



ESG-related non-financial performance indicators:

Evolution and current practice of reporting by ten European banks

by

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Abstract

The evolution of business theory and practice in the last decades brought to light the importance of non-financial performance indicators in corporate reporting. This thesis aims to study the evolution and current practice of reporting of non-financial measures of Environmental, Social and Governance (ESG) performance in a sample of ten banks supervised by the European Central Bank. The comparative analysis of banks' disclosed reports in the years of 2007, 2016 and 2019, based on selected standards representing the best practices in the market regarding ESG reporting, resulted in a total of 5,324 reported/not-reported observations reflecting the extent to which banks' disclosures are coherent with the standards. Comparing through reporting scores the number of disclosures actually reported by banks to the total number of analyzed disclosures showed that the selected banks only partially comply with ESG reporting standards, and particularly struggle in the areas of environmental and social performance. Corporate Governance reporting practices are the ones most aligned with the selected standards in all three years. All banks (with only one exception in social reporting) were found to improve their reporting practices throughout the years in the three ESG dimensions. Results show that significant evolution has occurred, which is undoubtedly linked to the fact that non-financial reporting not only mitigates reputational risks and contributes to social legitimacy, but also entails an opportunity to better align the interests of managers to those of the stakeholders, and helps to ensure that these stakeholders' demand for information is met.

Keywords: non-financial reporting, ESG, corporate reporting, European banks, reporting scores, indicators, stakeholders.

Resumo

A evolução da teoria e prática empresariais nas últimas décadas destacou a importância de indicadores não-financeiros de *performance* no relato empresarial. A presente tese estuda a evolução e a prática atual de relato de medidas não-financeiras de desempenho ambiental, social e de *governance* (ESG) numa amostra de dez bancos supervisionados pelo Banco Central Europeu. A análise comparativa da informação publicada pelos bancos nos anos de 2007, 2016 e 2019, baseada em critérios selecionados que representam as melhores práticas de mercado em termos de relato ESG, resultou num total de 5,324 observações de reportado/não-reportado que refletem em que medida os relatórios dos bancos são coerentes com os *standards*. Comparar através de *scores* de relato o número de divulgações reportadas de facto pelos bancos com o número total de divulgações analisadas, demonstrou que os bancos selecionados apenas cumprem parcialmente com os *standards* de relato ESG, tendo particular dificuldade nas áreas de desempenho ambiental e social. As práticas de relato de *Corporate Governance* são aquelas mais alinhadas com os *standards* selecionados nos três anos. Todos os bancos (com exceção de um quanto ao reporte social) melhoraram as suas práticas de relato ao longo dos anos nas três dimensões ESG. Os resultados demonstram uma evolução significativa, que está decisivamente ligada ao facto de o relato não-financeiro mitigar riscos reputacionais, contribuir para a legitimidade social, e criar a oportunidade de alinhar os interesses dos gestores aos dos *stakeholders*, procurando assegurar que sejam satisfeitas as suas expectativas de informação.

Palavras-chave: relato não-financeiro, ESG, relato empresarial, bancos europeus, *score* de relato, indicadores, *stakeholders*.

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List of Abbreviations

| | |
|----------------|---|
| BSC | Balanced Scorecard |
| CEO | Chief Executive Officer |
| CSR | Corporate Social Responsibility |
| EBA | European Banking Authority |
| ECB | European Central Bank |
| ESG | Environmental, Social and Governance |
| EU | European Union |
| GDP | Gross Domestic Product |
| GHG | Greenhouse Gas |
| GRI | Global Reporting Initiative |
| IIRC | International Integrated Reporting Council |
| IFRS | International Financial Reporting Standards |
| IPCG | Portuguese Institute of Corporate Governance |
| IR | Integrated Reporting |
| KPI | Key Performance Indicator |
| MSCI | Morgan Stanley Capital International |
| OECD | Organization for Economic Cooperation and Development |
| ROE | Return on Equity |
| R&D | Research and Development |
| SEC | Securities and Exchange Commission |
| TBL | Triple Bottom Line |
| TR | Thomson Reuters |
| TRE | Thomson Reuters Eikon |
| UNCTAD | United Nations Conference on Trade and Development |

I. Introduction

The twentieth century was a period of critical importance for the fields of management, finance and reporting. A diversity of views on corporate purpose, value creation and corporate responsibility emerged and reshaped the understanding of academics and practitioners on corporate activities. Theories expanding the accountability of companies to a wider set of stakeholders advocated for the need for higher transparency and diversity of corporate information disclosed to the public. The growing evidence supporting the insufficiencies of an exclusive use of financial indicators, combined with the referred tendency, resulted in non-financial performance indicators having an increasingly relevant role in corporate reporting.

The root of the problem lies on the fact that the separation between management and ownership creates problems of asymmetry of information between managers and outsiders (in particular, investors). These problems arise in multiple contexts, in particular when assessing the quality of managers' actions and decisions (Aboody and Lev, 2000), and their impact on a company's ability to fulfill its purpose and goals, i.e., on its performance (March and Sutton, 1997). The issue of the development and disclosure of measures of corporate performance is, thus, of critical importance for managers, shareholders, investors, and all agents interested in a company's activities (Feltham and Xie, 1994).

Traditionally, companies measure and disclose their performance by means of financial indicators, based on accounting figures and financial statements. However, research has found that relying uniquely on these measures entails relevant shortcomings, as they present a weak link with the company's long-term strategy (Govindarajan and Gupta, 1985; Kaplan and Norton, 1992; Feltham and Xie, 1994), fail to capture relevant sources of value (Johnson and Kaplan, 1987; Lev and Zarowin, 1999; Arvidsson, 2011), and provide limited and incomplete information concerning management's performance (Banker et al., 2000; Feltham and Xie, 1994).

In the late twentieth century many authors began to suggest complementing the use of financial measures of performance with what we now recognize as non-financial performance indicators - a new set of indicators, of qualitative and quantitative nature, which are not expressed in corporate financial statements (Coram et al., 2011). Following early studies on this issue (Johnson and Kaplan, 1987), significant discussion and research on this topic was carried out and a new body of literature emerged. The Balanced Scorecard was among the most well-known innovations that rose out of this new trend (Kaplan and Norton, 1992).

In parallel, growing awareness of the impact of companies' activities in both their surrounding natural environment and multiple stakeholders drove the emergence of new theories of corporate purpose and value creation (e.g. Freeman, 1984) which extended the idea of corporate accountability from a responsibility towards a limited group of shareholders to a duty held towards a broader set of agents who are influenced and who influence corporate activities (Freeman, 1984). The concept of "Corporate Social Responsibility" (CSR) emerged in literature, and companies started being pressured to redirect their goals and activities according to a "Triple Bottom Line" (Elkington, 1997), taking into account their economic, social and environmental performance.

These concerns and advances in theory have also been a critical force contributing to the emergence, development and disclosure of non-financial measures of performance. Subject to growing societal demands for an increase of transparency and accountability to the wide range of their stakeholders, companies started to disclose non-financial information and extended reported information to CSR (Arvidsson, 2011), environmental, social and Corporate Governance issues (ESG) (Tarmuji et al., 2016).

The benefits and implications of the disclosure of non-financial performance measures were increasingly studied by academics, who found that such disclosure contributes positively to companies' stock valuation and financial performance (Coram et al., 2011; Said et al., 2003), strategic focus (Bhimani and Langfield-Smith, 2007) and governance (Schiehl and Bellavance, 2009). European Regulation has also accompanied this trend by adopting new legal instruments with the goal of broadening the scope of corporate reporting towards the inclusion of non-financial measures of performance (e.g. Directive 2014/95/EU, better known as the Non-Financial Reporting Directive).

Nevertheless, there is a lack of concrete and up-to-date empirical evidence concerning the evolution and current non-financial reporting practices adopted by companies, in particular concerning ESG issues. The efforts of Skouloudis et al. (2009) towards this goal are worth mentioning, but this study provides an overview of concordance with the Global Reporting Initiative rather than a comprehensive assessment of non-financial reporting practices, and limits the scope of analysis by assessing less than 20 companies only from the Greek economy (Skouloudis et al., 2009).

This thesis proposes assessing the evolution and current status of the reporting practices of non-financial indicators concerning Environmental, Social and Governance (ESG) performance

through the analysis of reported information in comparison to standards representing the current best practices in the market. The banking sector was selected as the sector of analysis since non-financial reporting is of utmost importance to its activity. Banks are heavily regulated, have a large stakeholder network and an unparalleled systemic effect in the economy, which makes the transparent disclosure of information an issue of critical relevance.

By analyzing a sample of ten banks supervised by the European Central Bank (ECB), this thesis studies the disclosure of non-financial information along the three ESG dimensions in three different years (2007, 2016 and 2019). The comparative analysis of banks' disclosed reports with the selected standards resulted in a total of 5,324 reported/not-reported observations reflecting the extent to which banks' reporting practices are coherent with the standards representing the current best practices in the market in terms of ESG reporting.

This thesis contributes to literature by providing an innovative methodology that allows a systematic assessment of ESG reporting practices applicable not only in the context of the banking sector, but to any sector of economic activity. It also allows to understand the extent to which advances in literature and market standards have impacted the practical evolution of reporting practices in the context of the selected sample of banks, and contributes to deepen the understanding of financial institutions' response to the growing challenge of providing more suitable information to their multiple stakeholders. From a practitioner's perspective, this thesis is relevant to banks and their stakeholders, in particular investors and regulators, who can understand, in the context of the selected sample of banks, the evolution and current practice of non-financial reporting, the differences in reporting practices in different economic and regulatory contexts, and the issues that are left to improve in the future.

Section II provides a general theoretical framework by summarizing the main theoretical arguments underlying the issue of non-financial reporting, in particular ESG-related reporting, and explores the most relevant advances in business practice and regulation concerning this topic; section III provides a general overview of the banking sector, describes the methodology adopted in the study and presents the main results of the analysis; section IV discusses the results, raising questions for future research, and presents the limitations of the analysis; section V concludes by summarizing the main results and issues raised for future research, and presents recommendations for the future.

II. Non-Financial Reporting: Theoretical Framework

1. Literature Review and Background

This section provides an explanation of the main economic and business issues underlying the problematic of non-financial reporting, as well as an overview of the main academic developments in this field of knowledge.

1.1. Company performance and financial measures of performance

As early as in Adam Smith (1776), companies have been seen as arrangements of capital and labor that develop an activity pursuing a specific goal. Traditionally, companies' primary goal has been related to the generation and improvement of the profits and returns for their shareholders - the providers of capital who own the company (Friedman, 1962). New theories have emerged suggesting that companies' purpose should not be seen as unitary, but as a wider range of multiple objectives, sometimes conflicting among themselves (e.g. Freeman, 1984). Nevertheless, a common view of a company as an "instrument of purpose" that is "coordinated by intentions and goals" (March and Sutton, 1997) can be held. In this context, the concept of performance as the evaluation of the company's success and failure concerning the fulfillment of its purpose(s) emerges and presents itself of major importance, both in academic literature and in business practice (March and Sutton, 1997).

The most important theoretical argument behind the need of measuring and disclosing corporate performance measures is related to asymmetric information. Information asymmetry problems arise in interactions between parties with significant information differences and conflicts of interests (Akerlof, 1970). In the context of managerial performance evaluation and compensation, addressing the issue of information asymmetry demands the inclusion of performance measures that provide information which is useful to assess the quality of managers' decisions and actions, according to Holmstrom's (1979) definition of *informativeness*. Following this concept, a performance measure is to be included in a set of performance indicators whenever it provides incremental information regarding a manager's decisions and their consequences (Feltham and Xie, 1994). In the context of external reporting, similar informational issues arise between investors, who only have access to disclosed reports, and managers, who have actual knowledge of the business and its strategy (Aboody and Lev, 2000).

The most common way companies use to measure and disclose their performance is through financial indicators, based on accounting figures and financial reports. Such measures of performance are widely used in academic papers (March and Sutton, 1997) and in business practice, playing a critical role in issues such as management compensation (Ittner et al., 1997). Besides providing a clear depiction of how well the company is managing its assets to create value for its shareholders (Eccles and Pyburn, 1992), financial indicators are particularly attractive given their quantitative and comparable nature. Due to significant harmonization efforts in terms of accounting standards across different countries, the comparability of financial statements across companies from different sectors and countries is nowadays significantly higher (Guggiola, 2010). The introduction and adoption of the International Financial Reporting Standards (IFRS) as standards for accounting and financial reporting across 144 jurisdictions (IFRS Foundation, 2018) was a significant contribution to the harmonization effort. “Information about a reporting entity's economic resources, claims, and changes in resources and claims” (IFRS, 2018), accounting information and financial reports provide relevant quantitative information that is primarily used by current and potential investors (IFRS, 2018). However, many scholars and practitioners have defended the insufficiency of performance measurement systems based solely on financial indicators (Eccles and Pyburn, 1992) as a significant body of literature began to uncover the limitations of using exclusively financial measures to assess management’s performance, both from the perspective of management control and external reporting.

1.2. Limitations of financial measures and the emergence of non-financial indicators

As early as in 1987, Johnson and Kaplan identified important limitations of short-term financial measures of performance, mainly motivated by technological changes, shorter product life cycles and production innovations, which increased the relevance of intangible and intellectual assets, more difficult to accurately report in accounting figures (Johnson and Kaplan, 1987). Lev and Zarowin (1999) studied the usefulness of financial information for investors’ decisions and reported a decrease in the relevance of such information over the 20 previous years. Such deterioration was attributed to *change*, which was mainly related to large investments in R&D and restructuring. Other studies have identified similar limitations in specific areas of management such as Operations, Human Resources Management, Marketing and Strategy (Chenhall and Langfield-Smith, 2007).

Literature has found significant evidence of the insufficiency of a purely financial performance measurement scheme. One might summarize it in three main vectors:

1. Weak link with long-term strategic goals: although traditional financial returns provide a reasonable evaluation of management's past and current administration of assets, short-term financial measures do not necessarily result in the attainment of long-term future strategic objectives, as they do not reflect the potential benefits of management's strategic planning and initiatives (Govindarajan and Gupta, 1985; Kaplan and Norton, 1992; Feltham and Xie, 1994).
2. Insufficient information concerning key drivers of value: with the increasing importance of innovation, R&D, technology and intangible assets in the current competitive landscape, financial measures fail to adequately capture performance from such sources of value, as these are more difficult to assess using traditional accounting-based indicators (Johnson and Kaplan, 1987; Lev and Zarowin, 1999; Arvidsson, 2011).
3. Limited *informativeness* (Holmstrom, 1979) regarding managerial performance: accounting figures are extensively used for external reporting and tax purposes. The degree to which such financial performance measures capture relevant incremental information when assessing managerial decision making was found to be limited. At the same time, other dimensions, such as customer satisfaction, product quality and market share were found to be vital to assess and reward managers, and provide feedback to them on their decisions and contribution to value creation (Banker et al., 2000; Feltham and Xie, 1994).

Having identified these limitations, many authors started to suggest and study a new set of performance indicators of non-financial nature, i.e. quantitative and qualitative measures of performance that are not expressed in financial statements but complement them (Coram et al., 2011). Examples of that include "operational measures on customer satisfaction, internal business processes, and the organization's innovation and improvement activities" (Kaplan and Norton, 1992).

Among the early studies of non-financial indicators of performance, Johnson and Kaplan (1987) recognized the increasing importance of intangible resources for companies' success and suggested to introduce new non-financial performance indicators to better align performance measurement with the company's long-term objectives. For example, areas such as R&D, Marketing and Manufacturing were identified as suitable to be assessed using non-financial indicators such as percentage of common and unique parts in a product (in R&D), customer

complaints (in Marketing) and defect rates (in Manufacturing) (Johnson and Kaplan, 1987). Many other authors have had a growing interest in non-financial information. Howell and Soucy (1987) focused on production and inventory management measures; Bromwich and Bhimani (1989) highlighted the need for adapting labor productivity measures according to the new manufacturing processes; and Berliner and Brimson (1988) encouraged the assessment of investment decisions with strategic purposes.

1.3. Balanced Scorecard as an instrument for an integrated view of corporate performance

One of the most relevant and well-known advances concerning the use of non-financial performance measures was the introduction of the Balanced Scorecard (BSC) by Kaplan and Norton (1992). This new instrument allowed an integrated view of a company's performance by taking into consideration multiple perspectives of its activity. By combining financial and non-financial performance measures, the BSC was designed as a tool that explicitly aligns the operational efforts of a company with its strategy. Initially integrating four different *perspectives* ("Financial", "Customer", "Internal Business", and "Innovation and Learning"), this instrument was praised as a powerful means of communicating and incentivizing the achievement of strategic goals (Ittner and Larcker, 1998). Nevertheless, there is limited research evidencing the actual effectiveness of BSC in generating the intended outcomes (Chenhall and Langfield-Smith, 2007). Although some evidence suggests that BSC's implementation may be positively correlated to company performance (Hoque and James, 2000; Davis and Albright, 2004), other studies were unable to find conclusive evidence regarding this issue and identified hurdles in BSC's implementation in practice (Chenhall and Langfield-Smith, 1998; Lipe and Salterio, 2000).

1.4. Further research on non-financial measures of performance

Further research brought additional evidence on the benefits which arise from the use and disclosure of non-financial performance indicators, particularly regarding the company's performance and valuation. These indicators have become increasingly relevant, not only because companies are being pushed by demands of external agents, but also because managers and executives start becoming aware of the competitive advantages that may arise from this strategic shift. Non-financial information was found to influence both stock valuation and company's financial performance. Coram et al. (2011) used a verbal protocol analysis to find that non-financial performance indicators influence financial analysts' decision-making when valuing a stock in an asymmetric way. This means that if the trend of financial information was

negative, more attention was given to financial indicators, while if such trend was positive, non-financial information received more attention. Said et al. (2003) concluded that the inclusion of non-financial measures in management compensation contracts influences current and future performance, which showed that companies that use a combination of financial and non-financial performance measures improve current and future stock market performance, as well as future accounting performance. This association was found to be contingent on the match of non-financial measures with the company's characteristics, and it was associated with innovation-oriented strategy (Govindarajan and Gupta, 1985; Ittner et al., 1997), quality-oriented strategy (Ittner et al., 1997), length of product development cycle (Bushman et al., 1996), level of financial distress (Ittner et al., 1997) and industry regulation (Ittner et al., 1997; Bushman et al., 1996). Similarly, Banker et al. (2000) found evidence that non-financial indicators of customer satisfaction are significantly positively associated with future long-term financial performance and that the inclusion of non-financial performance measures in managerial incentive plans improves both financial and non-financial performance.

The use and disclosure of non-financial information and the inclusion of such metrics in performance evaluation schemes and managerial compensation packages has also been found to provide additional transparency to companies, allowing for improved governance mechanisms, better detection of fraud and, ultimately, more favorable financing conditions. Schiehl and Bellavance (2009) studied the relationship between the board's decision to include non-financial performance measures in the CEO's bonus plan and two governance mechanisms (board independence and CEO ownership) in the context of a sample of Canadian companies traded in the stock exchange. A positive correlation was found between growth opportunities and the choice to integrate non-financial measures into the CEO's compensation. Furthermore, in companies with high growth opportunities, the inclusion of non-financial information into the CEO's compensation plan was found to be a potential substitute for CEO ownership, providing evidence for the hypothesis that non-financial information improves the board of directors' proprietary information on CEO's actions that are not mirrored in financial and stock price information. At the same time, Brazel et al. (2009) found empirical evidence that non-financial information can be effectively used to assess fraud risk. With a sample of 50 companies charged by the Securities and Exchange Commission (SEC) due to fraudulent reports of revenues in at least one 10-K filing, the authors found that fraudulent companies are more likely to report revenue growth that is inconsistent with growth in non-financial measures than non-fraudulent companies. Finally, Orens et al. (2010) found a negative association

between web-based non-financial disclosures and the implied cost of equity, confirming the economic relevance of non-financial disclosure. The referred study found that, unlike North American companies, Continental European companies with more web-based non-financial information disclosed benefited from “a lower information asymmetry and from a lower cost of debt capital” (Orens et al., 2010), which suggests that the association between non-financial reporting and cost of capital is stronger in countries with lower-quality mandatory reporting obligations. This introduced the idea that differences in international institutions may impact the economic relevance of non-financial disclosure (Orens et al., 2010).

Additional evidence of the increasing relevance of the use and disclosure of non-financial information can be found by analyzing managerial decision making and strategy formulation. Bhimani and Langfield-Smith (2007) used questionnaire responses and interviews with senior corporate accountants to link strategy development and implementation to the use of financial and non-financial information, finding that financial information was more relevant in the phase of strategy implementation, while more emphasis was given to non-financial information in strategy development. Arvidsson (2011) found a shift towards voluntary disclosure of non-financial information regarding intangible assets motivated by both regulatory and demand pressures, as management started feeling a more pressing need to better describe intangible assets and the role they play in the value creation process of the company.

1.5. Summarizing remarks on theory and empirical evidence concerning non-financial reporting

Growing evidence shows that even if companies’ set of objectives is limited to shareholders’ profit maximization, performance measurement should not be limited to short-term financial indicators, as these fail to capture critical sources of value, provide incomplete information regarding managers’ actual performance, and present a weak link with the company’s long-term strategy. Several studies show that the development and disclosure of non-financial performance measures contributes positively to companies’ performance, strategic focus and governance.

2. Corporate Social Responsibility, “Triple Bottom Line” and ESG performance

The shift towards non-financial reporting, which started with an acknowledgement of the insufficiencies of financial information, has also been potentiated by increasingly stronger external attention devoted to the social and environmental impact of companies. Corporate Social Responsibility (CSR) introduces a new perspective of companies’ performance that has

had a growing importance over the last 40 years. Since the introduction of the argument for the disclosure of CSR issues in 1982 (Wiseman, 1982), there has been significant discussion on the different forces (both internal and external to companies) influencing the disclosure of such information (Ali et al., 2017). Implementation of more demanding CSR-based policies and strategies has also become increasingly more important. Arvidsson (2011) observed a trend shifting from disclosures related to R&D to disclosures related to CSR, as well as an increase in the number of non-financial Key Performance Indicators (KPIs) (with the majority of studied companies having 5 or more non-financial KPIs). Focus on human issues has also increased significantly. CSR was predicted to experience considerable development in the future; however, it has been the category of non-financial information with the lowest focus (Arvidsson, 2011).

There are some concerns arising from this growing trend of development and disclosure of non-financial information, particularly concerning CSR. Many scholars argue that companies' decisions to improve the report of non-financial information follow a utilitarian approach focused on the legitimacy benefits (benefits arising from enhanced company image and lower scandal risk) rather than on the strategic benefits of such disclosure (Arvidsson, 2010). Arvidsson (2010) points towards a consequentialist or utilitarianist managerial mindset, where engagement in CSR activities is seen as a tool to avoid potential negative impacts and not as a source of competitive advantage or genuine drive for social betterment. CSR communication was found to be seen as a direct outcome and its structure to be designed to respond to the needs of stakeholders, particularly the ones in stock markets. The referred paper questions the validity of CSR information, pointing to the lack of empirical evidence supporting companies' efforts and relevant CSR-related measures or KPIs, which suggests CSR communication is not necessarily evidence of actual corporate CSR commitment.

Once Corporate Social Responsibility is taken into consideration, new corporate objectives, other than profit maximization, are considered. This introduces new powerful frameworks for the analysis of non-financial information disclosure. One of the most widely used tools for assessing companies' performance was introduced by Elkington in 1997 and is known as the "Triple Bottom Line" (TBL). TBL aims to integrate rising concerns regarding companies' impact on the natural environment with their economic and social responsibilities, by summarizing the success of any organization according to three lines: "profit" (economic), "people" (social), and "planet" (environment) (Elkington, 1997; Goel, 2010). Given that companies' economic performance measurement uses extensively, although not exclusively,

financial indicators (Alhaddi, 2015), this thesis focuses primarily on social and environmental performance vectors to analyze non-financial reporting. A third perspective of significant relevance - Corporate Governance - is added, thus completing the ESG criteria commonly used by investors to capture the dimensions of corporate performance not included in accounting data (Tarmuji et al., 2016).

2.1. Social

Through the past decades, companies have been experiencing dramatic change in the way they relate to their employees, suppliers, customers, competitors, regulators, communities and even society at large. The corporate scandals that took place in the beginning of the century, such as the ones of Enron and WorldCom, casted doubt on the traditional “shareholder theory”, which claimed that managers’ primary duty is to maximize return for shareholders (Friedman, 1962). Additionally, the rise of globalization, technology development and increasing societal awareness concerning the impact of businesses’ activities in the environment surrounding them have also introduced very significant changes (Freeman et al., 2010). In this context, new perspectives of value creation emerged and the concept of CSR as the relationship between businesses and society was developed in numerous theories.

Garriga and Melé (2004) provide a useful systematization of the main CSR theories and theories with significant CSR implications. Through the identification of four critical dimensions in each CSR theory – “profits, political performance, social demands and ethical values” -, this paper categorizes CSR theories and associated approaches into four major groups (Garriga and Melé, 2004):

1. Instrumental theories: the organization is seen as an instrument for shareholder wealth creation and social activities are a means to achieve the purpose of maximization of economic profit. In addition to the traditional shareholder value theories (Friedman, 1962; Jensen, 2000), theories of CSR as a source of competitive advantage (Porter and Kramer, 2002) and CSR as an efficient marketing tool (Prahalad and Hammond, 2002) are also included in this group.
2. Political theories: there is an inherent responsibility to the power of businesses in society. Davis (1960) claims that businesses are socially responsible in the exact measure of their social power, Donaldson and Dunfee (1994) argue for the existence of a social contract between businesses and society, and Wood and Lodgson (2002) introduce the concept of “Corporate Citizenship”, the business as a citizen.

3. Integrative theories: the organization looks to address social demands in order to increase legitimacy and prestige, as it recognizes that its continuity and growth depend on society. A wide range of theories are found in this group, varying significantly in terms of what the academics consider sufficient to ensure a company's commitment to its social responsibility. From just taking compliance with the law as the reference for social responsibility (Preston and Post, 1975), theory evolved towards considering that it is necessary for a company to respond to pressing social issues that may have a powerful impact on said company (Sethi, 1975), considering that a company must look for social legitimacy (Carroll, 1979), or considering that the company must balance the interests of its different stakeholders (Mitchell et al., 1997).
4. Ethical theories: companies have ethical responsibilities, and must focus on the “right thing to do”, contributing to the construction of a better society. In addition to the sustainability concept (Gladwin and Kennelly, 1995) and the idea of “common good” (Alford and Naughton, 2002), the idea of considering the fiduciary duties of the company towards its stakeholders (Freeman, 1984) – the normative stakeholder theory – was developed.

The normative stakeholder theory (hereinafter referred to as “stakeholder theory”) is of particular importance for our analysis. Although commonly classified as a CSR theory (Garriga and Melé, 2004), the normative stakeholder theory is, in fact, a theory for value creation with important consequences in terms of companies' social responsibilities (Freeman, 1984; Freeman et al., 2010). Freeman introduced this theory in 1984 with a broad definition of the concept of “stakeholder”: “A stakeholder in an organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization's objectives” (Freeman, 1984). Taking the relationship of the business with its stakeholders as a unit of analysis, the stakeholder theory suggests that the manager's duty is to manage these relationships in a way that creates and distributes as much value as possible to the entire set of stakeholders (Freeman, 1984; Parmar et al., 2010). Shareholders are, therefore, seen as one of the stakeholders of the company whose interests have to be balanced with the interests of the remaining stakeholders (Smith, 2003). Interpreted as a theory about how businesses work and should work at its best (Freeman et al., 2010), the stakeholder theory focuses on framing business problems by describing stakeholders' relationships and looks for solutions that “create as much value as possible” (Freeman et al., 2010).

A comprehensive view of the multiple agents that are affected and affect a company's activities leads to realizing that the stakeholder theory has motivated significant changes in the various

fields of management, economics and finance, particularly concerning corporate social reporting and non-financial disclosure (Parmar et al., 2010). By applying the stakeholder theory reasoning to the specific decisions of corporate reporting, Harrison and Laan Smith (2015) argued in the paper “Responsible Accounting for Stakeholders” that “non-financial stakeholder groups that contribute significant resources to the corporation are as worthy of receiving reliable information (on a regular basis) that will help them to mitigate their risks (residual and otherwise) as are those stakeholder groups that supply financial capital to the firm”. Companies should, therefore, increase and improve the disclosure of financial and non-financial information in order to provide information to stakeholder groups – shareholders and non-financial stakeholders – that commit significant amounts of resources to the fulfillment of the company’s activities, as a result of a fiduciary duty towards all (and not only financial) stakeholders (Harrison and Laan Smith, 2015). It is in this context that some scholars proposed a new rationale of “value-creation stakeholder accounting” which introduces a transdisciplinary theory of accounting that aims to promote greater stakeholder inclusion through stakeholder-focused accounting disclosures based on the concept of risk sharing among stakeholders (Mitchell et al., 2015).

Corporate Social Responsibility reports are an example of the efforts organizations make to become more accountable to a wider range of stakeholders. Evidence shows that companies have been increasing their CSR-related disclosures (Arvidsson, 2011). Nevertheless, many scholars argue that these non-financial reports are of limited value to a decision-making process that is effectively focused on stakeholders (Mitchell et al., 2015; Harrison and Laan Smith, 2015), given the lack of credibility, the hidden agenda of issuers (Harrison and Laan Smith, 2015), and problems in the underlying mechanisms supporting such disclosure (Mitchell et al., 2015).

Further efforts related to the social statement were made in the area of social reporting. Introduced in French law in 1997 as the “*bilan social*”, the social statement was also expanded to other European countries, such as Portugal and Belgium, and it requires companies with a large number of employees (more than 300 in France, or 100 in Portugal) to disclose information concerning their relationship with employees such as wages, workplace and safety conditions, hierarchical structure and industrial relations (Beaujolin and Capron, 2005). Despite being a standardized mandatory framework for the disclosure of social performance indicators, the relevance of the social statement is considered to be limited as it only considers the company’s interaction with one particular stakeholder (the employees) and it is not used by

companies as an effective tool for social dialogue or social decision making (Beaujolin and Capron, 2005).

Businesses are no longer seen as pure pursuers of short-term shareholder's return, as the relationships they establish with other agents affect the overall organization's performance (Freeman, 1984; Freeman et al., 2010). The impact of corporate activities in the network of stakeholders surrounding them is becoming increasingly important. Consequently, disclosure of non-financial information related to social issues is of primordial importance, and the reported rise of CSR reports (Arvidsson, 2011) may not be enough in a period when concepts like "value-creation stakeholder accounting" (Mitchell et al., 2015) begin to surface.

2.2. Environment

One other significant concern that has been growing in today's business context is the impact of economic activity in the natural environment. Scientists from different fields have found evidence that human activities severely and negatively impact, sometimes irreversibly, the survival and equilibrium of the natural ecosystems (Schaltegger and Burritt, 2005). The major environmental issues have been identified and include the greenhouse effect, the destruction of the ozone layer, the reduction of biodiversity, as well as the desertification and acidification of soil and water (Schaltegger and Burritt, 2005). Concern with these issues has inevitably changed the way managers and corporations across all industries run their everyday businesses and formulate their strategies.

There are many different reasons that motivate managers to address environmental concerns when running a business. Based on Schaltegger and Burritt (2005) and the "Guidelines on non-financial reporting: Supplement on reporting climate-related information" of the European Commission (2019), one may summarize the reasons for the inclusion of environmental factors in management's decisions into three main vectors:

1. Legal compliance: Percival et al. (2013) remarked that the broad public support of "sustainable development", which is defined as "the desire to ensure that present and future generations enjoy the benefits of both a prosperous economy and a healthy environment" (Percival et al., 2013), drove profound changes in legislation since the late 1960's. Countries have approved more demanding national environmental regulation and enforced it more rigorously, pressuring businesses to improve their activities in terms of environmental impact. This is a change that also occurred at the European and International levels – EU's energy and climate 2030 targets are a good example of that (European Commission, 2019).

Porter (1991) goes a step further and suggests that stricter environmental regulation can enhance competitiveness against foreign rivals, providing an important economic reason for companies to engage in environmental efforts.

2. Economic and strategic reasons: negligent or inappropriate handling of environmental matters may have a very negative impact on any business' overall performance and reputation. Exxon's oil spills in March 1989 in Alaska provide a very powerful example of that: the oil company suffered from aggressive stock markets reactions, which, together with cleaning costs and judicial claims, amounted to more than \$US 15 billion (Schaltegger and Burritt, 2005). The reputational damages may also be very significant, as a company with a reputation of damaging the environment may have more difficulty in retaining customers, suppliers and employees (European Commission, 2019). Although some scholars claim that voluntary adoption of corporate environmental protection goes against the core business objective of generating and increasing economic profit (Friedman, 1962), there is evidence that confirms the existence of economic incentives (such as higher reputation benefits, reduction of business risk and ability to increase margins by selling at a higher price) that encourage the implementation of voluntary environmental-friendly activities (Klassen and McLaughlin, 1996). Moreover, firms that engage more actively in environmental activities are considered to be better adapted to potential shifts in markets, technologies or regulation towards more demanding eco-friendly preferences (Porter, 1991; Schaltegger and Burritt, 2005; European Commission, 2019).
3. Access to finance: investors are becoming increasingly aware and more demanding in terms of the environmental impact of their investments, which is confirmed by the growing popularity of the concept of "Green Finance". Although there is no commonly accepted definition of this concept (Lindenberg, 2014), "Green Finance" can be described as "a broad term that can refer to financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable economy" (Höhne et al., 2013). Evidence of the importance of this new concept is emerging. For instance, using data from a sample of publicly traded companies across 41 countries, Dyck et al. (2019) provided evidence of a growing pressure from institutional investors for better environmental performance. Although the social norms and demands of investors' home countries were found to influence this mechanism, institutional investors began to recognize environmental performance as a real source of value for companies.

The increasing importance of environmental performance has been translated into a more pressing need for appropriate disclosure of companies' environmental efforts, which strengthens the relevance of disclosure and interpretation of non-financial information. This is proven by the increasing number of companies publishing environmental sustainability reports on a regular basis. According to the US-based Governance & Accountability Institute, 86% of the companies listed in the S&P 500 Index published sustainability or corporate responsibility reports in 2018 (G&A Institute, 2019).

In conclusion, both literature and the current business environment reflect a rising tendency towards a deeper and more rigorous disclosure of non-financial information concerning environmental matters. Taking "Green Finance" as a leading example, investors and multiple stakeholders are demanding a more transparent and comprehensive disclosure of information that allows a better understanding of the full impact of companies' activities on their surrounding natural environment.

2.3. Governance

The separation of ownership and control has been a concern for economists since Adam Smith (1776). This separation is intrinsically related to a principal-agent relationship between managers and shareholders. The managers, acting on behalf of shareholders, are key agents whose decisions significantly affect the wealth of shareholders as the principal (Jensen and Meckling, 1976). However, they do not substantially benefit from the wealth effects of their decisions (Fama and Jensen, 1983). This is the root of the conflict of interest between the principal and the agent. Managers have more and better information regarding the company and their own efforts than external investors and can take actions that may harm shareholders (Tirole, 2001). Examples of such actions include empire building, diversion of corporate funds for managers' personal benefit, under-commitment to effective managerial efforts, and entrenchment by excessive or insufficient risk taking (Tirole, 2001).

It is in this context that the concept of Corporate Governance emerges. Corporate Governance can be described as the set of mechanisms that are adopted in order to protect outside investors from expropriation by inside managers (La Porta et al., 2000; Tirole, 2001). More specifically, it can be defined as "the set of structures of authority and internal and external supervision of the exercise of said authority with the purpose of ensuring that the company establishes and materializes, effectively and efficiently, contractual activities and relations consistent with the

private purposes for which the company was created and the social responsibilities that underlie its existence” (Santos Silva et al., 2006).

Corporate scandals such as Enron, WorldCom and Parmalat in the early 2000’s have reinforced the need for effective Corporate Governance mechanisms that improve the quality and transparency of the governance of corporations. Such need is confirmed by the increasing complexity of economic and legal relationships in the marketplace. Factors such as the growth of large corporate groups and the increasing complexity of intra- and inter-company transactions, the growing pressure for socially and environmentally responsible actions from multiple stakeholders, and the need to generate adequate performance and shareholder’s return while meeting the expectations of a broad set of stakeholders, reinforce the need for the implementation of effective and organization-wide Corporate Governance mechanisms that ensure an adequate response to the needs of the company’s stakeholders in terms of performance, transparency, sustainability and social responsibility (Jordan et al., 2015).

As a result, both practitioners and scholars have increasingly turned their attention to Corporate Governance issues. The Organization for Economic Cooperation and Development (OECD) has developed, in coordination with the G20 group, the G20/OECD Principles of Corporate Governance which aim to assist policy makers to “evaluate and improve the legal, regulatory, and institutional framework for Corporate Governance, with a view to supporting economic efficiency, sustainable growth and financial stability” (OECD, 2015). These principles serve as an international benchmark of Corporate Governance for policy makers, investors and corporations, and are used as a key standard in reports from institutions such as the Financial Stability Board (FSB) and the World Bank.

Corporate Governance Codes have also been developed as best practices that can be voluntarily adopted by companies in a “comply or explain” basis: the company adopts the recommendations and discloses such adoption, and it is said to be “compliant”, or, in case of non-compliance, explains why it does not adopt such practices. In Portugal, the Portuguese Institute of Corporate Governance (IPCG) has approved, in 2012, a “Corporate Governance Code” which provides guidelines that, both on a national and international level, are considered as good governance. Although most companies are free to choose to comply with these guidelines, the Corporate Governance Code is legally binding for companies whose securities are publicly traded (IPCG, 2018).

Given the rising importance of governance issues for companies and their stakeholders, Corporate Governance has become a critical topic of disclosure and one of the three most relevant sources of non-financial information (together with environmental and social issues). The disclosure of Management Reports alongside with Financial Statements is a sign of this shift towards increasing disclosure of governance-related issues which are of non-financial nature.

The G20/OECD Principles of Corporate Governance also recognize the importance of disclosure and transparency in its Chapter V (OECD, 2015). Describing the concept of “materiality” as “information whose omission or misstatement could influence the economic decisions taken by users of information” (OECD, 2015), these Principles defend the disclosure of financial and non-financial material information regarding topics such as corporate objectives, ownership structure, board structure and remuneration, employee policies, and governance structure and policies. The United Nations Conference on Trade and Development (UNCTAD) provided further guidance on the Corporate Governance items that companies should disclose by publishing an extensive specific set of disclosures in “Guidance on Good Practices in Corporate Governance Disclosure” (UNCTAD, 2006). These guidelines were subsequently updated in posterior publications from UNCTAD. The last revision is dated of 2011 (UNCTAD, 2011).

As a result, following a general trend of growing concern upon Corporate Governance and higher transparency, companies are being demanded a broader disclosure of non-financial information regarding their internal systems, structures and governance in order to satisfy more rigorous concerns about management’s alignment with shareholders’ goals.

2.4. Concluding remarks on the importance of non-financial measures of performance

Scholars have advocated that financial measures of performance must be complemented with non-financial indicators and provided evidence that there are advantages associated with doing so. This tendency was fueled by rising CSR-related concerns that shaped the trend towards increasing non-financial reporting. More specifically, looking deeper into the different dimensions of CSR, one could classify dimensions of corporate performance not included in accounting reports into three major vectors: Environmental, Social and Governance (ESG). Increasingly demanding social awareness and pressure concerning the impacts of companies’ activities in the environment and in its multiple stakeholders – particularly shareholders – determined the emergence of non-financial measures of performance as means of increasing

companies' transparency and accountability. Growing CSR-related communication and reports reflect this trend. Nevertheless, some doubt is casted on the real value of this information, as some scholars argue that current non-financial reporting provides limited value to a decision-making process that is effectively focused on stakeholders.

3. Advances in Business Environment and Regulatory Framework

The growing importance of non-financial measures of performance introduced significant changes in the business environment – it led to more demanding standards and market expectations, innovative reports, as well as new regulatory demands concerning non-financial reporting. This section explores some examples of these developments.

3.1. Non-financial reporting standards, Integrated Reporting and ESG ratings

The appearance of reporting standards applicable to the disclosure of non-financial information is a powerful example of the growing importance of this trend. One of the leading examples in this context is provided by the Global Reporting Initiative (GRI), an international non-governmental organization that promotes and supports sustainability reporting (GRI, 2016). Founded in 1997, GRI issues the GRI Sustainability Reporting Standards which aim at harmonizing companies' reporting of economic (GRI 200 standards), environmental (GRI 300 standards) and social performance (GRI 400 standards) (GRI, 2016). As mentioned in the standards, "sustainability reporting based on the GRI Standards should provide a balanced and reasonable representation of an organization's positive and negative contributions towards the goal of sustainable development" across the economic, environmental and social dimensions (GRI, 2016). This initiative promotes a higher level of transparency, accountability and comparability in terms of organizations' impact in society, contributing to better stakeholder engagement.

Furthermore, Integrated Reporting (IR) appeared as one of the most relevant innovations concerning stakeholder-focused corporate reporting. Defined by the International Integrated Reporting Council (IIRC) as "a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term" (IIRC, 2013), Integrated Reporting provides a comprehensive view of a company's performance along numerous dimensions, of both financial and non-financial nature (IIRC, 2013). IR integrates information concerning six different types of capital ("financial", "manufactured", "intellectual", "human", "social and

relationship”, and “natural” capitals) into a single report, providing a holistic view of the businesses’ capacity to generate value to the large variety of its stakeholders (IIRC, 2013).

Finally, some institutions, such as Bloomberg, Thomson Reuters (TR) and Morgan Stanley Capital International (MSCI), started developing and issuing ratings that evaluate companies’ performance along the three ESG dimensions. These ESG ratings are the result of increasingly pressing demand from companies’ multiple stakeholders, in particular investors, concerning companies’ social and environmental impact, as well as governance structures (Tarmuji et al., 2016). SustainAbility’s 2020 “Rate the Raters” report confirms the growing importance of ESG ratings among investors. According to this report, the interviewed investors evaluate ESG ratings as the most useful source of information on companies’ ESG performance (ahead of CSR reports and direct contact with companies), and report increasingly using ESG reports in their decisions (SustainAbility, 2020).

3.2. Regulatory response

The rising academic trend favoring disclosure of non-financial performance measures was followed by an increasing pressure from lawmakers for corporate disclosure of such information, particularly in the areas of environmental and social performance, as well as governance (ESG). Ever more concerned by companies’ impact on their economic, social and natural environment, governments and regulators aimed at encouraging the development of a responsible approach to business by increasing the demands on corporate disclosures concerning these issues. One of the most evident examples is known as the Non-Financial Reporting Directive (Directive 2014/95/EU). This Directive amended Directive 2013/34/EU by introducing a new article which includes an obligation for companies with more than 500 employees to report on the company’s implemented policies concerning “as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters” (Directive 2014/95/EU). Directive 2014/95/EU specifies five specific interconnected thematic aspects about which companies must disclose information on: (i) description of business model; (ii) description of implemented policies and due diligence processes addressing social and environmental issues; (iii) description of the outcomes of such policies; (iv) description of the principal risks related to social and environmental issues that result from the company’s operations; and (v) description of non-financial KPIs relevant for the company’s activities (article 1 of Directive 2014/95/EU).

Although the Non-Financial Reporting Directive does not require companies to follow any mandatory standard, it does establish, in its article 2, an obligation for the European Commission to prepare and publish non-binding guidelines that would assist companies in preparing the disclosure of non-financial information. In 2017, the European Commission published its “Guidelines on non-financial reporting (methodology for reporting non-financial information)” which shine additional light on the key principles of disclosing non-financial information: information should be materially relevant, “fair, balanced and understandable”, “comprehensive but concise”, “strategic and forward-looking”, “stakeholder oriented”, and “consistent and coherent” (European Commission, 2017).

From these principles, the concept of materiality is particularly relevant as it introduces an innovative idea that broadens the scope of corporate disclosure. Article 1 of the Non-Financial Reporting Directive uses the materiality concept in order to determine whether a company is required to disclose information regarding environmental, social and employment matters. The information must be disclosed if it is relevant “for an understanding of the undertaking's development, performance, position and impact of its activity” (Article 19a of Directive 2013/34/EU, introduced by Directive 2014/95/EU). With this criterion, the Non-Financial Reporting Directive introduced a “double materiality perspective” (European Commission, 2019). On one hand, the financial materiality concept, widely used in financial statements and of great interest to investors, is kept, as all the information affecting the value of the company needs to be disclosed; on the other hand, a new “environmental and social materiality” concept is introduced in order to ensure the disclosure of all information needed to understand the external impacts of a company’s operations (European Commission, 2019). The set of primary users of this information is, therefore, extended from investors to consumers, citizens, employees, suppliers and other stakeholders.

Finally, Directive 2014/95/EU clarifies the role of statutory auditors as that of only checking whether non-financial statements have been provided; no imposition is set concerning the material audit of the disclosed non-financial information by the auditor.

Following the Non-Financial Reporting Directive and the non-binding guidelines issued in 2017, the European Commission decided, in 2019, to publish further non-mandatory guidance on climate-related information by means of its “Guidelines on non-financial reporting: Supplement on reporting climate-related information” (European Commission, 2019). In this

document, the disclosure of climate-related non-financial information is justified by the new concept of “double materiality” introduced in the Non-Financial Reporting Directive.

Countries outside the European Union, such as the United States of America (U.S.A.), have also adopted non-financial reporting requirements, although in a more limited scale. In the case of the U.S.A., for example, some regulations, such as the Sarbanes-Oxley Act from the United States Congress (2002), mandated the SEC to provide specific mandatory provisions for corporate disclosure. In accordance, eleven provisions are currently related to non-financial information disclosure (The Reporting Exchange, 2017).

The rising importance of non-financial indicators is confirmed and accompanied by changes in the business and regulatory environment. More demanding stakeholders’ expectations motivated the implementation of new standards for non-financial reporting and ESG ratings. Furthermore, governments and regulators are also becoming more demanding in terms of broadening the scope of corporate reporting outside the traditional scope of financial information, thus promoting significant changes in regulation.

III. Non-Financial Reporting in the Banking Sector

1. Analysis of the Banking Sector

This study provides an analysis of corporate non-financial disclosure in the specific context of the European banking industry. Although banks are not the focus, but the context, of the research, this section provides a brief overview of the sector in order to frame the main issues concerning this sector of activity.

1.1. The economic function of banks

Banks play an important economic role in the current economic system. According to Greenbaum et al. (1994), the basis of financial markets lies in the relationships between three main entities: (i) the users of capital (individuals and businesses that need capital to pursue their activities); (ii) the sources of capital (investors that have a surplus of capital which they intend to invest in order to generate a return); and (iii) financial intermediaries (banks and other institutions that facilitate the flow of capital from the sources to the users of capital). In this context, the existence of financial intermediaries is explained by three key informational problems between sources and users of capital: (i) adverse selection (the borrower knows more than the investor about its own quality and creditworthiness, meaning that investors may find it difficult to separate good from bad borrowers); (ii) duplicated screening (each investor evaluating the borrowers to whom it could provide capital would be significantly more costly than having only a single intermediary evaluating all borrowers); and (iii) moral hazard (once the loan is provided, the borrower has more information regarding the actual use that is being given to the money than the investor, and effective monitoring is needed) (Greenbaum et al., 1994). Acting as information “brokers”, financial intermediaries tackle these informational problems by gathering and organizing information about multiple borrowers and developing specific skills for selecting and monitoring borrowers (Greenbaum et al. 1994).

Greenbaum et al. (1994) proposes a distinction among financial intermediaries: depositary and non-depositary financial intermediaries. Depositary financial intermediaries include commercial banks and correspond to institutions that are financed at least partially with deposits; non-depositary financial intermediaries include investment banks and are not financed with deposits (Greenbaum et al., 1994). Consequently, in this context, and for the purpose of this thesis, one shall use the term “commercial banks” in a broader sense, standing for institutions that receive deposits and provide loans to both the general public (which

corresponds to retail banking) and businesses. Investment banks are defined as intermediaries that specialize in providing various financial services, such as advising in corporate mergers and acquisitions and financial capital (debt and equity) instruments issues, without taking deposits (Greenbaum et al., 1994). This distinction between commercial and investment banks fades when introducing the concept of “universal banks”, institutions which develop simultaneously commercial and investment banking activities (Greenbaum et al., 1994). This thesis analyses both commercial and universal banks.

Commercial banking is a unique sector. Connected to the entire economic system by means of financial products, such as loans and deposits, commercial banks play a critical role in the stability of the entire system (Freixas, 2010). When a bank fails and goes bankrupt, the entire economy is affected and governments are frequently required to intervene, particularly if the bank’s size turn it into a “too big to fail” institution (Freixas, 2010). This happened in 2008 when a severe financial crisis hit world economies. Since then, significant changes in banks’ regulations and management practices were enforced (Grosse, 2012).

1.2. The global financial crisis of 2008 and its profound impact in the banking industry

From an economic point of view, there is a generalized perspective that the 2008 global financial crisis was primarily motivated by excessive risk taking by financial institutions and insufficient capital cushions to face unexpected losses (Anginer et al., 2019). The mechanism that motivated such behavior is associated with a serious Corporate Governance problem in pre-crisis banking: following a general belief that troubled banks would be rescued by governments, managers had incentives to take excessive risks in order to generate higher short-term returns and, ultimately, receive higher bonuses (Freixas, 2010; Caprio et al., 2014). The upside was significant and the downside, from a managerial perspective, was reduced. As a result, mechanisms such as less rigid lending standards, over-complexified structured instruments and imprecise credit ratings allowed banks to take excessive risks without setting aside appropriate capital cushions (Anginer et al., 2019). At the same time, significant weaknesses in banking supervision and market discipline (this last is seen as the ability of market participants, such as investors, to closely control and influence the bank’s situation), removed critical “external checks” that could help preventing excessive risk-taking behaviors (Anginer et al., 2019). Consequently, in the period that followed the 2008 crisis, researchers and regulators reinforced the need for more rigorous regulatory and supervisory frameworks,

driving the development of new standards that introduced significant changes in the sector (Freixas, 2010; Benczur et al., 2017).

At the global level, the Basel Committee on Banking Supervision introduced a revised Basel III framework with more demanding capital, solvency, liquidity and supervisory requirements (Basel Committee on Banking Supervision, 2011). While in the U.S.A. the Dodd–Frank Wall Street Reform and Consumer Protection Act was introduced, the European Union introduced three major reforms (Benczur et al., 2017): (i) the Capital Requirements Regulation and Directive (Directive 2013/36/EU), which transposed the Basel III agreement into EU legislation; (ii) the Bank Recovery and Resolution Directive (BRRD) (Directive 2014/59/EU) which set rules and instruments for banks’ resolutions in case of default; and (iii) the Single Resolution Mechanism Regulation (Regulation No. 806/2014) which, together with the Single Supervisory Mechanism (Regulation No. 1024/2013) introduced in 2013, enforced the concept of banking union, transferring banking supervision from the national to the European level for all Member States in the euro area.

1.3. Current ESG issues in banking

The banking crisis introduced the need for a more rigorous regulatory framework for banks, turning banking into one of the most heavily regulated industries all over the world (Suresh and Paul, 2010). Such pressures have also been traduced into higher transparency demands across all aspects of banks’ performance, and ESG issues were no exception.

1.3.1. Social

The issue of social responsibility is particularly important for the banking industry, as its activities affect a large number of agents across the entire economic system: the stakeholder network of banks includes borrowers, depositors, shareholders and investors, managers, employees, as well as governments and regulators (Lentner et al., 2015). As a result, many authors have claimed that financial institutions, in particular banks, have a “special social responsibility” which stems directly from their role as intermediaries of capital between savers and borrowers and the socio-economic consequences of this activity (Chiu, 2014). Banks’ capital allocation decisions play a decisive role in the supply of credit in the economy, separating the projects that are being financed from the ones that are not. This has a decisive impact on the creation and distribution of economic wealth (Merton and Bodie, 1995). Furthermore, the access to financial services can also be facilitated by more accessible means

of payment (World Economic Forum, 2018). Aware of these concerns, society has observed the development of the concept of “inclusive finance”, which expands the access to credit and other financial products to poorer and more vulnerable populations through instruments such as the microcredit, low-income banking and reduction of barriers to bank credit access (Chiu, 2014).

1.3.2. Environmental

The “Guidelines on non-financial reporting: Supplement on reporting climate-related information” of the European Commission (2019) contain a specific annex for the banking industry. With this specific guidance towards banks, the non-binding guidelines highlight the importance of measuring banks’ environmental impact not only in terms of their direct activities, but also in terms of the environmental impact that the projects they choose to finance have. This is also the underlying rationale of the Equator Principles.

The Equator Principles are an important environmental and social risk management framework voluntarily applied at a global scale to specific financial products of large dimension (The Equator Principles, 2019). Applicable not only by banks, but by all financial industry sectors, the Equator Principles propose specific reporting requirements for both the financial institution and the client whose project is being financed, in addition to providing a framework for the assessment and application of environmental and social standards together with mechanisms for effective monitoring (The Equator Principles, 2019). The financial institution is required to report on its website, at least on an annual basis, data regarding the total number of financial transactions covered by the Equator Principles which were closed during the reporting period, broken down by financial product type, sector and region (The Equator Principles, 2019). Additionally, the financial institution is also required to report on the implementation of the Equator Principles, specifically on the mandate and role of the Equator Principles reviewers as well as on the adaptation of credit and risk management procedures to the recommendations of the Equator Principles (The Equator Principles, 2019). The financial institution is also encouraged to disclose, on a voluntary basis and subject to clients’ consent, further details on the transactions, such as the project name and the host country (The Equator Principles, 2019). Concerning the clients, they are required to disclose a summary of the project’s environmental and climate change impacts assessment, together with the projected greenhouse gases emissions and project-specific biodiversity data (The Equator Principles, 2019).

1.3.3. Governance

The global financial crisis highlighted the importance of effective Corporate Governance mechanisms for banks. The Basel Committee published specific Corporate Governance principles that banks should observe (Basel Committee on Banking Supervision, 2015). Principle 12 regulates the disclosure of governance issues: paragraph 153 of the principles establishes a minimum set of information that banks are required to disclose on an annual basis, and paragraph 154 provides that the disclosure and transparency section of the G20/OECD principles of Corporate Governance are to be applied (OECD, 2015). Moreover, at the European level, the European Commission also reinforced the need for better governance and additional transparency in the banking sector by means of the new Capital Requirements Directive (Directive 2013/36/EU). In addition to introducing new rules to improve risk management and guarantee effective oversight by the bank's management bodies, article 74 of the Capital Requirements Directive established that the European Banking Authority (EBA) must develop guidelines in order to harmonize banks' internal governance mechanisms. These guidelines were published in 2017 as the EBA's "Guidelines on Internal Governance" (EBA, 2017).

EBA's mandatory guidelines shine light on the disclosure of non-financial information related to Corporate Governance for banks. Building on article 106 of the Capital Requirements Directive, which requires banks to publish information concerning their legal and governance structure on an annual basis, EBA adds nine new topics that banks must disclose in these annual publications: (i) overview of the bank's internal organization; (ii) description of material changes in governance mechanisms since previous publications; (iii) depiction of new internal, legal or governance structures; (iv) description of structures' composition and members; (v) disclosure of the responsibilities of the management body; (vi) description of the supervisory committees of the management body; (vii) description of the conflict of interest policy; (viii) overview of the internal control framework; and (ix) overview of the framework for business continuity management (EBA, 2017).

1.4. Remarks on the choice of the banking industry

The purpose of this thesis is to analyze and discuss the disclosure and quality of disclosure of non-financial information in the context of a specific sector of activity. The banking sector presents itself of particular interest to this purpose.

Firstly, banks are highly regulated institutions, not only in terms of their core “financial” activity, but also in other domains, many of a “non-financial” nature, such as Corporate Governance (e.g. regulation from the Basel Committee and the European Banking Authority). Considering this high regulatory burden, as well as the strong general public and mediatic attention banks enjoy since the last global financial crisis, one could argue that reporting and, in particular, non-financial reporting by banks is (or, at least, should be) in the spotlight comparing with reporting in other economic sectors. Understanding the actual disclosure and quality of disclosure of non-financial information in the banking sector presents a valuable opportunity for the analysis, as comparison among different banks’ reporting practices allows to identify the extent to which certain banking institutions go beyond (or not) already demanding mandatory requirements in terms of ESG reporting.

Additionally, stronger and more specific regulation at the global level (Basel III) increases comparability across different banks regardless of their location, which facilitates the analysis and comparison of non-financial disclosure across different institutions. This effect is even stronger when restricting the analysis to the European banking union, where regulation is set at the European level and supervision is centralized in the European Central Bank.

Furthermore, even where there is no specific regulation, there are standards, such as The Equator Principles, which propose “good practice” reporting policies in areas such as social and environmental responsibility. The existence of these higher standards stems from the fact that banks’ multiple stakeholders are particularly demanding in terms of ESG-related issues. Based on the argument for “value-creation stakeholder accounting” (Mitchell et al., 2015), it becomes clear that non-financial reporting, particularly in the areas of environmental and social impact, as well as Corporate Governance, is of utmost importance for the banking industry, given the significant number, variety and interest of stakeholders.

This argument introduces an additional layer that justifies the interest of the banking industry for an analysis of non-financial reporting, as ESG issues are important for banks in a dual-perspective. There is a growing view (reflected, for example, in The Equator Principles) that banks’ social and environmental impact depends not only on their direct activities, but also on the activities of the borrowers to whom they supply capital. Following the idea of a “special social responsibility” (Chiu, 2014), when assessing their ESG performance, banks need to consider not only the direct impact of their activities, but also the governance systems, social and environmental performance of their clients.

This effect of “special responsibility” is further amplified by the overwhelming size of some banks, whose balance sheets depict assets worth billions of euros (Suresh and Paul, 2010), together with the special economic role they have. As already mentioned, banks are connected to virtually all economic sectors and play a critical role in the overall stability of the system. Problems of underperformance in banking, whether of financial or non-financial nature, are not only relevant to banks’ more immediate stakeholders, but to society as a whole.

As a result, banking is a valuable industry for the analysis of the disclosure of non-financial information. Strong regulation enhances comparability between banks, turning the banking sector into one of the leading industries in terms of non-financial disclosure and leaving room to assess the extent to which some institutions’ reporting goes beyond the existing mandatory requirements. Moreover, banks’ broad stakeholder network and unparalleled systemic effect in the economy reinforce the need for a more transparent disclosure of information, particularly in terms of ESG performance.

2. Data Collection and Research Methodology

This section describes the data sources and methodology used in this study, as well as the rationale for their choice.

2.1. Data collection

This study uses as sources of information publicly available annual reports, non-financial reports, sustainability reports, Corporate Governance reports, directors’ remuneration reports, as well as other investors’ reports and information disclosed in the websites of the banks selected for the analysis. Additionally, for the choice of the banks to be analyzed, the list of supervised banks was retrieved from the European Central Bank’s website, the MSCI ESG ratings were obtained from MSCI’s webpage, and Thomson Reuters ESG scores and banks’ financial information were extracted from Thomson Reuters Eikon (TRE) and banks’ annual reports.

2.2. Research methodology

The present study analyses the disclosure of non-financial information by ten European banks along the three ESG dimensions in three years (2007, 2016 and 2019). For this purpose, each dimension is analyzed on a reported or non-reported basis using standards representing the current best practice in the market in terms of environmental, social and governance reporting.

More specifically, environmental disclosure is assessed using the European Commission's "Guidelines on non-financial reporting: Supplement on reporting climate-related information" (European Commission, 2019), social disclosure is evaluated through the Global Reporting Initiative (GRI) standards for social responsibility (GRI 400) (GRI, 2016), and Corporate Governance disclosure is evaluated using United Nations' Conference on Trade and Development's (UNCTAD) 2011 revision of "Guidance on Good Practices in Corporate Governance Disclosure" (UNCTAD, 2006; UNCTAD, 2011). Minor adaptations to the standards were applied in order to improve their applicability to the banking industry (Tables 1,2 and 3 of Exhibit A of the Appendix list the disclosures analyzed). These standards were applied for each of the ten banks using two classifications: reported and not-reported. A total of 5,324 reported/not-reported observations were collected concerning the ten banks on the three selected years (more than 1,750 observations per year were obtained, and these were divided, per bank, into 64 disclosures for environmental issues, 63 disclosures for social issues, and 51 disclosures for Corporate Governance issues).

The assessment of disclosures according to a reported/not reported classification was made through a strict evaluation of whether the content established on the standards was disclosed by the analyzed bank. In case of quantitative disclosures, a reported classification was only attributed if the bank reported the specific measure(s) that the standard refers. Concerning qualitative disclosures, a subjective assessment was made of whether the reported information provides the necessary information for a clear, precise and complete understanding of the issue described in the standard. The mere report of key words related to the assessed issue without providing the necessary information to understand concrete organizational policies, decisions, or performance concerning the analyzed matter was classified as not reported.

2.2.1. Criteria for the selection of ESG standards

The standards used for the assessment of banks' non-financial disclosures were chosen because they are considered to reflect the current best practices in the market concerning ESG reporting. With members from 66 countries and 35 industries (GRI, 2020), the Global Reporting Initiative (GRI) standards can be considered to reflect these best practices – as such, GRI's social standards were used to assess banks' social disclosures. Nevertheless, given that many of the selected banks in the sample use the GRI standards to guide their non-financial reporting, which could potentially bias the results, different references were used for governance and environmental issues. Using the most recently revised guidance on Corporate Governance

disclosures from UNCTAD for the former and the European Commission's 2019 guidelines on climate-related information reporting for the latter, this analysis uses standards that are universally applicable to all companies (not only banks) on a voluntary basis, providing a methodology that can be further extended to a larger sample of banks or any other company.

2.2.2. Criteria for the selection of years

This thesis provides a comprehensive analysis of the evolution and current practices of non-financial reporting along ESG dimensions in a sample of ten selected banks. In addition to the most recent financial year for which there is publicly available information, 2019, two additional years, 2007 and 2016, were studied in order to analyze the evolution of non-financial reporting practices. Both years are of significant relevance for the analysis: the first signs of the global financial crisis were identified in 2007 and in 2016 important European regulations concerning non-financial reporting, namely the Non-Financial Reporting Directive (Directive 2014/95/EU), had already entered into force but had not taken effect yet, as the obligations set in its Article 1 were only to apply to all undertakings as of 1 January 2017 (according to article 4, number 1). Consequently, the three selected years are included in very distinct periods concerning non-financial reporting: in 2007, companies' reporting practices were not yet impacted by the global financial crisis, as only its first signs were being observed; in 2016, a long period of time had elapsed since the global financial crisis, and new relevant regulation in the European Union demanding stronger non-financial disclosure was already into force but had not taken effect yet, which means that companies, although not yet subject to a mandatory standard of reporting, were already preparing in order to be compliant in 2017; and, in 2019, the current landscape, these regulations had already taken effect.

2.2.3. Criteria for the selection of banks

The present study analyses the disclosure of non-financial information by ten European banks. For that purpose, and in order to ensure comparability among banks in terms of their regulatory and supervisory requirements, the ECB's list of supervised entities (ECB, 2019) was considered as the universe of potential banks for analysis. From a list of 119 significant supervised entities (ECB, 2019), the selection of the ten banks for analysis was based on the cumulative application of three criteria, by order: ESG ratings, geographic location, and relevance of the bank for the national market. A more detailed analysis of the three criteria follows.

2.2.3.1. ESG ratings

The first criteria used to select banks was sorting them according to ESG ratings. As previously discussed, there is an increasing number of institutions providing an assessment of companies' ESG practices by means of ESG ratings. For the purpose of this study, two of the most widely used ESG ratings (SustainAbility, 2020) were analyzed: Morgan Stanley Capital International (MSCI) ESG ratings and Thomson Reuters (TR) ESG Scores.

MSCI ESG ratings categorize ESG issues into 10 broad themes (such as Climate Change, Human Capital, and Corporate Behaviour), which are further divided into 37 ESG key specific issues (such as Carbon Emissions, Employees' Health and Safety, Board Diversity) (MSCI, 2019). These specific issues are assigned different weights according to their importance and are the basis for the construction of the ESG rating, whose scale is presented in Table 1 (MSCI, 2019). A similar methodology is followed by Thomson Reuters in the ESG scores, which also divides ESG issues into 10 major categories (such as Resource Use, Product Responsibility and CSR Strategy) (Thomson Reuters, 2017). These categories are assessed according to 70 Key Performance Indicators, which are assigned different weights according to their perceived importance (Thomson Reuters, 2017). Based on this framework, a TR ESG Score is automatically generated respecting the scale depicted in Table 1 (Thomson Reuters, 2017).

| MSCI ESG Rating | TR ESG Score |
|-----------------|--------------|
| AAA | A+ |
| AA | A |
| | A- |
| A | B+ |
| | B |
| BBB | B- |
| | C+ |
| BB | C |
| | C- |
| B | D+ |
| | D |
| CCC | D- |

Table 1: ESG Ratings Scales. Equivalence between ratings based on reported percentiles. Sources: MSCI, 2019; Thomson Reuters, 2017.

While screening the 119 significant credit institutions directly supervised by the ECB (ECB, 2019), it was found that 24 banks presented MSCI ESG ratings. All the banks in this sample also presented TR ESG Scores. Table 2 summarizes the most recent ratings for each institution.

| Country | Bank | MSCI ESG Rating | TR ESG Score |
|-----------------|---|-----------------|--------------|
| Belgium | KBC Groep N.V. | AAA | B+ |
| Germany | Commerzbank AG | A | B+ |
| Germany | Deutsche Bank AG | BBB | A |
| Ireland | AIB Group plc | A | B |
| Ireland | Bank of Ireland Group plc | BB | B- |
| Greece | Alpha Bank AE | A | B+ |
| Greece | Eurobank Ergasias S.A. | BB | B+ |
| Greece | National Bank of Greece S.A. | BBB | B- |
| Spain | Banco Bilbao Vizcaya Argentaria, S.A. | AAA | A |
| Spain | Banco de Sabadell, S.A. | A | B |
| Spain | Banco Santander, S.A. | BBB | A |
| Spain | Bankinter, S.A. | A | A- |
| Spain | CaixaBank, S.A. | A | A- |
| France | BNP Paribas S.A. | A | A+ |
| France | Crédit Agricole S.A. | A | B |
| France | Société Générale S.A. | AA | A |
| Italy | Intesa Sanpaolo S.p.A. | AAA | A- |
| Italy | Mediobanca - Banca di Credito Finanziario S.p.A | BB | B |
| Italy | UniCredit S.p.A. | BBB | A- |
| The Netherlands | ABN AMRO Group N.V. | A | B+ |
| The Netherlands | ING Groep N.V. | A | B+ |
| Austria | Erste Group Bank AG | AA | A- |
| Austria | Raiffeisen Bank International AG | BBB | B+ |
| Finland | Nordea Bank Abp | BBB | B |

Table 2: Summary of the most recent ESG ratings for significant entities directly supervised by the ECB. Sources: MSCI; Thomson Reuters Eikon.

The results presented in Table 2 provide evidence that is coherent with the previous assumption that banking is presumably among the leading sectors concerning non-financial reporting: from the 24 banks supervised by the ECB that presented ESG ratings, the lowest ratings were BB (in MSCI scale) and B- (in TR scale), which are significantly above the worst rating classes provided by both agencies.

A significant discrepancy among both ratings can be identified, which is a sign of the lack of consensus when evaluating a company's ESG performance. Consequently, a criterion is needed in order to decide on the most appropriate method to sort banks according to their ESG ratings.

Following the "Rate the Raters 2020" report from SustainAbility, there is a generalized consensus among both experts and investors that MSCI ESG rating is significantly superior to TR ESG score in terms of usefulness and quality (SustainAbility, 2020). In fact, TR ESG score is classified as one of the worst among the universe of analyzed ratings in both criteria (SustainAbility, 2020). As a result, this study will only consider MSCI ESG ratings for the analysis.

The aim of using ESG ratings for the choice of the banks for analysis is to ensure that the sample of banks is diversified in terms of ESG performance quality. This method intends to capture different levels of ESG performance quality and, presumably, different levels of non-financial disclosure. As only MSCI ESG ratings are used, the sample of banks should include a minimum of five banks with different ESG ratings – AAA, AA, A, BBB and BB – and a bank without rating. The following criteria will decide which banks to consider for each rating class.

2.2.3.2. Geographic location

Once different ESG performances are taken into consideration, the geographic location criterion was applied. In order to ensure a balanced and broad geographical distribution of the analyzed banks, avoiding any potential nationality bias that could arise if several banks from the same country were considered, the second criteria applied to screen banks was to ensure that the selected banks were headquartered in six different European countries. More specifically, the selected countries were: Germany, France, Spain, Italy, Ireland and Portugal. The first four countries were chosen in order to ensure a balanced representativeness of the most relevant economies in the Eurozone: Germany, France, Spain and Italy are the largest Eurozone economies, measured by the Gross Domestic Product (GDP) in 2019 (OECD, 2020). Following this argument, two banks from each country were included for analysis. Ireland is the country with the highest GDP in 2019 (OECD, 2020) among the four European countries that were subject to a joint intervention from the International Monetary Fund (IMF), the European Commission and the ECB in the sequence of the global financial crisis of 2008 (Ireland, Greece, Portugal and Cyprus). Such interventions implied significant banks' bailouts and restructuration, and Ireland is often pointed as one of the success cases (Schoenmaker, 2015). Furthermore, Ireland is also of interest to enrich the geographical scope of the study

given the close geographical, economic and social ties with the United Kingdom (PA Consulting Group, 2013), the second largest economy in Europe, measured by 2019's GDP (OECD, 2020). Finally, the choice of Portugal intended to extend the scope of the research to the country of origin of the researcher and one of the research institutions.

Combining these two criteria, it was already possible to identify two banks for analysis. Firstly, the French bank Société Générale was the only institution belonging to the list of selected countries with a rating of AA. Secondly, the Germans Deutsche Bank and Commerzbank, ranked at BBB and A, respectively, were the only two German banks presenting MSCI ESG ratings.

2.2.3.3. Relevance for the national market

After considering the two previous criteria, the third and last decision criterion is related to the bank's relevance for its national market. Following the argument of ensuring a broader representativeness of the European banking sector by including a set of banks from different countries, the last criterion aims to ensure that banks that are more relevant in their national market (as measured by banks' total assets in 2019) are included in the study. The underlying assumption is the reasoning behind the European Directive 2014/95/EU on non-financial reporting, which implicitly suggests that larger companies are expected to present better non-financial reporting.

As a result, this criterion was relevant when deciding among three Spanish banks with rating A (CaixaBank was the largest bank, when compared to Banco de Sabadell and Bankinter). Additionally, this criterion was also useful in the choice of the Spanish Banco Santander (the largest Spanish bank), the Italian UniCredit (the largest bank in Italy), and the Portuguese Caixa Geral de Depósitos (the largest bank in Portugal, which is fully owned by the Portuguese government).

After applying cumulatively this three-level set of criteria, the final sample of banks is presented in Table 3 (below). All three rules of decision were respected. The ESG ratings and geographic diversity were the primary decision drivers, and national market relevance was applied on a secondary basis whenever the first two rules did not provide a single solution. The distribution of banks per rating class according to the MSCI ESG rating (ratings A and BBB are the ones which show a higher number of banks) is also consistent with the rating distribution for the banking industry reported by MSCI: 30% of banks analyzed by MSCI have a rating of A, while 25% of them is rated BBB (MSCI, 2019). Moreover, including banks with significant

differences in the size and types of assets allows to potentially capture the differences in the disclosure of non-financial information according to these dimensions. As a result, the sample of banks is diversified in terms of ESG ratings, countries and bank size (measured in total assets).

| Country | Bank | MSCI ESG Rating | Total Assets (EUR Million) |
|----------|--------------------------------|-----------------|----------------------------|
| Italy | Intesa Sanpaolo S.p.A. | AAA | 816,102 |
| France | Société Générale S.A. | AA | 1,356,303 |
| France | BNP Paribas S.A. | A | 2,164,713 |
| Germany | Commerzbank AG | A | 462,000 |
| Spain | CaixaBank, S.A. | A | 391,414 |
| Spain | Banco Santander, S.A. | BBB | 1,522,695 |
| Germany | Deutsche Bank AG | BBB | 1,297,674 |
| Italy | UniCredit S.p.A. | BBB | 855,647 |
| Ireland | Bank of Ireland Group plc | BB | 131,883 |
| Portugal | Caixa Geral de Depósitos, S.A. | - | 91,645 |

Table 3: Selected sample of banks. Country of origin, MSCI ESG rating and total assets (in 2019) are also included. Sources: MSCI; banks' annual reports.

The sample of selected banks was analyzed according to the referred methodology, and the results of this analysis are presented in the following section.

3. Banks' Non-Financial Disclosure: Presentation of Findings

This section presents in detail the results of the analysis of non-financial reporting practices from the ten selected banks. Section 3.1. analyses the current reporting practices and section 3.2. expands the study to the evolution of non-financial disclosure in 2007 and 2016.

3.1. Banks' non-financial disclosure in 2019

A detailed analysis of the annual reports disclosed by selected banks in the year of 2019 was complemented by the study of reports and other company documents made publicly available in banks' websites, allowing a comprehensive understanding of their non-financial reporting practices according to the defined set of ESG criteria. This section presents the most relevant findings of this analysis.

3.1.1. Variability of reporting practices

Banks disclose non-financial information in different ways. Although all banks in the sample disclose some non-financial indicators in the annual report, the extent to which they resort to additional reports to complement such disclosure varies significantly.

As shown in Table 4, the sample is equally divided between banks that disclose all non-financial information relevant in terms of the selected ESG standards in a single document that also contains financial information (the annual report) and banks that use separate reports (such as documents on remuneration policies, Corporate Governance and human resources reports) to make such disclosures.

| Bank | ESG relevant information | | Discloses a separate concise Integrated Report | Structures the non-financial report according to GRI |
|--------------------------|--------------------------|---------------------------------|--|--|
| | In a single report | Dispersed among various reports | | |
| Intesa Sanpaolo | | X | | X |
| Société Générale | X | | X | |
| BNP Paribas | X | | X | X |
| Commerzbank | | X | | X |
| CaixaBank | | X | | X |
| Banco Santander | X | | | X |
| Deutsche Bank | | X | | X |
| UniCredit | | X | X | X |
| Bank of Ireland | X | | | |
| Caixa Geral de Depósitos | X | | | X |

Table 4: Descriptive analysis of the documents supporting banks' non-financial reporting in 2019. Source: own elaboration.

Banks that disclose all relevant information in the annual report may also disclose additional information through separate non-financial reports. Examples of that are Société Générale and BNP Paribas, that disclose a concise Integrated Report on overall performance (in line with the recommendations for a concise document from IIRC, 2013) in addition to a widely comprehensive annual report where all relevant information is included.

The results in Table 4 also provide evidence that the GRI standards were adopted by a relevant number of banks in the sample. Although the majority of analyzed banks uses these standards to structure their non-financial reports, these findings have to be considered cautiously as the

substantial information that is actually reported significantly varies. In spite of addressing the topics identified in the GRI standards, banks commonly provide broad descriptions of their intentions in such areas, dodging from reporting specific quantifiable measures and KPIs predicted in the standards. This justifies a more detailed analysis of the specific disclosures concerning non-financial performance, in particular, ESG-related issues, which is provided in the following sections.

3.1.2. Analysis of disclosure along ESG dimensions

The banks of the selected sample were analyzed along the three ESG dimensions using adaptations to the already mentioned best practices standards. Tables 1,2 and 3 of Exhibit A of the Appendix present the list of disclosures that were studied concerning environmental, social and Corporate Governance issues, respectively.

A total of 178 disclosures were analyzed for each bank and were divided into 64 disclosures for environmental issues, 63 disclosures for social issues, and 51 disclosures for Corporate Governance issues. Concerning the Portuguese bank Caixa Geral de Depósitos, a total of 176 disclosures were analyzed since two of the disclosures concerning Corporate Governance (disclosure of the existence of differential voting rights or similar instruments, and disclosure of mechanisms for protection of minority interests) were not applicable, as the bank is fully owned by the Portuguese government. As a result, a total of 1,778 disclosures were analyzed on a reported/not-reported basis for the year of 2019.

Based on reported/not reported observations, reporting scores were computed as the ratio between the number of disclosures that were found to be reported and the total number of analyzed disclosures (the number of disclosures is reported in Tables 1 to 3 of Exhibit B of the Appendix).

Figures 1, 2 and 3 (below) depict the results concerning the reporting scores for each of the banks concerning disclosure on environmental, social and governance issues, respectively.

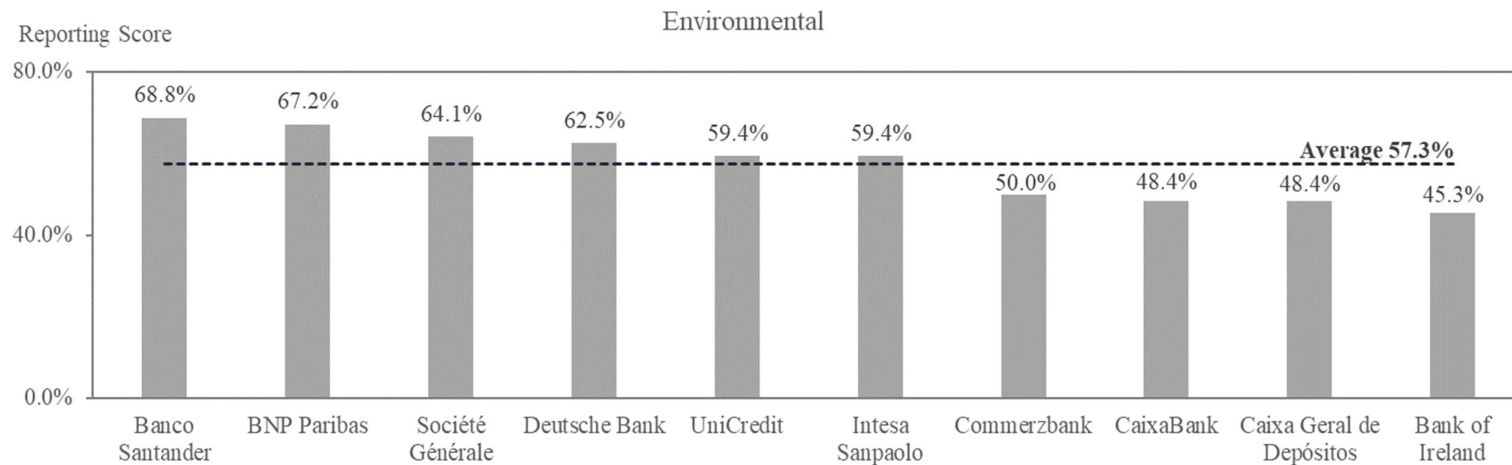


Figure 1: Reporting scores of the selected banks concerning environmental issues in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

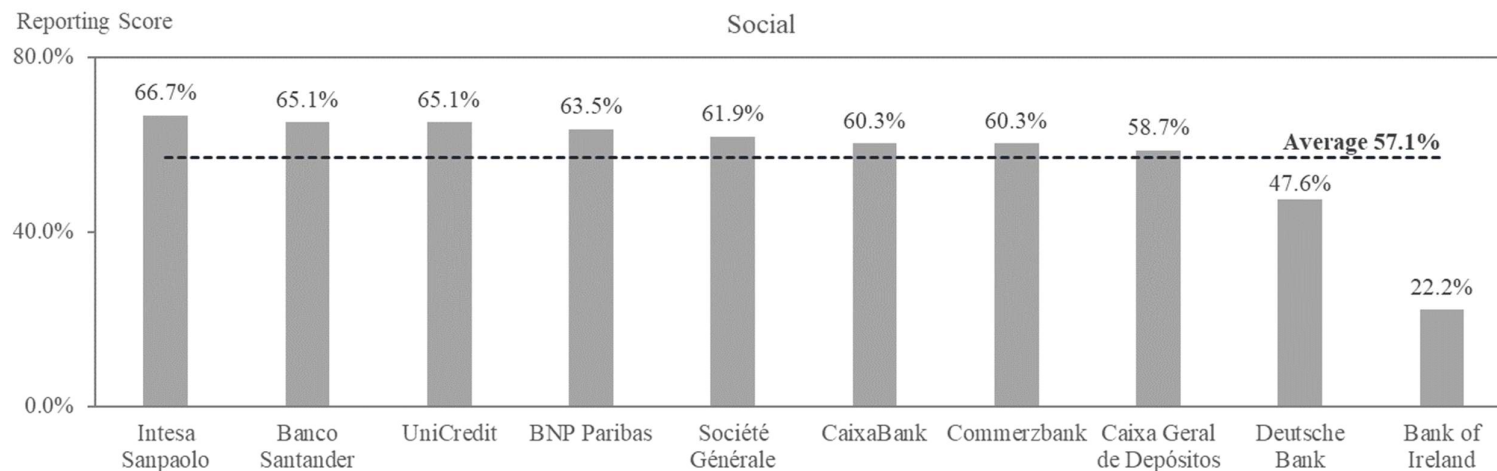


Figure 2: Reporting scores of the selected banks concerning social issues in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

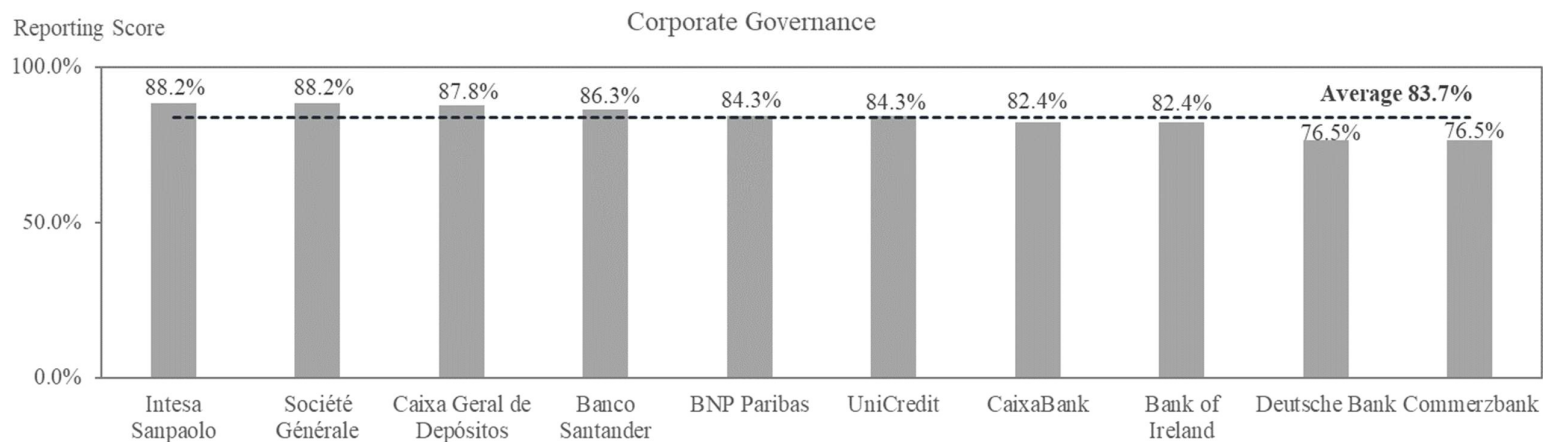


Figure 3: Reporting scores of the selected banks concerning Corporate Governance issues in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

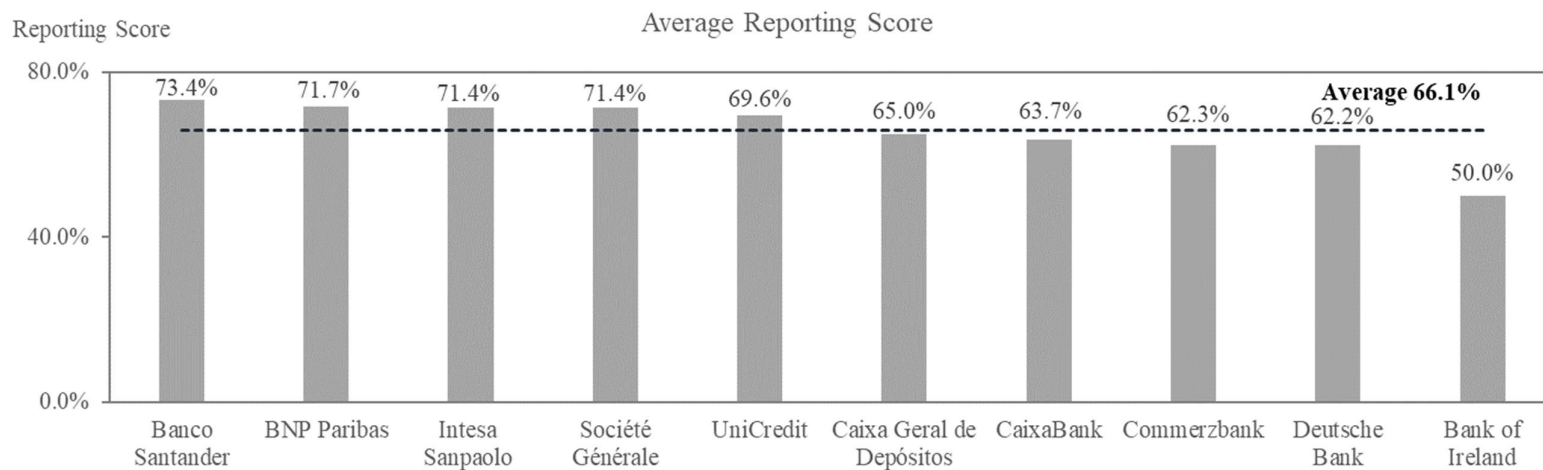


Figure 4: Average reporting scores of the selected banks along the three ESG dimensions in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

The comparative analysis of the figures illustrates that the quality of reporting of the ten selected banks varies significantly across the three ESG dimensions. Corporate Governance is found to be the dimension which banks report more coherently with best practices standards, with an average reporting score of 83.7%. Environmental issues set forth in the guidelines are significantly less reported, with an average reporting score of 57.3%. The maximum reporting score of environmental issues (Banco Santander with 68.8%) is substantially below the minimum reporting score for governance issues (Deutsche Bank and Commerzbank, both with 76.5%). Social presents very similar results to environmental, with an average reporting score of 57.1%. However, the social dimension presents the lowest maximum (Intesa Sanpaolo with 66.7%) and minimum scores (Bank of Ireland with 22.2%).

| Reporting Score | Environmental | Social | Governance |
|------------------------|----------------------|---------------|-------------------|
| Average | 57.3% | 57.1% | 83.7% |
| Standard Deviation | 8.6% | 13.4% | 4.4% |
| Maximum | 68.8% | 66.7% | 88.2% |
| Minimum | 45.3% | 22.2% | 76.5% |
| Range | 23.4 p.p. | 44.4 p.p. | 11.8 p.p. |

Table 5: Descriptive statistics of reporting scores for each ESG dimension in 2019. Range was computed as the difference (in percentage points) between the maximum and minimum scores. Source: own elaboration.

There is a heterogeneity of reporting practices among banks within each of the ESG dimensions, and such heterogeneity is different across dimensions. Analyzing the standard deviation and range of the reporting scores in each of the ESG dimensions (displayed in Table 5), the selected banks report more homogeneously Corporate Governance issues (lower standard deviation and range) and present more differences among each other when reporting social issues (higher standard deviation and range).

Figure 4 summarizes each bank’s three different reporting scores by using a simple average to generate a basic aggregate measure of ESG-related non-financial reporting. The average of banks’ average reporting scores is 66.1% – Banco Santander is the bank with the highest average reporting score (73.4%) and Bank of Ireland is the bank with the lowest average reporting score (50.0%). A more detailed individual analysis of each bank’s reporting practices (which is depicted in greater detail in Figures 1 to 10 of Exhibit B of the Appendix) provides additional insight on the reporting practices of ESG issues among the selected banks.

Banco Santander is the bank with the highest average reporting score (73.4%). When considering the three dimensions individually, Banco Santander is also a leader in terms of the reporting score in environmental (with 68.8%, it is the bank with the highest score) and social (with 65.1%, it is the bank with the second best score) dimensions, and it is also above the average score in Corporate Governance (86.3%).

After Banco Santander, BNP Paribas presents the second highest average reporting score (71.7%). It is above the average score among banks in all three ESG dimensions: 67.2% in environmental, 63.5% in social, and 84.3% in governance issues. Intesa Sanpaolo is the third most relevant bank in terms of average reporting score, with an average of 71.4%. Despite being the leader in Corporate Governance and social issues (reporting scores of 88.2% and 66.7%, respectively), this bank loses its leadership in overall terms due to a lower reporting score concerning environmental issues (59.4%, which is only slightly above the interbank average for environmental reporting). Société Générale presents an average reporting score (71.4%) equal to Intesa Sanpaolo, and is above the average score among banks in all ESG dimensions (64.1% in environmental, 61.9% in social, and 88.2% in governance issues). UniCredit is the bank that follows in terms of average reporting score (69.6%), displaying reporting scores that are above the average among banks across all three ESG dimensions, although the score is significantly above the interbank average only in the social dimension (59.4% in environmental, 65.1% in social, and 84.3% in governance).

When analyzing Caixa Geral de Depósitos, the bank that follows in terms of average reporting score, a significant difference is found comparing to the group of five banks already discussed. While the previous five banks (Banco Santander, BNP Paribas, Intesa Sanpaolo, Société Générale and UniCredit) present average reporting scores that are close to each other (the difference between the average scores of Banco Santander and UniCredit is only 3.8 p.p.) and all sit above the interbank average, the group of banks with an average reporting score below the interbank average is more heterogeneous. This group is composed by Caixa Geral de Depósitos, CaixaBank, Commerzbank, Deutsche Bank and Bank of Ireland. The first four banks of this group present average reporting scores that are close to each other, and Bank of Ireland is the laggard in terms of average reporting score.

Starting with Caixa Geral de Depósitos, whose average reporting score (65.0%) is close to the interbank mean, this bank presents above-average reporting scores in social and governance issues (58.7% and 87.8%, respectively), but a reporting score concerning environmental issues

that is below average (48.4%). CaixaBank, with an average reporting score of 63.7%, also presents an above-average social reporting score (60.3%), but both the governance and environmental scores (82.4% and 48.4%, respectively) are below average. The German banks, Commerzbank and Deutsche Bank, present average reporting scores that are very close to each other (62.3% and 62.2%, respectively). With the same reporting scores concerning Corporate Governance (76.5%), these banks only differ in terms of reporting practices in environmental (Deutsche Bank presents a higher score, with 62.5%, than Commerzbank, with 50.0%) and social issues (Commerzbank is above its German peer, with 60.3%, as Deutsche Bank presents a score of 47.6%).

Concerning the laggard, Bank of Ireland is below average in all three ESG dimensions. The lowest reporting score is in the social dimension (22.2%) and deserves particular mention, as it is, by far, the lowest reporting score that was found in 2019. In this case, although social commitment initiatives and concerns were reported, the majority of social-related policies and specific measures relevant for the analysis were not disclosed, resulting in a disclosure of social issues that lacked critical quantifiable performance measures and targets.

The individual analysis of banks' reporting practices indicates that each bank presents different levels of consistency with the used standards along the different dimensions. Although the disclosure in Corporate Governance issues presents the highest reporting score among the three ESG dimensions for all banks, concerning the other two dimensions there is no concluding evidence whether banks, at an individual level, provide more standard-coherent environmental or social non-financial information. Half of the banks present a higher reporting score in environmental than in social issues, while the opposite is true for the remaining half.

Furthermore, although environmental and social issues present very close interbank average reporting scores (57.3% and 57.1%, respectively), some banks, such as Bank of Ireland, Deutsche Bank, Caixa Geral de Depósitos, CaixaBank, and Commerzbank, have substantially different reporting scores concerning environmental and social issues, which further confirms the variability of reporting practices in the context of the selected sample of banks.

These findings show that the sample of selected banks is still in partial compliance with ESG reporting best-practice standards, particularly in the areas of environmental and social performance. There is a significant variability of reporting practices across banks, and each bank, at an individual level, reports differently each ESG dimension.

3.2. Evolution of banks' non-financial disclosure: evidence from 2007 and 2016

As previously mentioned, a growing body of literature has been supporting the importance of the development and disclosure of non-financial measures of performance. In order to assess the extent to which this academic trend has been accompanied by a real evolution in practice in the context of the selected sample of banks, this section analyzes the evolution of the disclosure by comparing the current reporting practices to the disclosures of these banks in two past years with contrastingly different economic contexts.

3.2.1. Variability of reporting practices

As already described in the analysis of 2019's disclosures, the documents (as well as their contents and structures) used by banks to disclose their policies and performance concerning ESG-related issues vary significantly. The years of 2007 and 2016 also present significant variability of reporting practices among banks.

Nevertheless, evidence for a general tendency of including all relevant information, both financial and non-financial, in a single report (the annual report) can be found, particularly when comparing the reporting landscape of 2019 with the ones of 2007 and 2016. While in 2007 and 2016 the vast majority of banks disclosed separate sustainability or CSR reports (8 out of 10 banks in 2007, and 9 out of 10 banks in 2016) and only a few integrated all information in a single document (2 out of 10 banks in 2007 and 1 out of 10 banks in 2016), this seems to be no longer the case in 2019, when half of the analyzed banks (5 out of 10) disclosed all relevant information, financial and non-financial, in a single report, and the remaining half continued disclosing non-financial reports separately from their annual reports.

Moreover, a general tendency of evolution of non-financial report from a qualitative to a more quantitative approach can be identified, particularly concerning social and environmental issues. In 2007, banks reported non-financial information concerning environmental and social issues in a predominantly qualitative manner, with little or no quantitative indicators supporting their reports. All analyzed banks reported in words their commitment towards environmental and social issues, but only very few provided any type of quantifiable evidence that could allow stakeholders to assess the actual targets, policies or performance attained in these matters. In 2019, the weight of quantitative environmental and social information is much more significant, with all banks disclosing some kind of quantitative indicators and targets concerning environmental and social issues. Qualitative descriptions of policies and commitments continue

being disclosed, but are now complemented with quantitative indicators (such as Green House Emissions, in tons of CO₂, or percentage of female to male workforce divided by hierarchical category) depicted in tables and graphics that facilitate stakeholders' understanding of corporate performance in these issues.

3.2.2. Analysis of the evolution of disclosure along ESG dimensions

The study of ESG-related reporting in the years of 2007 and 2016 was performed by following the same methodology applied to the financial year of 2019. Analyzing a total of 178 disclosures per bank (64 environmental, 63 social and 51 governance disclosures), with the already mentioned exception of Caixa Geral de Depósitos (which was analyzed on 176 disclosures due to a fully State-owned shareholder structure), a total of 1,778 disclosures were verified on a reported/not-reported basis in 2016. In 2007, the number of analyzed disclosures per bank was 177 (175 for Caixa Geral de Depósitos), since the environmental disclosure concerning green bonds was not applicable in that year (as it was only in 2008 that the first green bond was issued by the World Bank), dropping the number of environment-related observations in 2007 to 63 per bank, and total number of observations for 2007 to 1,768. Given that CaixaBank was only founded under this name in 2011, the reports from Criteria CaixaCorp. (the bank from which CaixaBank was created) were considered for the year of 2007¹. Taking into consideration the three analyzed years (2007, 2016 and 2019), a total of 5,324 reported/not-reported observations were collected.

Summarizing the observations reported in tables 1 to 6 of Exhibit C of the Appendix, Figures 5, 6 and 7 depict the evolution of the reporting scores per bank in the three analyzed years concerning environmental, social, and governance issues, respectively. Analyzing the three figures simultaneously, it becomes clear that there was a significant improvement of non-financial disclosure throughout time in all three ESG dimensions. The social disclosure of Deutsche Bank is the sole exception to the general increasing tendency in reporting scores (Deutsche Bank's social reporting score decreased from 36.5% in 2007 to 31.7% in 2016), as all banks present consistent increases in reporting scores throughout the years in all three ESG dimensions. Figure 8 confirms this evolution by presenting a growing trend in the average reporting score of the three ESG dimensions.

¹ In the analysis of Criteria CaixaCorp.'s reporting practices for the year of 2007, Criteria CaixaCorp. is referred to as CaixaBank for the sake of the study.

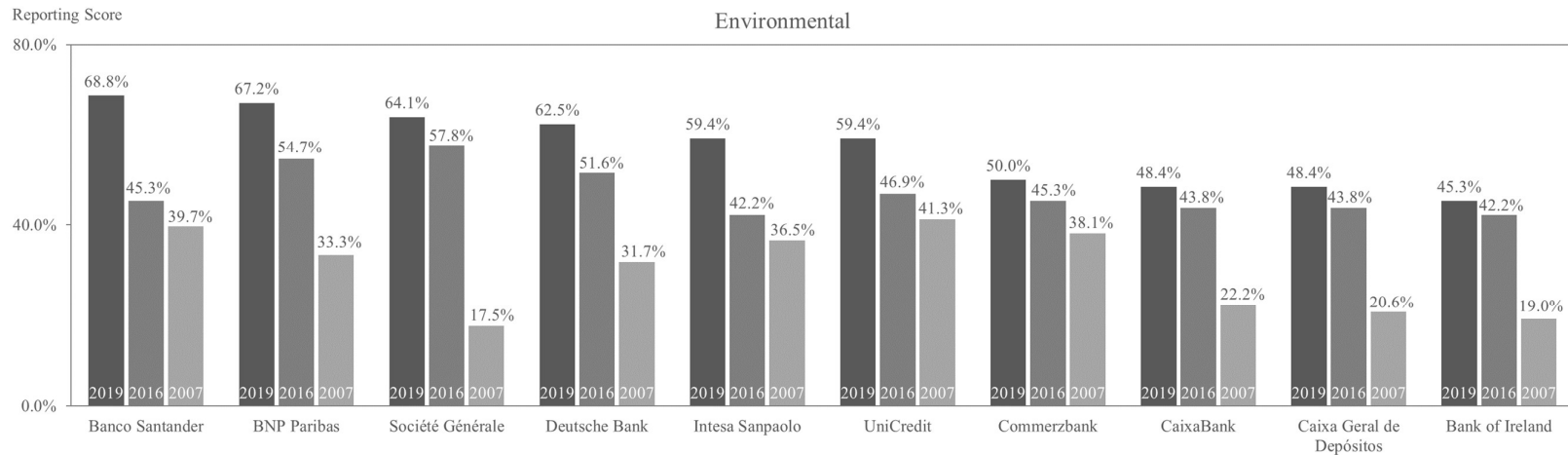


Figure 5: Evolution of reporting scores of the sample banks concerning environmental issues in 2019, 2016 and 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

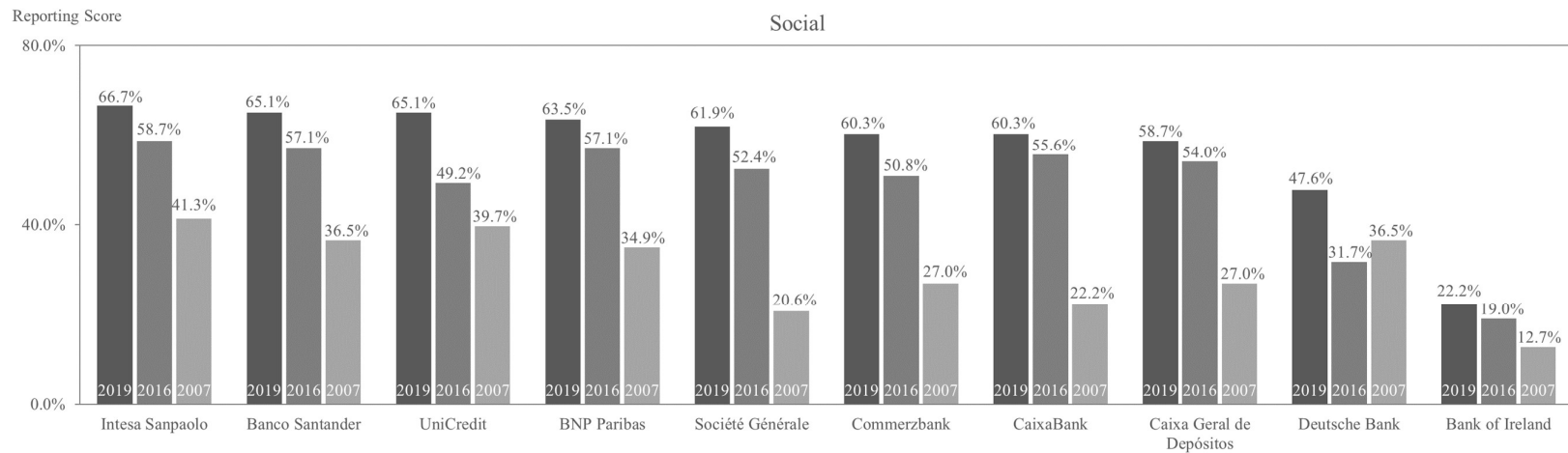


Figure 6: Evolution of reporting scores of the sample banks concerning social issues in 2019, 2016 and 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

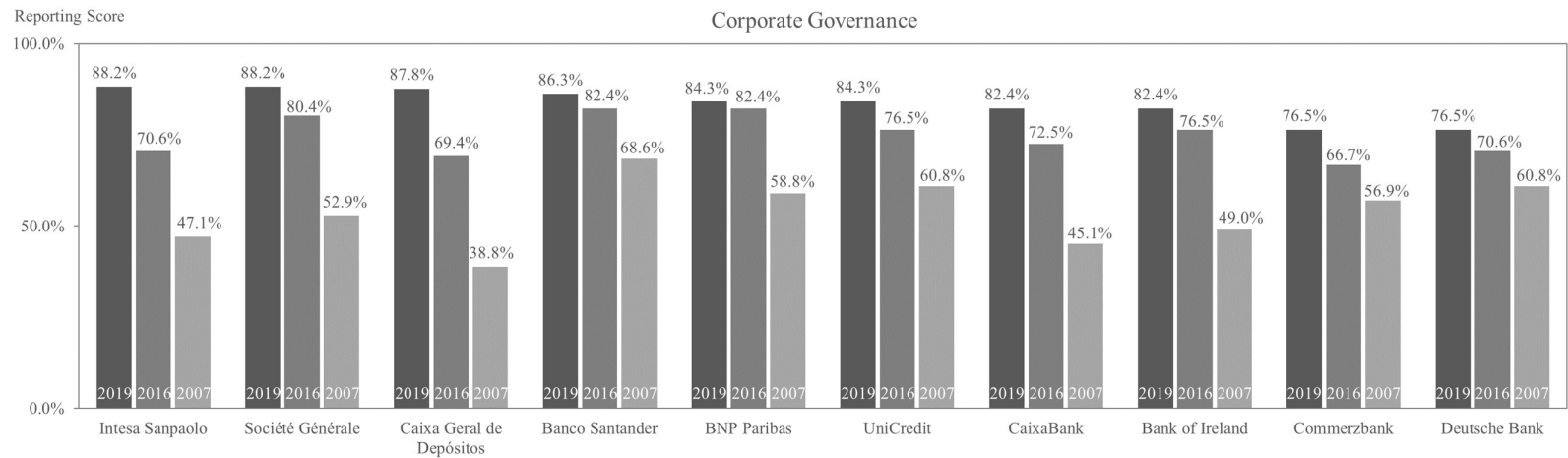


Figure 7: Evolution of reporting scores of the sample banks concerning Corporate Governance issues in 2019, 2016 and 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

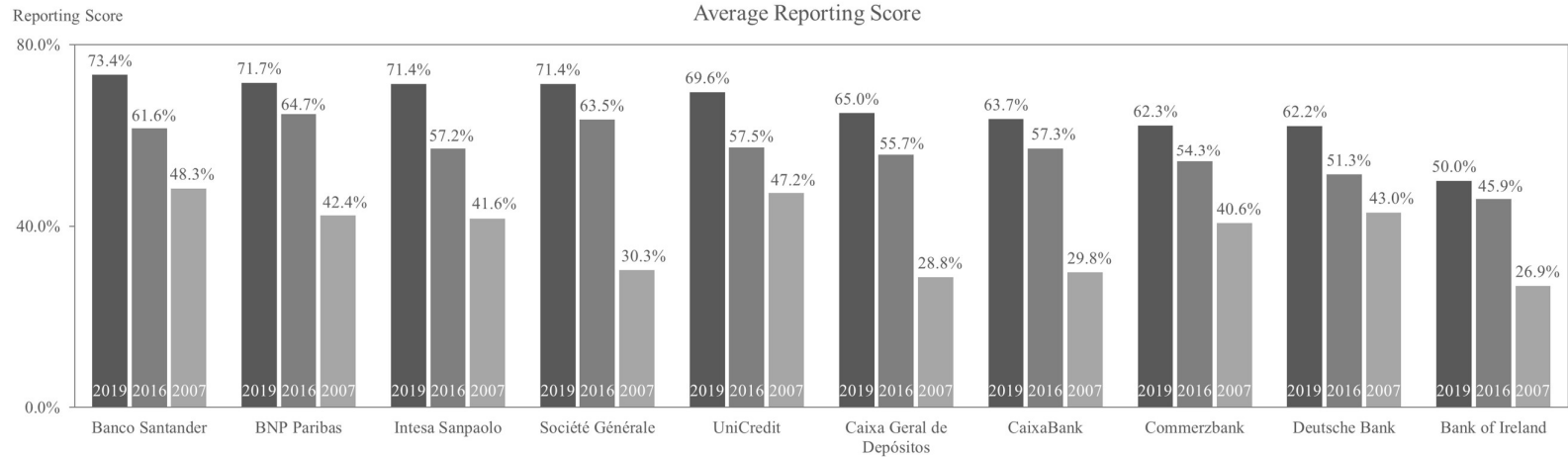


Figure 8: Evolution of average reporting scores of the sample banks in 2019, 2016 and 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

The analysis of the evolution of reporting scores concerning environmental issues shows that reporting practices have evolved differently across the sample of selected banks. Observing the evolution of the reporting scores concerning environmental issues (which can be found in greater detail in Table 7 of Exhibit C of the Appendix), two different tendencies can be found among the selected banks. On one hand, Banco Santander, Intesa Sanpaolo and UniCredit presented a larger increase in the reporting scores (both in percentage points and percentage) between 2016 and 2019 than between 2007 and 2016. On the other hand, the opposite is true for the remaining seven banks – the environmental reporting score improved more between 2007 and 2016 for BNP Paribas, Société Générale, Deutsche Bank, Commerzbank, CaixaBank, Caixa Geral de Depósitos and Bank of Ireland. Société Générale was the bank with the largest variation (in percentage points) in the reporting score along the analyzed years, and the sharpest variation was observed between 2007 and 2016 (40.4 p.p.). In this period, Société Générale went from being the bank with the lowest environmental reporting score (17.5% in 2007) to the institution with the largest reporting score (57.8%) in 2016. On the opposite, Commerzbank was the bank whose reporting score concerning environmental issues varied less (in percentage points) in the analyzed period (11.9 p.p. between 2007 and 2019), as it went from being among the leaders in 2007 (third largest reporting score, with 38.1%) to being aligned with the interbank average score in 2016 (with 45.3%), and below the interbank average in 2019 (Commerzbank's 2019 environmental reporting score is 50.0%).

Extending this analysis to the disclosure of social issues (further detail can be found in Table 8 of Exhibit C of the Appendix), some differences are found comparing to environmental reporting, as only two banks (UniCredit and Deutsche Bank) experienced a sharper improvement of their reporting scores between 2016 and 2019 than between 2007 and 2016 (as mentioned, Deutsche Bank is an exception, as its social reporting score decreased between 2007 and 2016). The remaining eight banks (Intesa Sanpaolo, Banco Santander, BNP Paribas, Société Générale, Commerzbank, CaixaBank, Caixa Geral de Depósitos, and Bank of Ireland) presented sharper variations of their reporting scores concerning social issues in the period between 2007 and 2016. Société Générale continues to be the bank with the largest variation (in percentage points) in the reporting score, going from the bank with the second lowest reporting score in 2007 (20.6%, only above Bank of Ireland) to an above-average social reporting score in both 2016 (52.4%) and 2019 (61.9%). Bank of Ireland was the bank with the lowest change (in percentage points) in the social reporting score during the analyzed period

(9.5 p.p. between 2007 and 2019), and was the institution with the lowest score in all three years (12.7% in 2007, 19.0% in 2016, and 22.2% in 2019).

The tendency in Corporate Governance (further detail can be found in Table 9 of Exhibit C of the Appendix) is also different from the evolution of the two other ESG dimensions. Except for Commerzbank (whose reporting score varied the same, in percentage points, between 2007-2016 and 2016-2019), all remaining banks presented a sharper evolution of the reporting score concerning governance issues between 2007 and 2016 than between 2016 and 2019. Caixa Geral de Depósitos was the bank whose reporting score concerning Corporate Governance issues varied the most (in percentage points) in the analyzed periods (49.0 p.p. between 2007 and 2019) and it went from being the bank with the lowest governance reporting score in 2007 (38.8%) to the institution with the third best score in 2019 (87.8%). Deutsche Bank was the bank whose governance reporting score varied the least (in percentage points) during the analyzed period, going from having the third highest reporting score in 2007 (60.8%) to being below the interbank average in 2016 (70.6%), and the bank with the lowest governance reporting score (along with Commerzbank) in 2019 (76.5%). The evolution of the interbank average reporting score can be found in detail in Table 10 of Exhibit C of the Appendix.

Heterogeneity of reporting practices among banks within each of the ESG dimensions can also be found. Such heterogeneity is different across the dimensions and varied along the analyzed years. Tables 6 and 7, along with the results already displayed in Table 5, show that there was a decrease of the heterogeneity of reporting practices concerning environmental and Corporate Governance issues (decrease in standard deviation and range from 2007 and 2016), but an increase in the diversity of social reporting scores (standard deviation and range both increased). More specifically, there was no significant difference in terms of dispersion of reporting scores among banks when comparing the three ESG dimensions in 2007 (results displayed in Table 6) – environmental, social, and governance scores present similar standard deviations and ranges. However, when assessing the evolution from 2007 to 2016 and from 2007 to 2019, some differences arise among the three ESG vectors: (i) governance reporting scores became more coherent as time passed (standard deviation and range decreased from 2007 to 2016 and further decreased from 2016 to 2019); (ii) environmental reporting scores registered a similar trend from 2007 to 2016 (decrease in standard deviation and range), but there was an increase in dispersion between 2016 and 2019 (standard deviation and range both increased); and (iii) social reporting scores became more dispersed as time passed (standard deviation and range increased from 2007 to 2016 and further increased from 2016 to 2019), and this was the

dimension in which banks reported more differently among each other in both 2016 and 2019 (higher standard deviation and range).

| Reporting Score | Environmental | Social | Governance |
|------------------------|----------------------|---------------|-------------------|
| Average | 30.0% | 29.8% | 53.9% |
| Standard Deviation | 9.2% | 9.4% | 9.0% |
| Maximum | 41.3% | 41.3% | 68.6% |
| Minimum | 17.5% | 12.7% | 38.8% |
| Range | 23.8 p.p. | 28.6 p.p. | 29.9 p.p. |

Table 6: Descriptive statistics of reporting scores for each ESG dimension in 2007. Range was computed as the difference (in percentage points) between the maximum and minimum scores. Source: own elaboration.

| Reporting Score | Environmental | Social | Governance |
|------------------------|----------------------|---------------|-------------------|
| Average | 47.3% | 48.6% | 74.8% |
| Standard Deviation | 5.5% | 12.9% | 5.6% |
| Maximum | 57.8% | 58.7% | 82.4% |
| Minimum | 42.2% | 19.0% | 66.7% |
| Range | 15.6 p.p. | 39.7 p.p. | 15.7 p.p. |

Table 7: Descriptive statistics of reporting scores for each ESG dimension in 2016. Range was computed as the difference (in percentage points) between the maximum and minimum scores. Source: own elaboration.

Finally, the analysis of the evolution of the interbank average reporting scores along each ESG dimension across the three analyzed years (depicted in Figure 9) shows that the reporting on the three ESG dimensions increased, on average terms, similarly over the three years, and more sharply between 2007 and 2016 than between 2016 and 2019. Complementing the depiction in Figure 9 with the data reported in Tables 7, 8, 9 and 10 of Exhibit C of the Appendix, Corporate Governance was the dimension whose reporting score most increased (in percentage points) between 2007 and 2019 (29.8 p.p., comparing to 27.3 p.p. for both environmental and social issues) and most of such increase was verified in the period between 2007 and 2016 (20.9 p.p.). Average environmental and social reporting scores have also increased more sharply during the 2007-2016 period, although environmental scores increased more (in percentage points) than

the social or governance scores between 2016 and 2019 (10.0 p.p., comparing to 8.6 p.p. in social and 8.9 p.p. in governance issues).

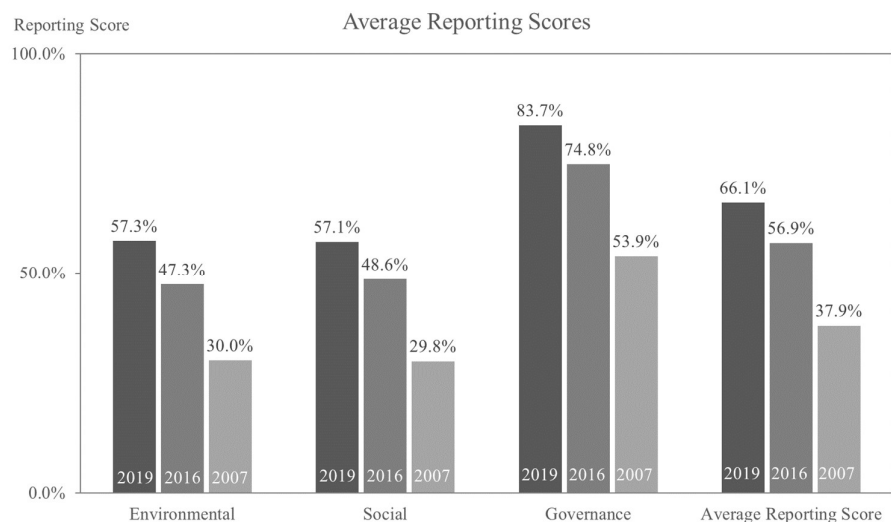


Figure 9: Interbank average reporting scores concerning the three ESG issues in 2019, 2016 and 2007. The interbank average reporting score of all three ESG dimensions was also included. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

The analysis of the evolution of reporting scores between the years of 2007, 2016 and 2019 confirms a general tendency of improvement of reporting practices along all three ESG dimensions. Although some of the analyzed banks present a sharper increase in the reporting scores between 2016 and 2019 than between 2007 and 2016 (although only in environmental and social issues), the majority of banks present a sharper evolution of reporting scores between 2007 and 2016, which is further confirmed by the evolution of the interbank averages. These averages show that there is no significant difference between the three ESG dimensions concerning the evolution (in percentage points) of the reporting scores between 2007 and 2019, although Corporate Governance reporting scores are higher than environmental and social scores in the three analyzed years.

3.2.3. Evolution of reported disclosures

Along with the evolution and variability of reporting practices across banks and ESG dimensions, there is also significant variability concerning the reported disclosures within each ESG dimension. In each dimension, it is possible to identify disclosures that were reported by all or almost all banks in the three analyzed years, disclosures that were not reported in 2007 and started being disclosed in the years of 2016 or 2019, and disclosures that are reported only by a residual number of banks (or even no banks at all) in the three years of analysis. One may

assess the general traits of this evolution by identifying three groups of disclosures with distinct patterns of evolution.

3.2.3.1. Disclosures reported by at least 90% of the sample banks in each of the analyzed years

The first group of analysis is composed of disclosures that were reported by at least 90% of the sample (9 or 10 banks) in each of the three years analyzed. Figure 10 summarizes the number of disclosures in such circumstances for each ESG dimension (the disclosures are detailed in Tables 11, 12 and 13 of Exhibit C of the Appendix).

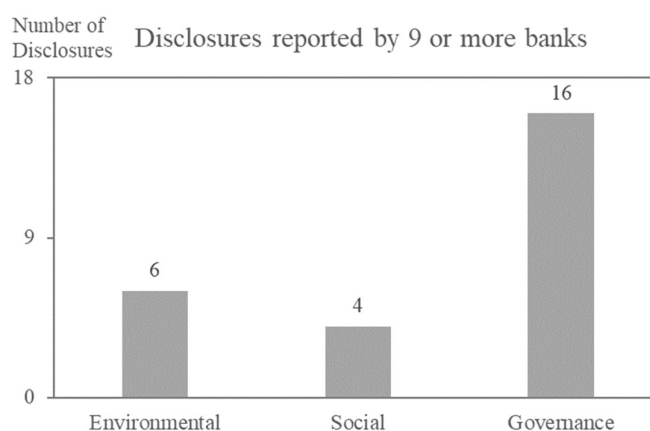


Figure 10: Number of disclosures (divided into environmental, social and governance disclosures) that were reported by 9 or 10 banks in each of the three analyzed years. Source: own elaboration.

The analysis of Figure 10 allows to identify Corporate Governance as the issue with the largest number of disclosures (16) that have always been reported (in the three selected years). Combining this observation with the results conveyed in Table 13 of Exhibit C of the Appendix, one can observe that issues concerning ownership structure, procedures concerning shareholders' rights and general meetings, composition and function of the board of directors, as well as its interaction with internal and external auditors, are among the topics that have been reported by the selected banks since as early as 2007.

Furthermore, although with significantly fewer disclosures under these conditions, there are some environmental issues that have always been reported by the sample of banks in the analyzed period. Examples of those issues are the identification of the existence and importance of climate-related risks and opportunities to the business model, as well as the description of intentions and initiatives (both through internal policies and public engagements) to address the issue of climate change (further detail can be found in Table 11 of Exhibit C of the Appendix).

Finally, social is the dimension with the lowest number of disclosures (4) that were reported by 9 or 10 banks in each of the three years. Issues related to the description of employee training programs and gender diversity in the governance structures are among the ones that have always been reported by almost all banks (or all, in some cases) in the selected period (further detail can be found in Table 12 of Exhibit C of the Appendix).

3.2.3.2. Disclosures reported by, at least, 7 more banks in 2019 (comparing to 2007)

The second group of analysis concerns disclosures that were only reported by a very limited number of banks (or no banks at all) in 2007, but became widely reported in the sample of banks in 2019. For that purpose, disclosures were included in this group if they were reported by at least 7 banks more in 2019 than in 2007. Figure 11 depicts the number of disclosures in these circumstances for each ESG dimension (the disclosures are detailed in Tables 14, 15 and 16 of Exhibit C of the Appendix).

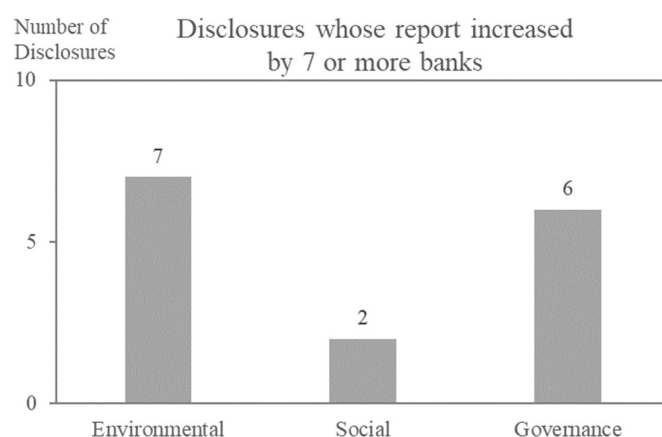


Figure 11: Number of disclosures (divided into environmental, social and governance disclosures) that were reported by, at least, 7 banks more in 2019 than in 2007. Source: own elaboration.

Figure 11 shows environmental and governance issues as the dimensions with the largest number of disclosures that were initially reported by very few (or even no) banks, but became widely adopted by the sample banks throughout time. Concerning the environmental disclosures in these circumstances (a total of 7 disclosures, which can be found in Table 14 of Exhibit C of the Appendix), issues related to the description of concrete procedures and organizational structures aiming to take into consideration climate-related issues and risks in the bank’s decision-making process and overall risk management can be highlighted.

Corporate Governance issues evolved towards increasing the transparency concerning the activities and composition of the board of directors, namely with the report of situations of

conflict of interest for directors, as well as the composition and internal documents regulating the committees of the board (further detail can be found in Table 16 of Exhibit C of the Appendix). Social issues present solely 2 disclosures which became reported by, at least, 7 banks more in 2019, namely the description of monitoring procedures to assess clients' social performance, and the salary discrepancy between men and women (Table 15 of Exhibit C of the Appendix).

3.2.3.3. Disclosures reported by 20% or less of the sample banks in each of the years analyzed

The third and final group of analysis includes disclosures that were reported by at most 20% of the sample banks (0, 1 or 2 banks) in each of the three years studied. These are the disclosures that are yet to be included in the reporting practices of the majority of the banks in the sample. Figure 12 summarizes the number of disclosures in these circumstances for each ESG dimension (the disclosures are detailed in Tables 17, 18 and 19 of Exhibit C of the Appendix).

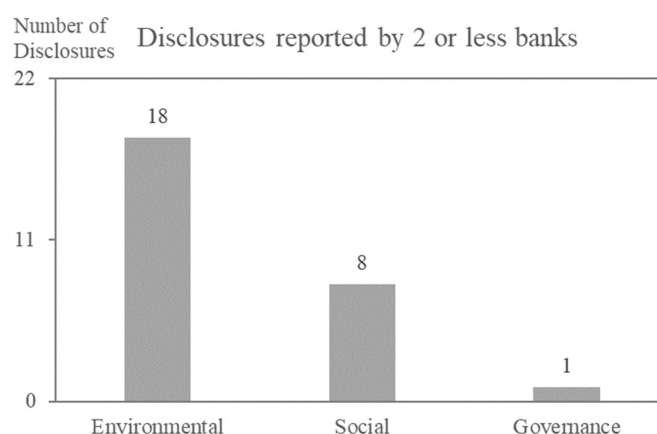


Figure 12: Number of disclosures (divided into environmental, social and governance disclosures) that were reported by only 0, 1 or 2 banks in each of the three analyzed years. Source: own elaboration.

Figure 12 depicts environmental issues with the largest number of disclosures (18) that have been reported by 2 or less banks in each of the three selected years. Combining this observation with the results conveyed in Table 17 of Exhibit C of the Appendix, one can conclude that the report of specific and concrete measures, KPIs and indicators for environmental performance and their link to financial performance is yet to be developed by the large majority of banks in the sample. Similarly, a similar paradigm can be observed concerning social issues, with all the 8 disclosures in this group referring to specific measures or reports of social performance relating to the relationships with employees, suppliers, or the direct social impact of the bank and its borrowers (Table 18 of Exhibit C of the Appendix). Finally, governance presents only

1 disclosure in this group which concerns the existence of specific controls for key individuals in the control structure (Table 19 of Exhibit C of the Appendix).

3.3. Concluding remarks on the Presentation of Findings

The results presented describe a positive evolutive trend in ESG-related non-financial reporting in the context of the selected sample of banks. Reporting in all three ESG dimensions evolved from 2007 to 2019, and Corporate Governance issues present significantly higher reporting scores than social and environmental issues. Nevertheless, findings also show that the sample of selected banks is still in partial compliance with ESG reporting best-practice standards, particularly concerning environmental and social issues. The analysis of reported disclosures allows to identify different patterns of evolution for the disclosures made by banks, ranging from disclosures that were always reported by all banks in the three analyzed years to disclosures that have not been reported by any bank in any of the three analyzed years.

IV. Non-Financial Reporting: Discussion of Results, Limitations and Future Research

1. Discussion of Results

This section discusses the main implications of the obtained results, opening the discussion to further research on relationships and connections between non-financial reporting and other variables.

1.1. Leaders, laggards and the evolution of non-financial reporting

Results show that there was a general trend of improvement in ESG-related non-financial reporting in the context of the selected sample of banks, which is consistent with the growing importance of non-financial information described in literature. All analyzed banks experienced an increase in their reporting score both between 2007 and 2016, and 2016 and 2019. The only exception to this trend was Deutsche Bank's social reporting score, which decreased from 36.5% in 2007 to 31.7% in 2016.

This exception coincides in time with one of the most difficult years for Deutsche Bank in the recent past (Reuters, 2016). Facing a severe confidence crisis from investors, Deutsche Bank's share price dropped more than 20 percent in the first month of the year (Reuters, 2016). As a result, this time coincidence could potentially suggest that the disclosure of non-financial information may be influenced by abnormal pressure and stress in the organization: management's attention is diverted towards other more obvious and pressing issues, and the reporting of non-financial information, which is still a relatively recent issue, may be, at least partially, hindered. Further research would be necessary to understand if this coincidence of occurrences is an isolated case, or if, in fact, there is a systemic relationship between the quality of non-financial reporting and organizational crisis.

In spite of the substantial changes in banks' reporting practices over the years, it seems that there is some level of consistency, although far from absolute, in terms of the leaders and the laggards concerning ESG reporting in the sample. Of the five banks that present the highest average reporting score in 2019, four of them (Banco Santander, BNP Paribas, Intesa Sanpaolo, and UniCredit) were also among the five banks with highest average reporting score in 2007. In 2016, Banco Santander, BNP Paribas and UniCredit continued among the five banks with highest average reporting score. Intesa Sanpaolo had the sixth largest average reporting score (57.2%), but was very close to CaixaBank (57.3%), the bank with the fifth highest average reporting score in that year. These results seem to suggest that the group of banks that was

perceived as leader (in terms of average reporting score) in 2007 continues to maintain such leadership in 2019.

Although all banks improved their ESG reporting practices in the analyzed period (apart from the already discussed exception of Deutsche Bank), reporting concerning each of the three ESG dimensions is different and did not evolve in the same way. Corporate Governance is the issue in which banks present higher reporting scores in all the three analyzed years and the one dimension where interbank average reporting score increased the most (in percentage points) between 2007 and 2019.

This result was already expected, since, as mentioned in the analysis of the banking sector in part III, there is a significant body of regulation impacting governance issues in the banking industry, which is not verified at the same scale concerning social and environmental matters. The global financial crisis of 2008 played a critical role in this evolution, as issues related to governance and transparency, already important before 2007, gained further relevance. Stronger demands for better, more detailed and comprehensive disclosure of Corporate Governance items resulted in the implementation of stricter regulation after the crisis (the already mentioned different European regulations, such as the Capital Requirements Directive - Directive 2013/36/EU -, are examples of that), which influenced the results concerning higher Corporate Governance reporting scores.

Similarly, the existence of a more rigorous regulatory framework for Corporate Governance may also help to explain the lower interbank variability of reporting scores concerning governance issues in both 2016 and 2019, when comparing to social and environmental matters. As described in section 3.2. of part III, from 2007 to 2019, interbank dispersion of reporting scores went from being similar across the three ESG dimensions, to increasing for reporting scores concerning social issues and decreasing for reporting scores concerning environmental and Corporate Governance issues (governance is the dimension that selected banks report more homogeneously).

This difference concerning the dispersion of reporting practices between environmental and social issues is intriguing, as both dimensions present similar interbank average reporting scores in 2019, as well as identical evolutions since 2007. Many reasons may justify this result, but two possible factors deserve particular mention.

Firstly, the analysis of regulation, standards and guidelines concerning the disclosure of both issues suggests that there is less consensus and/or it is more difficult to construct a holistic,

comprehensive and complete reporting standard for social issues. Among the most significant regulations concerning social performance, the *bilan social* was solely focused on employees. Even the social standards of GRI (which is among the most comprehensive and widely used approaches to social issues) place a significant weight on employee-related issues, leaving aside (or, at least, misrepresented) other important social initiatives such as patronage. At the opposite end, environmental issues do not face these issues: the guidelines for climate-related disclosures published by the European Commission in 2019 (European Commission, 2019) take into consideration a variety of climate-related reporting standards and provide a comprehensive view of reporting in this area with further guidance for the banking sector.

Secondly, the methodology used in this thesis may also have contributed to these results: using the GRI standards for social disclosures when some banks in the sample do not use these standards to guide their reports may result in significant differences in reporting scores between the banks which use and the ones which do not use GRI. Nevertheless, this effect is not expected to be relevant as, in 2019, 80% of the banks in the sample used GRI standards.

Finally, the analysis of the evolution of the individual disclosures also provides additional insight on the development of reporting practices in the sample of banks. There seems to exist evidence that suggests a general tendency of evolution from a qualitative report of broader policies and intentions, towards a more quantitative report concerning the inclusion of ESG issues into decision making processes. The evolution of the disclosures concerning environmental issues is a good example of that: in 2007, the majority of banks were limited to recognize the importance of climate-related issues, reporting primarily their policies and intentions concerning this issue; and in 2019, more detailed descriptions of the incorporation of matters concerning the natural environment into the decision making and risk management processes became more widely disclosed. Further research, extending the analysis to a broader universe of observations would be necessary to verify if this is a general trend.

1.2. Evolution of reporting scores and the economic and regulatory environment

The analysis of the evolution of reporting practices shows that the quality and extent of non-financial reporting concerning ESG issues increased significantly, at least in the context of the selected sample, along the analyzed years. The period between 2007 and 2016 was the period when reporting scores increased the most: non-financial reporting practices were significantly more developed when the global financial crisis had already occurred and its effects were already in place, than before the crisis. Similarly, the increase in reporting scores between 2016

and 2019 also shows that the selected banks presented better non-financial reports after the EU Non-Financial Reporting Directive took effect, comparing to the context where this Directive had already entered into force but had not taken effect yet. These observations do not allow any decisive conclusion concerning causality of the specific impact of any of these events. Nevertheless, they show that the non-financial reporting practices of banks in the sample were substantially different and impacted by distinct economic and regulatory environments, a result that is coherent with literature.

1.3. Non-financial reporting scores and other variables

There is evidence in literature relating non-financial reporting with other variables of financial and non-financial nature. In this section, a comparison of 2019 reporting scores with other variables, namely the size (measured by total assets in 2019), profitability (measured by Return on Equity – ROE in 2019), ESG ratings in 2019, and geographical location is provided. Table 8 summarizes the results, which are divided by the ESG dimensions in Tables 1, 2 and 3 of Exhibit D of the Appendix.

| Country | Bank | Average Reporting Score | Total Assets (EUR Million) | Return on Equity (ROE) | MSCI ESG Rating |
|----------|--------------------------|-------------------------|----------------------------|------------------------|-----------------|
| Spain | Banco Santander | 73.4% | 1,522,695 | 6.6% | BBB |
| France | BNP Paribas | 71.7% | 2,164,713 | 8.5% | A |
| Italy | Intesa Sanpaolo | 71.4% | 816,102 | 8.8% | AAA |
| France | Société Générale | 71.4% | 1,356,303 | 5.0% | AA |
| Italy | UniCredit | 69.6% | 855,647 | 5.7% | BBB |
| Portugal | Caixa Geral de Depósitos | 65.0% | 91,645 | 8.1% | - |
| Spain | CaixaBank | 63.7% | 391,414 | 6.4% | A |
| Germany | Commerzbank | 62.3% | 462,000 | 2.3% | A |
| Germany | Deutsche Bank | 62.2% | 1,297,674 | (9.5)% | BBB |
| Ireland | Bank of Ireland | 50.0% | 131,883 | 4.1% | BB |

Table 8: Comparison of average reporting scores in 2019 with total assets (in 2019), ROE (in 2019), MSCI ESG rating (in 2019), and country of origin per bank. Banks are ordered from the largest to the smallest average reporting score. Sources: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

1.3.1. Non-financial reporting scores and size

It could be argued that the size of banks might influence non-financial reporting practices, either because larger banks affect a wider range of stakeholders (hence increasing the demand and consequent need for disclosing additional information), or because larger banks enjoy more resources that can be devoted to non-financial reports.

Results in Table 8 (above) provide partial evidence of a relationship between size and reporting scores in the context of the sample. Apart from Caixa Geral de Depósitos (which is the smallest bank and presents the sixth highest average reporting score) and Deutsche Bank (which is the fourth largest bank and presents the second lowest average reporting score), larger banks (in terms of total assets) present higher average reporting scores than smaller banks. Tables 1, 2 and 3 of Exhibit D from the Appendix show similar trends in social and environmental dimensions, although in Corporate Governance the relationship between reporting score and size is not as clear.

These findings leave room for further research to investigate if there is in fact a systemic connection between the size of a company and its non-financial reporting, or if this is limited to the particular sample that has been the focus of the present study.

1.3.2. Non-financial reporting scores and profitability

A connection could also be established between non-financial reporting and profitability. Either because more profitable banks have more resources that can be dedicated to non-financial reporting, or because banks with better non-financial reporting practices are able to improve confidence among their stakeholders and better align the managers' interests with those of these stakeholders, which could contribute to boost profitability, it would not be absurd, and would be aligned with evidence found in literature, to establish a connection between non-financial reporting quality and profitability.

Nevertheless, it is not possible to withdraw conclusive evidence from the results provided in Table 8 concerning the relationship between average reporting scores and ROE in the context of the sample. Although it seems that more profitable banks may present higher average reporting scores, this connection is weak and not confirmed by analyzing the ESG dimensions separately (Tables 1, 2 and 3 of Exhibit D of the Appendix). Consequently, further research is needed to assess if, in fact, there is a connection between financial profitability and non-financial reporting scores in a broader universe of observations.

1.3.3. Non-financial reporting scores and ESG ratings

ESG ratings are measures of corporate performance that are issued by institutions such as Bloomberg, Thomson Reuters and MSCI. Given that the sample of banks was selected in order to ensure the inclusion of a balanced diversity of ESG ratings, it is relevant to analyze if any relationship exists between ESG ratings (in the case of this analysis, only MSCI ratings were included for this purpose) and the obtained reporting scores.

According to the results presented in Table 8, there is no evidence supporting any relationship between MSCI's ESG ratings and the obtained reporting scores in the context of the sample, i.e., higher (or lower) ESG rating do not mean higher (or lower) reporting scores. Evidence from the individual analysis of each ESG dimension also does not suggest any kind of connection between the two variables (Tables 1, 2 and 3 of Exhibit D of the Appendix).

Further analysis comparing the evolution of MSCI's ESG ratings and reporting scores between 2016 and 2019 (results in Tables 4, 5, 6 and 7 of Exhibit D of the Appendix) supports this conclusion that there is no connection between reporting scores and ESG ratings, since there is no clear evidence that the banks whose reporting score changed the most between 2016 and 2019 were also the ones whose ESG rating was upgraded during this period.

Considering that ESG ratings evaluate the performance of a company, and not the reported information, these results may indicate that banks' actual ESG-related performance is not necessarily related to the comprehensiveness and quality of disclosed information. Moreover, there is significant variability of evaluations among different ESG ratings (as already discussed when comparing MSCI and TR ratings for the sample of banks), which may further affect the results. Consequently, further research is needed in order to understand the extent to which ESG ratings are influenced, or not, by the quality of non-financial reporting concerning ESG issues.

1.3.4. Non-financial reporting scores and geographical location

As the sample of analyzed banks also presents a balanced diversification concerning geographical location, the comparison between reporting scores and banks' nationalities might be relevant to assess if there is any evidence of a nationality bias in the context of the sample. The results provided in Table 8 (and the analysis of Tables 1, 2 and 3 of Exhibit D of the Appendix) do not show any conclusive evidence of any kind of relationship between reporting scores and banks' nationality. Further research, particularly including banks supervised by

entities other than the European Central Bank, would be necessary to assess the extent to which banks' nationality affects, or not, non-financial reporting practices.

In conclusion, the analysis and discussion of the evolution and current practices concerning non-financial reporting in the context of the selected sample of ten banks offers relevant insight on the importance of the disclosure of ESG-related issues, and provides evidence that introduces many questions for future research. In the next section, the main limitations of the study and the main issues that are left to answer are described.

2. Limitations and Further Research

The first limitation of this study is related to the size of the sample. A total of ten banks constitutes a limited sample, as it does not allow a comprehensive understanding of the overall paradigm of non-financial reporting in the banking industry. The interpretation of any conclusion withdrawn from the study is thus limited to the context of the selected sample of banks. Consequently, further research is needed to extend the methodology to a larger sample of banking institutions, so that a general overview of the evolution of non-financial reporting in the sector can be depicted and the relationships of non-financial reporting with other variables such as size, profitability, ESG ratings and geographical location can be further assessed.

Furthermore, the geographical and sectorial focus of the research limits the understanding of the evolution of non-financial reporting in the context of an increasingly global economy. Extending the research to other geographic regions besides Europe, and to other sectors of activity besides banking, would allow to better understand how non-financial reporting has evolved in different regions of the globe and sectors of activity.

The number of years used in the analysis can also be seen as a limitation. Although the selected years allowed to compare reporting practices in three different economic and regulatory contexts, it is not possible to fully assess, based on the presented results, the impact of specific events (such as of the global financial crisis, or of the entrance into force of the EU Non-Financial Reporting Directive) on reporting practices. Consequently, the extension of the study to a wider number of years is open to further research. Research could also be extended in order to allow a better understanding of the connection of non-financial reporting with issues such as organizational crisis, changes in the board of directors and other company-specific events.

The appropriateness and quality of the used standards is also opened to discussion. The used standards are among the current best practices in the market for ESG-related reporting, but the

investigation of the extent to which such best practices can be improved, and how a better model to assess non-financial reporting could be created, is a potential topic for future research. Furthermore, as already mentioned, the standard used to assess the report of social issues, the GRI 400 (GRI, 2016), may create a potential bias in reporting scores favorable to the companies using the GRI standards as a framework to guide the report. Although this effect is not relevant in the context of the current study (as 80% of observed banks use GRI standards in 2019), it may become more important when extending the analysis to more observations.

One of the major disadvantages of non-financial reporting mentioned in literature was left outside the scope of this thesis: the quality of the information that is reported. Since non-financial reporting, particularly concerning environmental and social issues, is, in its majority, of voluntary nature and there is no legal imposition in terms of auditors' assessment of such information (according to paragraph 16 of the preamble of the EU Non-Financial Reporting Directive, auditors only have to verify if non-financial information is disclosed), the criticism of some scholars concerning the lack of credibility of these reports (Mitchell et al., 2015; Harrison and Laan Smith, 2015) is yet left to discuss.

Finally, important non-financial measures of performance, such as customer satisfaction, measures of efficiency and innovation in internal processes (as described in Kaplan and Norton, 1992), that were not directly related to ESG issues were left outside the scope of this study. There is room for further research to expand the analysis to non-financial information not related to ESG issues.

V. Conclusion

There is a growing body of literature that identifies the problems associated with the exclusive use of financial measures of performance and advocates for the need, and advantages, of the implementation of non-financial performance indicators. Increasing awareness and demand for information concerning companies' impacts on their surrounding environment and multiple stakeholders led to the development of theories which broaden the concept of corporate purpose (e.g. Freeman, 1984) and demand for a more comprehensive disclosure of information, so that corporate transparency and accountability to stakeholders are increased. This is particularly relevant concerning environmental, social and governance (ESG) issues, which are ever more relevant in the marketplace, and to investors in financial markets. In this context, and fueled by the lack of up-to-date evidence in literature concerning the evolution and current practice of ESG-related non-financial reporting, this thesis compares the ESG reporting practices of ten European banks with the current best reporting practices in the market in three distinct years (2007, 2016 and 2019).

Results show a significant variability of reporting practices in the context of the sample of banks. The documents and standards used to report non-financial information vary significantly across banks, reflecting the mostly voluntary nature of non-financial reporting. Nevertheless, some tendencies of convergence and evolution in reporting can be identified along the years. Banks in the sample present a recent tendency of increasing the amount of non-financial information included in their annual reports, following the spirit of including all relevant financial and non-financial information in a single report, as preconized by the concept of Integrated Reporting. This is shown by an increasing number of banks reporting all information in a single report (from 2 banks out of 10 in 2007 and 1 bank out of 10 in 2016, 5 banks out of 10 disclose all information in a single report in 2019) and a decreasing number of separate sustainability and CSR reports disclosed (from 8 banks out of 10 in 2007 and 9 banks out of 10 in 2016, only 5 banks out of 10 drafted separate reports devoted to disclose ESG-related non-financial information in 2019).

Moreover, the use of standards, such as GRI standards, to guide non-financial reporting does not always guarantee, in the context of the sample, the disclosure of the concrete quantifiable measures and KPIs predicted in the standards, as banks dodge from reporting these indicators by providing broad descriptions of intentions and policies. Nevertheless, a tendency of evolution from a broader, more qualitative description of policies and intentions towards a more

concrete, decision-making-driven, and quantitative disclosure of ESG-related non-financial information can be verified in the sample of banks. This is confirmed by the analysis of the evolution of the specific disclosures in each ESG dimension, particularly concerning environmental issues. This analysis provides additional insight on the evolution of ESG-related non-financial reporting over the years: although there are some disclosures that have always been reported, or started to be reported, by the vast majority of banks in the sample, there is still a relevant number of disclosures that are currently only reported by few (or even no) banks, suggesting that, despite having evolved over the years, non-financial reporting practices have still room for significant improvement.

Comparing the number of disclosures actually reported by banks to the total number of analyzed disclosures through reporting scores, this study finds that there was an improvement in reporting practices for all banks in environmental, social and governance dimensions in the three analyzed years (except for the social dimension of Deutsche Bank between 2007 and 2016). Nevertheless, the set of banks of the selected sample is still in partial compliance with ESG reporting best practice standards, particularly in the areas of environmental and social performance (average interbank reporting scores in 2019 of 57.3% and 57.1%, respectively, comparing to 83.7% for governance issues).

Corporate Governance is the area in which reporting practices are more aligned with the selected best practice standards in all the three years and the issue with lower interbank variability of reporting practices, result which may be related to a stricter regulatory framework. Interbank average reporting scores concerning environmental issues are similar to average reporting scores regarding social issues in the three analyzed years, but environmental matters present lower interbank variability of reporting practices. All three ESG dimensions evolved similarly (in percentage points) from 2007 to 2019, and more sharply between 2007 and 2016 than between 2016 and 2019.

These results reflect a clear evolution in the ESG reporting practices in the selected sample of banks, showing that, in the context of the sample, reporting practices differ in contexts with distinct economic and regulatory environment. Hence, the direct effect of events such as the global financial crisis and the EU Non-Financial Reporting Directive on non-financial reporting cannot be excluded. The comparison of reporting scores with other variables such as size of the bank, profitability, geographical location and ESG ratings leaves room for further research.

The results which arose from this study pose many questions concerning the quality and evolution of non-financial reporting, leaving room for future research to expand the methodology to broader samples, geographical and time periods, and to explore the impact of other variables, such as company-specific events, on the non-financial reporting practices of corporations. Nevertheless, the practical relevance of this study is not limited to future research, as the results are also of interest for the analyzed banks and their stakeholders. Three recommendations can be made:

1. For the analyzed banks, reporting practices concerning social and environmental issues still deserve significant improvement, which becomes particularly relevant considering the benefits of non-financial reporting as described in literature.
2. For regulators, one may recommend that stricter regulation and mechanisms are created concerning the assessment of the quality of the reporting of non-financial information, particularly concerning environmental and social matters. Results seem to support that stricter regulations in Corporate Governance issues, and non-financial reporting in general, positively impacted reporting practices; however, there is a significant concern related to the quality of the information provided, as auditing of non-financial information is not required.
3. For stakeholders in general, a warning of caution can be provided: reading the reports is critical to understand non-financial performance. Relying only on reference tables that provide concordance with standards such as the GRI may be misleading, since in many cases information is reported in a broader and less precise manner than as that demanded by the standards.

Non-financial reporting, particularly concerning ESG issues, is a topic of rising interest in literature, regulatory frameworks and corporate practices. This thesis proposed an innovative methodology to assess corporate disclosures of non-financial information related to ESG issues and applied it to a sample of ten European banks. Results show that significant evolution has occurred, which is undoubtedly linked to the fact that non-financial reporting not only mitigates reputational risks and contributes to social legitimacy, but also entails an opportunity to better align the interests of managers to those of the stakeholders, and helps to ensure that these stakeholders' demand for information is met. Much progress has been done thus far in the field of non-financial reporting; however, one cannot help but to urge all relevant players (from company managers and shareholders, to scholars, investors and regulators) to strive for progress in this field of paramount importance.

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Appendices

Exhibit A. ESG disclosures

Environmental Disclosures

| “Business Model” |
|---|
| “Describe the impact of climate-related risks and opportunities on the company's business model, strategy and financial planning.” |
| “Describe the ways in which the company’s business model can impact the climate, both positively and negatively.” |
| “Describe the resilience of the company’s business model and strategy, taking into consideration different climate-related scenarios over different time horizons, including at least a 2 °C or lower scenario and a greater than 2 °C scenario.” |
| “Describe any changes in the company’s business model and strategy to address transition and physical risks and to take advantage of climate-related business opportunities.” |
| “Describe how any changes in the company’s business model and strategy to address climate change mitigation and/or adaptation will change the company’s human capital needs.” |
| “Describe opportunities related to resource efficiency and cost savings, the adoption of low-emission energy sources, the development of new products and services, access to new markets, and building resilience along the value chain.” |
| “Disclose how the company has selected scenarios.” |
| “Describe how the company’s activities contribute to climate change via GHG emissions, including from deforestation, forest degradation or land-use change.” |
| “Describe how climate-related risks and opportunities of the investment and lending portfolios might affect the financial institution’s business model.” |
| “Describe whether and how the institution takes into consideration that its counterparties take climate-related risks and opportunities into account.” |
| “Describe how the assessment of climate-related risks and opportunities are factored into relevant investment and lending strategies and how each strategy might be affected by the transition to a lower-carbon economy.” |
| “Policies and Due Diligence Processes” |
| “Describe any company policies related to climate, including any climate change mitigation or adaptation policy.” |
| “Describe any climate-related targets the company has set as part of its policies, especially any GHG emissions targets, and how company targets relate to national and international targets and to the Paris Agreement in particular.” |
| “Describe the board’s oversight of climate-related risks and opportunities.” |
| “Describe management’s role in assessing and managing climate-related risks and opportunities and explain the rationale for the approach.” |
| “Describe the company’s engagement with its value chain on climate-related issues, explaining how it engages with upstream and downstream partners to promote climate mitigation and/or adaptation.” |
| “Explain how climate-related issues are integrated into the company’s operational decision-making processes.” |
| “Describe any public policy engagement on climate-related issues undertaken by the company, including membership of any relevant organizations or interest groups.” |

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| “Describe whether, how and at what levels (in particular board and management) the company has access to expertise on climate-related issues, either from its own internal capacity and/or from external sources.” |
| “Describe any employee policies that are related to the climate, for example investments in skills necessary for the transition to low-carbon technologies, or measures to ensure employees can perform their tasks safely in a changing climate.” |
| “Describe whether and how the company’s remuneration policy takes account of climate-related performance, including performance against targets set.” |
| “Disclose any energy-related targets the company has set as part of its policies.” |
| “Explain the reasoning behind the selection of any climate-related targets used by the company.” |
| “Describe how the financial institution encourages better disclosure and practices related to climate-related risks to improve data availability and any effort to increase the awareness of counterparties, and more generally of customers, of the relevance of climate-related issues as part of their lending processes, including for example by means of specialty climate-related risk advisory services.” |
| “Describe any stewardship activities related to the financial institution’s climate strategy such as engagements with companies, outcomes, and proxy voting (e.g. resolutions filed or supported).” |
| “Describe any lending portfolio contributing to climate change mitigation and adaptation and any relevant target in this respect.” |
| “Outcomes” |
| “Describe the outcomes of the company's policy on climate change, including the performance of the company against the indicators used and targets set to manage climate-related risks and opportunities.” |
| “Describe the development of GHG emissions against the targets set and the related risks over time.” |
| “Describe how the performance of the company with regard to climate influences its financial performance, where possible with reference to financial KPIs.” |
| “Describe the development trend of the amount of carbon-related assets in the different portfolios against any relevant target set and the related risks over time.” |
| “Describe the development trend of the weighted average carbon intensity for the different portfolios against any relevant target set and the related risks over time. Financial institutions should disclose the changes in the sector and geographic allocation of their investments compared to the previous reporting year and explain the impact of these changes on the average weighted carbon intensity of their portfolios.” |
| “Principal Risks and their Management” |
| “Describe the company’s processes for identifying and assessing climate-related risks over the short, medium, and long term and disclose how the company defines short, medium, and long term.” |
| “Describe the principal climate-related risks the company has identified over the short, medium, and long term throughout the value chain, and any assumptions that have been made when identifying these risks.” |
| “Describe processes for managing climate-related risks (if applicable how they make decisions to mitigate, transfer, accept, or control those risks), and how the company is managing the particular climate-related risks that it has identified.” |
| “Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company’s overall risk management.” |
| “Describe any climate adaptation measures undertaken by the company as part of its risk management process.” |
| “Give a detailed breakdown of principal climate-related risks by business activity.” |
| “Give a detailed breakdown of principal climate-related risks by geographical location.” |

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| “Describe how the company sets and applies limits to climate-related risks, including any triggers used to escalate issues to management attention.” |
| “Describe the processes for prioritizing climate-related risks, including any thresholds applied and indicate which risks across the value chain are considered most significant.” |
| “Categorize the principal risks of climate change on the financial performance of the company according to whether they are transition risks (policy, legal, technological, market and reputational risks) or physical risks (acute and chronic risks).” |
| “Disclose any risk mapping that includes climate-related issues.” |
| “Provide definitions of risk terminology used or references to existing risk classification frameworks used.” |
| “Describe the frequency of reviews and analyses with regard to risk identification and assessment.” |
| “Describe the linkages between principal climate-related risks and financial KPIs.” |
| “Disclose how scenarios and/or internal carbon pricing are used for risk management actions such as mitigation, transfer or adaptation.” |
| “Describe whether risk management processes, including internal stress testing, consider climate-related risks.” |
| “Describe any exposures in the different lending activities to sectors perceived as contributing to climate change, which might create reputational risks for the financial institution.” |
| “Describe the climate-related risks identified in the different lending activities and how the financial institution assesses and manages those risks.” |
| “Describe the exposure of financial assets, non-financial assets and assets under management to principal climate-related risks and provide with a breakdown of those risks in physical and transition risks.” |
| “Describe how the financial institution has assessed the exposure of financial assets and non-financial assets to climate-related risks under different climate-related scenarios.” |
| “Characterization of their climate-related risks in the context of traditional industry risk categories such as credit risk, market risk and operational risk.” |
| “Describe how climate-related risks could affect overall banks’ present and future regulatory capital requirements.” |
| “Disclose the volume of the collateral highly exposed to climate-related risks and the impact of the selected scenarios on its value.” |
| “Disclose the volume of real estate collateral by energy efficiency rating according to energy performance certificates. In particular, volume of real estate collaterals highly exposed to transition risk, including collateral with the lowest energy efficiency ratings in comparison to total collaterals.” |
| “Disclose the volume of real estate collaterals highly exposed to physical risk in comparison to total collaterals.” |
| “KPIs” |
| “Disclose KPIs related to GHG emissions.” |
| “Disclose KPIs related to energy consumption.” |
| “Amount or percentage of carbon-related assets in each portfolio.” |
| “Weighted average carbon intensity of each portfolio.” |
| “Volume of exposures by sector of counterparty (high- vs. low-carbon sectors).” |
| “Volume of collaterals related to assets or activities in climate change mitigating sectors.” |
| “Volume of financial assets funding sustainable economic activities contributing substantially to climate mitigation and/or adaptation.” |
| “Total amount of the fixed income portfolios invested in green bonds.” |

Table 1: Analyzed disclosures concerning environmental issues. Source: Adapted from “Communication from the Commission - Guidelines on non-financial reporting: Supplement on reporting climate-related information”, European Commission (2019).

Social Disclosures

| “GRI 401: Employment” |
|---|
| Disclosure 401-1a: “Total number and rate of new employee hires during the reporting period, by age group, gender and region.” |
| Disclosure 401-1b: “Total number and rate of employee turnover during the reporting period, by age group, gender and region.” |
| Disclosure 401-2a: “Benefits which are standard for full-time employees of the organization but are not provided to temporary or part-time employees, by significant locations of operation.” |
| Disclosure 401-3a: “Total number of employees that were entitled to parental leave, by gender.” |
| Disclosure 401-3b: “Total number of employees that took parental leave, by gender.” |
| Disclosure 401-3c: “Total number of employees that returned to work in the reporting period after parental leave ended, by gender.” |
| Disclosure 401-3d: “Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender.” |
| Disclosure 401-3e: “Return to work and retention rates of employees that took parental leave, by gender.” |
| “GRI 402: Labor/Management Relations” |
| Disclosure 402-1: “Minimum number of weeks’ notice typically provided to employees and their representatives prior to the implementation of significant operational changes that could substantially affect them.” |
| “GRI 403: Occupational health and safety” |
| Disclosure 403-1a: “The level at which each formal joint management-worker health and safety committee typically operates within the organization.” |
| Disclosure 403-1b: “Percentage of workers whose work, or workplace, is controlled by the organization, that are represented by formal joint management-worker health and safety committees.” |
| Disclosure 403-2a: “Types of injury, injury rate (IR), occupational disease rate (ODR), lost day rate (LDR), absentee rate (AR), and work-related fatalities, for all employees with a breakdown by gender and region.” |
| Disclosure 403-2c: “The system of rules applied in recording and reporting accident statistics.” |
| Disclosure 403-3: “Disclose whether there are workers with high incidence or high risk of diseases related to their occupation.” |
| Disclosure 403-4a: “Disclose whether formal agreements (either local or global) with trade unions cover health and safety.” |
| Disclosure 403-4b: “The extent, as a percentage, to which various health and safety topics are covered by these formal agreements.” |
| G4-DMA: “Financial institutions should report their policies and practices regarding threats and violence in place to assist workforce members, their families, or community members.” |
| “GRI 404: Training and education” |
| Disclosure 404-1: “Average hours of training that the organization’s employees have undertaken during the reporting period by gender and employee category.” |

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| Disclosure 404-2a: “Type and scope of programs implemented and assistance provided to upgrade employee skills.” |
| Disclosure 404-2b: “Transition assistance programs provided to facilitate continued employability and the management of career endings resulting from retirement or termination of employment.” |
| Disclosure 404-3: “Percentage of total employees by gender and by employee category who received a regular performance and career development review during the reporting period.” |
| “GRI 405: Diversity and equal opportunity” |
| Disclosure 405-1a: “Percentage of individuals within the organization’s governance bodies in each of the following diversity categories: i. Gender; ii. Age group; iii. Other indicators of diversity where relevant (such as minority or vulnerable groups).” |
| Disclosure 405-1b: “Percentage of employees per employee category in each of the following diversity categories: i. Gender; ii. Age group; iii. Other indicators of diversity where relevant (such as minority or vulnerable groups).” |
| Disclosure 405-2: “Ratio of basic salary and remuneration of women to men.” |
| “GRI 406: Non-discrimination” |
| Disclosure 406-1a: “Total number of incidents of discrimination during the reporting period.” |
| Disclosure 406-1b: “Status of the incidents and actions taken.” |
| “GRI 407: Freedom of association and collective bargaining” |
| Disclosure 407-1a: “Operations, suppliers [and borrowers] in which workers’ rights to exercise freedom of association or collective bargaining may be violated or at significant risk.” |
| Disclosure 407-1b: “Measures taken by the organization in the reporting period intended to support rights to exercise freedom of association and collective bargaining.” |
| “GRI 408: Child labor” |
| Disclosure 408-1a: “Operations, suppliers [and borrowers] considered to have significant risk for incidents of child labor and/or young workers exposed to hazardous work.” |
| Disclosure 408-1b: “Measures taken by the organization in the reporting period intended to contribute to the effective abolition of child labor.” |
| “GRI 409: Forced or compulsory labor” |
| Disclosure 409-1a: “Operations and suppliers at significant risk for incidents of forced or compulsory labor.” |
| Disclosure 409-1b: “Measures taken by the organization in the reporting period intended to contribute to the elimination of all forms of forced or compulsory labor.” |
| “GRI 412: Human rights assessment” |
| Disclosure 412-1: “Total number and percentage of operations [and borrowers] that have been subject to human rights reviews or human rights impact assessments.” |
| Disclosure 412-2a: “Total number of hours in the reporting period devoted to training on human rights policies or procedures concerning aspects of human rights that are relevant to operations.” |
| Disclosure 412-2b: “Percentage of employees trained during the reporting period in human rights policies or procedures concerning aspects of human rights that are relevant to operations.” |
| Disclosure 412-3: “Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.” |
| “GRI 413: Local communities” |
| Disclosure 413-1: “Percentage of operations and borrowings with implemented local community engagement, impact assessments, and/or development programs, including the use of social and environmental impact assessments and stakeholder engagement plans based on stakeholder mapping.” |

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| Disclosure 413-2: “Operations [and borrowings] with significant actual and potential negative impacts on local communities.” |
| “GRI 414: Supplier social assessment” |
| Disclosure 414-1: “Percentage of new suppliers that were screened using social criteria.” |
| Disclosure 414-2a: “Number of suppliers assessed for social impacts.” |
| Disclosure 414-2b: “Number of suppliers identified as having significant actual and potential negative social impacts.” |
| Disclosure 414-2c: “Percentage of suppliers identified as having significant actual and potential negative social impacts with which improvements were agreed upon as a result of assessment.” |
| Disclosure 414-2d: “Percentage of suppliers identified as having significant actual and potential negative social impacts with which relationships were terminated as a result of assessment, and why.” |
| “GRI 415: Public policy” |
| Disclosure 415-1: “Total monetary value of financial and in-kind political contributions made directly and indirectly by the organization by country and recipient/beneficiary.” |
| “GRI 416: Customer Safety” |
| Disclosure 416-1: “Significant product and service categories for which financial risks and impacts are clearly communicated to customers and assessed for improvement.” |
| “GRI 417: Marketing and labelling” |
| Disclosure 417-1: “Percentage of significant product or service categories covered by and assessed for compliance with well-defined procedures for transparency and customer protection.” |
| Disclosure 417-2: “Total number of incidents of non-compliance with regulations and/or voluntary codes concerning product and service information and labeling.” |
| Disclosure 417-3: “Total number of incidents of non-compliance with regulations and/or voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship.” |
| “GRI 418: Customer privacy” |
| Disclosure 418-1a: “Total number of substantiated complaints received concerning breaches of customer privacy.” |
| Disclosure 418-1b: “Total number of identified leaks, thefts, or losses of customer data.” |
| “GRI 419: Socioeconomic compliance” |
| Disclosure 419-1: “Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area.” |
| Product Portfolio |
| Former FS1: “Policies with specific social components applied to business lines.” |
| Former FS2: “Procedures for assessing and screening social risks in business lines.” |
| Former FS3: “Processes for monitoring clients’ implementation of and compliance with social requirements included in agreements or transactions.” |
| Former FS4: “Process(es) for improving staff competency to implement the social policies and procedures as applied to business lines.” |
| Former FS5: “Interactions with clients/ investees/business partners regarding environmental and social risks and opportunities.” |
| FS6: “Percentage of the portfolio for business lines by specific region, size (e.g. micro/sme/large) and by sector.” |
| FS7: “Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose.” |
| FS10: “Percentage and number of companies held in the institution’s portfolio with which the reporting organization has interacted on social issues.” |

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|---|
| FS11: “Percentage of assets subject to positive and negative social screening.” |
| Inclusive Finance |
| Gross loan portfolio of microfinance credit. |
| FS13: “Access points in low-populated or economically disadvantaged areas by type.” |
| FS14: “Initiatives to improve access to financial services for disadvantaged people.” |

Table 2: Analyzed disclosures concerning social issues. Source: GRI 400 (Social disclosure standards), Global Reporting Initiative (GRI, 2016). These standards were complemented by GRI G4’s sector disclosures for the Financial Services Sector (G4 and FS disclosures) (GRI, 2013). Disclosures 407-1a, 408-1a, 411-1a, 412-1, 413-1, 413-2, 416-1 were adapted to the banking industry by including a social impact assessment on borrowers. In disclosure 414, service providers to banks are also classified as suppliers. In addition to GRI disclosures, two new dimensions of analysis were included: borrower social assessment (following GRI 414) and inclusive finance. GRI 410 and 411 were not included as their applicability to the banking sector is limited.

Corporate Governance Disclosures

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|---|
| “Ownership Structure and Exercise of Control Rights” |
| “The beneficiary ownership structure should be fully disclosed to all interested parties.” |
| “Disclosure should be made of the process for holding and voting at annual general meetings and extraordinary general meetings, as well as all other information necessary for shareholders to participate effectively in such meetings.” |
| “The company should disclose all relevant information on the process by which shareholders can submit agenda items, and should disclose which shareholder proposals (if any) were excluded from the agenda and why.” |
| “Changes in the shareholdings of substantial investors should be disclosed to the market as soon as a company becomes aware of them.” |
| “Disclosure should be made of the control structure.” |
| “Disclosure should be made of how shareholders or other members of the organization can exercise their control rights through voting or other means.” |
| “Any arrangement under which some shareholders may have a degree of control disproportionate to their equity ownership, whether through differential voting rights, appointment of directors or other mechanisms, should be disclosed.” |
| “Any specific structures or procedures which are in place to protect the interests of minority shareholders should be disclosed.” |
| “Anti-takeover measures should be disclosed.” |
| “Transparency of Transactions” |
| “The objectives of the company should be disclosed.” |
| “The decision-making process for approving transactions with related parties should be disclosed.” |
| “Rules and procedures governing extraordinary transactions such as mergers and sales of substantial portions of corporate assets should be disclosed.” |
| “Auditing” |
| “Companies should disclose the process for the appointment of internal auditors.” |
| “Companies should disclose the scope of work and responsibilities of the internal audit function.” |
| “Companies should disclose the highest level within the leadership of the company to which the internal audit function reports.” |

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| “The process for the appointment of external auditors should be disclosed. Disclosures should cover the selection and approval process for the external auditor.” |
| “The process for the interaction with external auditors should be disclosed, namely who governs the relationship with the auditor.” |
| “Disclose the duration of the current auditor.” |
| “Disclose whether auditors do any non-audit work and what percentage of the total fees paid to the auditor involves non-audit work.” |
| “Disclose any prescriptive requirements of audit partner rotation.” |
| “The board should disclose that it has confidence that the external auditors are independent and their competency and integrity have not been compromised in any way.” |
| “The board should report on internal control systems designed to mitigate risks. Such reporting should include risk identification mechanisms.” |
| “Corporate Responsibility and Compliance” |
| “The board should disclose its policy and performance in connection with environmental and social responsibility.” |
| “The board should disclose the impact of environmental and social responsibility policies and performance on the firm’s sustainability.” |
| “The existence of a company code of ethics and any governance structure put in place to support that code of ethics should be disclosed.” |
| “The existence of reporting mechanisms and <i>whistleblower</i> protection mechanisms for all employees should be disclosed.” |
| “The board should disclose whether there is a mechanism protecting the rights of other stakeholders in a business.” |
| “The role of employees in Corporate Governance should be disclosed.” |
| “Board and Management Structure” |
| “The role and functions of the board of directors should be fully disclosed.” |
| “The composition of the board should be disclosed, in particular the balance of executives and non-executive directors.” |
| “The company should disclose whether any of the non-executives have any affiliations (direct or indirect) with the company. Where there might be issues that stakeholders might perceive as challenging the independence of non-executive directors, companies should disclose why those issues do not impinge on the governance role of the non-executive directors as a group.” |
| “Governance structures should be disclosed. In particular, the board should disclose structures put in place to prevent conflicts between the interests of the directors and management on the one side, and those of shareholders and other stakeholders on the other.” |
| “The composition and functions of governance structures or committees should be fully disclosed.” |
| “Committee charters, terms of reference or other company documents outlining the duties and powers of the committees or their members should also be disclosed, including whether or not the committee is empowered to make decisions which bind the board, or whether the committee can only make recommendations to the board.” |
| “When any director has taken on a specific role for the board or within one of governance structures or committees, this should be disclosed.” |
| “The number, type and duties of board positions held by an individual director should be disclosed.” |
| “A company should disclose whether or not the company has a policy limiting the number of board positions any one director can hold.” |

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| “There should be sufficient disclosure of the qualifications and biographical information of all board members to assure shareholders and other stakeholders that the members can effectively fulfil their responsibilities.” |
| “There should be disclosure of the mechanisms which are in place to act as <i>checks and balances</i> on key individuals in the company.” |
| “There should be disclosure of the types of development and training that directors undergo at induction as well as the actual training directors received during the reporting period.” |
| “The board should disclose facilities which may exist to provide members with professional advice. The board should also disclose whether that facility has been used during the reporting period.” |
| “The board should disclose whether it has a performance evaluation process in place, either for the board as a whole or for individual members. Disclosure should be made of how the board has evaluated its performance and how the results of the appraisal are being used.” |
| “Directors should disclose the mechanism for setting directors’ remuneration and its structure. A clear distinction should be made between remuneration mechanisms for executive directors and non-executive directors. Information regarding compensation packages should include salary, bonuses, pensions, share payments and all other benefits, financial or otherwise, as well as reimbursed expenses.” |
| “The length of directors’ contracts and the termination of service notice requirements should be disclosed.” |
| “The nature of compensation payable to any director for cancellation of service contract should be disclosed and specific reference should be made to any special arrangement relating to severance payments to directors in the event of a takeover.” |
| “The board should disclose whether it has established a succession plan for key executives and other board members to ensure that there is a strategy for continuity of operations.” |
| “Conflicts of interest affecting members of the board should, if they are not avoidable, at least be disclosed.” |
| “The board of directors should disclose whether it has a formal procedure for addressing situations of conflicts of interest, as well as the hierarchy of obligations to which directors are subject.” |
| “The board should give appropriate disclosures and assurance regarding its risk management objectives, systems and activities. The board should disclose existing provisions for identifying and managing the effects of risk bearing activities.” |
| “Where there is a local code on corporate governance, companies should follow a “comply or explain” rule whereby they disclose the extent to which they followed the local code’s recommendations and explain any deviations. Where there is no local code on Corporate Governance, companies should follow recognized international good practices.” |
| “The company should disclose awards or accolades for its good Corporate Governance practices.” |

Table 3: Analyzed disclosures concerning Corporate Governance issues. Source: Adapted from “Guidance on Good Practices in Corporate Governance Disclosure”, (UNCTAD, 2006), in its 2011 revised version (UNCTAD, 2011).

Exhibit B. Detailed results concerning the analysis of non-financial reporting in 2019

| Environmental | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|---|---|------------------------|
| Banco Santander | 44 | 64 | 68.8% |
| BNP Paribas | 43 | 64 | 67.2% |
| Société Générale | 41 | 64 | 64.1% |
| Deutsche Bank | 40 | 64 | 62.5% |
| UniCredit | 38 | 64 | 59.4% |
| Intesa Sanpaolo | 38 | 64 | 59.4% |
| Commerzbank | 32 | 64 | 50.0% |
| CaixaBank | 31 | 64 | 48.4% |
| Caixa Geral de Depósitos | 31 | 64 | 48.4% |
| Bank of Ireland | 29 | 64 | 45.3% |

Table 1: Total number of reported and analyzed environmental disclosures and reporting scores per bank in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Social | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|---|---|------------------------|
| Intesa Sanpaolo | 42 | 63 | 66.7% |
| Banco Santander | 41 | 63 | 65.1% |
| UniCredit | 41 | 63 | 65.1% |
| BNP Paribas | 40 | 63 | 63.5% |
| Société Générale | 39 | 63 | 61.9% |
| CaixaBank | 38 | 63 | 60.3% |
| Commerzbank | 38 | 63 | 60.3% |
| Caixa Geral de Depósitos | 37 | 63 | 58.7% |
| Deutsche Bank | 30 | 63 | 47.6% |
| Bank of Ireland | 14 | 63 | 22.2% |

Table 2: Total number of reported and analyzed social disclosures and reporting scores per bank in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Corporate Governance | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|--------------------------------------|--------------------------------------|-----------------|
| Intesa Sanpaolo | 45 | 51 | 88.2% |
| Société Générale | 45 | 51 | 88.2% |
| Caixa Geral de Depósitos | 43 | 49 | 87.8% |
| Banco Santander | 44 | 51 | 86.3% |
| BNP Paribas | 43 | 51 | 84.3% |
| UniCredit | 43 | 51 | 84.3% |
| CaixaBank | 42 | 51 | 82.4% |
| Bank of Ireland | 42 | 51 | 82.4% |
| Deutsche Bank | 39 | 51 | 76.5% |
| Commerzbank | 39 | 51 | 76.5% |

Table 3: Total number of reported and analyzed Corporate Governance disclosures and reporting scores per bank in 2019. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

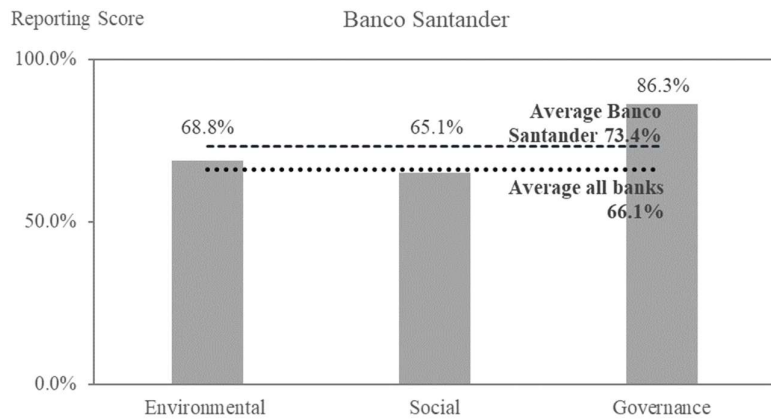


Figure 1: Environmental, social, Corporate Governance and average reporting scores of Banco Santander in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

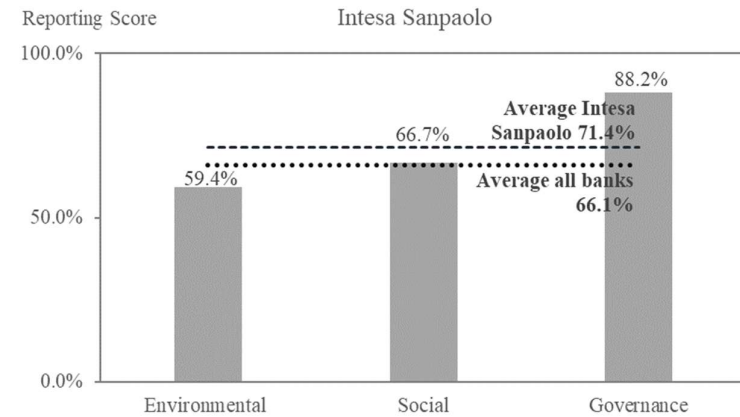


Figure 3: Environmental, social, Corporate Governance and average reporting scores of Intesa Sanpaolo in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

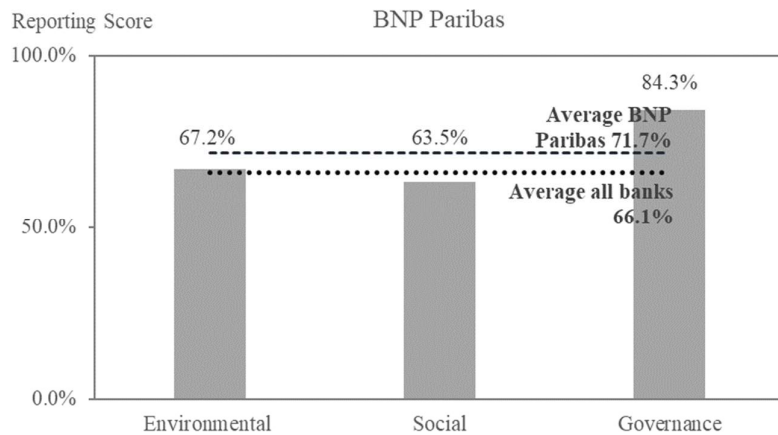


Figure 2: Environmental, social, Corporate Governance and average reporting scores of BNP Paribas in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

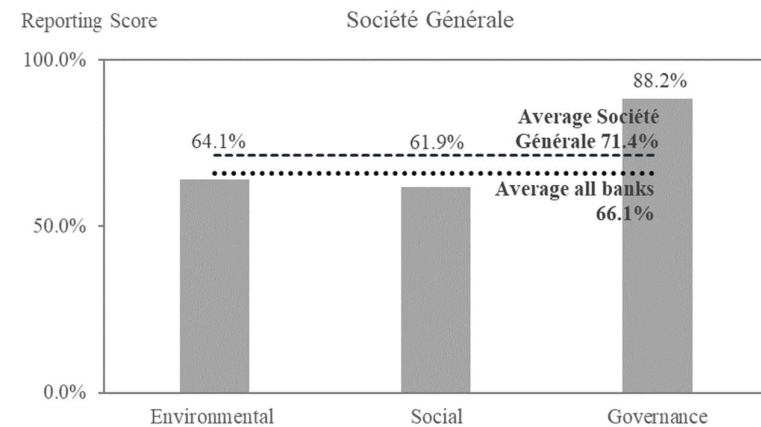


Figure 4: Environmental, social, Corporate Governance and average reporting scores of Société Générale in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

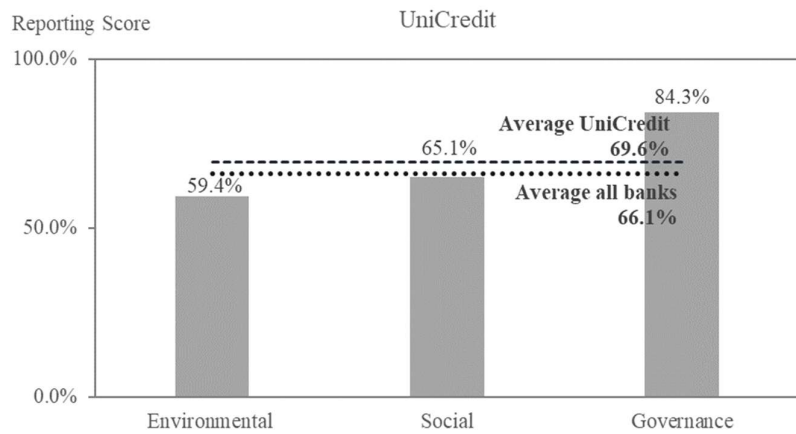


Figure 5: Environmental, social, Corporate Governance and average reporting scores of UniCredit in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

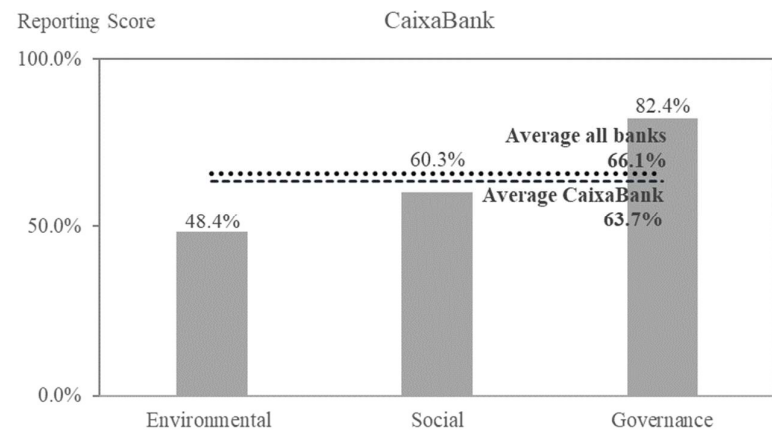


Figure 7: Environmental, social, Corporate Governance and average reporting scores of CaixaBank in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

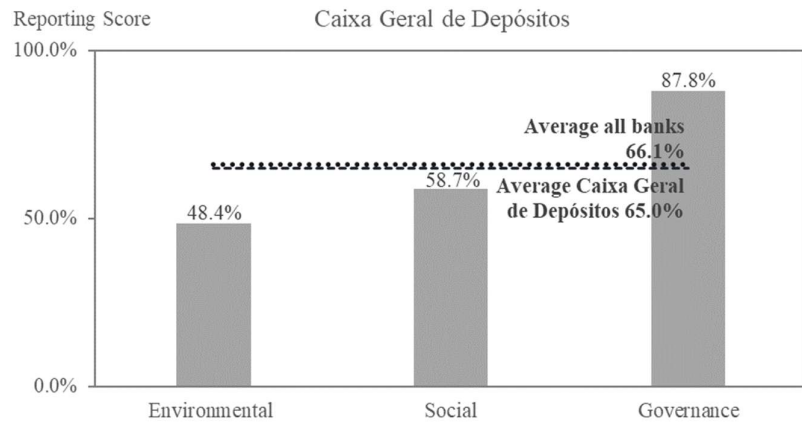


Figure 6: Environmental, social, Corporate Governance and average reporting scores of Caixa Geral de Depósitos in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

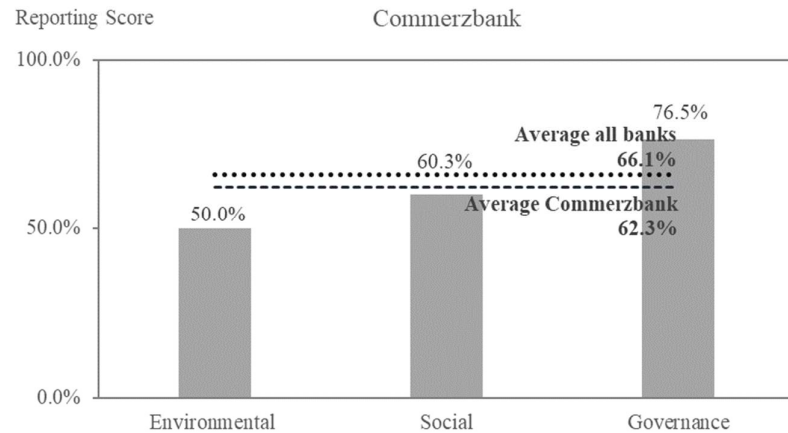


Figure 8: Environmental, social, Corporate Governance and average reporting scores of Commerzbank in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

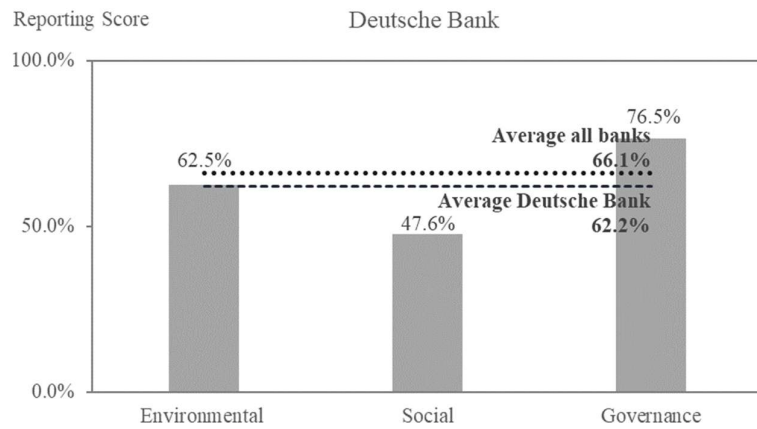


Figure 9: Environmental, social, Corporate Governance and average reporting scores of Deutsche Bank in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

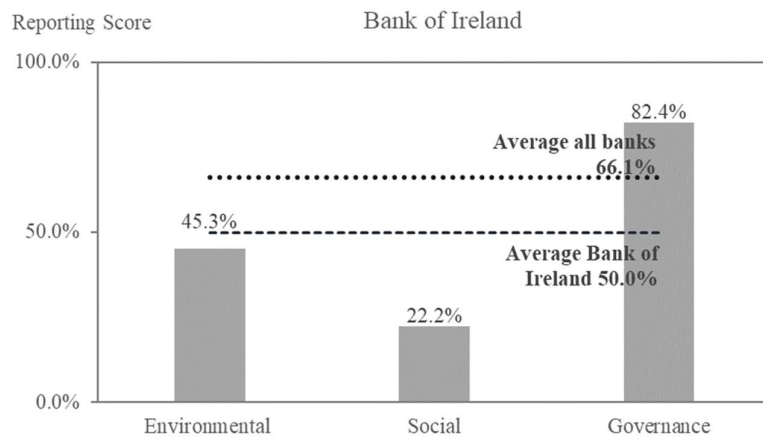


Figure 10: Environmental, social, Corporate Governance and average reporting scores of Bank of Ireland in 2019. The interbank average reporting score for 2019 was also included. Source: own elaboration.

Exhibit C. Detailed results concerning the analysis of non-financial reporting in 2007 and 2016

| Environmental | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|---|---|------------------------|
| UniCredit | 26 | 63 | 41.3% |
| Banco Santander | 25 | 63 | 39.7% |
| Commerzbank | 24 | 63 | 38.1% |
| Intesa Sanpaolo | 23 | 63 | 36.5% |
| BNP Paribas | 21 | 63 | 33.3% |
| Deutsche Bank | 20 | 63 | 31.7% |
| CaixaBank | 14 | 63 | 22.2% |
| Caixa Geral de Depósitos | 13 | 63 | 20.6% |
| Bank of Ireland | 12 | 63 | 19.0% |
| Société Générale | 11 | 63 | 17.5% |

Table 1: Total number of reported and analyzed environmental disclosures and reporting scores per bank in 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Social | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|---|---|------------------------|
| Intesa Sanpaolo | 26 | 63 | 41.3% |
| UniCredit | 25 | 63 | 39.7% |
| Banco Santander | 23 | 63 | 36.5% |
| Deutsche Bank | 23 | 63 | 36.5% |
| BNP Paribas | 22 | 63 | 34.9% |
| Caixa Geral de Depósitos | 17 | 63 | 27.0% |
| Commerzbank | 17 | 63 | 27.0% |
| CaixaBank | 14 | 63 | 22.2% |
| Société Générale | 13 | 63 | 20.6% |
| Bank of Ireland | 8 | 63 | 12.7% |

Table 2: Total number of reported and analyzed social disclosures and reporting scores per bank in 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Corporate Governance | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|--------------------------------------|--------------------------------------|-----------------|
| Banco Santander | 35 | 51 | 68.6% |
| UniCredit | 31 | 51 | 60.8% |
| Deutsche Bank | 31 | 51 | 60.8% |
| BNP Paribas | 30 | 51 | 58.8% |
| Commerzbank | 29 | 51 | 56.9% |
| Société Générale | 27 | 51 | 52.9% |
| Bank of Ireland | 25 | 51 | 49.0% |
| Intesa Sanpaolo | 24 | 51 | 47.1% |
| CaixaBank | 23 | 51 | 45.1% |
| Caixa Geral de Depósitos | 19 | 49 | 38.8% |

Table 3: Total number of reported and analyzed Corporate Governance disclosures and reporting scores per bank in 2007. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Environmental | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|--------------------------------------|--------------------------------------|-----------------|
| Société Générale | 37 | 64 | 57.8% |
| BNP Paribas | 35 | 64 | 54.7% |
| Deutsche Bank | 33 | 64 | 51.6% |
| UniCredit | 30 | 64 | 46.9% |
| Banco Santander | 29 | 64 | 45.3% |
| Commerzbank | 29 | 64 | 45.3% |
| CaixaBank | 28 | 64 | 43.8% |
| Caixa Geral de Depósitos | 28 | 64 | 43.8% |
| Intesa Sanpaolo | 27 | 64 | 42.2% |
| Bank of Ireland | 27 | 64 | 42.2% |

Table 4: Total number of reported and analyzed environmental disclosures and reporting scores per bank in 2016. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Social | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|--------------------------|---|---|------------------------|
| Intesa Sanpaolo | 37 | 63 | 58.7% |
| Banco Santander | 36 | 63 | 57.1% |
| BNP Paribas | 36 | 63 | 57.1% |
| CaixaBank | 35 | 63 | 55.6% |
| Caixa Geral de Depósitos | 34 | 63 | 54.0% |
| Société Générale | 33 | 63 | 52.4% |
| Commerzbank | 32 | 63 | 50.8% |
| UniCredit | 31 | 63 | 49.2% |
| Deutsche Bank | 20 | 63 | 31.7% |
| Bank of Ireland | 12 | 63 | 19.0% |

Table 5: Total number of reported and analyzed social disclosures and reporting scores per bank in 2016. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Corporate Governance | Total Number of Reported Disclosures | Total Number of Analyzed Disclosures | Reporting Score |
|-----------------------------|---|---|------------------------|
| BNP Paribas | 42 | 51 | 82.4% |
| Banco Santander | 42 | 51 | 82.4% |
| Société Générale | 41 | 51 | 80.4% |
| UniCredit | 39 | 51 | 76.5% |
| Bank of Ireland | 39 | 51 | 76.5% |
| CaixaBank | 37 | 51 | 72.5% |
| Intesa Sanpaolo | 36 | 51 | 70.6% |
| Deutsche Bank | 36 | 51 | 70.6% |
| Caixa Geral de Depósitos | 34 | 49 | 69.4% |
| Commerzbank | 34 | 51 | 66.7% |

Table 6: Total number of reported and analyzed Corporate Governance disclosures and reporting scores per bank in 2016. Reporting scores were computed as the ratio between the number of reported disclosures and the total number of analyzed disclosures. Source: own elaboration.

| Environmental | 2016 – 2019 | | 2007 – 2016 | | 2007 – 2019 | |
|--------------------------|----------------|-------------|----------------|-------------|----------------|-------------|
| | Change in p.p. | Change in % | Change in p.p. | Change in % | Change in p.p. | Change in % |
| Société Générale | 6.3 | 10.8 | 40.4 | 231.1 | 46.6 | 266.9 |
| BNP Paribas | 12.5 | 22.9 | 21.4 | 64.1 | 33.9 | 101.6 |
| Deutsche Bank | 10.9 | 21.2 | 19.8 | 62.4 | 30.8 | 96.9 |
| Banco Santander | 23.4 | 51.7 | 5.6 | 14.2 | 29.1 | 73.3 |
| Caixa Geral de Depósitos | 4.7 | 10.7 | 23.1 | 112.0 | 27.8 | 134.7 |
| Bank of Ireland | 3.1 | 7.4 | 23.1 | 121.5 | 26.3 | 137.9 |
| CaixaBank | 4.7 | 10.7 | 21.5 | 96.9 | 26.2 | 118.0 |
| Intesa Sanpaolo | 17.2 | 40.7 | 5.7 | 15.6 | 22.9 | 62.6 |
| UniCredit | 12.5 | 26.7 | 5.6 | 13.6 | 18.1 | 43.9 |
| Commerzbank | 4.7 | 10.3 | 7.2 | 18.9 | 11.9 | 31.3 |
| Average Score | 10.0 | - | 17.3 | - | 27.3 | - |

Table 7: Variation, in percentage and percentage points, of reporting scores concerning environmental issues between 2016 and 2019; 2007 and 2016; and 2007 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2007 and 2019. Source: own elaboration.

| Social | 2016 – 2019 | | 2007 – 2016 | | 2007 – 2019 | |
|--------------------------|----------------|-------------|----------------|-------------|----------------|-------------|
| | Change in p.p. | Change in % | Change in p.p. | Change in % | Change in p.p. | Change in % |
| Société Générale | 9.5 | 18.2 | 31.7 | 153.8 | 41.3 | 200.0 |
| CaixaBank | 4.8 | 8.6 | 33.3 | 150.0 | 38.1 | 171.4 |
| Commerzbank | 9.5 | 18.8 | 23.8 | 88.2 | 33.3 | 123.5 |
| Caixa Geral de Depósitos | 4.8 | 8.8 | 27.0 | 100.0 | 31.7 | 117.6 |
| Banco Santander | 7.9 | 13.9 | 20.6 | 56.5 | 28.6 | 78.3 |
| BNP Paribas | 6.3 | 11.1 | 22.2 | 63.6 | 28.6 | 81.8 |
| UniCredit | 15.9 | 32.3 | 9.5 | 24.0 | 25.4 | 64.0 |
| Intesa Sanpaolo | 7.9 | 13.5 | 17.5 | 42.3 | 25.4 | 61.5 |
| Deutsche Bank | 15.9 | 50.0 | (4.8) | (13.0) | 11.1 | 30.4 |
| Bank of Ireland | 3.2 | 16.7 | 6.3 | 50.0 | 9.5 | 75.0 |
| Average Score | 8.6 | - | 18.7 | - | 27.3 | - |

Table 8: Variation in percentage and percentage points of reporting scores concerning social issues between 2016 and 2019; 2007 and 2016; and 2007 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2007 and 2019. Source: own elaboration.

| Corporate Governance | 2016 – 2019 | | 2007 – 2016 | | 2007 – 2019 | |
|--------------------------|----------------|-------------|----------------|-------------|----------------|-------------|
| | Change in p.p. | Change in % | Change in p.p. | Change in % | Change in p.p. | Change in % |
| Caixa Geral de Depósitos | 18.4 | 26.5 | 30.6 | 78.9 | 49.0 | 126.3 |
| Intesa Sanpaolo | 17.6 | 25.0 | 23.5 | 50.0 | 41.2 | 87.5 |
| CaixaBank | 9.8 | 13.5 | 27.5 | 60.9 | 37.3 | 82.6 |
| Société Générale | 7.8 | 9.8 | 27.5 | 51.9 | 35.3 | 66.7 |
| Bank of Ireland | 5.9 | 7.7 | 27.5 | 56.0 | 33.3 | 68.0 |
| BNP Paribas | 2.0 | 2.4 | 23.5 | 40.0 | 25.5 | 43.3 |
| UniCredit | 7.8 | 10.3 | 15.7 | 25.8 | 23.5 | 38.7 |
| Commerzbank | 9.8 | 14.7 | 9.8 | 17.2 | 19.6 | 34.5 |
| Banco Santander | 3.9 | 4.8 | 13.7 | 20.0 | 17.6 | 25.7 |
| Deutsche Bank | 5.9 | 8.3 | 9.8 | 16.1 | 15.7 | 25.8 |
| Average Score | 8.9 | - | 20.9 | - | 29.8 | - |

Table 9: Variation in percentage and percentage points of reporting scores concerning Corporate Governance issues between 2016 and 2019; 2007 and 2016; and 2007 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2007 and 2019. Source: own elaboration.

| Average | 2016 – 2019 | | 2007 – 2016 | | 2007 – 2019 | |
|--------------------------|----------------|-------------|----------------|-------------|----------------|-------------|
| | Change in p.p. | Change in % | Change in p.p. | Change in % | Change in p.p. | Change in % |
| Société Générale | 7.9 | 12.4 | 33.2 | 109.4 | 41.1 | 135.3 |
| Caixa Geral de Depósitos | 9.3 | 16.6 | 26.9 | 93.4 | 36.2 | 125.6 |
| CaixaBank | 6.4 | 11.2 | 27.4 | 91.9 | 33.9 | 113.4 |
| Intesa Sanpaolo | 14.3 | 24.9 | 15.6 | 37.4 | 29.8 | 71.6 |
| BNP Paribas | 6.9 | 10.7 | 22.4 | 52.8 | 29.3 | 69.2 |
| Banco Santander | 11.8 | 19.1 | 13.3 | 27.6 | 25.1 | 52.0 |
| Bank of Ireland | 4.1 | 8.8 | 19.0 | 70.5 | 23.0 | 85.6 |
| UniCredit | 12.1 | 21.0 | 10.3 | 21.7 | 22.3 | 47.3 |
| Commerzbank | 8.0 | 14.8 | 13.6 | 33.5 | 21.6 | 53.2 |
| Deutsche Bank | 10.9 | 21.2 | 8.3 | 19.3 | 19.2 | 44.6 |
| Average | 9.2 | - | 19.0 | - | 28.1 | - |

Table 10: Variation in percentage and percentage points of average reporting scores between 2016 and 2019; 2007 and 2016; and 2007 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2007 and 2019. Source: own elaboration.

| Disclosures | Number of Banks | | |
|---|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| "Describe the impact of climate-related risks and opportunities on the company's business model, strategy and financial planning." | 10 | 10 | 10 |
| "Describe the ways in which the company's business model can impact the climate, both positively and negatively." | 10 | 10 | 10 |
| "Describe any company policies related to climate, including any climate change mitigation or adaptation policy." | 10 | 10 | 10 |
| "Describe any public policy engagement on climate-related issues undertaken by the company, including membership of any relevant organizations or interest groups." | 10 | 10 | 10 |
| "Describe any stewardship activities related to the financial institution's climate strategy such as engagements with companies, outcomes, and proxy voting (e.g. resolutions filed or supported)." | 9 | 10 | 10 |
| "Disclose KPIs related to energy consumption." | 9 | 10 | 10 |

Table 11: Evolution, in number of reporting banks per year, of environmental disclosures that were reported by 9 or 10 banks in each of the three analyzed years. Source: own elaboration; disclosures adapted from “Communication from the Commission — Guidelines on non-financial reporting: Supplement on reporting climate-related information”, European Commission (2019).

| Disclosures | Number of Banks | | |
|--|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| Disclosure 404-2a: "Type and scope of programs implemented and assistance provided to upgrade employee skills." | 10 | 10 | 10 |
| Disclosure 405-1a: "Percentage of individuals within the organization's governance bodies in each of the following diversity categories: i. Gender; ii. Age group; iii. Other indicators of diversity where relevant (such as minority or vulnerable groups)." | 9 | 10 | 10 |
| Disclosure 419-1: "Significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area." | 10 | 10 | 10 |
| Former FS5: "Interactions with clients/ investees/business partners regarding [...] social risks and opportunities." | 10 | 10 | 10 |

Table 12: Evolution, in number of reporting banks per year, of social disclosures that were reported by 9 or 10 banks in each of the three analyzed years. Source: own elaboration; disclosures adapted from GRI 400 (Social disclosure standards), Global Reporting Initiative (GRI, 2016).

| Disclosures | Number of Banks | | |
|--|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| "The beneficiary ownership structure should be fully disclosed to all interested parties." | 9 | 10 | 10 |
| "Disclosure should be made of the process for holding and voting at annual general meetings and extraordinary general meetings, as well as all other information necessary for shareholders to participate effectively in such meetings." | 10 | 10 | 10 |
| "Changes in the shareholdings of substantial investors should be disclosed to the market as soon as a company becomes aware of them." | 9 | 10 | 10 |
| "Disclosure should be made of the control structure." | 10 | 10 | 10 |
| "Disclosure should be made of how shareholders or other members of the organization can exercise their control rights through voting or other means." | 10 | 10 | 10 |
| "The objectives of the company should be disclosed." | 10 | 10 | 10 |
| "Companies should disclose the highest level within the leadership of the company to which the internal audit function reports." | 9 | 10 | 10 |
| "The process for the interaction with external auditors should be disclosed, namely who governs the relationship with the auditor." | 9 | 10 | 10 |
| "The board should report on internal control systems designed to mitigate risks. Such reporting should include risk identification mechanisms." | 10 | 10 | 10 |
| "The role and functions of the board of directors should be fully disclosed." | 10 | 10 | 10 |
| "The composition of the board should be disclosed, in particular the balance of executives and non-executive directors." | 10 | 10 | 10 |
| "Governance structures should be disclosed. In particular, the board should disclose structures put in place to prevent conflicts between the interests of the directors and management on the one side, and those of shareholders and other stakeholders on the other." | 10 | 10 | 10 |
| "The composition and functions of governance structures or committees should be fully disclosed." | 10 | 10 | 10 |
| "When any director has taken on a specific role for the board or within one of governance structures or committees, this should be disclosed." | 9 | 10 | 10 |
| "The number, type and duties of board positions held by an individual director should be disclosed." | 9 | 10 | 10 |
| "The board should give appropriate disclosures and assurance regarding its risk management objectives, systems and activities. The board should disclose existing provisions for identifying and managing the effects of risk bearing activities." | 10 | 10 | 10 |

Table 13: Evolution, in number of reporting banks per year, of Corporate Governance disclosures that were reported by 9 or 10 banks in each of the three analyzed years. Source: own elaboration; disclosures adapted from “Guidance on Good Practices in Corporate Governance Disclosure”, (UNCTAD, 2006), in its 2011 revised version (UNCTAD, 2011).

| Disclosures | Number of Banks | | |
|--|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| "Describe management's role in assessing and managing climate-related risks and opportunities and explain the rationale for the approach." | 0 | 7 | 8 |
| "Describe whether, how and at what levels (in particular board and management) the company has access to expertise on climate-related issues, either from its own internal capacity and/or from external sources." | 0 | 0 | 8 |
| "Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management." | 1 | 9 | 9 |
| "Describe the frequency of reviews and analyses with regard to risk identification and assessment." | 0 | 4 | 9 |
| "Describe the climate-related risks identified in the different lending activities and how the financial institution assesses and manages those risks." | 2 | 9 | 9 |
| "Disclose any risk mapping that includes climate-related issues." | 0 | 7 | 8 |
| "Volume of exposures by sector of counterparty (high- vs. low-carbon sectors)." | 0 | 3 | 7 |

Table 14: Evolution, in number of reporting banks per year, of environmental disclosures that were reported by, at least, 7 more banks in 2019 than in 2007. Source: own elaboration; disclosures adapted from “Communication from the Commission — Guidelines on non-financial reporting: Supplement on reporting climate-related information”, European Commission (2019).

| Disclosures | Number of Banks | | |
|---|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| Former FS3: "Processes for monitoring clients' implementation of and compliance with social requirements included in agreements or transactions." | 0 | 5 | 7 |
| Disclosure 405-2: "Ratio of basic salary and remuneration of women to men." | 1 | 5 | 8 |

Table 15: Evolution, in number of reporting banks per year, of social disclosures that were reported by, at least, 7 more banks in 2019 than in 2007. Source: own elaboration; disclosures adapted from GRI 400 (Social disclosure standards), Global Reporting Initiative (GRI, 2016).

| Disclosures | Number of Banks | | |
|---|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| "Disclose the duration of the current auditor." | 1 | 7 | 10 |
| "The existence of reporting mechanisms and <i>whistleblower</i> protection mechanisms for all employees should be disclosed." | 0 | 7 | 10 |
| "The company should disclose whether any of the non-executives have any affiliations (direct or indirect) with the company. Where there might be issues that stakeholders might perceive as challenging the independence of non-executive directors, companies should disclose why those issues do not impinge on the governance role of the non-executive directors as a group." | 1 | 10 | 10 |
| "Committee charters, terms of reference or other company documents outlining the duties and powers of the committees or their members should also be disclosed, including whether or not the committee is empowered to make decisions which bind the board, or whether the committee can only make recommendations to the board." | 1 | 6 | 9 |
| "There should be disclosure of the types of development and training that directors undergo at induction as well as the actual training directors received during the reporting period." | 2 | 7 | 9 |
| "The board of directors should disclose whether it has a formal procedure for addressing situations of conflicts of interest, as well as the hierarchy of obligations to which directors are subject." | 0 | 8 | 10 |

Table 16: Evolution, in number of reporting banks per year, of Corporate Governance disclosures that were reported by, at least, 7 more banks in 2019 than in 2007. Source: own elaboration; disclosures adapted from “Guidance on Good Practices in Corporate Governance Disclosure”, (UNCTAD, 2006), in its 2011 revised version (UNCTAD, 2011).

| Disclosures | Number of Banks | | |
|--|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| "Describe whether and how the company's remuneration policy takes account of climate-related performance, including performance against targets set." | 0 | 2 | 2 |
| "Explain the reasoning behind the selection of any climate-related targets used by the company." | 0 | 1 | 1 |
| "Describe how the performance of the company with regard to climate influences its financial performance, where possible with reference to financial KPIs." | 0 | 0 | 1 |
| "Describe the development trend of the amount of carbon-related assets in the different portfolios against any relevant target set and the related risks over time." | 0 | 0 | 2 |
| "Describe the principal climate-related risks the company has identified over the short, medium, and long term throughout the value chain, and any assumptions that have been made when identifying these risks." | 0 | 0 | 1 |
| "Give a detailed breakdown of principal climate-related risks by geographical location." | 0 | 0 | 0 |
| "Describe how the company sets and applies limits to climate-related risks, including any triggers used to escalate issues to management attention." | 0 | 0 | 1 |
| "Categorize the principal risks of climate change on the financial performance of the company according to whether they are transition risks (policy, legal, technological, market and reputational risks) or physical risks (acute and chronic risks)." | 0 | 0 | 2 |
| "Describe the linkages between principal climate-related risks and financial KPIs." | 0 | 0 | 0 |
| "Describe whether risk management processes, including internal stress testing, consider climate-related risks." | 0 | 0 | 1 |
| "Describe the exposure of financial assets, non-financial assets and assets under management to principal climate-related risks and provide with a breakdown of those risks in physical and transition risks." | 0 | 0 | 1 |
| "Describe how the financial institution has assessed the exposure of financial assets and non-financial assets to climate-related risks under different climate-related scenarios." | 0 | 0 | 1 |
| "Describe how climate-related risks could affect overall banks' present and future regulatory capital requirements." | 0 | 0 | 0 |
| "Disclose the volume of the collateral highly exposed to climate-related risks and the impact of the selected scenarios on its value." | 0 | 0 | 0 |
| "Disclose the volume of real estate collateral by energy efficiency rating according to energy performance certificates. In particular, volume of real estate collaterals highly exposed to transition risk, including collateral with the lowest energy efficiency ratings in comparison to total collaterals." | 0 | 0 | 0 |
| "Disclose the volume of real estate collaterals highly exposed to physical risk in comparison to total collaterals." | 0 | 0 | 0 |
| "Weighted average carbon intensity of each portfolio." | 0 | 0 | 2 |
| "Volume of collaterals related to assets or activities in climate change mitigating sectors." | 0 | 1 | 1 |

Table 17: Evolution, in number of reporting banks per year, of environmental disclosures that were reported by only 0, 1 or 2 banks in each of the three analyzed years. Source: own elaboration; disclosures adapted from “Communication from the Commission — Guidelines on non-financial reporting: Supplement on reporting climate-related information”, European Commission (2019).

| Disclosures | Number of Banks | | |
|---|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| Disclosure 401-3d: "Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender." | 0 | 1 | 1 |
| Disclosure 401-3e: "Return to work and retention rates of employees that took parental leave, by gender." | 0 | 2 | 2 |
| Disclosure 403-4b: "The extent, as a percentage, to which various health and safety topics are covered by these formal agreements [between the company and trade unions]." | 1 | 1 | 1 |
| Disclosure 408-1a: "Operations, suppliers [and borrowers] considered to have significant risk for incidents of child labor and/or young workers exposed to hazardous work." | 1 | 2 | 2 |
| Disclosure 409-1a: "Operations and suppliers at significant risk for incidents of forced or compulsory labor." | 1 | 2 | 2 |
| Disclosure 412-2a: "Total number of hours in the reporting period devoted to training on human rights policies or procedures concerning aspects of human rights that are relevant to operations." | 0 | 1 | 1 |
| Disclosure 414-2c: "Percentage of suppliers identified as having significant actual and potential negative social impacts with which improvements were agreed upon as a result of assessment." | 0 | 1 | 1 |
| Disclosure 414-2d: "Percentage of suppliers identified as having significant actual and potential negative social impacts with which relationships were terminated as a result of assessment, and why." | 0 | 1 | 2 |

Table 18: Evolution, in number of reporting banks per year, of social disclosures that were reported by only 0, 1 or 2 banks in each of the three analyzed years. Source: own elaboration; disclosures adapted from GRI 400 (Social disclosure standards), Global Reporting Initiative (GRI, 2016).

| Disclosures | Number of Banks | | |
|---|-----------------|------|------|
| | 2007 | 2016 | 2019 |
| "There should be disclosure of the mechanisms which are in place to act as <i>checks and balances</i> on key individuals in the company." | 0 | 1 | 1 |

Table 19: Evolution, in number of reporting banks per year, of Corporate Governance disclosures that were reported by only 0, 1 or 2 banks in each of the three analyzed years. Source: own elaboration; disclosures adapted from "Guidance on Good Practices in Corporate Governance Disclosure", (UNCTAD, 2006), in its 2011 revised version (UNCTAD, 2011).

Exhibit D: Reporting scores, size, profitability and ESG ratings

| Country | Bank | Environmental Reporting Score | Total Assets (EUR Million) | Return on Equity (ROE) | MSCI ESG Rating |
|----------|--------------------------|-------------------------------|----------------------------|------------------------|-----------------|
| Spain | Banco Santander | 68.8% | 1,522,695 | 6.6% | BBB |
| France | BNP Paribas | 67.2% | 2,164,713 | 8.5% | A |
| France | Société Générale | 64.1% | 1,356,303 | 5.0% | AA |
| Germany | Deutsche Bank | 62.5% | 1,297,674 | (9.5)% | BBB |
| Italy | Intesa Sanpaolo | 59.4% | 816,102 | 8.8% | AAA |
| Italy | UniCredit | 59.4% | 855,647 | 5.7% | BBB |
| Germany | Commerzbank | 50.0% | 462,000 | 2.3% | A |
| Portugal | Caixa Geral de Depósitos | 48.4% | 91,645 | 8.1% | - |
| Spain | CaixaBank | 48.4% | 391,414 | 6.4% | A |
| Ireland | Bank of Ireland | 45.3% | 131,883 | 4.1% | BB |

Table 1: Comparison of environmental reporting scores in 2019 with total assets (in 2019), return on equity (ROE) (in 2019), MSCI ESG rating (in 2019), and country of origin per bank. Banks are ordered from the largest to the smallest environmental reporting score. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

| Country | Bank | Social Reporting Score | Total Assets (EUR Million) | Return on Equity (ROE) | MSCI ESG Rating |
|----------|--------------------------|------------------------|----------------------------|------------------------|-----------------|
| Italy | Intesa Sanpaolo | 66.7% | 816,102 | 8.8% | AAA |
| Spain | Banco Santander | 65.1% | 1,522,695 | 6.6% | BBB |
| Italy | UniCredit | 65.1% | 855,647 | 5.7% | BBB |
| France | BNP Paribas | 63.5% | 2,164,713 | 8.5% | A |
| France | Société Générale | 61.9% | 1,356,303 | 5.0% | AA |
| Germany | Commerzbank | 60.3% | 462,000 | 2.3% | A |
| Spain | CaixaBank | 60.3% | 391,414 | 6.4% | A |
| Portugal | Caixa Geral de Depósitos | 58.7% | 91,645 | 8.1% | - |
| Germany | Deutsche Bank | 47.6% | 1,297,674 | (9.5)% | BBB |
| Ireland | Bank of Ireland | 22.2% | 131,883 | 4.1% | BB |

Table 2: Comparison of social reporting scores in 2019 with total assets (in 2019), return on equity (ROE) (in 2019), MSCI ESG rating (in 2019), and country of origin per bank. Banks are ordered from the largest to the smallest social reporting score. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

| Country | Bank | Corporate Governance Reporting Score | Total Assets (EUR Million) | Return on Equity (ROE) | MSCI ESG Rating |
|----------|--------------------------|--------------------------------------|----------------------------|------------------------|-----------------|
| Italy | Intesa Sanpaolo | 88.2% | 816,102 | 8.8% | AAA |
| France | Société Générale | 88.2% | 1,356,303 | 5.0% | AA |
| Portugal | Caixa Geral de Depósitos | 87.8% | 91,645 | 8.1% | - |
| Spain | Banco Santander | 86.3% | 1,522,695 | 6.6% | BBB |
| Italy | UniCredit | 84.3% | 855,647 | 5.7% | BBB |
| France | BNP Paribas | 84.3% | 2,164,713 | 8.5% | A |
| Spain | CaixaBank | 82.4% | 391,414 | 6.4% | A |
| Ireland | Bank of Ireland | 82.4% | 131,883 | 4.1% | BB |
| Germany | Commerzbank | 76.5% | 462,000 | 2.3% | A |
| Germany | Deutsche Bank | 76.5% | 1,297,674 | (9.5)% | BBB |

Table 3: Comparison of Corporate Governance reporting scores in 2019 with total assets (in 2019), return on equity (ROE) (in 2019), MSCI ESG rating (in 2019), and country of origin per bank. Banks are ordered from the largest to the smallest Corporate Governance reporting score. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

| Average | Reporting Score 2016 – 2019 | | MSCI ESG Rating 2019 | MSCI ESG Rating 2016 |
|--------------------------|-----------------------------|-------------|----------------------|----------------------|
| | Change in p.p. | Change in % | | |
| Intesa Sanpaolo | 14.3 | 24.9 | AAA | AAA |
| UniCredit | 12.1 | 21.0 | BBB | BBB |
| Banco Santander | 11.8 | 19.1 | BBB | A |
| Deutsche Bank | 10.9 | 21.2 | BBB | BB |
| Caixa Geral de Depósitos | 9.3 | 16.6 | - | - |
| Commerzbank | 8.0 | 14.8 | A | A |
| Société Générale | 7.9 | 12.4 | AA | A |
| BNP Paribas | 6.9 | 10.7 | A | BBB |
| CaixaBank | 6.4 | 11.2 | A | A |
| Bank of Ireland | 4.1 | 8.8 | BB | BB |

Table 4: Comparison of the evolution of average reporting scores with the evolution of MSCI ESG ratings between 2016 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2016 and 2019. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

| Environmental | Reporting score 2016 – 2019 | | MSCI ESG Rating 2019 | MSCI ESG Rating 2016 |
|--------------------------|-----------------------------|-------------|----------------------|----------------------|
| | Change in p.p. | Change in % | | |
| Banco Santander | 23.4 | 51.7 | BBB | A |
| Intesa Sanpaolo | 17.2 | 40.7 | AAA | AAA |
| BNP Paribas | 12.5 | 22.9 | A | BBB |
| UniCredit | 12.5 | 26.7 | BBB | BBB |
| Deutsche Bank | 10.9 | 21.2 | BBB | BB |
| Société Générale | 6.3 | 10.8 | AA | A |
| Caixa Geral de Depósitos | 4.7 | 10.7 | - | - |
| CaixaBank | 4.7 | 10.7 | A | A |
| Commerzbank | 4.7 | 10.3 | A | A |
| Bank of Ireland | 3.1 | 7.4 | BB | BB |

Table 5: Comparison of the evolution of environmental reporting scores with the evolution of MSCI ESG ratings between 2016 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2016 and 2019. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

| Social | Reporting score 2016 – 2019 | | MSCI ESG Rating 2019 | MSCI ESG Rating 2016 |
|--------------------------|-----------------------------|-------------|----------------------|----------------------|
| | Change in p.p. | Change in % | | |
| UniCredit | 15.9 | 32.3 | BBB | BBB |
| Deutsche Bank | 15.9 | 50.0 | BBB | BB |
| Société Générale | 9.5 | 18.2 | AA | A |
| Commerzbank | 9.5 | 18.8 | A | A |
| Banco Santander | 7.9 | 13.9 | BBB | A |
| Intesa Sanpaolo | 7.9 | 13.5 | AAA | AAA |
| BNP Paribas | 6.3 | 11.1 | A | BBB |
| Caixa Geral de Depósitos | 4.8 | 8.8 | - | - |
| CaixaBank | 4.8 | 8.6 | A | A |
| Bank of Ireland | 3.2 | 16.7 | BB | BB |

Table 6: Comparison of the evolution of social reporting scores with the evolution of MSCI ESG ratings between 2016 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2016 and 2019. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.

| Corporate Governance | Reporting score 2016 – 2019 | | MSCI ESG Rating 2019 | MSCI ESG Rating 2016 |
|--------------------------|-----------------------------|-------------|----------------------|----------------------|
| | Change in p.p. | Change in % | | |
| Caixa Geral de Depósitos | 18.4 | 26.5 | - | - |
| Intesa Sanpaolo | 17.6 | 25.0 | AAA | AAA |
| CaixaBank | 9.8 | 13.5 | A | A |
| Commerzbank | 9.8 | 14.7 | A | A |
| UniCredit | 7.8 | 10.3 | BBB | BBB |
| Société Générale | 7.8 | 9.8 | AA | A |
| Bank of Ireland | 5.9 | 7.7 | BB | BB |
| Deutsche Bank | 5.9 | 8.3 | BBB | BB |
| Banco Santander | 3.9 | 4.8 | BBB | A |
| BNP Paribas | 2.0 | 2.4 | A | BBB |

Table 7: Comparison of the evolution of Corporate Governance reporting scores with the evolution of MSCI ESG ratings between 2016 and 2019. Banks are ordered from the largest to the smallest variation in reporting scores (in percentage points) between 2016 and 2019. Source: own elaboration; banks' annual reports; Thomson Reuters Eikon; MSCI.