., 2021). Furthermore, each of the three pillars (environmental, social and, governance) are used independently as dependent variables to capture the regulation's effect on each of them, separately.

To explore the impact of the NFRD on financial performance, various financial performance proxies are used. In the literature, three main financial performance proxies have been considered among the accounting-based and market-based measures. As accounting-based measures, the most used variables are the return on assets (ROA) and return on equity (ROE) (Chen et al., 2018; Conway, 2019; Ren et al., 2020). Instead, among the market-based measures, Tobin's Q is the ratio used commonly as the market reaction (Baboukardos, 2018; Conway, 2019; Ren et al., 2020). Similarly, the current paper applies ROA, ROE and Tobin's Q ratios as measures of financial performance for companies in the sample. This analysis estimated the ratio of ROA as net income/total assets and the ratio of ROE as net income/total equity. Tobin's Q is defined as the ratio of market value of equity divided by total assets (Baboukardos, 2018). These data were collected for all companies included in the sample, for ten years (2011 to 2020).

3.3 Independent variables

As independent variables, two dummy variables and an interaction term is constructed. The two dummy variables are Post and Treatment firms. Post is a dummy variable that indicates whether the period is after the regulation came in place, thus, post-regulation. The period from 2011 too 2016 is recorded as pre-regulation (Post=0) while the period from 2017 to 2020 is recorded as post-regulation (Post=1). Treatment firms is a dummy variable which indicates with 1 those companies which had to comply with the NFRD, thus the EU entities (Treatment=1) and with 0, companies in the control group (Treatment =0). Furthermore, an interaction term between the two is generated (Post*Treatment firms) which captures the mandatory sustainability reporting for treated companies, thus those subject to the regulatory regime.

3.4 Control variables

Based on previous empirical research (Hummel and Schlick, 2016; Velte, 2017; Chen et al. 2018; Conway, 2019), a range of control variables has been taken into consideration. As a result, the most relevant firm-specific control variables were adopted. First, size is included as a control and is defined as the natural logarithm of total employees. Prior literature has extensively considered the effect of size on both ESG and financial performance (Hummel and Schlick, 2016; Conway, 2019). Second, Tobin's Q is included as a control variable and is measured as market value of equity divided by total assets (Baboukardos, 2018). Third, ROE is included as a control variable, and it is computed as the net income divided by total assets. Both Tobin's Q and ROE as proxies for financial performance are included as control variables because the literature acknowledges that companies with more financial resources are eager to undertake ESG activities (Artiach et al. 2010). Fourth, financial leverage (FLEV) is included as a control variable, which is defined as the ratio of total debt to total assets (Velte, 2017). Leverage has long been recognised as impactful for a firm's profitability (Ren et al., 2020; Li and Jia, 2021), and, as such, it is relevant to control for its effect in firms' financial performance. Fifth, productivity is another control variable which is calculated as the total sales scaled by the total number of employees. Finally, considering that the sample includes companies from different industries and countries, the analysis includes industry and country fixed effects to capture for differences between industries and different countries.

3.5 The models

The difference-in-differences (DiD) method is employed to compare the change in i) sustainability performance and ii) financial performance among treatment and benchmark firms, subsequent to the regulation. Therefore, the following models are used:

1)

$$\text{ESG performance} = \beta_0 + \beta_1(\text{Post}) + \beta_2(\text{Treatment firms}) + \beta_3(\text{Post x treatment firms}) + \beta_j(\text{Controls}) + \delta_4(\text{industry effects}) + \delta_4(\text{country effects}) + \varepsilon$$

2)

$$\text{Financial performance} = \beta_0 + \beta_1(\text{Post}) + \beta_2(\text{Treatment firms}) + \beta_3(\text{Post x treatment firms}) + \beta_j(\text{Controls}) + \delta_4(\text{industry effects}) + \delta_4(\text{country effects}) + \varepsilon$$

In the DiD analysis, two dummy variables are constructed: Post and Treatment. Post is a dummy variable that indicated whether the period is after the regulation came in place, thus, post-regulation. The period from 2011 too 2016 is recorded as pre-regulation (Post=0) while the period from 2017 to 2020 is recorded as post-regulation (Post=1) (Ottenstein et al., 2021). Treatment firms variable is recorded as 1 if the company is mandated to report ESG information (Treatment=1) and 0 otherwise (Treatment =0). Furthermore, an interaction term between the two is generated (Post x Treatment firms) and several controls are included in both models. Following prior literature (Hummel and Schlick, 2016; Velte, 2017; Chen et al. 2018; Conway, 2019), the current study controls for several characteristics such as firm size, leverage, productivity, Tobin's Q and ROA (Yu and Zheng, 2020). Finally, industry and country fixed effects are included. Appendix II provides a detailed overview of all the variables used in this study.

The first model regresses sustainability performance on the two dummy variables, the interaction terms, and a number of covariates. The coefficient of interest is β_3 which captures the change in sustainability performance for treatment companies after 2016, in contrast to control companies. If β_3 is significant and positive, it shows that mandatory sustainability disclosure produced positive effects for the sustainability performance. The second model regresses firms' financial performance on the two dummy variables, the interaction terms, and several covariates. As in model 1, the coefficient of interest in model 2 is the β_3 which captures the change in financial performance for treatment companies after 2016, in contrast to control companies. A positive coefficient on β_3 shows that mandatory sustainability reporting for treatment firms generates positive financial performance.

4. Findings

4.1 Summary statistics and correlation matrix

Table 1 shows both the unmatched and the matched samples. Panel A presents the distribution of treatment and control firms by year for both the unmatched and the matched sample. Instead, panel B shows the distribution of treatment and control firms by industry for both the unmatched and the matched sample. In the unmatched sample, most of firms from the treatment group belong to the industrials, followed by consumer cyclicals and basic materials. In the

control group, most of companies belong to industrials, followed by technology and consumer cyclicals. In the PSM sample, most of the treated companies come from the industrials, likewise the control group. The financial sector is not considered in this study considering that it is highly regulated, and it would have not allowed for a precise consideration of the NFRD impact. One example is the regulation 2019/2088 or also known as the Sustainable Finance Disclosure Regulation which was issued in 2019 and requires sustainability reporting from entities in the financial sector (IPSF, 2021).

Panel A. Distribution of treatment and control firms by year

Full sample (unmatched)			
Year	Total	Treatment	Control
2011	1699	389	1310
2012	1699	389	1310
2013	1699	389	1310
2014	1699	389	1310
2015	1699	389	1310
2016	1699	389	1310
2017	1699	389	1310
2018	1699	389	1310
2019	1699	389	1310
2020	1699	389	1310
Total	16990	3890	13100

PSM sample (matched)			
Year	Total	Treatment	Control
2011	630	336	294
2012	655	338	317
2013	645	335	310
2014	651	354	297
2015	740	369	371
2016	770	374	396
2017	717	381	336
2018	832	386	446
2019	816	385	431
2020	822	381	441
Total	7278	3639	3639

Panel B. Distribution of treatment and control firms by industry

Full sample (unmatched)			
Industry	Total	Treatment	Control
Basic materials	1600	570	1030
Consumer cyclicals	2790	670	2120
Consumer non-cyclicals	1390	350	1040
Energy	740	230	510
Healthcare	1750	290	1460
Industrials	3490	900	2590
Real estate	1560	70	1490
Technology	2700	550	2150

Utilities	970	260	710
Total	16990	3890	13100

PSM sample			
Industry	Total	Treatment	Control
Basic materials	900	538	362
Consumer cyclicals	1223	607	616
Consumer non-cyclicals	651	305	346
Energy	288	223	65
Healthcare	668	290	378
Industrials	1662	840	822
Real estate	241	61	180
Technology	1137	530	607
Utilities	508	245	263
Total	7278	3639	3639

Table 1. Sample distribution across year and industry

The summary statistics for both the treatment and control group is presented in Table 2, considering the PSM sample. The mean of ROA is similar for both groups while ROE and Tobin's Q are higher in the control group. The means of sustainability performance proxies are higher for the treatment group compared to the control group. For instance, the mean of ESG score for the treatment group is around 58 while for the control group is around 43. Similarly, the environmental, social and governance pillars have higher means in the treatment group than in the control one.

Variables	**Control group**				**Treatment group**		
	N	mean	sd		N	mean	sd
ROA	12221	.04	.295		3821	.043	.065
ROE	12199	.138	2.636		3822	.117	.933
Tobin's Q	11467	1.736	4.827		3655	1.05	1.141
ESG Score	8077	42.554	19.699		2745	57.986	18.274
Environmental pillar	8077	30.177	27.965		2745	55.85	24.415
Social pillar	8077	44.515	21.621		2745	61.786	21.534
Governance pillar	8077	50.936	22.167		2745	53.449	21.599
Resource Use Score	8077	32.781	33.194		2745	61.641	28.423
Emissions Score	8077	30.801	31.982		2745	61.039	27.76
Environmental Innovation Score	8077	23.603	29.949		2745	39.906	33.133
Workforce Score	8077	43.364	26.529		2745	73.07	21.083
Human Rights Score	8077	25.488	31.121		2745	51.767	34.303
Community Score	8077	62.793	23.009		2745	59.196	29.403
Product Responsibility Score	8077	42.564	27.267		2745	61.851	28.27
Log of employees	10777	8.167	1.962		3660	9.139	1.441
Log of productivity	10755	13.031	1.041		3660	12.754	.794
Log of leverage	11915	.17	1.105		3792	.497	.824

Table 2. Summary statistics by control and treatment group

Table 3 present the correlation matrix between the variables used in the analysis for the PSM sample. ROA, ROE and Tobin's Q reveal significant associations with most of the variables. Similarly, the sustainability performance variables are significantly associated with the other variables of interest. Overall, the correlation matrix shows that that almost all variables are correlated with a value less than 0.80. However, few variables are highly correlated (with a value higher than 0.80), which might signal a multicollinearity issue (Liu et al., 2014). Considering that the highly correlated variables are not used at one time in a model, no cases represent a problem for the regression analysis. To check for existing multicollinearity, the variance inflation factor (VIF) is estimated. In the literature is known that if the VIF value of a certain variable is higher than 10, it signals an issue of multicollinearity (Gujarati and Porter, 2003); in the current study, all the independent variables show VIF values less than 10 and avoid the risk of multicollinearity (Gujarati and Porter, 2003).

4.2 Empirical findings

In this section, the results for empirical findings are presented. By running the DiD model 1, it is explored how mandatory sustainability reporting impacts corporate sustainability performance by using proxies such as environmental, social and governance pillars obtained from Eikon Refinitiv. The sustainability performance proxies are regressed on a dummy variable (Post) indicating if the period is after the regulation was adopted, a dummy variable indicating if the firm is a mandatorily reporting firm (treatment firms) and the interaction term. Furthermore, several controls are included to check if the sustainability performance is being impacted by other factors than the regulation. The control variables include size of the firm measured by a natural logarithm of the total number of employees (Bătae et al., 2021), and ROA and Tobin's Q to control for financial performance considering that literature suggests that companies with higher financial performance have more resources to employ ESG actions (Artiach et al. 2010). Results are shown in Table 4. Findings suggest that relative to the control sample, mandatory sustainability reporting firms have higher sustainability performance (measures by ESG score and the separate E, S and G pillars). In addition, the results show that the environmental and social performance of treated companies subsequent to the regulation is significant and positive. Therefore, in line with Chen et al. (2018), our results show that subsequent to the regulation, companies improved their social and environmental performance. However, this result does not hold for governance performance as it is not statistically significant.

Further, by running the DiD model 2, it is explored how mandatory sustainability reporting impacts corporate financial performance by using proxies such as ROA, ROE and Tobin's Q. Therefore, the three proxies are regressed on a dummy variable (Post) indicating if the period is after the regulation was adopted, a dummy variable indicating if the firm is a mandatorily reporting firm (treatment firms) and the interaction term. Furthermore, several controls are included to check if financial performance is being impacted by other factors than the regulation. The control variables include size (Bătae et al., 2021), leverage measured as the total liabilities divided by total assets (Chen et al., 2018), labour productivity which is measured as the natural logarithm of total sales by the number of employees and industry and country fixed effects (Chen et al., 2018; Grewal et al., 2019). Our variable of interest is β_3 which indicates the change in any of the financial performance variables for treatment firms, after the regulation came in place. The results are presented in Table 5.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
(1) ROA	1.000																			
(2) ROE	0.033*	1.000																		
(3) Tobin's Q	-0.044*	-0.069*	1.000																	
(4) ESG Score	0.016*	0.009*	-0.118*	1.000																
(5) Environmental Pillar	-0.001	0.013*	-0.171*	0.879*	1.000															
(6) Social Pillar Score	0.010*	0.012*	-0.061*	0.896*	0.756*	1.000														
(7) Governance Pillar	0.025*	-0.007*	-0.108*	0.660*	0.391*	0.384*	1.000													
(8) Resource Use Score	0.017*	0.015*	-0.129*	0.851*	0.911*	0.779*	0.376*	1.000												
(9) Emissions Score	-0.007*	0.020*	-0.161*	0.821*	0.906*	0.727*	0.370*	0.839*	1.000											
(10) Environmental Innovation Score	-0.009*	0.002	-0.132*	0.566*	0.708*	0.428*	0.261*	0.484*	0.461*	1.000										
(11) Workforce Score	0.000	0.017*	-0.062*	0.795*	0.718*	0.840*	0.333*	0.736*	0.733*	0.357*	1.000									
(12) Human Rights Score	0.026*	0.010*	-0.077*	0.717*	0.633*	0.784*	0.304*	0.672*	0.579*	0.390*	0.571*	1.000								
(13) Community Score	0.025*	0.021*	-0.022*	0.632*	0.501*	0.686*	0.343*	0.506*	0.476*	0.298*	0.484*	0.394*	1.000							
(14) Product Responsibility Score	0.018*	0.011*	-0.052*	0.631*	0.538*	0.721*	0.245*	0.536*	0.501*	0.332*	0.531*	0.450*	0.332*	1.000						
(15) Log of employees	0.121*	0.018*	-0.162*	0.498*	0.498*	0.444*	0.230*	0.500*	0.444*	0.330*	0.420*	0.429*	0.348*	0.306*	1.000					
(16) Log of productivity	0.097*	0.007*	-0.052*	-0.018*	0.009*	-0.044*	0.056*	-0.018*	0.043*	-0.021*	-0.034*	-0.104*	0.009*	-0.061*	-0.433*	1.000				
(17) Log of leverage	-0.074*	0.095*	-0.154*	0.221*	0.249*	0.189*	0.104*	0.235*	0.252*	0.147*	0.207*	0.145*	0.162*	0.107*	0.331*	0.077*	1.000			
(18) Treatment firms	0.005	-0.004	-0.069*	0.328*	0.381*	0.329*	0.050*	0.365*	0.391*	0.225*	0.456*	0.337*	-0.063*	0.292*	0.224*	-0.121*	0.133*	1.000		
(19) Post	0.025*	-0.009*	0.010*	0.023*	-0.023*	0.042*	0.039*	-0.005	-0.006	-0.032*	-0.020*	0.112*	-0.009*	0.024*	0.027*	0.054*	0.029*	0.000	1.000	
(20) Interaction term	0.001	-0.005	-0.034*	0.260*	0.267*	0.289*	0.051*	0.269*	0.279*	0.156*	0.333*	0.320*	-0.010*	0.245*	0.145*	-0.072*	0.080*	0.583*	0.389*	1.000

* shows significance at the 0.5 level

Table 3. Correlation table

Variables	Panel A: ESG Score	Panel B: Environmental	Panel C: Social	Panel D: Governance
Treatment firms	0.000*** (4.895)	0.000*** (13.391)	0.001*** (4.721)	0.003*** (-5.228)
Post	0.000*** (5.536)	0.000*** (5.030)	0.000*** (5.370)	0.000*** (5.386)
Post *x* Treatment firms	**0.005*** (2.332)**	**0.066* (2.141)**	**0.000*** (6.007)**	**0.514 (-0.720)**
Size	0.000*** (7.602)	0.000*** (10.312)	0.000*** (8.114)	0.000*** (4.343)
ROA	0.074* (-6.506)	0.709 (-1.871)	0.077* (-7.575)	0.427 (-4.160)
Tobin's Q	0.000*** (0.780)	0.024** (0.629)	0.000*** (1.637)	0.027** (-0.537)
Country	yes	yes	yes	yes
Sector	yes	yes	yes	yes
Constant	0.000*** (-23.772)	0.000*** (-55.221)	0.000*** (-30.905)	0.000*** (18.166)
N	5668	5668	5668	5668
R^2	0.376	0.405	0.366	0.114

***p < .01, **p < .05, *p < .1; coefficients are shown in paratheses

Table 4. The impact of regulation on sustainability performance

Variables	Panel A: ROA	Panel B: ROE	Panel C: Tobin's Q
Treatment firms	0.555 (-0.002)	0.084* (-0.170)	0.000*** (-0.639)
Post	0.072* (0.004)	0.417 (-0.070)	0.000*** (0.335)
Post *x* Treatment firms	**0.006*** (-0.008)**	**0.577 (0.049)**	**0.006*** (-0.170)**
Leverage	0.000*** (-0.020)	0.020** (0.444)	0.000*** (-0.358)
Size	0.000*** (0.004)	0.266 (-0.031)	0.000*** (-0.113)
Productivity	0.000*** (0.007)	0.839 (-0.006)	0.000*** (0.003)
Country	yes	yes	yes
Sector	yes	yes	yes
Constant	0.001*** (-0.082)	0.512 (0.462)	0.000*** (2.117)
N	7278	7278	7278
R^2	0.100	0.044	0.198

***p < .01, **p < .05, *p < .1; coefficients are shown in paratheses

Table 5. The impact of regulation on financial performance

The results suggest that ROE and Tobin's Q of treatment firms is significant and negative. However, in the period after the regulation came in place, both ROA and Tobin's Q of all the firms in the sample

is significant and positive. Importantly, the results indicate that the interaction term, the coefficient post x treatment firms is not significant for ROE while it is significant and negative for both ROA and Tobin's Q. Such results suggest that relative to the control sample, mandatorily sustainability reporting firms experience a decrease in the profitability which is in line with Chen et al. (2018) who found that firms experienced a decrease in profitability after the regulation. In addition, also the market value of firms who had to mandatorily report sustainability information decreased subsequent to the regulation. This result is in line with several studies who looked at the potential effect of mandatory sustainability reporting on market value of firms (see Chen et al., 2018; Grewal et al., 2019).

5. Additional analyses

In addition to exploring the impact of regulation on the main E, S, or G pillars (table 4), table 6 and 7 show results from exploring how the regulation impacts each individual component belonging to either the environmental or social pillar. An analysis on the regulation impact on individual aspects of governance has not been conducted considering that results from Table 4 show that regulation did not have an impact on governance performance. Regarding environmental aspects, results presented in table 5 show that each individual aspect related to environmental performance is significant and positive besides the environmental innovation score. Thus, compared to the control group, firms which must mandatorily report sustainability information experienced a higher performance on resource use and emissions (Table 6). Similarly, regarding the social aspects, results show that European companies, subsequent to regulation, experienced a higher performance on workforce, human rights, community aspects and product responsibility (Table 7).

To assess the effect of regulation on financial performance, few additional analyses are conducted following Chen et al. (2018). The variable post is replaced with other benchmarking years such as one year forward (results in Table 8) and two years forward (results in Table 9) to understand if the same results hold (Chen et al., 2018; Ren et al., 2020). The results in Table 8 show that even when considering the treatment year to be one year later than what initially considered in the paper, the impact on financial performance is the same. The coefficients of the interaction term show significantly negative on both ROA and Tobin's Q. Similarly, in Table 9, when the treatment year is set two years later as what it is, the coefficients of the interaction term are significantly negative on both ROA and Tobin's Q. These results suggest a decrease in the financial performance is occurring even years after that the disclosure became mandatory which is in line with the results from Chen et al. (2018).

Variables	Panel A: Resource Use Score	Panel B: Emissions Score	Panel C: Environmental Innovation Score
Treatment firms	0.000*** (12.520)	0.000*** (11.267)	0.000*** (11.423)
Post	0.000*** (6.101)	0.000*** (5.879)	0.003*** (3.299)
Post *x* Treatment firms	**0.003*** (4.204)**	**0.027*** (3.069)**	**0.254 (1.782)**
Size	0.000*** (11.809)	0.000*** (10.908)	0.000*** (7.927)
ROA	0.770 (1.993)	0.886 (0.867)	0.257 (-7.333)
Tobin's Q	0.000*** (1.371)	0.001*** (1.130)	0.389 (-0.271)
Country	Yes	Yes	Yes
Sector	Yes	Yes	Yes
Constant	0.000*** (-67.169)	0.000*** (-61.674)	0.000*** (-41.971)
N	5668	5668	5668
R^2	0.371	0.371	0.223

***p < .01, **p < .05, *p < .1; coefficients are shown in paratheses

Table 6. Additional robustness checks with alternative environmental performance proxies

Variables	Panel A: Work force Score	Panel B: Human Rights Score	Panel C: Community Score	Panel D: Product Responsibility
Treatment firms	0.000*** (23.632)	0.275 (2.704)	0.000*** (-23.435)	0.000*** (11.372)
Post	0.000*** (3.178)	0.000*** (10.984)	0.004*** (2.160)	0.000*** (4.434)
Post *x* Treatment firms	**0.003*** (3.353)**	**0.000*** (10.410)**	**0.000*** (6.079)**	**0.000*** (5.233)**
Size	0.000*** (8.142)	0.000*** (10.110)	0.000*** (7.627)	0.000*** (6.036)
ROA	0.994 (-0.042)	0.023** (-15.854)	0.019** (-12.349)	0.177 (8.193)
Tobin's Q	0.000*** (2.055)	0.000*** (1.156)	0.000*** (1.196)	0.000*** (1.180)
Country	Yes	Yes	Yes	Yes
Sector	Yes	Yes	yes	Yes
Constant	0.000*** (-32.362)	0.000*** (-62.225)	0.088* (-4.007)	0.000*** (-13.135)
N	5667	5667	5667	5668
R^2	0.399	0.315	0.253	0.181

***p < .01, **p < .05, *p < .1; coefficients are shown in paratheses

Table 7. Additional robustness checks with alternative social performance proxies

Variables	Panel A: ROA	Panel B: ROE	Panel C: Tobin's Q
Treatment firms	0.747 (-0.001)	0.099* (-0.141)	0.000*** (-0.626)
Post + 1	0.013** (0.006)	0.655 (-0.036)	0.000*** (0.345)
(Post +1) *x* Treatment firms	**0.000*** (-0.014)**	**0.744 (-0.025)**	**0.000*** (-0.253)**
Leverage	0.000*** (-0.020)	0.020** (0.444)	0.000*** (-0.360)
Size	0.000*** (0.004)	0.265 (-0.031)	0.000*** (-0.113)
Productivity	0.000*** (0.007)	0.827 (-0.006)	0.938 (0.002)
Country	Yes	Yes	Yes
Sector	Yes	Yes	Yes
Constant	0.001*** (-0.081)	0.519 (0.448)	0.000*** (2.167)
N	7278	7278	7278
R^2	0.101	0.044	0.196

***p < .01, **p < .05, *p < .1; coefficients are shown in paratheses

Table 8. Additional robustness checks with a timing approach (adjusting post variable to one year later)

Variables	Panel A: ROA	Panel B: ROE	Panel C: Tobin's Q
Treatment firms	0.694 (-0.001)	0.097* (-0.122)	0.000*** (-0.639)
Post + 2	0.009*** (0.006)	0.949 (0.005)	0.000*** (0.498)
(Post +2) *x* Treatment firms	**0.000*** (-0.020)**	**0.093* (-0.120)**	**0.000*** (-0.327)**
Leverage	0.000*** (-0.020)	0.020** (0.445)	0.000*** (-0.364)
Size	0.000*** (0.004)	0.263 (-0.032)	0.000*** (-0.113)
Productivity	0.000*** (0.007)	0.804 (-0.007)	0.963 (0.001)
Country	Yes	Yes	Yes
Sector	Yes	Yes	Yes
Constant	0.001*** (-0.080)	0.517 (0.448)	0.000*** (2.185)
N	7278	7278	7278
R^2	0.103	0.044	0.202

***p < .01, **p < .05, *p < .1; coefficients are shown in paratheses

Table 9. Additional robustness checks with a timing approach (adjusting post variable to two years later)

6. Discussion and concluding remarks

Despite the four-year timeframe of legal implementation of the NFRD, its impact on both sustainability and financial performance has not been widely examined. While mostly undertaking a

qualitative approach, studies looked at how the NFRD impacted quality and/or quantity of sustainability information (see Korca et al., 2021; Agostini et al., 2021). However, the results from case studies might not be as generalizable as statistical studies using a broader sample (Lukka and Kasanen, 1995). Therefore, to conduct an analysis with a larger sample, the current study explores how the NFRD affected sustainability performance in European companies. In addition, it is explored how the regulation has affected companies' financial performance.

Using a matched sample through PSM and undertaking a DiD analysis, the results show that the sustainability performance of companies has increased, after the regulation came in place. The impact of the NFRD on environmental and social performance measures is significant and positive. Following on the previous studies and the signalling theory, mandatory sustainability reporting is effective to induce changes in sustainability performance because companies are obliged to report and thus, they would aim to signal a good performance (Chen et al., 2018; Ren et al., 2020). Therefore, in the current study, it is evidenced that subsequent to the regulation, treated companies have increased social and environmental performance which is in line with the argument by Christensen et al. (2021). Instead, on governance measures, no significant impact has been shown. This could have occurred for the reason that the NFRD does not explicitly require any governance disclosure (EU, 2014). It is expected that mandatory disclosure will induce performance and considering that there are no disclosure requirements on governance, the results are insignificant.

Following on assumptions that mandatory disclosure can be reflected in the financial performance of firms (EC, 2017), this study has explored the NFRD's impact on both profitability and market value of treated firms. The results suggest that both profitability of firms measured by ROA and the market value measured by Tobin's Q did experience a significant change after the regulation. Both ROA and Tobin's Q of treated firms, relative to the control sample, decreased subsequent to the regulation, which is in line with other studies in the field (see Chen et al., 2018; Grewal et al., 2019; Conway et al., 2019; Ren et al., 2020). According to Grewal et al. (2019), the market expects that the NFRD will be costly for certain firms, especially to those with lower disclosure before the regulation came in place. Similarly, Cupertino et al. (2021) found that the short-term impacts of the regulation will mainly be negative on the companies' financial performance. This relates to the reason that companies must adapt to a new regulatory regime, and this can cause extra costs (Michelon, 2021; Christensen et al., 2021). The results of the current study show that after the regulation, treated companies have substantially improved their sustainability performance for both legitimacy and signalling reasons. The transparency-action cycle (Weil et al., 2013; Li and Jia, 2021) is clearly reflected such that due to regulation, treated companies have an increased sustainability performance. However, the short-term impacts of complying to the NFRD, disclosing information, and consequently employing new

sustainability actions are in turn reflected economically. Seemingly, maintaining legitimacy has been costly for the European companies.

The contributions of this study are twofold. First, it contributes to the literature on the first-order impacts of sustainability disclosure regulation (Ottenstein et al., 2021). Previous literature has mainly looked at the impact that voluntary disclosure has on sustainability performance (Hummel and Schlick, 2016; Rezaee and Tuo, 2017) while the current study explores the impact of mandatory disclosure on sustainability performance. The nature of disclosure in the two regimes (voluntary and mandatory) is known to differ. Mandatory disclosure is often characterized in the literature by the transparency-action cycle (Li and Jia, 2021) which explains that when organizations must disclose information, that enables action (i.e., employing new sustainability activities), in order to be able to signal a good performance. On a voluntary setting, the same cycle might not occur as firms can disclose only the actions they have previously undertaken, without an urge to employ new ones which correspond to disclosure topics required by a regulation. This argument is in line with previous studies (see Herbohn et al. 2014; Hummel and Schlick, 2016) who found that it is the good performance that drove disclosure on a voluntary setting. Therefore, the results shown in the current study that mandatory disclosure enhances sustainability performance, add to the bulk of knowledge in the field. The coercive mechanisms enabling mandatory disclosure seems to have the potential to drive a sustainable performance in contrast to voluntary disclosure regime. Second, the current study contributes to the literature linking sustainability disclosure with economic consequences. Previous studies have mainly looked at the association between voluntary disclosure and financial performance (Blacconiere and Patten, 1994; Qiu et al., 2016; Beck et al., 2018) or the impact of mandatory disclosure on sustainability performance in other jurisdictions than EU (Ren et al., 2020; Li and Jia, 2021). However, as noted above, disclosure on a voluntary basis significantly differs from mandatory disclosure and thus also the economic consequences could be diverse. In this regard, the current study provides valuable insights on the impact of mandatory sustainability reporting on financial performance, in the EU context. It shows that disclosure on a mandatory basis is indeed reflected financially, but negatively. However, considering that the current study analyses the impact of the NFRD over four years (post-regulation), the results might only show a short-term perspective. Undertaking a longer post-regulation perspective could shed light on what is the impact of a regulation which has matured over years.

The current study has policy-related and practical implications. From a policy perspective, results show that the regulatory requirement for sustainability reporting has improved sustainability performance. Specifically, both social and environmental performance has increased subsequent to the regulation. Thus, besides the drawbacks of the NFRD acknowledged by research, especially in

terms of enhancing quality of disclosure (Korca et al. 2021; Agostini et al., 2021), the current study shows that social and environmental performance has increased. These results are particularly important considering the emergence of the CSRD which is expected to overcome the limitations of the NFRD and improve disclosure (EC, 2021). The CSRD is expected to extend its disclosure requirements (i.e., supply chain disclosure) and be more specific which in turn is expected to improve sustainability performance even at a larger scale than the NFRD, following the logic of legitimacy and at the same time, signalling a good performance. In addition, these findings could serve to jurisdictions not employing any mandatory requirement. While many jurisdictions are moving towards mandatory disclosure (IPSF, 2021; Michelon, 2021), yet there are jurisdictions which do not have any obligatory requirements. Mandatory disclosure as evidenced in this study has its own benefits but also economic consequences. However, what emerged is that the next steps for higher transparency and consequently sustainability actions are to mandate disclosure.

In terms of practical implications for companies, it is important to note the positive impact of the NFRD in terms of sustainability performance. After the CSRD comes in place, entities have the chance to be transparent about their actions by following clear and specific guidelines and use the occasion to indeed become better citizens in the business world. In the long term, better sustainability performance is also expected to have positive impacts on the financial terms (EC, 2017). The market is changing and at the EU level, sustainable finance is becoming a core action for market participants. Investors, among other stakeholders, are increasingly interested in sustainable investments for their portfolios (Eccles et al., 2011; Cheng et al., 2014) and therefore companies which are transparent and sustainable will receive attention. In this regard, future research could observe if mandatorily reporting and adopting sustainability practices in the long term could actually have positive economic consequences for the companies. The results of this study show that in the short-term, financial consequences of complying to the NFRD are negative. However, considering an increased sustainability performance over the years which is accompanied with disclosure, companies are expected to become more efficient in their operations. Responding to regulatory regimes such as the NFRD requires effort, planning and resource allocation. In a longer timeframe, managers could better allocate resources, gain expertise on disclosure, and embed sustainability within their company culture which could be positively reflected in the financial performance (Eccles et al., 2014; Cupertino et al., 2021).

This study represents few limitations which could be addressed by future research. First, the timeframe post-regulation in this study allows for a four-year coverage. To better understand the consequences of a regulation, especially on financial terms, a longer timeframe observation is needed (Eccles., 2014; Li and Jia, 2021). In this regard, future research could explore how the financial

consequences of the NFRD change from the short-term to the long-term (Cupertino et al., 2021). In addition, observing a longer time frame would be interesting to understand how sustainability performance is evolving. The current study shows an increase in sustainability performance post-regulation, but this could be mainly caused by the transparency-action cycle (Li and Jia, 2021) and related to legitimacy and signalling reasons. However, to better explore if normativity in sustainability performance is being produced (Bebbington et al., 2021) and maintained, a longitudinal observation post-regulation is needed. Finally, the current study uses the ESG score from Eikon Refinitiv to measure sustainability performance. However, it is important to note that sustainability performance needs to take into consideration a double materiality perspective, by accounting both for outside-in and outside-out impacts and risks. Therefore, future studies could better explore if ESG score provided by Eikon Refinitiv is reflecting performance with a double materiality approach. Sustainability reporting should be used as an accountability tool towards the whole range of stakeholders and not only investors.

References

Agostini, M., Costa, E. and Korca, B. (2021). Non-Financial Disclosure and Corporate Financial Performance Under Directive 2014/95/EU: Evidence from Italian Listed Companies. *Accounting in Europe*, 10.1080/17449480.2021.1979610.

Artiach, T., Lee, D., Nelson, D. and Walker, J. (2010). The determinants of corporate sustainability performance. *Accounting & Finance*, 50, 31-51. https://doi.org/10.1111/j.1467-629X.2009.00315.x.

Aupperle, K. E., A. B. Carroll and Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and firm performance. *Journal of Management*, 16(1), 167–180.

Baboukardos, D. (2018). The valuation relevance of environmental performance revisited: The moderating role of environmental provisions. *The British Accounting Review*, 50(1), 32–47. https://doi.org/10.1016/j. bar.2017.09.002.

Bătae, O.M., Dragomir, V.D. and Feleagă, L. (2021). The relationship between environmental, social, and financial performance in the banking sector: A European study. *Journal of Cleaner Production*, 290, 125791.

Bebbington, J., Kirk, E. A. and Larrinaga, C. (2012). The production of normativity: A comparison of reporting regimes in Spain and the UK. *Accounting. Organizations and Society*, 37(2), 78–94. https://doi.org/10.1016/j.aos.2012.01.001.

Beck, C., Frost, G. and Jones, S. (2018). CSR disclosure and financial performance revisited: A cross-country analysis. *Australian Journal of Management*, 43(4), 517–537. https://doi.org/10.1177/0312896218771438.

Blacconiere, W. and Patten, D. (1994). Environmental disclosures, regulatory costs, and changes in firm value. *Journal of Accounting and Economics*, 18(3), 357–377.

Carrots & Sticks (2020). Sustainability Reporting Policy: Global trends in disclosure as the ESG agenda goes mainstream. https://www.carrotsandsticks.net/media/zirbzabv/carrots-and-sticks-2020-june2020.pdf.

Chen, Y. Ch., Hung, M. and Wang, Y. (2018). The effect of mandatory CSR disclosure on firm profitability and social externalities: Evidence from China. *Journal of Accounting and Economics*, 65 (1),169-190, https://doi.org/10.1016/j.jacceco.2017.11.009.

Cheng, B, Ioannou, I. and Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, 35(1), 1–23.

Christensen, H.B., Hail, L. and Leuz, C. (2021). Mandatory CSR and sustainability reporting: economic analysis and literature review. *Review of Accounting Studies*, 26, 1176–1248 https://doi.org/10.1007/s11142-021-09609-5.

Cochran, P. L. and Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal*, 27(1), 42-56.

Conway, E. (2019). Quantitative impacts of mandatory integrated reporting. *Journal of Financial Reporting and Accounting*, 17(4), 604–634. https://doi.org/10.1108/JFRA-08-2018-0066.

Cupertino, S., Vitale, G. and Ruggiero, P. (2021). Performance and (non) mandatory disclosure: the moderating role of the Directive 2014/95/EU. *Journal of Applied Accounting Research*, ahead-of-print (ahead-of-print). https://doi.org/10.1108/JAAR-04-2021-0115.

De Villiers, C., Low, M. and Samkin, G. (2014). The institutionalisation of mining company sustainability reportings. *Journal of Cleaner Production*, 84, 51–58. https://doi.org/10.1016/j.jclepro.2014.01.089.

Deegan, C. (2002). Introduction: The legitimizing effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311. https://doi.org/10.1108/09513570210435852.

Deegan, C., Rankin, M. and Voght, P. (2000). Firms' disclosure reactions to major social incidents: Australian evidence. *Accounting Forum*, 24 (1), 101-30.

Dharmapala, Dh. and Khanna, V. (2018). The impact of mandated corporate social responsibility: Evidence from India's Companies Act of 2013. *International Review of Law and Economics,* 56, 92-104, https://doi.org/10.1016/j.irle.2018.09.001.

EC (2017). Guidelines on non-financial reporting, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri5CELEX:52017XC0705(01).

EC (2021). European Commission Proposal for a Directive of The European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting. Retrieved in June 2021 from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0189.

EC. (1992). Towards Sustainability. A European Community programme of policy and action in relation to the environment and sustainable development. Available at https://ec.europa.eu/environment/archives/action-programme/env-act5/pdf/5eap.pdf.

Eccles R, Krzus, M. and Serafeim, G. (2011). Market interest in nonfinancial information. *Journal of Applied Corporate Financ*e, 23(4), 113–127.

Eccles, R.G., Ioannou, I. and Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835–2857.

EU (2014). Directive 2014/95/EU, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095.

Fiechter, P., Hiitz, J-M and Lehmann, N. (2018). Real effects in anticipation of mandatory disclosures. Evidence from European Union's CSR directive. Working paper, SSRN, November.

Grewal, J., Riedl, E. J. and Serafeim, G. (2019). Market Reaction to Mandatory Nonfinancial Disclosure. *Management Science*, 65(7), 3061-3084. https://doi.org/10.1287/mnsc.2018.3099.

Gujarati, D. N. and Porter, D. C. (2003). *Basic econometrics* (4th ed). McGraw-Hill.

Herbohn, K., Walker, J. and Loo, H.Y.M. (2014). Corporate social responsibility: the link between sustainability reporting and sustainability performance. *ABACUS – A Journal of Accounting, Finance and Business Studies,* 50 (4), 422-459.

Hibbitt, C. and Collison, D. (2004). Corporate environmental disclosure and reporting developments in Europe. *Social and Environmental Accountability Journal,* 24 (1), 1-11.

Hummel, K. and Schlick, Ch. (2016). The relationship between sustainability performance and sustainability reporting – Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy*, 35 (5), 455-476, https://doi.org/10.1016/j.jaccpubpol.2016.06.001.

Ioannou, I. and Serafeim, G. (2017). The Consequences of Mandatory Corporate Sustainability Reporting, working Paper, Harvard Business School Research, Boston.

IPSF (2021). State and trends of ESG disclosure policy measures across IPSF jurisdictions, Brazil, and the US. Retrieved from https://ec.europa.eu/info/files/international-platform-sustainablefinance-esg-disclosure-report-2021_en.

Korca, B. and Costa, E. (2021). Directive 2014/95/EU: building a research agenda. *Journal of Applied Accounting Research*, 22 (3), 401-422. https://doi.org/10.1108/JAAR-05-2020-0085.

Korca, B., Costa, E. and Farneti, F. (2021). From voluntary to mandatory non-financial disclosure following Directive 2014/95/EU: an Italian case study. *Accounting in Europe*, 18(3), 353-377. 10.1080/17449480.2021.1933113.

KPMG (2020). The time has come. KPMG Survey of Sustainability Reporting 2020. https://home.kpmg/xx/en/home/insights/2020/11/the-time-has-come-survey-of-sustainability-reporting.html.

Larrinaga, C. and Senn, J. (2021). Norm development in environmental reporting. In Bebbington, J., Larrinaga, C., O'Dwyer, B. and Thomson, I. (Eds), *Routledge Handbook of Environmental Accounting*, (pp. 137-150). Routledge.

Li, Z. and Jia, J. (2021). Effect of mandatory sustainability reporting announcements: cross-country evidence. *Pacific Accounting Review,* ahead-of-print (ahead-of-print). https://doi.org/10.1108/PAR-09-2020-0141.

Liu, Y., Wei, Z. and Xie, F. (2014). Do women directors improve firm performance in China? *Journal of Corporate Finance*, 28, 169–184. https://doi.org/10.1016/j.jcorpfin.2013.11.016.

Lukka, K. and Kasanen, E. (1995). The problem of generalizability: anecdotes and evidence in accounting research. *Accounting, Auditing & Accountability Journal*, 8(5), 71-90. https://doi.org/10.1108/09513579510147733.

Michelon. G (2021). Financial markets and environmental information. In Bebbington, J., Larrinaga, C., O'Dwyer, B. and Thomson, I. (Eds). *Routledge Handbook of Environmental Accounting*, (pp. 165-178), Routledge.

Nirino, N., Santoro, G., Miglietta, N. and Quaglia, R. (2021). Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices. *Technological Forecasting and Social Change*, 162.

Ottenstein, P., Erben, S., Jost, S., Weuster, C.W. and Zülch, H. (2021). From voluntarism to regulation: effects of Directive 2014/95/EU on sustainability reporting in the EU. *Journal of Applied Accounting Research*, ahead-of-print (ahead-of-print). https://doi.org/10.1108/JAAR-03-2021-0075.

Preston, L. E. and O'Bannon, D. P. (1997). The corporate social-financial performance relationship. *Business and Society*, 36(4), 419–429. https://doi.org/10.1177/000765039703600406.

Qiu, Y., Shaukat, A. and Tharyan, R. (2016). Environmental and social disclosures: link with corporate financial performance. *British Accounting Review*, 48 (1), 102–116.

Reimsbach, D., Schiemann, F., Hahn, R. and Schmiedchen, E. (2020). In the Eyes of the Beholder: Experimental Evidence on the Contested Nature of Materiality in Sustainability Reporting. *Organization & Environment*, 33(4), 624–651. https://doi.org/10.1177/1086026619875436.

Ren, S., Wei, W., Sun, H., Xu, Q., Hu, Y. and Chen, X. (2020). Can mandatory environmental information disclosure achieve a win-win for a firm's environmental and economic performance? *Journal of Cleaner Production*, 250, 119530.

Rezaee, Z. and Tuo, L. (2017). Voluntary disclosure of non-financial information and its association with sustainability performance. *Advances in Accounting*, 39, 47-59, https://doi.org/10.1016/j.adiac.2017.08.001.

Rosenbaum, P.R. and Rubin, D.B. (1984). Reducing bias in observational studies using subclassification of the propensity score. *Journal of American Statistical Association*, 79, 516–524.

Unerman, J. (2000). Methodological issues: Reflections on quantification in corporate social reporting analysis. *Accounting, Auditing & Accountability Journal,* 13(5), 667–680. https://doi.org/10.1108/09513570010353756.

Velte, P. (2017). Does ESG performance have an impact on financial performance? Evidence from Germany. *Journal of Global Responsibility*, 8, 169–178.

Waddock, S. A. and Graves, S. B. (1997). The corporate social performance- financial performance link. *Strategic Management Journal*, 18(4), 303–319. https://doi.org/10.1002/(SICI)1097-0266(199704)18:43.0.CO;2-G.

Weil, D., Graham, M. and Fung, A. (2013). Targeting transparency. *Science*, 340 (6139), 1410-1411.

Yu, W and Zheng, Y. (2020). Does CSR reporting matter to foreign institutional investors in China? *Journal of International Accounting, Auditing and Taxation*, 40, 100322. https://doi.org/10.1016/j.intaccaudtax.2020.100322.

Appendix I. Test of the effectiveness of the propensity score matches

Variable		Treated	Control	% Bias	p-value
Employees	Unmatched	9.139	8.167	56.500	0.54*
	Matched	9.139	9.182	-2.500	0.213
Net income after taxes	Unmatched	4.70e+08	5.00e+08	-1.800	0.950
	Matched	4.80e+08	5.40e+08	-3.300	0.149
Leverage	Unmatched	0.497	0.170	33.500	0.56*
	Matched	0.489	0.516	-2.800	0.196
Asset turnover	Unmatched	0.901	0.943	-5.000	0.27*
	Matched	0.897	0.917	-2.400	0.152
Total revenue	Unmatched	1.10e+10	6.30e+09	17.100	1.85*
	Matched	1.10e+10	1.10e+10	-0.500	0.857

* If variance ratio outside [0.94; 1.06] for U and [0.94; 1.06] for M

Appendix II. Variable definitions

Variables of interest	**Description**
Return on assets	Return of assets is computed as the ratio between net income and total assets.
Return on equity	Return of assets is computed as the ratio between net income and total equity.
Tobin's Q	Tobin's Q is computed as market value of equity divided by total assets.
ESG Score	It is an overall company score based on the self-reported information in the environmental, social and corporate governance pillars.
Environmental pillar	The environmental pillar score contains three dimensions, such as: resource use efficiency, emission and waste reductions, and environmental innovation.
Social pillar	The social pillar score contains three dimensions such as: workforce, human rights, community and product responsibility.
Governance pillar	The governance score contains three dimensions such as: management, stakeholders and corporate social responsibility strategy
Resource Use Score	Resource use category score reflects a company's performance and capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
Emissions Score	Emission category score measures a company's commitment and effectiveness towards reducing environmental emission in the production and operational processes.
Environmental Innovation Score	Environmental innovation category score reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed products.
Work force Score	Workforce category score measures a company's effectiveness towards job satisfaction, healthy and safe workplace, maintaining diversity and equal opportunities, and development opportunities for its workforce.
Human Rights Score	Human rights category score measures a company's effectiveness towards respecting the fundamental human rights conventions.
Community Score	Community category score measures the company's commitment towards being a good citizen, protecting public health and respecting business ethics.
Product Responsibility	Product responsibility category score reflects a company's capacity to produce quality goods and services integrating the customer's health and safety, integrity and data privacy.
Size	Natural logarithm of total employees as a proxy for size.
Leverage	Natural logarithm of total liabilities divided by total assets.

Productivity	Natural logarithm of total sales divided by the total number of employees.
Treatment firms	Dummy variable taking a value of 1 for EU companies and 0 for companies in the control group.
Post	Dummy variable taking a value of 1 after the NFRD came in place and 0 for before the regulation.
Treatment firms x Post	Interaction term that reflects the change in the outcome variable for treated firms, after the regulation came in place.

GENERAL CONCLUSIONS

Main results and contributions

1. Conclusions and final remarks

The objective of this dissertation was to deepen the understanding on the effects of the NFRD on sustainability reporting, and sustainability and financial performance. The NFRD marks the first mandatory obligation (at the EU level) for European entities to disclose sustainability information. The aim of the NFRD is to increase corporate transparency and information relevance and comparability (EU, 2014). Entities which must comply with the NFRD, and report sustainability-related data are expected to have benefits both in financial and non-financial terms (EC, 2017). To explore the impacts of the NFRD on European entities, this dissertation includes three main investigations which resulted in three main empirical chapters. The first chapter assesses the current state of research on the NFRD and as a result, identifies a research agenda to guide further research. The research agenda identified is intended to be useful to all the scholars in the field but has also guided this dissertation and research in the next two chapters. Among the future research avenues identified in the first chapter, the need to better explore how the NFRD has impacted sustainability reporting, sustainability performance and financial performance arose. As a result, to investigate in detail the NFRD and its effects, several analyses have been conducted in Chapter 2 and 3. Specifically, Chapter 2 presents a longitudinal case study with the aim to explore the sustainability reporting in an Italian banking group, in two different regimes, voluntary and mandatory. Chapter 3 instead follows a quantitative analysis to better understand how the introduction of the NFRD has impacted sustainability and financial performance across European entities. To answer this dissertation's research questions, different theoretical approaches are adopted.

The sections below summarize the conclusions drawn from the analysis of each chapter and their respective contributions and implications. In addition, some limitations of this dissertation are highlighted with the aim to foster further contribution in the field which was not covered by this work.

The first chapter which conducts a systematic literature review has helped to identify several themes which need elaboration in the future by research community. The research agenda identified includes four main themes as follows: i) the potential impact of the NFRD on sustainability reporting and financial performance, ii) the role of contextual elements in addressing mandatory sustainability reporting, iii) the interplay between the binding regulation (the NFRD) and the non-binding guidelines, and iv) theorization in regulation studies in sustainability reporting.

On the one hand, previous research has criticized the voluntary disclosure because it lacks comparability and standardization (Hibbitt and Collison, 2004; Jeffrey and Perkins, 2013). On the other hand, other scholars support regulation on sustainability reporting (Ioannou and Sarafeim, 2017). The EU approach is that the NFRD will enhance sustainability reporting of EU entities but

will also bring benefits in financial aspects (EU, 2014; EC, 2017). Considering the arguments raised above, it is important to explore further what are the effects that the NFRD produced to the sustainability reporting and financial performance. Regarding the impact of the NFRD on sustainability reporting, it remains relevant to explore how the regulations serves not only as an administrative reform but as an institutional change (Owen et al., 1997). As an administrative reform, the NFRD could only serve to increase disclosure volume but to ensure high-quality disclosure, transparency and therefore more accountability, an institutional reform is needed. Therefore, focusing on companies' shift from voluntary to mandatory disclosure (using longitudinal data) could shed light to better understand if a transition is happening from the administrative reform (i.e., comply with the Directive) to an institutional one. Furthermore, if this potential institutional reform is taking place within entities, it would be interesting to explore how that is translated into economic terms.

In addition, considering that the NFRD was issued at the EU level and had to be transposed in each EU member state (allowing for few changes i.e., third-party assurance required or not), it is important to investigate how contextual aspects play a role in complying with the NFRD. Adams and Larrinaga (2019) reinforce the role of contextual aspects in accounting research. Not considering specific contextual aspects related to a phenomenon might deprive the researcher from discovering the reality (Adams and Harte, 1998). To this end, this future research stream identifies supports that future research considers different contextual elements which might be country (i.e., previous national regulation on sustainability reporting) or company-specific (i.e., voluntarily reporting before the regulation) which might help to better interpret the findings and offer more meaningful results.

Further, considering the specific case of the NFRD, it remains relevant to explore how the interplay between mandatory and voluntary elements resulted in sustainability reporting. The NFRD is mandatory but the guidelines to help companies report (the non-binding guidelines published in 2017) are voluntary. While the NFRD aims to foster higher-quality information and more comparability, following the non-binding guidelines could result in a cherry-picking approach which will hamper information comparability. Exploring how to better match the mandatory requirements of the NFRD with the measures used to report sustainability information could shed light onto the potential evolution from the administrative reform to an institutional reform (Owen et al., 1997; Larrinaga et al., 2002).

While research related to the NFRD is constantly increasing, considering the recent attention and importance of the new regulatory requirements coming up, theorization in these studies is relatively low. The systematic literature review showed that most studies related to the NFRD use a qualitative approach. As highlighted by Llewelyn, 2003, p.662, theorizing in qualitative research is considered

a "value-added". As a result, future research could consider theorizing more which could then lead to the next step, offering new conceptualizations of existing theories (Adams and Larrinaga, 2019). It is important to step out of the mainstream managerial theories and consider more inter-disciplinary approaches such as behavioural and cognitive theories to better understand rationales of entities to properly comply and disclosure information or otherwise.

This study contributes to the literature specifically on the NFRD but also to the literature in mandatory sustainability reporting. It marks the first comprehensive literature review with a specific focus on the NFRD and draws urgent research avenues to be addressed in the near future. In addition, the first chapter of this dissertation has policy-related and practical implications. Explorations of the issues raised in the research agenda could help policymakers to better understand the effectiveness of the NFRD and what could be further improved. In addition, more research on thee NFRD could show to companies and managers the real consequences that mandatory disclosure brings in an entity. An enhanced understanding of managers on the real consequences of the NFRD could open discussions in the future between the policy makers and companies to co-engage in the process of developing future regulations.

The second chapter sheds light on the sustainability reporting and its evolvement during two reporting regimes (voluntary and mandatory), both in terms of quantity and quality. The results reveal three patters of disclosure, according to thematic disclosure requirements from the NFRD. The present-to-present pattern indicates disclosure topics which were present before the regulation and after. These include diversity, environmental, social and employee, anti-corruption, and bribery matters. The other pattern is absence-to-presence and indicates disclosure topics which were not disclosed voluntarily but became present because of the regulation. These are business model information, assurance, and respect for human rights. Finally, the absent-to-absent pattern refers to topics which did not become present besides the regulatory requirements, and this includes due diligence information. In general, the NFRD has caused the volume of information to increase but not the quality of information. The results of this chapter show that the NFRD's impact on disclosure can vary depending on the thematic disclosure. The quality has indeed ben enhance only for some thematic disclosure area, namely, social and employee matters. Consulting the data from interviews and seminars, the banking group has always felt accountable toward social and employee matters and has exercised this disclosure for years. The voluntary disclosure experience has helped the banking group to better understand what matters the most for them such that they enhanced this disclosure also while mandatorily reporting.

This study contributes to further develop the institutional theory and the production of normativity, notions which have been used to frame the findings. The results show that the institutional forces do

not have a linear impact in the homogenization process but there exists an interplay between the institutional mechanisms. Institutional theory has been mostly used to understand disclosure in two different regimes but not to understand the different evolution of certain thematic disclosures. The current study brings this conceptualization into being by showing how normativity is produced regarding social and employee disclosure when a mix of institutional forces played their role. In addition, the current chapter draws some policy-related and practical implications. Regulations should be clear in their purpose by also offering clear guidelines. For instance, when regulation is not utterly specific, leads to non-compliance (i.e., regarding due diligence). In terms of practical implications, the results of this study show the importance of voluntary experience in disclosure. Companies, by doing so will better understand what it is material for them and what their impact is in the long-term. Previous experience will also facilitate compliance with regulations which is currently highly relevant for SMEs, in light of the upcoming regulatory requirements for sustainability reporting by the CSRD.

The third chapter reveals results on the impact of mandatory sustainability reporting on both sustainability and financial performance. By using a DiD approach and PSM, it is shown that after the NFRD came in place, the sustainability performance of EU companies increased substantially. However, regarding the financial performance, opposite findings are highlighted. Subsequent to the regulation, EU companies' financial performance worsened, compared to the control group which is in line with other studies in the field (see Chen et al., 2018; Grewal et al., 2019; Ren et al., 2020). The results on sustainability performance relate to the transparency-action cycle which shares elements from signalling theory. Companies which are required to report information (and they will do so to maintain legitimacy), will implement sustainability actions such that with disclosure, they could signal a good performance. However, the transparency-action cycle in this study showed to be costly as the financial performance worsened after the regulation came in place.

This chapter makes a substantial contribution to the interconnected literature on sustainability reporting, sustainability performance and financial performance. Considering that it adopts the EU context, it represents among the first studies looking at the impact of regulation on sustainability and financial performance, by adopting a quantitative approach which allows analysis on a broader sample. The regulatory setting at the EU is currently evolving but the NFRD represents the first initiative to mandate disclosure (at an EU level and not country level). Few other new regulations have just been tabled or are about to come. The results of this study are particularly important to understand how regulatory regimes on sustainability reporting could impact performance on both sustainability and economic perspective. Thus, it sheds light on the potential of a regulation to boost sustainability and/or financial performance, or otherwise, which is different from effects that

voluntary disclosure produces. Finally, the results of this study have policy-related and practical implications. From a policy perspective, other jurisdictions worldwide could be better informed on the advantages or disadvantages of mandating sustainability reporting, considering that in many jurisdictions is still voluntary (IPSF, 2021). From a business perspective, it shows how mandatory disclosure could serve to improve in the sustainability path. However, it is important to understand that from a financial point of view, it might be costly in the short-term, but in the long-term, sustainability reporting and investment is expected to have positive financial return.

Finally, this dissertation is subject to a number of limitations which have been highlighted in each respective chapter. Generally, future investigations in the field could explore how compliance with the NFRD in the long term has produced effects both in non-financial and financial terms. For the regulations to achieve change, more time is needed. Therefore, a post-regulation exploration over many years would provide more robust results. In addition, considering the new upcoming regulations (i.e., the CSRD), it remains relevant to explore how compliance with the NFRD facilitates disclosure following the CSRD. Finally, this dissertation focuses only on the EU context but worldwide, there is an increasing trend towards mandatory disclosure (IPSF, 2021; Michelon, 2021). Similar explorations in other regions and jurisdictions could shed light to how mandatory disclosure takes place in different institutional and contextual settings. Much more research in the field, globally, could answer questions if and how mandatory disclosure is contributing to a sustainable development, more transparency, and more accountability.

References

Adams, C. and Larrinaga, C. (2019). Progress: engaging with organisations in pursuit of improved sustainability accounting and performance. *Accounting, Auditing and Accountability Journal*, 32 (8), 2367-2394.

Adams, C.A. and Harte, G. (1998). The changing portrayal at the employment of women in British banks' and retail companies' corporate annual reports. *Accounting, Organizations and Society*, 23 (8), 781-812.

Chen, Y. Ch., Hung, M. and Wang, Y. (2018). The effect of mandatory CSR disclosure on firm profitability and social externalities: Evidence from China. *Journal of Accounting and Economics*, 65 (1), 169-190, https://doi.org/10.1016/j.jacceco.2017.11.009.

EC. (2017). Guidelines on non-financial reporting (methodology for reporting non-financial information). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705(01).

EU. (2014). DIRECTIVE 2014/95/EU OF THE EUROPEAN PARLIAMENTAND OF THE COUNCIL of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0095.

Grewal, J., Riedl, E. J. and Serafeim, G. (2019). Market Reaction to Mandatory Nonfinancial Disclosure. *Management Science*, 65(7), 3061-3084. https://doi.org/10.1287/mnsc.2018.3099.

Hibbitt, C. and Collison, D. (2004). Corporate environmental disclosure and reporting developments in Europe. *Social and Environmental Accountability Journal*, 24(1), 1–11. https://doi.org/10.1080/0969160X.2004.9651708.

Ioannou, I. and Serafeim, G. (2017). The Consequences of Mandatory Corporate Sustainability Reporting, working Paper, Harvard Business School Research, Boston.

IPSF (2021). State and trends of ESG disclosure policy measures across IPSF jurisdictions, Brazil, and the US. Retrieved from https://ec.europa.eu/info/files/international-platform-sustainable-finance-esg-disclosure-report-2021_en.

Jeffrey, C. and Perkins, J. D. (2013). Social norms and disclosure policy: Implications from a comparison of financial and corporate social responsibility reporting. *Social and Environmental Accountability Journal*, 33(1), 5–19. https://doi.org/10.1080/0969160X.2012.748468.

Larrinaga, C., Carrasco, F., Correa, C., Llena, F. and Moneva, J. (2002). Accountability and accounting regulation: the case of the Spanish environmental disclosure standard. *European Accounting Review*, 11 (4), 723-40.

Michelon. G. (2021). Financial markets and environmental information. In Bebbington, J., Larrinaga, C., O'Dwyer, B. and Thomson, I. (Eds). *Routledge Handbook of Environmental Accounting*, (pp. 165-178), Routledge.

Owen, D., Gray, R. and Bebbington, J. (1997). Green accounting: cosmetic irrelevance or radical agenda for change? *Asia-Pacific Journal of Accounting*, 4 (2), 175-198.

Ren, S., Wei, W., Sun, H., Xu, Q., Hu, Y. and Chen, X. (2020). Can mandatory environmental information disclosure achieve a win-win for a firm's environmental and economic performance? *Journal of Cleaner Production*, 250, 119530.