Ca' Foscari
University
of Venice

Master's Degree

in Economics and Finance

Final Thesis

The effects of sustainable practices on customer loyalty: an analysis of the banking sector through PLS-SEM

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Academic Year
2023/2024

Ai miei nonni

Maria e Luigi, Gino ed Adriana,

perché senza di loro non sarei

la persona che sono oggi.

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INTRODUCTION

Sustainability continues to be crucial across all economic activities, with financial institutions facing increasing pressure in recent times. Despite their relatively limited emissions compared to other sectors, financial institutions' responsibility of allocating funds towards more sustainable businesses and projects is being recognized. Sustainable banking, involving the integration of ESG (Environmental, Social, and Governance) factors into the traditional banking functions, is seen as the way forward for banks to contribute in the transition towards a more sustainable world. Given the pressure from the regulatory authorities supervising the banking sector and the growing attention from clients on bank's sustainability efforts, sustainable initiatives have been shown to benefit financial institutions both economically and non-economically. This thesis aims at analyzing the relationship between the implementation of sustainable initiatives by banks and their customer base, with specific attention to clients' habits, values, and the characteristics of the client – bank relationship.

Chapter 1 traces the historical evolution of sustainable banking, starting from its origins supporting the portion of population in need to its current and multifaceted form. Moreover, it defines the main topics under the sustainable banking umbrella, including the acronym ESG, sustainable banking, Corporate Social Responsibility (CSR), and Socially Responsible Investing (SRI).

Chapter 2 delineates the contemporary understanding of sustainable banking, highlighting the main practices. Starting from the main external and internal forces that are pushing banks towards sustainability, it presents the main impacts occurred to the core banking functions and the recent additions to the product offer. Moreover, it reviews the existing literature on the different approaches of embedding sustainability within the business model of the bank.

Chapter 3 explores the current European Legislative Framework, in constant evolution, covering the efforts required by banks on sustainability topics. Pieces of legislation ù are such as the Taxonomy Regulation, the most recent amendments to the Capital Requirement Directive (CRD) and Regulation (CRR), the MiFID II and the major disclosure requirements are discussed. This chapters also addresses non-binding requirements, that are strongly suggested as guidelines for banks to follow.

Finally, Chapter 4 investigates the impacts of sustainable practices on the client – bank

relationship, with a particular emphasis on the main pathways leading to enhanced customer loyalty. It proposes two different lenses acting as mediators: Customer Company Identification (CCI) and trust. While past literature has extensively explored potential mediators between sustainable initiatives and loyalty, the debate on the direct effect between the two and the power extent of the mediators is still ongoing. The chapter then presents the main descriptive statistics of the sample, together with the constructs and the observed variables identified to outline the model. The proposed model, supported by an overview of the literature analyzing similar relationships, is tested using Partial Least Squares Structural Equation Model (PLS-SEM). Finally, the model focuses on the consideration on environmental and social initiatives on their own, analyzing differences between the two identified sub-groups in the sample. The results of this research may potentially derive managerial implication considering targeted communication given a specific client segmentation.

CHAPTER 1: SUSTAINABLE BANKING – WHERE WE WERE, WHERE WE ARE AND WHERE WE WILL BE

The first chapter is focused on the origins of sustainable banking and the first shapes it took at the beginning of its development. Even if we can attribute its birth to the efforts related to the social sphere and to the intention of eradicating poverty from society, its exponential diffusion in terms of practices and relevance as we know it nowadays is devoted to the higher attention paid to climate change and the impacts on the environment. The chapter concludes with an overview of the main terms used in sustainable banking, giving a literature review on how these terms were constructed, the criticism submitted by academics and how they can be further improved.

1.1 The historical evolution of sustainable banking

The term "*sustainable*" has been used alongside several nouns that characterize our daily lives, such as *growth*, *tourism*, *energy*, *agriculture,* and so on. Together with it, we hear a lot about climate change, gender equality, and equal opportunities for each human in the world. Notwithstanding the fame of such terms, it is still difficult to understand what they concretely entail. The reasons are countless: the effects of climate change and of unequal rights for workers are still considered far away from continental Europe, the unfair practices of undertakings claiming sustainable initiatives that erode consumer trust on such topics, but also limited knowledge on the concrete meaning of sustainability.
However, things are changing: the engagement is increasing exponentially, with consumers actively changing their behavior towards more sustainable options but also demanding action from Governments through protests and petitions all around the world (Economist Intelligence Unit, 2021). Our priorities have undergone a significant shift to ensure a high quality of life for both present and future generations. However, progress has been slow, and there is still a lot of work to be done to achieve these objectives.
The first evidence of no-profit banks was the Mounts of Piety (Rzegocki, 2021), a series of small credit institutions designed to assist the poor in their personal and familiar struggles. The scarcity of money and resources that characterized Europe in the 14th and 15th centuries influenced the purchasing power of the less affluent portion of the population. This phenomenon eventually led to the development of the first credit system

in the Italian Peninsula, laying the groundwork for the modern banking system. During the Middle Ages, loans were primarily utilized to acquire essential items for daily life, including food, clothes, and tools for work. Notwithstanding the modest individual transactions, the cumulative impact of the entire credit system was quickly substantial. The rapid rise in credit practices did not attract only the people in need, but also people who were trying to gain a profit. The typical levels of interest rates reached 30% to 50%, creating a cycle of debt that families struggled to escape. Despite the church's opposition to usury, it continued to flourish, albeit with increased difficulty. The topic of usury became a theological debate, considering the Christian beliefs, and the Franciscan mendicant orders committed to give an alternative option to the poor, on top of limiting the activities of the usures. The Mounts of Piety were finally created in the 15th Century to uplift people from poverty without trapping them in debt spirals, lending small amounts to the needy, providing a loan with little to no interest. Even though the initial intent was to lend without interest, the necessity of covering credit management costs led to the introduction of a moderate interest rate (around 5% per annum).
Some mounts distinguished between customers, exempting the poorest from interest payments, while the rest had to pay. Pledges securing the loans were typically objects of double value or at least 130% of the borrowed sum, often comprising clothing, fabrics, furniture, kitchen tools, footwear, and occasionally books. Between 1462 and 1562, 214 mounts of piety were established, mainly in northern regions such as Veneto, Lombardy, Tuscany, and Romagna. One of them, Monte dei Paschi di Siena founded in 1472, remains the world's oldest operating bank. The Mounts can be seen as the foundation of modern banking and one of the first attempts to improve society through financial institutions.

The first savings and cooperative banks, which appeared later during the 19th century in Germany and then spread quickly to other European countries (Relano, 2015), had a similar mission: providing access to essential banking services for sizable portions of the population that, for various reasons, were excluded from the financial system. During that period, conventional banking resources primarily supported public debt, established businesses, landowners with substantial collateral, and individuals from wealthier classes. Serving private households from the middle and lower classes, farmers with limited assets and fluctuating income, or small and medium enterprises was deemed too risky and economically unappealing for profit-driven bankers. Money lenders were not a viable solution for the "*unbankable*" individuals either, as they imposed exorbitant interest rates.

Consequently, this type of bank focused on addressing combating financial exclusion and preventing financial exploitation. They were initially restricted to retail banking, savings, and cooperative banks provided a modest range of straightforward financial services. They were designed as grounded institutions, closely connected to their clients and with a strong local presence. Their lending practices, primarily local, aimed at stimulating regional development in less affluent areas, thereby preventing the outflow of capital. The intrinsic social dimension of stakeholder banks was evident in their efforts to increase banking access in underserved neighborhoods, facilitate credit for financially excluded individuals, and promote economic activity at the regional level.

Fast forwarding to the 20th Century, it is important to highlight the transformative 1960s - 1970s as relevant milestones, which strongly influenced society's attention and behavioral reactiveness on a variety of topics (Weber, 2023). These decades demarked significant social, cultural, and political movements that included the struggle for the civil rights of African Americans, the protests against the war in Vietnam, the emergence of the feminist movement, the rise of environmental awareness, and the concerns about nuclear weapons and nuclear power. These movements and the presence of progressive values in North American society set the origins of Socially Responsible Investing (SRI) (Townsend, 2020). Built on the foundation of traditional faith-based investing, the initial main concept of the SRI was avoiding companies that conflicted with moral values. Society began to understand that there was an additional way of protesting on top of marches and strikes against climate change, the gender gap, and other cultural issues: disinvesting capital from companies that were profiting on the back of society. As stated by Blaine Townsend, "the decision was a matter of principle and very much reflected the aspirational zeitgeist of the 1960s and 1970s" (Townsend, 2020, Page 3). Consequently, the early 70s saw the creation of the first mutual funds internalizing moral values, environmental and civil rights concerns.

The moral shift was not easy and immediate, receiving consistent criticism from academics. Certainly, employing any "social" criteria in investment in the 70s was contrary to conventional wisdom, and traditional socially responsible investing faced more criticism than available investment options. The renowned economist Milton Friedman from the University of Chicago delivered a memorable statement during that era, articulating in an interview with The New York Times Magazine that business had only one responsibility towards society and it was to increase profits (Friedman, 1970).

Friedman's viewpoint aligned with the Nobel Prize-winning research of his University of Chicago colleague, Harry Markowitz. In Markowitz's 1952 paper, "Portfolio Selection," he introduced "Modern Portfolio Theory" (MPT) to the world. MPT's fundamental principle was that constraining an investment universe for any reason should be strongly discouraged in the realm of investing. Criticism also emanated from outside the financial sphere. McGeorge Bundy, National Security Advisor during the Kennedy Administration and future President of the Ford Foundation, succinctly expressed his perspective on the matter stating that making money is not exclusive to the virtuous.
During the inception of the SRI industry in the 1970s, the Vietnam War stood out as the primary catalyst. The growing dissent across the United States made many religious investors realize that their portfolios might be profiting from the war effort. The public and socially conscious investors in North America began to actively find ways to avoid "war profiteering" in their investment portfolios. The obvious target was Agent Orange, which became identified as a "controversial weapon" in the language of the SRI. “Agent Orange” was a tactical herbicide that was sprayed in Vietnam by the US military forces. The main objectives were the defoliation of trees and plants to better identify the enemies and the destruction of the crops cultivated by the civils. 11 million gallons of Agent Orange produced by Dow Chemical and Monsanto were distributed in Vietnam between 1962 and 1971, and there are no precise statistics on the number of people that were exposed to the toxins (Institute of Medicine, 1994). In response to moral concerns about direct investments in the supply chains for Agent Orange, the Pax World Balanced Fund was launched in 1971. This fund primarily aimed at religious investors seeking investment options aligned with their ethical principles. The establishment of Pax coincided with the broader awakening of the environmental movement in the United States, which gained momentum less than a decade after Rachel Carson's influential book, Silent Spring. The latter laid the foundation for the modern environmental movement and the regulatory landscape we know today. Carson's work emphasized the impact of the indiscriminate use of pesticides in American agriculture, highlighting the deep harm that plants, animals, and the whole environment were suffering (Carson, 1962).

Another milestone in the development of the SRI was the first Earth Day, which took place on the 22nd of April 1970, when more than 20 million Americans manifested for environmental causes (Robinson, 2021). The manifestation posed the spotlight on the topics of climate change and marked the birth of the modern environmental movement.

Following with a cascade effect, several pieces of legislation on environmental and consumer protection were approved, with the examples of the Clean Water Act in 1972 and Endangered Species in 1973. In the meantime, the Pax World Balanced Fund quickly found companions, and the objectives of these new socially responsible funds mirrored the surge of ambitious progressive values. The Dreyfus Third Century Fund, introduced in 1972 with a substantial amount of capital for its time ($25 million), earned substantial support from influential figures such as the presidents of the League of Women Voters and the Rockefeller Foundation, the executive director of the Urban League, a Nobel Prize laureate, and the president of Princeton University. The focus of the fund was clearly stated in its prospectus, consisting of identifying companies that, in comparison to others, demonstrated a commitment to enhancing the quality of life in America.

It was only in 1987, with the publication of the so-called "Brundtland Report" (Report of the World Commission on Environment and Development - Our Common Future, 1987) that the concept of sustainable development was introduced. Released by the World Commission on Environment and Development (WCED) and chaired by Prime Minister Gro Harlem Brundtland, the report investigated the root causes of environmental degradation and their interconnectedness with economic growth and social equity. Moreover, it formulated policy recommendations that encompassed all three domains together. The concept of sustainable development initially focused on ensuring that meeting the needs of the present generation would not jeopardize the capacity of future generations to fulfill their own needs (Riegler, 2023). Notwithstanding the still ongoing evolution of the term and its constant modification, the essential notion of reconciling needs and limitations for sustainable development persists. Another concrete clarification of the concept emerged during the UN Conference on Environment and Development in Rio de Janeiro in 1992. The conference not only highlighted how environmental, social, and economic factors are interdependent and constantly evolve together but acknowledged for the first time an international model sparking numerous initiatives (United Nations Conference on Environment and Development, Rio de Janeiro, 1992). The main outcomes resulted in the Rio Declaration on Environment and Development and the United Nations Framework Convention on Climate Change (originator of the Kyoto Protocol).

Even if the attention was initially focused on the major industries, it was a matter of time before the awareness shift of society regarding environmental and social issues affected also the financial system.

The foundation for the connection between sustainable development and the financial sector consists in the concrete and effective influence that financial institutions have on the economy, and how interconnected the two are. On one side, we have the main functions performed by banks, which can be summarized in monetary, credit, and financial functions; aspects that are intertwined with daily life. On the other side, we have sensitive sectors that are in desperate need of financial investments, such as healthcare and education for example. Being the backbone of the economy, financial institutions have both a direct and indirect effect on the sustainability of the economy, through the management of the capital flows. While influencing quantitively and qualitatively economic growth, the actions pursued by the financial sector can create new opportunities for sustainable development (Carè, 2018). Given the increasing environmental legislation, several banks started to familiarize themselves with environmental issues, leading to the participation in 1991 at the United Nations Environment Programme Finance Initiative (UNEP FI) by a small group of commercial banks[1]. The UNEP FI advocated for the incorporation of environmental considerations into the operations and services provided by the financial sector, highlighting the importance of compatible economic development with human well-being and the environment.

The turning point that disrupted the already wavering trust of society in the financial market was the Great Financial Crisis in 2007 – 2008 (Carney, 2013). Banks put at risk the stability of the entire financial system – and with it, the entire economy, strictly focusing on short-term financial results. Unfortunately, the game ended quickly, and with that, the reputation of financial institutions. This is one of the rationales that made a portion of banks decide to restore trust by implementing sustainable business strategies and balancing long-term objectives with short-term targets ("Road to Recovery," 2021).
The most recent milestones that defined sustainability as we know it today are the Paris Climate Agreement and the UN 2030 Agenda for Sustainable Development, adopted in 2015 by the world's governments. The former was substantially focused on reducing carbon emissions in order to limit the global temperature increase in this century up to 1.5 degrees. It concretely created a framework for an increased level of transparency, accountability, and achievement of the targets by the governments (Denchak, 2021), setting the Nationally Determined Contributions (NCDs) intended to achieve the

[1] Banks such as Deutsche Bank, HSBC Holdings, Natwest, Royal Bank of Canada, and Westpac participated.

objectives. Shifting from the Kyoto Protocol and opting for a bottom-up approach, countries were asked to provide a national climate plan, setting their own tailored priorities, and committing to provide an update once every 5 years. The UN 2030 Agenda for Sustainable Development, on the other hand, developed 17 Sustainable Development Goals (SDGs) with 169 associated targets, to be reached by 2030 (European Commission, 2015). As can be seen from Figure 1, the SDGs cover the social, environmental, and economic dimensions of development, and they are the result of a unique global process of an open working group, agreed by all UN Member States (United Nations, 2023).

Figure 1: the 17 SDGs, UN 2030 Agenda.

As with the Paris Climate Agreement, each single country is responsible for developing its own institutional architecture to implement the objectives (Dzebo et al., 2019). Both agreements put the financial sector at the center of the sustainability debate, with climate change depicted as both an opportunity and an emerging risk from the energy sector transition. The main implication for financial institutions, considering the investments in renewable energy technologies and the reduction of fossil fuels, lies in the considerable increase in the need for investments in low-carbon projects (University of Cambridge, 2016).

Moreover, financial institutions will be in any case affected by the effects of climate change, through physical and transition risks. As previously stated, through their intermediary role, banks exert influence on other industries and play a central role in

advancing the SDGs (Zimmermann, 2019). This influence is manifested through direct participation in environmental protection projects, allocation of funds based on the environmental risk of target companies, and promotion of socially responsible products. Therefore, the choice to pursue sustainable banking strategies is ethically mandatory.
Finally, to emphasize the connection between finance and climate change, the European Commission (EC) organized the High-Level Expert Group on Sustainable Finance, aimed at formulating recommendations on sustainable finance in 2018. The main result of this meeting was the action plan on "Financing Sustainable Growth", with specific requirements on reporting and transparency, together with an extensive taxonomy of sustainable investments.

Sustainable banking has come a long way and it is in constant evolution, entailing several and completely different aspects of our world and society. Because of regulation or because of the financial institutions' core mission, it is important to highlight the need for a stronger role for financial institutions in the mitigation of climate change as well as reducing social inequalities and safeguarding ecosystems (Louche et al., 2019).

1.2 The taxonomy behind sustainable banking

To understand the scope of sustainable banking, it is important to have in mind a clear definition. As stated in the previous chapter, sustainability entails several different issues that affect society and the environment in general and it is difficult to restrict it in a sentence. That is the main rationale behind the general disagreement on a single definition by academics. Sustainable banking was indeed described as a "terminological jungle, which includes many topics" to give the idea (Nájera-Sánchez, 2019, Page 2). The concept is even made foggier by the companies and financial institutions trying to benefit from the improvement in image and reputation deriving from sustainable practices, without however concretely investing in social and environmental causes. The confusion and the fogginess on the concept are clearly at the expense of society, unable to identify businesses committed to the causes and the ones pretending to do it.
As an illustration, State Street Global Advisors conducted a study on institutional investors and it revealed that, despite the increasing interest in Environmental, Social, and Governance (ESG) factors, its considerations among institutional investors are currently

limited given that many ESG factors lack clear definitions and standardized measurement criteria. Three-quarters of the participants expressed that there is a lack of clarity regarding ESG terminology within their organizations (Gupta-Mukherjee, 2020).
To understand better the concepts that arose in the previous chapter, it is important to start with the foundation of sustainability: the ESG acronym.

ESG acronym

The ESG acronym stands for Environmental, Social, and Governance. It can be defined as a set of criteria or standards used to identify and highlight a company's impact on the environment, but also on the community where it operates and how it is structured internally. The acronym has been extensively and increasingly used to identify also products, services, and practices that consider the different aspects of the three domains (Bergman et al., 2020).

- The **environmental pillar** captures the company's impact on the environment and how it is working to reduce it, by generally measuring the carbon footprint, greenhouse gas emissions, energy efficiency and other ecological factors. Moreover, the implementation of ecological practices such as the usage of renewable energy, recycling, incentives for carpooling, and public transportation are considered.
- The **social pillar** captures how the company engages in relationships with the different stakeholders, such as employees, customers, suppliers, and the local community where it operates. The main factors used are related to the employment relationship (treatment, compensation, engagement, training) and the conditions of the workplace, the level of diversity and inclusion, the community engagement, the consumer protection activity, and the mission or higher purpose of the company.
- The **governance pillar** reflects how the company is organized internally, with the different structures and processes that establish how it is managed. The main aspects that are deeply analyzed are the Board of Directors and management composition, the remuneration framework of the executives (compensation and bonuses), the shareholders' rights and effective power, the overall transparency and accountability that characterize the organization (Brock, 2023).

The term is often applied to “criteria”, but also “factors”, “strategies”, “activities”, and “goals”. This amplifies the confusion around the term, also considering the plentitude of definitions drafted by academics. Brock defines it as “the three criteria to evaluate a company’s sustainability performance”, but we can also find, between the 78.700.000 results from the Google research, that ESG can help in “put(ting) your money to work with companies that strive to make the world a better place” (Napoletano, 2024, Page 1). Moreover, the interchangeability with other terms such as sustainability and Corporate Social Responsibility (CSR) adds wood to the fire (Pollman, 2022). However, there are different positive aspects of opting for a flexible and potentially tailored acronym – and therefore including three different yet connected domains – at the expense of a categorical and precise definition of the term. Even though the term was created to refer to the issues to consider while evaluating different potential investments, it has now a broader scope of action. It is now connected to the actions implemented to solve those issues and mitigate them, with results in the medium-long term.
With the current framework, the term is extremely flexible and neutral: it refers to the main domains of sustainability while leaving sufficient room for tailored issues. It can be applied globally, but customized at a regional level. Financial institutions, companies, and other businesses can focus on their specific risks: one example can be a financial institution located in an area of high earthquake risk, that could be different from another that does not have this type of risk. This higher level of flexibility is not intended only for the scope, but also for the time: such topics are necessarily intended to evolve together with the issues they target. The main aspects that the different pillars cover are examples, considering that they potentially could change their level of importance and other aspects can be integrated into one of the pillars. For example, the conflict between Ukraine and Russia and the most recent outbreak of the Palestinian conflict have certainly drawn more attention to war and weapons from European and American investors. With this method, investors have a role in influencing the drivers of the term evolution, with their priorities and sensitivity to certain topics (Ringe, 2021). ESG engagement has a high probability of becoming a pivotal driver toward a higher level of sustainability in the future. Finally, the term ESG has functioned as a big “tent” (Rose, 2021) attracting a diverse public of investors and stakeholders. This inclusivity and coverage significantly contributed to the concept's ability to boost momentum among mainstream audiences.

It is important to highlight that, in any case, opting for something always entails pros and cons. The lack of a clear definition of the ESG factor has made it difficult to highlight a clear and recurring link between ESG practices and policies with financial performance (Curtis et al., 2021). The fact that constantly changing and completely different issues concur in the same term ulteriorly worsens the situation. Moreover, the constant evolution of the term increases the number of issues and aspects falling in its scope; even if it is a positive factor ensuring a high level of inclusivity, it contributes to feed an infinite list. Described as a "laundry-list" by Gupta-Mukherjee in 2022, the inclusion of all these aspects in one term might be counterproductive considering how much the markets are focusing on this trend. It is important to take in consideration data-driven factors that describe the impact of the issues on the company (Gupta-Mukherjee, 2022). This is also reflected in the debate surrounding the ESG ratings, which find difficult to have a homogenous structure at the expense of their reliability. Two completely different companies, that perform differently in the three pillars E, S, G might have a similar and therefore misleading ESG ratings. One striking example is Tesla, included in different ESG-labeled mutual funds, which has remarkably showed shortcomings on the Social and Governance pillars with several allegations of racist and sexist abuses, extreme work conditions with employees sleeping on the floor after 12-hour-long shifts (Hawkins, 2023).
Another tension that the ESG universe is facing is the potential trade-off companies might try to exploit between one or more domains at the expense of the others, also called as "sustainability arbitrage". This is due to potential frictions between the Environmental and the Social domains, given a particular business model: the underlying objectives might not be reached together simultaneously, especially if the company does not opt for an integrated approach for ESG. Transforming the business model of a company to follow the transition might worsen the work conditions, reduce wages and eventually lay-off portion of staff given their unmatched skills, therefore sparking a stakeholder conflict (Gözlügöl, 2022). This is the main rationale of the development of the just transition, which focuses on the social dimension of the transition to a resilient and low-carbon intensive economy (Robins et al., 2018).

All the issues just presented are not destroying completely all the progress made by the ESG term, but they are however important to understand the critics surrounding it and to appreciate the benefits of this decision over the other. Several proposals have been made

to further refine the term, without finding the absolute panacea. A set of proposals considers to restrict or enlarge the sub-groups in the term, removing or adding one of the pillars without eliminating the tension that has always been present. For example, a proposal made by Larcker and Tayan consists in removing the G pillar. In their opinion, Governance cannot be compared to Environmental and Social and it should be thought in a different way from the integration of governance practices and policies related to E and S. It would be more efficient to characterize "governance (a)s an *overlay*" and "environmental and social components of ESG a(s) *outcomes*" (Larcker & Tayan, 2022). However, the institutions which initially drafted the term agreed on the crucial role played by Governance in achieving the first two pillars, highlighting it as an equivalent to the other two. Moreover, removing one pillar would not remove the frictions and the tensions present between the other two.

Other academics proposed to remove the S, given that is less quantifiable than the other two pillars (Wood, 2015), while the European Union implemented efforts to narrow its meaning and to create a more detailed and specific set of definitions[2]. Others advocate for removing completely the term, fueling a major rethinking that is needed (The Economist, 2022). While the debate on the ESG term is still ongoing and the tensions behind it are still there to be removed, further changes might hide additional issues and fog. One thing is certain: the term ESG and the extensive academic research, together with its flexibility (or ambiguity?), has gathered attention and investments, fostering a global dialogue and fueled a regulatory reform still ongoing (Pollman, 2022).

Sustainable banking

Given the increased attention and efforts made and required by several institutions across the world, academic research has strongly increased in the field of sustainable banking and its literature. Especially since 2009, a significant increase in the number of publications can be noticed. The 2008 financial crisis served as a crucial external shock, leading to heightened academic focus on sustainable banking issues due to the industry's perceived role in causing the crisis through irresponsible conduct (Aracil et al., 2021). Therefore, implementing sustainability concerns in the decision-making processes is key

[2] Efforts were made by the EC in defining in detail the ESG term through the Corporate Sustainability Due Diligence Directive, together with a developed taxonomy on sustainability aiming at providing additional definitions for environmentally sustainable economic activities.

for financial institutions, given the external demand arisen in the last years, and must be made in a systematic way. This represents an effective competitive advantage that institutions must exploit, both for ethical and profit rationales. On this topic, however, there are two main challenges: the first one, related to the number of stakeholders included in the concept of sustainability. All of them should be involved the processes, given that they might have different priorities and needs. The second one is related to the sustainability term itself; it is evidently clear that there is no consensus on a single definition of sustainable banking and its determinants, both key into evaluating the strategies implemented by banks and their actual commitment to the cause (Carlucci et al., 2018).

We can still highlight some of the most used definitions in literature to understand the versatility of the term. Caré in "Sustainable Banking: Issues and Challenges" exploits two different definitions, described as the two most important ones. The first one, from Weber (2012), summarizes sustainable banking in the integration of ESG principles into traditional banking, maintaining them as the key objective of the process. The second one, from Bouma et al. (2017) considers sustainable banking as a dynamic term, in constant evolution given time. Moreover, this definition does not provide a clear and defined limit to the term, because it is key that the concept remains relevant to all the relevant stakeholders in the relationship, not just financial institutions (Carè, 2018). In addition, analyzing the literature developed in the last years[3], Riegler descriptively summarized sustainability banking as "the combination of strategies and instruments that consistently align daily activities with social, ecological and economic concerns in order to improve the ecological footprint" (Riegler, 2023, Page 22). The definition is a consolidated one, derived from all the definitions provided in the literature perimeter. Moreover, the introduction of ESG principles in the business-as-usual activities of the financial institutions is considered sustainable banking itself and transparent non-financial reporting ensure an adequate level of reliability and comparability across all the stakeholders involved. The subcategories that gathered the most attention was the consideration of social and ecological aspects, with respectively 32 and 35 mentions out of 36 papers analyzed. Finally, the study clearly highlights the descriptive nature, as seen

[3] Riegler analyzed the literature present in Web of Science, ECONBIZ, and SCOPUS databases from 2017 to 2022, searching "sustainable" and "banking" as key-words. At the end, 36 papers were included in the research.

also with the previous term, lacking universally and well-defined criteria. The establishment of a standard practice can only be done via regulatory requirements, notwithstanding the work done by academics in research (Riegler, 2023). Similar analysis on a larger perimeter[4] was conducted by Ignacio and Delai, which highlighted that only few papers used a definition of sustainability applied to the financial sector, with a high number of terms used to define it. Moreover, the different terms implemented in the literature - sustainable finance, green banking, ethical bank - are used interchangeably while referring to the same notion, even if they have different meanings. The analysis has however found a certain level of convergence, with most of the literature referring to the involvement of the three pillars of sustainability in products and services.

A sustainable bank is defined, based on the literature analyzed, as "a bank that offers products, services and practices that contribute to sustainable development, benefiting the environmental, social and economic dimensions in the short, medium and long term" (da Silva Inácio & Delai, 2022, Page 10). Another definition provided by Yip and Bocken describe sustainable banking as "delivering financial products and services, which are developed to meet the needs of people and safeguard the environment while generating profit, basing it on the concept of Triple Bottom Line of People, Planet, and Profit together with ethical banking (Yip & Bocken, 2018, Page 1). There are also different definitions, which focus more on the social dimension of sustainability for example. Sustainability consists in "being productive, transparent and responsible towards shareholders and other stakeholders […], which depend upon a stable financial services sector to create jobs and responsible economic growth" (Ramnarain & Pillay, 2016, Page 484); or, again, a sustainable bank is "financing social enterprise that renounces decisions to maximize profits and focus on favoring society" (Dossa & Kaeufer, 2014).

To conclude, the list of definitions present in the literature is long and still developing, but we can observe a level of convergence towards the three pillars of sustainability embedded in the traditional development of the banking activities. It is important to highlight that the commitment may vary, depending also on the efforts implemented by the institutions and the core mission that may have additional priorities on top of the ESG pillars.

[4] Da Silva Inacio and Delay analyzed the literature present in Web of Science, SCOPUS, and EBSCO databases with no specific time period, searching sustain* OR environm* OR social OR responsb* OR citizen* OR green*) AND (bank* OR financ* sector OR financ* industry OR financ*). At the end, 63 papers were included in the research.

Given the comprehensive and overarching nature of the term, financial institutions needed the guidance of authorities and the creation of global partnerships setting a standard to follow. Both the UNEP FI and the Global Alliance for Banking on Values (GABV) drafted some key principles for banks to commit to become part of sustainable finance. The individual factors, derived from the principles and commitments, can be summarized as follows (Riegler, 2023):

- Commitment to sustainability and alignment of a sustainable business model;
- Promotion/prevention of environmentally friendly/environmentally harmful activities and measures;
- Assumption of the caused risks from the effects of the activity;
- Cooperation with stakeholders in the sense of sustainable development;
- Accountability and transparency obligation to demonstrate sustainable activities;
- Governance commitment in terms of improving sustainable aspirations;

Most of the principles comprehend the inclusion of the sustainability commitment in the business policy, as well as remarking transparency and accountability as the main criteria. However, none of the principles include any practical guide on how to implement them, therefore leaving significant room of action to financial institutions. The lack of guidance and the intertwined jungle representing sustainability universe is making the integration of sustainability a major challenge for the entire banking sector (Carlucci et al., 2018).

Corporate Social Responsibility (CSR)

As for the previously mentioned terms, Corporate Social Responsibility has different definitions, which depend on the cultures and geography areas they come from. The main concept is to acknowledge the responsibility that companies have towards the public good, but different aspects of it might be highlighted. For example, on one hand, the EC defined it as "responsibility of enterprises for their impact on society […] (which) should be company led […] by integrating social, environmental, ethical, consumer, and human rights concerns into their business strategy and operations" (European Commission, 2011, Page 1); on the other hand, the World Bank defines it as "the commitment of business to contribute to sustainable development working with employees, their families, local communities, and society at large to improve their quality of life that are both good for business and good for development", stressing the voluntary dimension of the practice

given that is beyond the normal compliance with the traditional obligations (The World Bank, 2005, Page 1). Another version, proposed by Crane, accommodates for a more comprehensive term, embedding all the variety of interpretations and priorities. "CSR is best understood not as a concept, a construct, or a theory but as a *field of scholarship*" (Crane & Matten, 2007, Page 7). Agreeing on the definition of CSR, and agreeing on all its factors, it is not just a technical exercise. It entails a normative task, while clearly setting out the responsibilities of companies towards society, but also an ideological task, given the description of how society may organize to limit corporate power (Marens, 2004). In this way, it is easier to grasp the several relations between business and the society. Therefore, considering the different dimensions considered, it is wise to define CSR has a voluntary contribution of the company towards sustainable development, going beyond legal requirements (Gamerschlag et al., 2011).

At the basis of CSR, there are two widely accepted theories that describe the relation between the company and society (da Silva Monteiro & Aibar-Guzmán, 2010):

1. **Stakeholders' theory**

   The company should take into consideration the interests of all the subjects which it may have any kind of influence on or can be influenced by – its stakeholders, together with the indirect effects of the conduct of business. Examples of stakeholder might include customers, employees, suppliers, communities and even the environment. This aspect was previously overlooked by other organization aspects, focusing mainly on the maximization of shareholders' value. This theory is the most accepted one, given that it can be applied to both simple and complex businesses from all the sectors, considering that there is no specification of the actors in the relation or any indication on the type of influence (Vilar & Simão, 2015). Moreover, the theory highlights the "Triple Bottom Line" approach, which include social and environmental impacts to the economic result of the company.

2. **Legitimacy theory**

   This theory lays down the main rationale for disclosure in CSR sphere. Demonstrating its commitment to benefiting the community, a company aims to portray itself as a responsible entity, avoiding potential political costs associated with the repercussions of its actions. Through the disclosure of CSR, companies seek to enhance their image within the community, implying its obligation to align

its operations with societal principles. With the community acting as a scrutinizing entity, this social contract serves as a mean for companies to gather consensus in the society in which they operate and, most importantly, legitimize their operations. Under societal pressure, companies tend to disclose a greater volume of information on social responsibility activities, particularly when facing public disapproval as they are emphasizing positive aspects. Society might perceive a gap between the company's actions and the its expectations: the management of this gap is key to the company to continue thriving.

The theories do not exclude each other and they can be considered simultaneously and in a complimentary way: the first one looks at the single relationships between the subjects or organizations and the company, while the second one implies that economic, environmental, and social aspects cannot be isolated from each other (Vilar & Simão, 2015).

Notwithstanding the lack of consensus on the precise definition of CSR, several academics agreed on the domains of CSR, initially proposed by Carroll in 1991 and described as one of the most widely cited articles in the field of business and society (M.-D. P. Lee, 2007). The four categories which help to delineate and characterize businesses' responsibilities consist in economic, legal, ethical, and philanthropic. Economic and legal responsibilities are considered required, ethical responsibilities are expected, and philanthropic responsibilities are anticipated or desired by society. These categories may evolve over time, shaping the underlining factors of each responsibility (Carroll, 1999).
Businesses bear an *economic responsibility* to the society that enabled their establishment, as an essential requirement for their existence. This relation arises from the expectation that businesses should be able to thrive on their own; otherwise, they deserve to fail. The only way to sustain themselves is to be profitable and attract investors and shareholders to fund their mission and earn a part of the profits, to continue performing its daily activities. Businesses are granted the privilege of generating revenues as an inducement by society, given their task of providing essential goods and service for its needs. Profits, in turn, are created when businesses add value, thereby benefiting all stakeholders involved. The significance of profits extends beyond rewarding investors; they are essential for fostering business growth when reinvested in the enterprise. In fulfilling their economic responsibilities, businesses employ various processes and mechanisms aimed at achieving the highest level of financial effectiveness, such as increasing revenues,

improving cost-effectiveness, investments, marketing strategies, and operational efficiency. The present global business landscape is characterized by a high level of competitiveness and factors such as economic performance and sustainability have become top priorities for businesses to survive. Thus, economic responsibility stands as a fundamental requirement that must be met for business to remain in the market.

In addition, there are others principles established by society within which business are expected to operate, representing the *legal responsibility* of businesses. These guidelines include laws and regulations, essentially representing society's concept of codified ethics regarding business practices. Compliance with these laws and regulations is a requisite for businesses to function, with the significance of compliance officers within company organizational charts. In addition to meeting these legal obligations, businesses are expected to fulfill essential responsibilities, such as: performing consistently with government and legal expectations, adhering to various federal, state, and local regulations, behave as law-abiding corporate citizens, meeting all legal obligations towards societal stakeholders, providing goods and services that at least meet the minimum legal requirements.

However, society clearly identified how laws are indispensable but insufficient. Beyond legal requirements, society anticipates businesses to operate ethically, meaning organizations should perform its activities respecting additional societal expectations, which are not codified on paper. *Ethical responsibilities* require businesses being compliant to the spirit rather than merely the letter of the law. The objective of these expectations is for businesses to be compliant with stakeholders' moral rights, as perceived by consumers, employees, owners, and the community. Distinguishing between legal and ethical expectations can be intricate. Legal expectations are inherently grounded in ethical premises, but ethical expectations extend beyond them, projecting over the mere compliance with laws and regulations. Finally, *philanthropic responsibilities* encompass all types of charitable contributions made by businesses. Even if they may not be literal responsibilities, it is generally expected by businesses today and is part of the public's everyday expectations. These activities are typically voluntary and discretionary and are guided by a business's desire and commitment to engage in social activities not mandated by law. Even if some business engages in philanthropy out of an ethical motivation to do what is right for society, the public expects businesses to give back in any case. Companies fulfill their perceived philanthropic responsibilities through monetary donations, product and service contributions, employee and management volunteerism,

and community development. Unfortunately, the main incentive for businesses to engage this type of activities is the showcase of their good citizenship, not certainly moved by ethics or noble reasons. Unlike ethical responsibilities, where certain actions are expected for moral reasons, philanthropic responsibilities are more discretionary and voluntary on the part of the business (Carroll, 2016).

Socially Responsible Investing (SRI)

Without a generally agreed-upon definition, Socially Responsible Investing prioritizes positive social change by taking into account both financial returns and moral values when making investment decisions. This approach implies that financial returns are considered a secondary factor, with investors first accounting for their moral values in the decision-making process (S&P Global, 2020). SRI can be considered a sub-set of Social Investment or Social Finance (SF), which aims at generating a positive impact on society, environment or sustainable development, while also achieving financial returns. As for the other terms, SF acts as an umbrella including all ranges of alternative lending, approaches and tools such as community investment, crowdfunding venture philanthropy, microfinance, and most importantly for our analysis, SRI (Nicholls, 2010) (Rizzi et al., 2018). The interesting aspect of SF is how it differentiates from the mainstream one, and it can be found in the main objective which SF aims at. The logic behind the blended value creation (Emerson, 2003) implies achieving a positive impact on society and/or environment without eroding the financial return to capital, challenging the Pareto assumption. One example for blended value creation is SRI. Moreover, another definition connects SRI with CSR: "financial social responsibility attributes the consideration of CSR in investment decisions […]. Financial social responsibility bridges the financial world with society in socially responsible investment. In this asset allocation style, socially conscientious investors select securities not only for their expected yield and volatility, but foremost for social, environmental, and institutional ethicality aspects" (Page 2, Puaschunder, 2016).

Notwithstanding the challenges in establishing a universally accepted definition SRI, several and different SRI practices have been developed at the international level. The diversity present between practices is influenced mainly by culture, policies, and national legislation. Even if this implies a higher level of peculiarity depending on the geography, the diversity enhances the risk of rendering both the concept and practices of SRI

ambiguous and inconclusive, potentially giving chances to businesses to implement misleading practices such as green-washing or ESG-washing, acting as obstructions to the spreading of SRI. In the absence of a strict international legal foundation, SRI activities are primarily guided by national, federal, state, or local laws and regulations. To better understand what the SRI practices include, it is important to recognize the spectrum of activities included in the SRI practices, that can range from the simple screening to the integration of the ESG factors into the investment decision-making process. Screening, for example, encompasses the inclusion or the exclusion of certain activities or industries. On one hand, negative or exclusionary screening excludes securities of certain industries considered unethical, immoral or illegal, such as controversial weapons and tobacco. On the other hand, positive screening or best-in-class selection includes securities of industries with a high level of ESG performance, when compared to other peers. Moreover, additional practices are active ownership, ESG integration and thematic investing (Inderst & Stewart, 2018).
The debate around the SRI term is similar to the other terms analyzed in the previous pages: the scope and the practices have significantly evolved with time, causing confusion for subjects not updated on the topics. Moreover, the intrinsic nature of these terms is characterized to include several other topics, increasing the level of fogginess but also the potential specificity to the context (Reinhardt et al., 2008).

Notwithstanding the rapid expansion that sustainable initiatives and sustainable banking reached after the Great Financial Crisis, it is important to remark where it all started. Initially focused more on the social sphere and then shifted towards the environmental one, the three pillars and the concept of sustainability are now more than ever considered all together. Moreover, setting adequate terms is extremely important, considering the practices and the products related to ESG factors that are in constant evolution. Financial undertakings are approaching sustainability, because of regulatory and supervisory pressures, but also for the risks and opportunities arising from ESG factors.

CHAPTER 2: THE STATE OF ART OF SUSTAINABLE BANKING IMPACTS, PRACTICES AND RISKS

The chapter is focused on the main effects resulting from the increased awareness of ESG pillars by financial institutions, creating new market opportunities and enlightening on sources of risk that were not previously considered. The shift in the modus operandi is not entirely internal: several external drivers are pushing banks to be accountable of their role in achieving a more sustainable planet. Moreover, past literature proposes different approaches to sustainable banking, differentiated by the level and degree of integration of its main values in the business model of financial institutions.

Finally, the chapter analyzed how financial products are evolving, aiming at more sustainable objectives while also providing a financial return more or less material. This entails not only the development of products that are actively helping shares of population in need or environments that are suffering damages, but also the development of new products and therefore new market opportunities for banks.

2.1 The rationale of approaching sustainability

As presented in the previous chapters, the legacy of the role played by financial institutions in the most recent crises, such as the Great Financial Crisis in 2008, still weights on banks' shoulders. The unethical behavior pursued by some banks impacted the trust of the public in financial markets, disrupting the willingness of people to invest money and impacting their decision-making and risk preferences (Kerola et al., 2020). The focus on the short-term profits together with the lack of governance and risk management is an error difficult to forget, constituting a significant reputational damage. Moreover, the high interest rate environment that characterized the most recent years made profits of financial institutions skyrocket. In 2022, the aggregate profits amounted to $1,3 trillion, the highest since 2007 (McKinsey & Company, 2023). Finally, there is the increasing interests towards ESG issues, not only displayed by the public and the institutional investors, but also authorities and regulators (Cheng & Hasan, 2023). Issues that are increasing in number and magnitude, representing a significant risk for business and the economies of Countries.

There are different drivers that are pushing financial institutions towards a shift in their

business models, strategies, and product offering. They can be categorized in internal drivers, if promoted inside the institution, and external drivers, if they represent the demand of third parties. As Figure 2 reports, external and internal driving forces may be highlighted as: changing legal environment, risk management, brand image, new market opportunities and corporate governance. The organization of the driving forces is proposed by Caré (2018), complementing the frameworks proposed by Weber & Feltmate (2016) and Jecken & Bouma (1999).

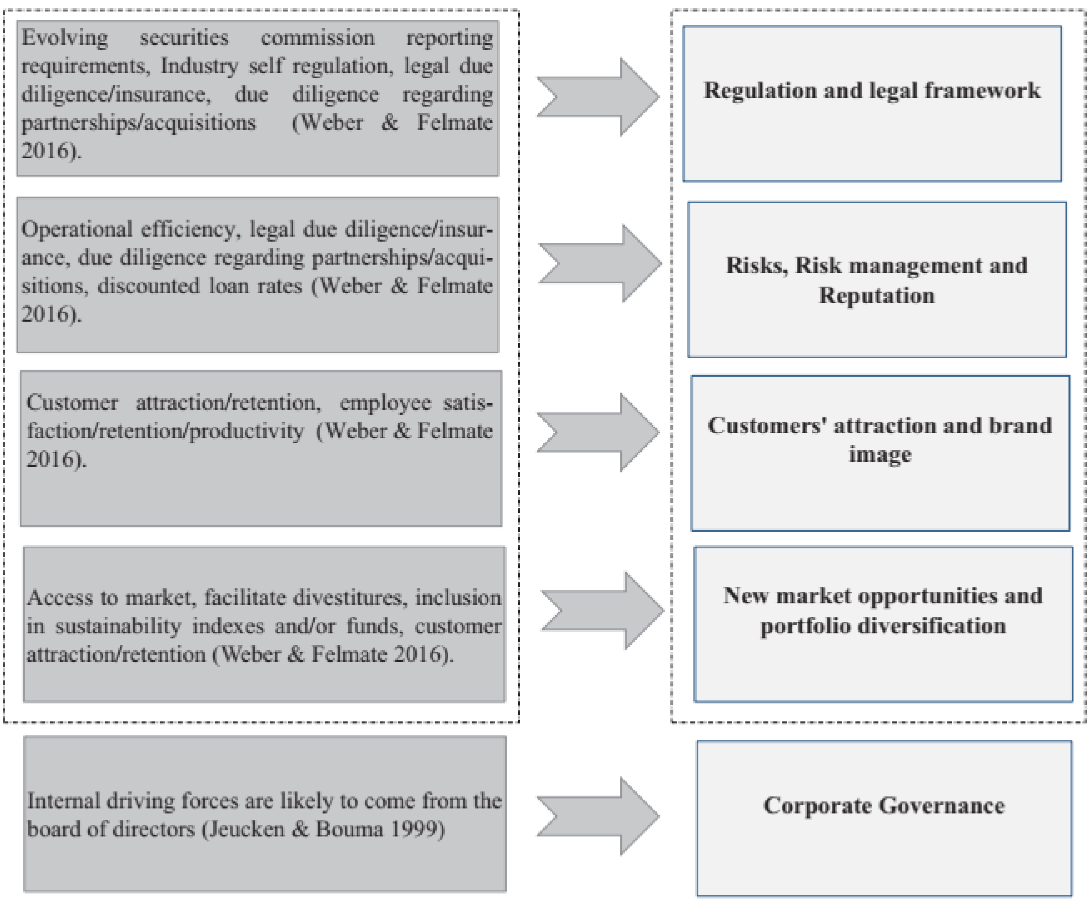

Figure 2: Driving forces behind sustainability in banks (Caré, 2018)

The changing legal environment

Given the increased demand for ESG products by the public together with the awareness of the role of banks in sustainable development, several authorities and organizations all around the world started to issue both mandatory regulations[5] and voluntary guidelines. The former mainly consists in requirements requiring the consideration of sustainability

[5] The European Regulatory framework developed on ESG risks will be deeply analyzed in the following chapter.

issues in the bank's processes. The latter provides guidance to financial institutions, improving the systematic management, monitoring, and disclosure of ESG risks. The pressure coming from the compliance to these principles, at national and international level, resulted in the development of new financial products linked to ESG issues, the implementation of ESG risk management processes, and the enhancement of the level of disclosure. The provision of such competitive financial products and services coupled with the adherence to the regulations create a competitive advantage that banks can exploit. Moreover, the practices safeguard themselves from underestimated risks, while ensuring financial stability and competitiveness.

Finally, high expectations have been set by supervisors in the area of climate and environmental (C&E) risks, respecting priorities of the European agenda. In 2020, the European Central Bank (ECB) published a guide setting expectations on the approach towards the integration of C&E risks. Several supervisory exercises where then performed to assess the extent of compliance of each financial institution, providing feedback before the final deadline to comply with all the expectations before 2024 (European Central Bank, 2022). It is important to highlight how the ECB remarked that it will exploit all the measures present in its toolkit, relying on the escalation framework up to periodic penalty payments or bank-specific capital add-ons (Elderson, 2023). The approach is even strengthened given the presence of C&E risks in the priorities for 2024-2026 (European Central Bank, 2023b).

Risk management and reputation

The most relevant risks borne by financial institutions are the following: credit risk, liquidity risk, interest rate risk, market risk and operational risk (Caselli et al., 2021).

- **Credit risk**: risk of default of a debt given the inability of the borrower to repay the loan or, in general, to fulfill every contractual obligation. There are several factors playing in the equation, both of idiosyncratic (relative to the debtor) and systemic (relative to the macroeconomic conditions and the situation of the industry).
- **Market risk**: risk of incurring in losses caused by movements in market prices. It also includes how sensitive earnings and capital of the financial institution are with respect to changes in interest rates, but also how the management reacts to such changes and how the risk is being monitored and identified.

- **Operational risk**: potential losses arising from the malfunctioning or insufficient internal processes, systems, and employees or from external events. It is a complex non-financial risk which includes completely different sources of potential losses, embedding legal risk, compliance risk and information technology risk. A malfunctioning of an internal process might impact the loan approval process, whereas employees might be responsible for a loss given incompetency or staff shortage.
- **Liquidity risk**: the risk of not being able to meet obligations at the moment of their maturity or to fund increase in assets. Crucial for the viability of the financial institution, the latter must strike a balance between the investment yield and the cost of funding, also considering the relative maturities.

It is vital for financial institutions to foresee, identify and quantify such risks, which might hinder the viability and the sustainability of the financial institution. This is possible through risk management, composed by all the management policies, processes and procedures that makes an institution able to identify, analyze, assess, and monitor risks. The main objective is to reduce the exposure to the consequences of events to level according to the institution risk appetite (Bowden et al., 2002).
The main phases of risk management are set as follows:

- Defining the context and the criteria;
- Identify the risks to which the institution is exposed to;
- Assessing the materiality of these risks;
- Identify potential remedial actions;
- Monitoring the implementation of the remedial actions.

Financial institutions are required to include C&E risks in the comprehensive picture, with the future intention of extending the framework also to the social and the governance pillar. The main concern for banks is not related to the direct impact of the banking industry on the environment: on this point, the financial system is generally considered as a "clean sector" (Bouma et al., 2017). Banks are instead more interested in assessing the environmental and social risk exposures arising from businesses to which they invest money in and potential external events impacting the economic activity and the financial system (Campbell & Slack, 2011).
C&E risks might impact the economic system via through two main drivers: physical and

transition risks. On one side, **physical risk** involves costs and damages resulting directly from effects of extreme weather events or natural disasters on the economy, such as the loss of equipment buildings given an unexpected flood or the failed harvesting of crops given the drought. Physical risks may be defined as *acute*, when they arise from extreme events such as floods or storms, or as *chronic*, when the cause consists in a progressive shift of the temperatures, sea levels, and so on (European Central Bank, 2020).
On the other side, **transition risks** consider potential a wide range of effects on businesses given government regulations, shifting consumer preferences and technological advances on environmentally friendly products, affecting firms' operations and business models during the transition to a greener and lower-carbon economy. Banks are therefore almost obliged to integrate transition and physical risks in their risk management framework, subsequently resulting in different pricing of loans depending on the characteristics of the businesses. It is important to highlight the heterogeneity of these risks, where the same event – such as the introduction of a carbon tax on fossil fuels, represent an increasing cost for coal companies and an opportunity for renewable energy companies. Moreover, some industries are more likely to be subject to one risk more than others: the coastal real estate industry is more susceptible to physical risks from rising sea levels, while the coal industry is likely to encounter transition risks such as carbon taxes (Giglio et al., 2021).
As it can be seen from Figure 3, physical and transition risks might be described as drivers of the traditional risks described above, in particular credit risk, operational risk, market risk and liquidity risk.

Risks affected	Physical		Transition	
	Climate-related	Environmental	Climate-related	Environmental
	• Extreme weather events • Chronic weather patterns	• Water stress • Resource scarcity • Biodiversity loss • Pollution • Other	• Policy and regulation • Technology • Market sentiment	• Policy and regulation • Technology • Market sentiment
Credit	The probabilities of default (PD) and loss given default (LGD) of exposures within sectors or geographies vulnerable to physical risk may be impacted, for example, through lower collateral valuations in real estate portfolios as a result of increased flood risk.		Energy efficiency standards may trigger substantial adaptation costs and lower corporate profitability, which may lead to a higher PD as well as lower collateral values.	
Market	Severe physical events may lead to shifts in market expectations and could result in sudden repricing, higher volatility and losses in asset values on some markets.		Transition risk drivers may generate an abrupt repricing of securities and derivatives, for example for products associated with industries affected by asset stranding.	
Operational	The bank's operations may be disrupted due to physical damage to its property, branches and data centres as a result of extreme weather events.		Changing consumer sentiment regarding climate issues can lead to reputation and liability risks for the bank as a result of scandals caused by the financing of environmentally controversial activities.	
Other risk types (liquidity, business model)	Liquidity risk may be affected in the event of clients withdrawing money from their accounts in order to finance damage repairs.		Transition risk drivers may affect the viability of some business lines and lead to strategic risk for specific business models if the necessary adaptation or diversification is not implemented. An abrupt repricing of securities, for instance due to asset stranding, may reduce the value of banks' high quality liquid assets, thereby affecting liquidity buffers.	

Figure 3: Examples of climate and environmental risk drivers, ECB.

Moreover, physical and transition risks might potentially impact the sustainability of the financial institution's business model on a longer term-horizon. The distinctive characteristics intrinsic to the nature of C&E risks is the "far-reaching impact in breadth and magnitude, an uncertain and longer-time horizon and the dependency on short-term action" (European Central Bank, 2020, Page 13).

It is vital to adequately represent the risks the financial institution is bearing to ensure an adequate amount of capital is allocated to cover for such risks. As per Bank of America's findings, S&P 500 companies experienced a loss of over $500 billion in market value due to ESG controversies. Additionally, it was observed that 90% of the bankruptcies occurring between 2005 and 2015 could have avoided if they had screen out firms with poor environmental and social scores (BofA Securities, 2020). Jeucken (2010b) suggests that environmental risks encompass several aspects, such as: financial risks linked to the client's continuity issues arising from environmental legislation or shifting market conditions, direct liability for environmental damage caused by borrowing clients and reputation risk and adverse publicity stemming from environmental issues (Jeucken,

2010a).

Finally, reputational risk is the most dangerous one, given the nature of the financial system based on trust. Financing projects that are seen as problematic in the sustainability field might result into bad reputation. The disruptive potential of unaddressed environmental and social risks on reputation highlights the importance of handling environmental risks responsibly. This involves carefully balancing the expected benefits with potential drawbacks. Implementing a rigorous risk management approach, characterized by well-defined processes and a strict internal control system, is crucial in this regard.

Brand image

Confidence in a business is not entirely made by the products and the services that it sells, especially in a context such as the banking industry. The standardization of financial products coupled with the remote delivery of services have significantly impacted the way of doing business, where banks started to look for a competitive advantage. Sustainable banking might serve as a mean to strengthen the corporate image and therefore reducing the perceived risk-taking. Moreover, a strong corporate image leads to loyalty under customers', employees, and investors' perspectives (Kay, 2006). The impact of sustainable banking on the customer base might be observed by two points of view: on one hand, the development of sustainable financial products was implemented because of the clients' demand. On the other hand, the implementation of a more sustainable business model by the bank might influence the activities of the customers in return.

Market opportunities

Growing concerns regarding sustainability issues have prompted customers to seek specialized products and services, urging banks to systematically integrate climate change-related aspects into their core business processes. In response, numerous international banks have adopted forward-thinking strategies to capitalize on sustainability opportunities. These strategies, elaborated in the following chapters, encompass green bonds, green funds, sustainable investment funds, and impact investing. The advantages derived from environmental sustainability practices contribute not only to product differentiation and cost reduction but also promote a resource-based perspective of the firm (Orsato, 2006).

The profit opportunities that are hidden in the shift to a carbon zero economy must be exploited in a timely manner. As described by Larry Fink, Blackrock's CEO, in his 2022 letter to CEOs, the change of mentality towards sustainable investing is a tectonic shift of capital, representing a significant opportunity to leverage on (Larry Fink, 2022). On a global scale, funds categorized under responsible investing attracted $68 billion in net new deposits as of November 30, 2023[6] (Kerber et al., 2023). Notwithstanding the reduced risks and the increasing opportunities in the sustainability field, the transformation of the business model encompasses a conceptual maze of various approaches, which can be categorized but often lack specific details. Consequently, integrating sustainability into banking operations emerges as a significant challenge for the entire banking sector.

Corporate governance

The main internal driver for changes lies in the Board of Directors where the discussion of the risk exposure of the financial institution, together with its own impact on the environment, has become incredibly relevant. Usually, a specific committee on sustainability is established, ensuring a constant level of discussion on these matters. Corporate governance is seen as a mechanism for integrating social and environmental considerations into the business decision-making process.

By comprehending the capacity for value creation associated with being sustainable, banks are altering their operational methods. Nevertheless, it is essential to acknowledge two significant factors: firstly, banks are transitioning to more sustainable business models due to the evolving regulatory environment, and secondly, they are recognizing the remarkable market opportunities inherent in sustainability.

2.2 The strategic approaches of sustainable banking

The integration of ESG priorities into the business model, the processes and the mission of financial institutions has taken primarily two forms: on one hand, promoting social and

[6] It important to highlight that this marked a significant decline from the $158 billion recorded for the entire year of 2022 and the $558 billion for the entirety of 2021.

environmental initiatives, such as supporting cultural events of the local community and implementing recycling programs in its buildings. On the other hand, incorporating ESG factors into the product design developed by the financial institution, together with the update of its mission and the overall strategies. The latter includes the integration of the criteria into the decision-making processes related to investment and lending strategies (Jeucken & Bouma, 1999).

Depending on the level and degree of the aimed sustainability transformation, Weber characterized various transformative stages, outlining four steps for what concerns banks. The first stage includes the integration of the ESG criteria for merely compliance purposes, results of supervisory and regulatory pressures, that consists in the offering of sustainable financial products. It is only with the second stage that the bank embeds ESG factors in its risk management framework and strategies, taking preliminary steps in the reductions of waste and energy consumption. With the third stage, the financial institution finally encompasses its CSR with activities that go beyond the regulatory requirements and actively promotes measures that improve social, environmental, and cultural issues. The final and fourth step outlines the fully sustainable bank, where the principles of sustainable development are the core of the business. For example, the Board of Directors matches high levels of diversity, transparency, and relevant discussions. Moreover, employees are high valued and have a healthy work – private life balance and there is a well-established sustainability reporting framework. Finally, the way of doing business and the building where the financial institution operates respects the latest environmental standards (Weber & Feltmate, 2016).

The evolution of business operations is outlined by Jeucken and Bouma, which categorized the levels into defensive banking, preventive banking, offensive banking, and sustainable banking. In the first phase, the bank remains inactive towards environmental legislation, without considering its direct or indirect effects on the internal interests. The external pressures result in the preventive banking phase, which consider the incorporation of environmental and social issues in their business-as-usual operations for cost reducing purposes. The offensive phase consists in the realization of the opportunities within the sustainable domain and its new markets, through the management of sustainable products. The final phase encompasses the prioritization of sustainability over the maximization of financial returns (Jeucken & Jaap Bouma, 2001).

Another approach with slightly different characteristics is the one identified by Yip and Bocken, where they developed eight different archetypes starting from the initial framework set by (Bocken et al., 2014), without following a sequential process as the ones presented above. The eight constructs are divided and categorized into a high-level classification, such as technological, social, and organizational innovation, basing on the types developed by (Boons & Lüdeke-Freund, 2013).

The first archetype is labeled as *Maximizing Material and Energy Efficiency* and it is focused on leveraging on digitalization, optimization of office spaces and e-learning to reduce the consumption of resources, resulting in lower costs for the financial institution and lower impacts on the environment.

The second one, *Substitute with Digital Processes*, embraces the reduction of environmental impacts and promotes the business resilience in terms of delivery, costs, and reliability through the employment of electronic means. This would also enhance the inclusivity of the banking services, with digitalization overcoming underdeveloped structures and costs of travelling.

The third archetype, *Encourage Sufficiency*, requires the assessment of customer needs in detail, to avoid the supply of financial products that are not tailored to the demand and reducing moral hazard in the field of lending. It focuses on avoiding over-provision of financial products, with significant impact on reputational risk and customer loyalty. Selling loans and investment products excessively can pose a significant risk to banks, as it may lead to mis-selling. The consequences may include substantial financial penalties imposed by regulatory bodies and a negative impact on a bank's image (brand) and customer relationships.

Adopt a Stewardship Role consists in the involvement of the proactive collaboration of the stakeholder to ensure a longer-term well-being with social and environmental benefits. Such type of activities might include offering internship to students or employing physically disabled people, for example. This construct is one of the most common activities of CSR domain and it is frequently employed to enhance the brand image but also to boost the morale of the staff.

Inclusive Value Creation, included in archetype five, consists in innovating financial products and services to minimize the risks embedded in lending. This is relevant to provide services to the most vulnerable and traditionally less bankable portion of population.

The sixth archetype, *Repurpose for Society/Environment*, aims at ensuring the

development of financial products with high values in terms of social and environmental priorities. This archetype consists in a significant shift from the maximization of shareholder value to social and environmental value. It is however difficult to observe a financial institution completely engaging in such construct, being risky and with results that might be reached only in the longer term. The possibility of development lies in a hybrid model that combines both traditional and *Repurpose of Society/Environment* model together; at least until the bank is resilient on its own.

The seventh archetype *Resilience in Loan Granting*, ensures the inclusion of sustainability criteria in the lending processes to rule out unsustainable businesses and minimize risks. This construct enables bank to protect itself from the direct and indirect impact of ESG events; on one hand, reducing the cost of capital and the potential reputational risk and on the other reducing credit risk intrinsic in the nature of the business operations.

Finally, the eight and last archetype *Sustainable Financial Products* focuses on active and passive sustainable products, delivered on a wide range of solutions top enable a larger portion of clients to contribute to important causes. Examples might be green bonds and supporting crowdfunding (Yip & Bocken, 2018).

The approaches identified by the literature have similar characteristics, such as the initial phases where financial institutions do not envisage the integration of sustainability in their business models and/or they are forced to do it by regulatory pressures, embracing them superficially and in terms of product offering. The subsequent steps are more related to the inclusion of the principles in the internal processes and the promotion of specific activities and measures. What is missing in these approaches are mainly the consideration of the indirect effects of the business, resulted in risks, and the cooperation between stakeholder to develop in a more efficient and sustainable way, present only in the archetypes of Yip and Bocken. Finally, it is important to highlight the accountability and transparency that a sustainable bank should display towards the public.

2.3 The impact of ESG inclusion in the banking business

Banks are positioned as influential leaders with the capacity to allocate necessary capital and collaborate with various stakeholders for the shift towards a more sustainable and inclusive economy. As mentioned previously, it is imperative for banks to actively engage in addressing ESG-related risks and their potential consequences, especially considering their extensive scope of action. The adoption of sustainable practices has significant positive impacts, which have been extensively analyzed in the literature. The latter suggests that a sustainable approach in banking may confer a competitive advantage through customer-centric focus. The enhancement of the corporate image followed by the implementation of such measures has high potential of increasing the number of customers and expanding lending and savings, also given the increase in interest displayed for such activities (Igbudu et al., 2018). Moreover, failing to meet public expectations might lead to social boycott and rejection, without considering possible measures implemented by authorities (Tarkhanova, 2018). It is important to also underline that a more attractive corporate image but also an increased customer base does not directly entail an increase in profitability. Another area of study is related to the latter, where there is no conclusive evidence from the literature regarding its direct impact on banks' profitability. Sustainability performance is intricately linked to institutional performance and dependent on the institutional quality (Úbeda et al., 2022). Sustainability banking practices have the ability of gradually enhancing profitability (Olmo et al., 2021), with higher financial ratios after the inclusion of sustainability priorities into the decision-making process. However, there are studies which shows how solely focusing on social investments demonstrated to be less profitable (Climent, 2018).

Finally, there is an evidenced positive relationship between sustainability performance and financial performance, with higher sustainability performance potentially leading to increased financial performance. However, the reverse correlation is not established, as higher financial performance does not necessarily translate to higher sustainability performance (Weber & Chowdury, 2020). Notwithstanding the shift in the mentality, traditional banks are still preferred by the public with respect to sustainable banks, given low external pressure and moral intensity; moreover, the market power played the traditional financial institutions play a pivotal role in term of cost of capital. The following section delves into the outcomes of the bank's integration of ESG factors into their

operations, highlighting their considerations regarding financial incentives, reputational risks, and the increasing regulatory pressures.

ESG risks and lending

Being the most common and typical activity of financial institutions, the lending sector is one of the earliest banking businesses to incorporate ESG considerations. This integration primarily aims to assess credit risks arising from environmental and social factors, complementing the traditional criteria composed by economic and financial indicators with sustainability criteria, such as soil erosion and conservation of workplaces (Weber et al., 2010a). The pushing incentive for this approach emerged with the implementation of environmental regulations in Europe and North America, aligning with the polluter-pays principle, which also posed financial risks for lenders associated with polluting entities (Weber et al., 2008).

Incorporating ESG risks in the lending process is instrumental in managing the impact of the natural disasters and climate change on different aspects of the lending business.

- *Properties used as collateral*: their value might quickly deteriorate given contamination by a natural disaster;
- *External regulatory pressures on investments*: given the expectations set by the public, banks must follow specific guidelines and expectations to avoid penalties;
- *Market fluctuations*: some products or services' demand might drop given the change in the clients' attitude towards environmental issues;
- *Reputation risk*: entertain business with firms that are known because of environmental scandal deteriorates significantly the image of the financial institution.

It is clear how these factors easily influence the counterparty credit risk, commonly impacted by the reputation of the debtor, the ability to repay, the future earnings and the current capital of the debtor, together with the value of the collateral. The influence of environmental risks on such factors surged the development of ESG and sustainability-oriented credit risk assessment tools, which consider the environmental, social, and governance factors influencing the credit risk associated with the loans (Weber et al., 2010a).

Different studies focused on the impact of physical risks on credit lines and bank loans, revealing that extreme weather events significantly reduce firm-level cash flows, leading to lower liquidity and increased size of firms' credit lines (M. Brown et al., 2021). The main strategies adopted by banks to mitigate default risk are increasing interest rates and less borrower-friendly provisions on the loans. More specifically, the latter includes extending loans with shorter maturities, increasing the likelihood of secured loans, and implementing variable interest rates. Interestingly, the literature highlights significant changes in bank lending practices after the Paris Climate Agreement of 2015. Banks began factoring in borrowers' environmental performance into loan pricing following the adoption of the agreement (Beyene & Manthos, 2020).

Notwithstanding the importance and the focus on environmental matters, the COVID-19 pandemic, along with movements such as #MeToo and "Black Lives Matter", has remarkably put the spotlight also on the Social factor of the ESG considerations in corporate management. Firms are facing increasing pressure from investors, consumers, and regulators to address social issues related to workplace safety, racial inclusion, and gender equality. The features that distinguish social from climate and environmental risks is the time horizon: the former might have immediate and amplified consequences, especially in the age of social media, resulting in social boycotting towards specific companies. One recent example is the campaigns against McDonald's and Starbucks, which have been significantly boycotted from the Palestinian supporters in the context of the Palestinian Israeli conflict (Tenbarge, 2023). Environmental risks, on the other hand, may evolve gradually over the long term. Banks can find themselves indirectly exposed to financial losses or reputational damage if their borrowers are impacted by such socially negative events. Consequently, it becomes crucial for banks to identify and integrate borrowers' social practices into their contractual terms. For example, it has been demonstrated how the treatment of the employees concurs in indicating whether a firm is a trustworthy interaction partner, improving its reputation and therefore experiencing better loan conditions. Moreover, firms with employee-friendly policies are in a better financial position to repay their debts (Qian et al., 2021).

For what concerns Governance factor, the main impact on the cost of capital derives from the level of information asymmetry that characterized the firm and the agency risk. The two factors significantly influence the interest rates posed by lenders given the increased credit risk and the need for the financial institution to implement a higher level of

monitoring on the borrower (Rajan & Winton, 1995). A determinant role in bigger firms is played by the Board of Directors (BoD), which composition, efficiency and independency positively influences the cost of capital for the firm. Several papers have highlighted the advantages of effective boards in the context of bank loans, providing supporting evidence that firms with high-quality boards are acknowledged by banks and rewarded with favorable terms when negotiating bank-loan contracts. This is due because of the impact on information asymmetry, agency problems and default risk, which reduce significantly. Moreover, there is a clear link between the independency of the BoD and lower interest rates and fewer restrictive collateral, covenants, and performance-pricing provisions (Francis et al., 2012). Finally, financial institutions price positively firms with an adequate level of gender representation, given evidence on female board members typically demanding greater reporting transparency and monitoring of managerial actions, leading to improved board quality (Karavitis et al., 2021). This diversity can enhance the quality of the Boards by increasing the disclosure of firm-specific information, providing banks with more comprehensive knowledge for assessing the creditworthiness of potential borrowers.

A step furtherer the pure consideration of ESG factors in the different phases of the loan granting might be considered **Green** and **Sustainability-Linked Loans (SLLs)**. On one hand, green loans are strictly linked to funding projects which aim at substantially contribute to environmental causes. Given the demand present in the public, green lending represents a significant opportunity which displays lower default ratios as compared to other non-environmentally friendly peers (Weber & Feltmate, 2016). Differently from the green bonds, which we will be analyzed later, green loans have a smaller scale transaction which is usually carried out privately. Both, however, have to adhere to specific principles in order to be classified as such: the Green Loan Principles and the Green Bond Principles (GBP) established by the International Capital Market Association (ICMA). The principles follow four core areas, which consist of:

1. *Use of proceeds*
   As mentioned before, the projects funded by the loans should be clearly linked to environmental benefits, which will be documented by the borrower.
2. *Process for project evaluation and selection*
   The borrower will display the rationale and the reasoning behind the selection of the projects, together with the management of social and environmental risks.

3. *Management of proceeds*

   The proceeds of the green loan are located by the borrower to preserve the transparency and accountability required.

4. *Reporting*

   To ensure an objective recognition of the green loans' benefits, the principles require the development of qualitative and, where possible, quantitative performance indicators (The World Bank Group's IFC, 2021)

On the other hand, Sustainability-Linked Loans are a larger and broader portion of loans, which include green loans. The funds derived from a sustainability linked loan are directed towards the borrower's corporate need, without being strictly related to an environmental or sustainable purpose. However, specific financial features of the loans, such as the interest rate, are linked to Key Performance Indicators (KPIs) and other sustainability objectives. The main driver for a financial institution to undergo such processes is the simple demonstration of its commitment towards honorable causes to the public; same reasoning also for the borrower. Failing to meet such expectations might have significant reputational impacts (Fitts & McBride, 2023)
The increasing relevance of this form of financing attracted the market demand, inevitably pushed by authorities all around the world. However, it did not attract positive attention only. The main arguments of the criticism are related to the phenomenon of greenwashing[7], the lack of standardization of the entire process of loan granting, the limited impact that the projects may have considering the overall carbon footprint of the institution and the borrower and the potential lack of genuine commitment towards sustainability issues.

Finally, we can find practices such as **Community Development Financing** and **Microfinancing**, moving towards the most "extreme" areas of sustainable banking. The former is a comprehensive term that contains different forms of funding which focus on fostering more robust and resilient communities, usually characterized by low- and moderate-income (LMI). The main objective is to provide financial support to projects and businesses actively contributing to the local community development, affordable housing, and social welfare. In order to have an efficient solution, the collaboration between various entities, both public and private, is required. Financial institutions,

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[7] Greenwashing consists in providing the public with misleading or false information on the environmental impact of the business.

community development organizations, nonprofits, foundations, research, and policy centers, as well as government agencies facilitate community development investments in LMI communities, developing a creative blend of public, private, and philanthropic resources (Federal Reserve, 2022).

Microfinancing encompasses a range of financial services, such as loans and savings, which are designed for individuals with limited means in getting resources because they are lacking collateral or/and eligibility for conventional loans. The underlying principle of microfinance is the belief that individuals with modest incomes can uplift themselves from poverty through access to financial services. The main objective is to empower low-income individuals, particularly entrepreneurs and small business owners, by providing them with the financial resources they need to start or expand small businesses and improve their economic well-being. By providing services to the unbankable portion of population, microfinance fosters a higher level of financial inclusion in the community.

The main features that characterize microfinance are related to the time horizon and amount, which are typically limited. The loans are mostly short-term – spanning around one year, and they provide for small amounts of money invested for income-generating activities. The repayment terms are generally flexible and are intended to accommodate the irregular income derived from opening a business. Moreover, the application processes are frequently simplified and therefore swifter to be completed (Muhammad et al., 2016).

ESG risks and investments

As previously mentioned while analyzing the literature regarding SRI, the market started to factor in additional indicators while making investment decisions, considering the impact and the commitment demonstrated by the company in ESG terms.

There are mainly three main ways of considering environmental, social and ethical factors, which differs among themselves depending on:

1. the priority of the economic return;
2. the priority of an actual added value to the society created by the investment.

Firstly, we can find ESG investing which, as its name shows, takes into consideration the ESG factors into the selection and management of investments (Bragg, 2013). Generally, it has two main objectives: firstly, it aims at guaranteeing attractive financial returns while

investing in securities that are considering ESG issues; this is mainly done because businesses that perform great in ESG terms usually perform financially great. Secondly, it wants to move capital towards causes that fight for social and environmental benefits; this entails that investors care for both profit maximization but also for sustainable development. The main problem lies behind the fact that considering ESG factors does not automatically guarantee that the portfolio might become more sustainable. For what concerns their financial performance, different studies investigated it with respect to conventional portfolios and they have generally similar if not best performance, with specific focus during times of crises (Weber et al., 2010b).

The next step is what we know with Socially Responsible Investing (SRI), which includes into the decision some ethical considerations. It aims at pursuing a financial profit, but must respect more stringent principles in terms of ethics, therefore screening in or out businesses that, with their way of doing business, are closer or farther from the subjective ethics of the investor (Panebianco, 2020).

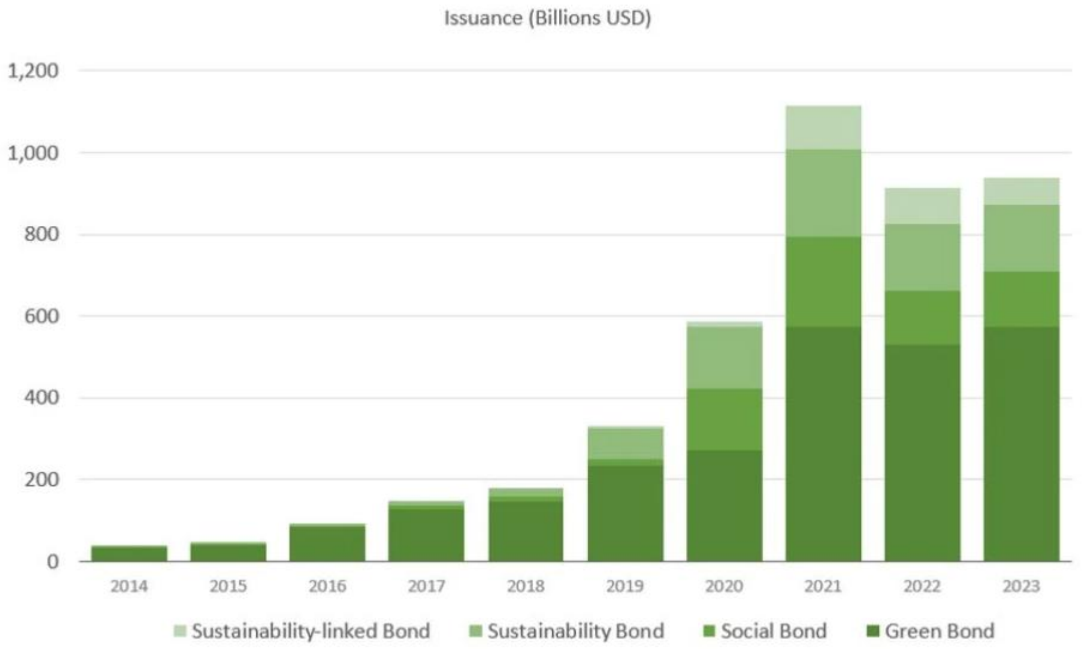
The final stage of the inclusion of ESG factors in financial decision leads to impact investing, which focuses on even stricter principles. Impact investing involves the allocation towards environmental and social issues and the creation of a tangible positive impact. Generally, the priority is posed on the positive impact on society over the financial returns, with a range of outcomes that may vary. The perspective on the balance between impact and financial return may also vary among different types of impact investors. Specialized impact investors and foundations focusing on specific impact topics might prioritize societal impact. Conversely, investors who incorporate impact investment as a small part of their financial activities, such as some banks, may strive for returns comparable to conventional investments (Weber, 2023).

Between the different financial products that were developed in the rising demand of the public for an increased level of sustainability in the financial market, we can find green bonds. This form of financing is used to raise long-term debt capital from the public with the objective of collecting resources for green projects. They are usually issued by financial institutions, businesses, national and regional governments to finance ESG activities. Considering their similarities with conventional bonds for their structure, the distinguishing features on top of the underlying objective is the green premium they deliver. Green bonds provide the same financial return as conventional bonds, but they deliver an additional green premium, called *greenium* (Weber & Saravade, 2019). This

obviously makes them attractive to institutional fund, aiming at maintaining a certain level of returns while mitigating their climate risk exposure and improve the ESG performance of their portfolios.

This attraction is materially demonstrated with the 2023's record of green bond sales from corporate and governments, which reached $575 billion. Contribution from governments continues to increase, with the Italian government selling green bonds for $10 billion (Ministry of Economy and Finance (Italy), 2023).

Green bonds, as can be seen from Graph 1 below, constitute the biggest share in the impact bonds[8] universe, which accounted for $939 billion in 2023, with the astonishing record in 2021 of $1.1 trillion (Gardiner & Freke, 2024). It is important to highlight that the issuance from the Middle East and the Latin America areas were the ones that increased the most, with Europe maintaining the leadership around 50% of the issuances. The expectations for 2024 and the near future consists in a modest and stable growth in the range of $950 billion and $1,05 trillion, potentially reaching 14% of the comprehensive conventional issuance of bonds.



Graph 1: Issuance of impact bonds (2014-2023), Bloomberg.

[8] **Impacts bonds** consist of green, social, sustainability and sustainability-linked bonds. *Social bonds* raise funds to mitigate social issues or to have a positive social impact (e.g. access to education). *Sustainability bonds* seek to achieve both environmental and social objectives (Cochelin et al., 2024). *Sustainability-linked bonds* are financial instruments which financial and structural characteristics are connected to sustainable objectives (Azimut Direct, 2021).

In order to assess a particular security and its impact on the world, investors rely onto **ESG ratings**, which are developed by agencies evaluating the environmental, social and governance-related business practices. Sever criticisms has put ESG ratings on the spotlight given the presence of greenwashing, played by businesses to attract as many investors as they can, and the lack of standardization on the rating process. The latter increases significantly the inconsistency across the different rating developed, which makes it almost impossible to correctly assess the commitment of the business and compare it with others. The main solution lies in a greater level of transparency of the objective of the rating, the data used to develop it and the methodology behind it. This is only possible through the work of regulators in improving the ESG disclosure framework, ensuring a level-playing field of data for both investors and rating agencies (Kolbel et al., 2023).

As it can be seen from the paragraphs above, financial institutions are being significantly impacted by the integration of ESG risks in their policies and processes. Even if it might result as a burden especially at the beginning, the integration of such risk in the risk management framework ensures an adequate representation of the risks the financial institution is exposed to. Moreover, the new market opportunities created by the financial products linked with sustainable objectives constitute a relevant competitive advantage that financial institutions should exploit, both in terms of reputation and in terms of clients' demand. However, it is important to highlight that financial institutions are also pushed towards sustainability given the requirements and the guidelines imposed and suggested by international organizations. The latter will be presented in the next chapter.

CHAPTER 3: THE EUROPEAN LEGISLATIVE FRAMEWORK

The chapter is focused on presenting the current legislative framework in force in the European Union, focusing on the most relevant aspects for financial institutions. Sustainability and the EU were deeply connected since the drafting of the founding Treaties, but what really constitutes the foundation for all the initiatives undertaking by the European Union is the Action Plan presented by the EC. Acting as a file rouge between the different laws, the Action Plan required action from the European Authorities in different areas such as the definitions of being sustainable, the need for financial investments on sustainable projects and the adequate level of transparency to ensure accountability. The pieces of legislation that will be presented below are mainly divided into two groups: the legislations valid for financial institutions exclusively and the ones valid for bigger companies. Moreover, it is important to note how pivotal legislations were also updated to adequately embrace sustainability aspects that were not included at the moment of the drafting.

3.1 The Treaties of the European Union

Embracing the Paris Agreement on Climate Change and adopting the UN 2030 Agenda for Sustainable development constituted an incredible and pivotal shift towards sustainability from the global governments. Emphasizing the efforts coming from the European Union in this area, it is important to highlight how sustainability is at the core of its economic strategy, with the objective of achieving a low-carbon, resource-efficient and circular economy. The EU's commitment is intertwined in its Treaties, acknowledging the environmental and social domain. In the context of the creation of the internal market, the Treaty on European Union stipulated its functioning towards the sustainable development of Europe. The principal objective consisted in the "full employment and social progress, and a high level of protection and improvement of the quality of the environment" (Treaty on European Union, 2012). The European Union committed to safeguard human rights, preserving peace, and assisting populations victim of natural and/or man-made disasters. Moreover, it emphasized the need to foster sustainable economic, social, and environmental development of developing countries,

aiming at eradicating poverty. Finally, it ensured its commitment towards the development of international measures to improve the quality of the environment and the sustainable management of natural resources, to reach an adequate level of sustainable development (Treaty on European Union, 2012).
The pressing need for action to limit climate change and environmental disasters, together with the dwindling natural resources, required a decisive standpoint from governments and international bodies. This shift is only possible, as mentioned previously, through the reorientation of private capital towards more sustainable investments, together with the efforts of governments which are not sufficient on their own. One of the first actions taken by the European Union consists in the High-Level Expert Group on Sustainable Finance established by the EC in 2016. The Group provided a comprehensive overview of a potential strategy for the development of sustainable finance. To achieve the latter, the traditional financial system should fund society's long-term needs and incorporate ESG factors into investment decision making. These principles ensure the improvement in the contribution of finance towards a sustainable and inclusive growth, together with the strengthening of financial stability. The Report containing eight recommendations acts as the foundation of the Action Plan of the EC.

3.2 The Action Plan: Financing Sustainable Growth by the European Commission

The Action Plan (European Commission, 2018) consists of a set of initiatives focused on aligning finance with the needs of the planet and the European and global economy. The main objectives of the Plan are:

1. Redirecting capital towards sustainable investments, fostering an inclusive growth;
2. Mitigating the risks stemming from climate change, diminishing natural resources and social issues;
3. Ensure an adequate level of transparency, accountability, and long-termism in the European and global economies.

The Report from the High-Level Expert Group identified eight key recommendations which flow into the ten Actions identified by the strategy of the EC (Action Plan: Financing Sustainable Growth, 2018). The Action Plan had several areas of impact

through different initiatives influencing entities, authorities and products, briefly presented in Figure 4.

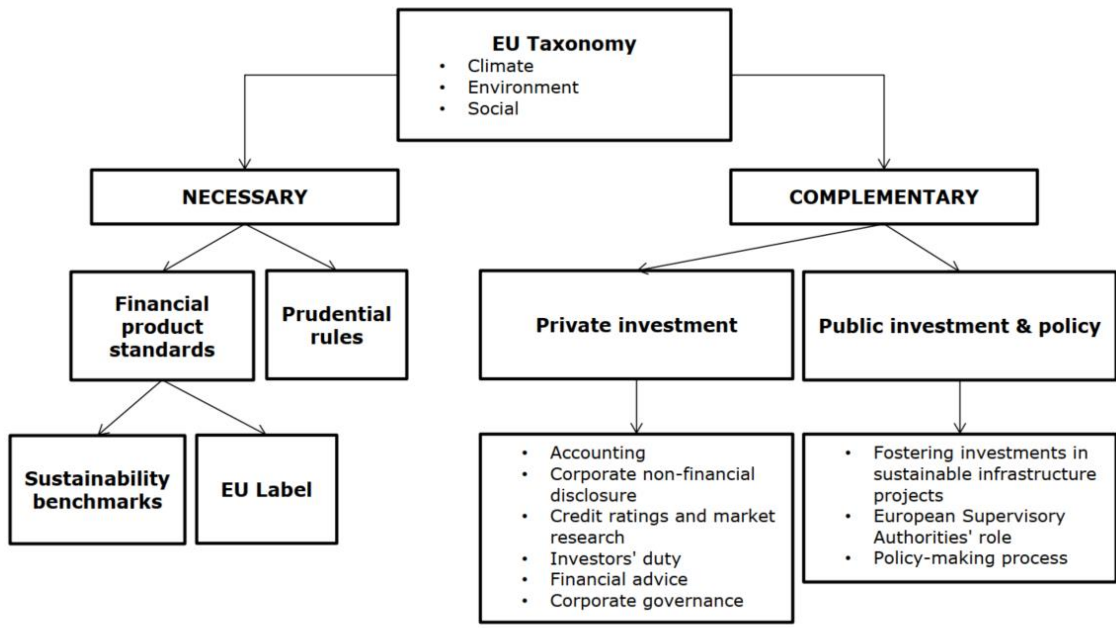


Figure 4: the main areas of impact of the Action Plan (EC, 2018)

Action 1 consisted in establishing an EU classification system for sustainable activities. Proposed by the Commission, the EU law needed a clear identification of what could be considered in "sustainable" to legislate on such topic. Moreover, the development of an EU taxonomy could provide the foundation of several initiatives and measures such as standards, benchmarks, and prudential requirements. Understanding what could be defined as sustainable was indeed needed to properly shift the capitals towards such sectors. Clearer guidance on investments has certainly benefitted investors, who are more informed and could help in filling the investment gap for the transition. In addition, it significantly improved the level of transparency, helped by the requirements on disclosure, providing a higher level of detailed information on companies, sectors, and projects. Entered into force in 2020, the result of Action 1 is Regulation 2020/852/EU "Taxonomy Regulation" (TR), which sets out four overarching conditions that must be met by an activity to be considered "environmentally sustainable" (European Commission, 2020b).

Action 2 focused on the creation of standards and labels for green financial products. Having set the guidelines of sustainable investments through the Taxonomy, the development of labels would have enhanced the reliability and therefore the trust in the

sustainable market, easing the access to investors. At the issuance of the Action Plan, the green bond market accounted only for 1% of the total bonds[9], notwithstanding its rapid expansion. An EU standard, developed on the current best practices implemented by the institutions and businesses, would have facilitate the flow of capital into sustainable projects. The result of Action 2 is the publication of Regulation 2023/2631/EU "European Green Bond Standard Regulation" in November 2023; a voluntary standard defining green economic activities, fostering transparency, and establishing an adequate level of supervision on the pre- and post-issuance reviews carried out by the European Securities and Markets Authority (ESMA) (European Commission, 2023b).

Action 3 objective consisted in the implementation of instruments supporting the completion of projects all around Europe and the world. More specifically, it was targeting sustainable projects that were lacking advisory and technical assistance, together with a substantial necessity of funds. The EC had already implemented initiatives such as the European Fund for Strategic Investments (EFSI) and the European Investment Advisory Hub. Their role was instrumental in attracting investments for projects, achieving the remarkable amount of 540,3 billion of total investments, and providing guidance at regional and local level to achieve climate, environmental, and social benefits. For example, the EFSI and the European Investment Bank (EIB) supported the Italian SMEs and Midcaps during the COVID19 pandemic, creating a Programme Loan (PL) (European Investment Bank, 2024). The last round of projects of the EFSI Investment Committee was in December 2020, after mitigating the impact of the pandemic on Europe's economy. Action 3 was already envisaging the need for a successor, further improving the existing framework. It aimed at reuniting under a single investment fund all the potential instruments to enhance the efficiency of European financial and advisory support. Created on the legacy left by the EFSI, the new fund would simplify the relationships between investors, European Institutions, partners such as the EIB, promotional banks, and philanthropic organizations. In 2018, the EC created InvestEU as the new long-term financing programme of the European Union. The policy areas are sustainable infrastructure, research and innovation, SMEs and social investment, which will benefit the 26.3 billion EU budget guarantee over the next years (European Union, 2024).

[9] As reported by S&P Global, the Green, Social, Sustainable and Sustainability-linked bond (GSSSB) accounted for 15% of total issuance in 2023 (S&P Global Ratings, 2023).

Moving forward to **Action 4**, the EC required the inclusion of sustainability preferences of the investors in the suitability assessment, therefore amending Directive 2014/65/EU "Markets in Financial Instruments Directive" (MiFID II) and Directive 2016/97/EU "Insurance Distribution Directive" (IDD) delegated acts. Moreover, ESMA oversaw the preferences provisioning in the guidelines on the suitability assessment. The rationale behind the amendments consists in the role played by the advisory process in redirecting investors towards sustainable opportunities. Financial intermediaries are required to evaluate the clients' investment objectives linking them to their risk tolerance, proposing the most suitable options available. Including sustainability preferences in the assessment consider the wider spectrum of preferences presented by the clients while also informing them of alternative to traditional instruments.

Action 5 required a guidance on sustainability benchmarks' features, ensuring a proper level of transparency on the chosen methodology. Benchmarks are fundamental indices that significantly influence the pricing of financial instruments and other pertinent assets within the financial system. Unfortunately, the methodologies of traditional benchmarks do not properly reflect sustainable objectives and providers started to develop alternative methodologies to incorporate ESG factors. The latter, however, were not sufficiently transparent, compromising their reliability to the eyes of the market. The EC, thanks also to the work done by the Technical Expert Group on sustainable finance (TEG), adopted the new rules setting out minimum technical requirements for the methodology of EU climate benchmarks. The adoption allowed a level-playing field both for index providers and investors, who had a harmonized baseline from which they could start (European Commission, 2020a).

Action 6 focused on the integration of ESG factors in the assessments carried out by rating agencies, analyzing the adequate methodologies, the market structures of sustainability ratings and the independence of the scoring providers. The absence of an agreed market framework to measure the sustainability performance of a business is the main reason of lack of trust and criticism towards the system. The main result is the recent provisional agreement between the European Council and the European Parliament on a regulation on ESG rating activities (Council of the EU, 2024). This regulation aims at strengthening the reliability and the comparability of ESG ratings across Europe, requiring the authorization and the supervision by the ESMA and the compliance with transparency requirements.

Action 7 shifted the perspective on the role played by institutional investors and asset

managers with respect to sustainability investments. The absence of a proper inclusion of sustainability factors in the decision-making process damage systematically damages end-investors, lacking the comprehensive and clear picture. The EC, for this reason, initiated a legislative proposal which required the integration of sustainability considerations in the decision-making process conducted by institutional investors and increasing transparency on the integration of sustainability factors in the investment process. Institutions across Europe are still providing feedbacks on the initiative.

Action 8 represent a significant step of sustainability in the field of banking supervision, given the intention of internalizing climate and environmental risks in financial institutions' risk management models and policies and, most importantly, calibrating its capital requirements on this basis. Moreover, similar approach was required for insurance companies, with the European Insurance and Occupational Pensions Authority (EIOPA) invited to provide an opinion on it. This action required a proper reflection of the C&E risks borne by financial institutions in the prudential regulation, without hampering the credibility of the current framework and its risk-based nature. The relevant result of this initiative is the amendments to Directive 2013/36/EU "Capital Requirements Directive" (CRD) and Regulation 2013/575/EU "Capital Requirements Regulation" (CRR), that constitutes the foundation of prudential supervision (Think Thank European Parliament, 2023).

Action 9 implied the need for a fitness check of the EU legislative framework on disclosure, focusing especially on Directive 201/95/EU "Non-Financial Reporting Directive" (NFRD). Moreover, the EC and the TEG committed to develop new guidelines to provide guidance on the modalities of disclosure of climate and environmental related information. The new framework should be aligned with the Financial Stability Board's Task Force on Climate-related Financial Disclosure (TCFD) and the future EU Taxonomy. Another important aspect targeted from this action is the impact of the accounting standards on sustainable and long-term investments, to avoid practices discouraging such types of investment. The analysis conducted by the EC on the disclosure legislative framework was extremely positive, with the NFRD described as "a pioneering piece of legislation of 2014" (Deloitte, 2021). However, the Directive did not ensure an adequate level of information for stakeholders to have an informed decision. For this reason, we can consider Directive (EU) 2022/2464 "Corporate Sustainability Reporting Directive" (CSRD) as a revision of the NFRD, tackling the standardization and uniformity of ESG disclosure. Completing the comprehensive picture, the EC proposed

Regulation 2019/2088/EU "Sustainable Finance Disclosure Regulation" (SFDR), targeting how Financial Market Participants (FMPs) disclose information related to ESG activities at entity and product level (Barral Casado, 2022).

Finally, **Action 10** aimed at improving Board of Directors' (BoD) practices in relation to the disclosure of sustainability strategies, targets and the accountability of Directors to act in the long-term interests of the company. Corporate governance is necessary in extending the time horizon of decision-making; this would enable companies to commit to strategic initiatives that result in innovative technologies and enhance performances, therefore fostering a sustainable economic growth. The presence of external short-term pressures influences potential opportunities and expose businesses to sustainability risks.

3.3 Taxonomy Regulation

Described as the most urgent initiative of the Action Plan, the Taxonomy Regulation (TR)[10] entered into force on 12th July of 2020. The core of the piece of law is the identification of economic activities that can be qualified as environmentally sustainable, laying down consistent standards, together with a disclosure obligation and the introduction of specific KPIs. This is done with the aim of establishing the extent to which an investment is environmentally sustainable as well. The system implemented by the TR aims at enhancing clarity and higher quality information for properly informed decision-making on their investments. By doing that, businesses that are genuinely contributing to sustainable initiatives are more attractive for investors and protected by the unfair practices of competitors. Enhancing clarity on what constitutes an environmentally sustainable investment is expected to facilitate access to cross-border capital markets for such investments (Busch et al., 2021).

The scope of the TR coincides with the one of the NSFR/CSRD, being the following: large public-interest companies (subject to the NFRD or covering two out of three CSRD criteria[11]), listed SMEs and FMPs offering and distributing financial products in EU. The reporting requirements are deferred for the different subjects, ranging from 2021 to 2028.

[10] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the Establishment of a Framework to Facilitate Sustainable Investment, and Amending Regulation (EU) 2019/2088.

[11] The criteria are the following: a) having more than 250 employees, b) balance sheet of more than EUR 25,000,000 c) net turnover of more than EUR 50,000,000.

As of January 2024, the TR scope is limited to large public-interest companies (Envoria, 2023). However, companies of any size can voluntarily disclose information on the sustainable activities they are implementing, using the EU Taxonomy.
As reported in art. 8, the TR requires both financial and non-financial undertakings to measure and disclose the extent of their activities' alignment with the definitions of the taxonomy. Moreover, the TR introduced the reporting of KPIs, limited to non-financial undertakings, requiring the EC to adopt a Delegated Act specifying the information to be disclosed by both financial and non-financial undertakings.
Non-financial undertakings are required to disclose the proportion of their **turnover** derived from environmentally sustainable activities, together with both the **Capital Expenditure** and the **Operating Expenditure** related to activities qualified as environmentally sustainable[12]. The first KPI represents the static view on the sustainable efforts carried out by the undertaking. The second one gives more depth on the forward-looking planning of the undertakings of sustainable activities. Finally, the third one displays the efforts of the undertaking in maintaining the assets, through research and development and maintenance (European Commission, 2021a).
For what concerns financial undertakings, the developed KPIs related to the different profitable areas of the financial activities, as written in the Commission Delegated Regulation 2021/2178/EU "Disclosures Delegated Act". The most important KPI is the **Green Asset Ratio (GAR),** which represent the proportion of taxonomy-aligned assets with respect to the total covered assets[13]. Financial institutions are required to report one main ratio, representing the stock of credit institutions and an additional one is provided for the inflows and for the outflows.
To evaluate the extent of the financial institution's alignment, the amount of Taxonomy-aligned assets and the non-financial KPIs of the undertakings the financial institution is funding are considered. In addition to the main one, we can also find KPIs strictly related to the different financial activity that might be performed by the financial institution, such as the **FinGuar KPI** (financial guarantees to corporates), the **AuM KPI** (asset under management) and the **F&C KPI** (fees and commission income). Finally, the Delegated Act will be reviewed by EC before 30th June of 2024 to enhance the treatment of sovereign

[12] Article 8, Regulation 2020/852/EU.
[13] Covered assets reference to all on-balance sheet exposures except for sovereign exposures and trading portfolio (European Commission, 2021a).

exposures and undertakings not subject to the CSRD/NFRD disclosure in the calculation of the KPIs for financial institutions.

To determine the extent to which an investment aligns with environmental sustainability, an economic activity is considered environmentally sustainable only if it cumulatively satisfies four criteria, set out in Article 3:

1. Contribute substantially to at least one or more environmental objectives set out in Article 9;
2. Not significantly harm any of the above-mentioned objectives, in accordance with Article 17;
3. Be carried out in compliance with minimum safeguards set out in Article 18;
4. Comply with the Technical Screening Criteria established by the EC in accordance with Article 10.

The environmental objectives

The classification system developed by the Regulation is based on the setting of six environmental objectives, laid out in Article 9. The objectives included are the following: a) climate change mitigation (Art. 10), b) climate change adaption (Art. 11), c) sustainable use and protection of water and marine resources (Art. 12), d) the transition to a circular economy (Art. 13), e) pollution prevention and control (Art. 14), f) the protection and restoration of biodiversity and ecosystems (Art. 15).

Each article established several conditions that qualify the economic activity as contributing to the different objectives. For example, Article 10 sets out that an activity contributing to the stabilization of greenhouse gas concentrations in the atmosphere contributes to climate change mitigation. Moreover, it provides the potential actions that could be implemented to achieve the objective, such as improving energy efficiency and increasing clean mobility.

The TR also outlines two classification categories within the activities that substantially contribute to the environmental objectives.

On one hand, an economic activity may qualify as substantially contributing to any objective by directly enabling other activities to contribute to the objectives. Defined as "*enabling activity*[14]", the latter should not lead to a lock-in of assets that threaten long-term environmental goals and has a significant and positive environmental impact.

[14] Article 16, Regulation (EU) 2020/852.

On the other hand, an economic activity may qualify as *transitional activity*[15] if there is no other technologically or economically feasible low-carbon alternative and the activity supports the transition to a climate-neutral economy. Moreover, the activity has to meet the following conditions: a) its greenhouse emissions follow industry best practices, b) it does not deteriorate the development of the low-carbon alternatives, c) it does not lead to a lock-in of carbon-intensive assets.

Do Not Significantly Harm (DNSH)

To be classified as sustainable economic activities, the activity cannot cause significant harm to any of the other objectives. Hence, the activity does not qualify as environmentally sustainable if it causes more harm than benefits. Finally, Article 17 provides additional conditions clarifying what might be considered "significant harm"; for example, significant greenhouse gas emissions are considered significant harm for the climate change mitigations (Doyle, 2021).

Minimum Safeguards

In addition to the substantial contribution to one of the objectives, particular attention is devoted to the compliance of Minimum Safeguards, highlighting the importance of ensuring minimum human and labor rights and standards, while achieving environmental objectives.

In accordance with Article 18 of the TR, the Minimum Safeguards refer to all the procedures implemented by undertakings in order to carry out an economic activity in compliance with the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, together with the eight fundamental conventions present in the Declaration of the International Labor Organization Fundamental Principles and Rights at Work and the International Bill of Human Rights.

Technical Screening Criteria (TSC)

The TR implied the development of Technical Screening Criteria (TSC) by the EC to expand and clarify the conditions under which an activity was considered sustainable. The TSC were expected to be issued as a series of delegated acts under the TR; this

[15] Article 10.2, Regulation (EU) 2020/852.

process involves gathering advice from external experts in both public and private sectors. In accordance with Article 20 of the TR, the EC has established the Platform on Sustainable Finance (PSF), a new expert group known as the Technical Working Group (TWG) replacing the Technical Expert Group (TEG). The TWG's role is to advise the Commission on advancing the development of the taxonomy, as mandated by the TR, facilitating the development of the TSC (Platform on Sustainable Finance, 2022). Moreover, the PSF is an advisory body subject to the Commission's horizontal rules for expert groups. Its main role consists in advising the EC on the implementation and usability of the EU taxonomy, the TSC and monitoring capital flows into sustainable investments.

In accordance to the TR[16], the TSC had to meet specific characteristics. Firstly, the TSC needed to be subject to frequent updates, given the difficulties while evaluating the environmental impact of the activities coupled with the rapidly evolving technologies of the latter. In addition, the criteria must have high-level and finer details for each economic activity to ensure their reliability and accuracy, in the context of the "substantial contribution" and "significant harm" definitions. The rationales needed to draw upon scientific evidences and inputs from experts. Secondly, the TSC should ensure that relevant economic activities within each sector can qualify as environmentally sustainable and are treated equitably if they equally advance one or more environmental goals.

Thirdly, the TSC must be feasible and straightforward to implement, in order to reduce the burden posed on economic operators. The verification of compliance should be easily achievable, within reasonable costs and efforts for both parties.

Finally, given the importance of attracting private investments towards activities with a positive sustainable impact, the EC should prioritize the development of the criteria for those activities that have the highest potential (Gortsos, 2021).

In line with the efforts of the Technical Expert Group (TEG), the PSF utilized the NACE[17] industrial classification system to establish technical screening criteria for environmental objectives. The NACE classification system offers a thorough coverage of the EU economy and is widely employed by EU authorities and financial institutions. Each TSC

[16] Recitals (38), (45) and (47)–(48), Regulation (EU) 2020/852.

[17] The term is derived from the French *Nomenclature statistique des activités économiques dans la Communauté européenne,* that is the Statistical classification of economic activities in the European Community (NACE), available at https://showvoc.op.europa.eu/#/datasets/ESTAT_Statistical_Classification_of_Economic_Activities_in_the_European_Community_Rev._2.1._%28NACE_2.1%29.

is reported as follows: each business activity has a detailed description of what it entails, providing the different NACE codes of activities that could fall in the section. The criteria then explain the conditions under which the activity leads to a substantial contribution to one of the objectives, displaying the impacts on the other objectives through the Do Not Significant Harm principle.

3.4 Amendments to the Capital Requirements Regulation (CRR) and Capital Requirements Directive (CRD)

The proposed amendments of the Capital Requirements Regulation (EU) No. 575/2013[18] and the Capital Requirements Directive No. 2013/36/EU[19] consists in the Banking Package, composed by CRR 3 and CRD 6.
This series of amendments sets the implementation of Basel III in Europe, therefore introducing several changes across the measurement of different financial risks and specific processes of supervision. Following the EC Action Plan that required amendments in the CRR and CRD, the Banking package requires a better accounting of ESG risks at bank's internal level, as well as higher priority in the supervisory practices (European Banking Authority, 2024).

The legislative process
After the proposal of the comprehensive banking package in October 2021 conducted by the EC, the European Parliament and the Council started to discuss the legal text, taking more time than forecasted. Between the different opinions coming from the main stakeholders participating in the process, we can find the ones of the ECB published in March and April 2022 and the inputs coming from the European Banking Authority (EBA). The main takeaway from the ECB was to ensure an adequate and timely implementation of the Basel reforms.

[18] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on Prudential Requirements for Credit Institutions and Investment Firms and Amending Regulation (EU) No 648/2012.
[19] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on Access to the Activity of Credit Institutions and the Prudential Supervision of Credit Institutions and Investment Firms, Amending Directive 2002/87/EC and Repealing Directives 2006/48/EC and 2006/49/EC.

The Council reached a General Approach on both texts in November 2022 and the Parliament issued its reports in January 2023. The trialogues between EC, the Council and the European Parliament started in March 2023; the process ended at the end of 2023, when the negotiators from both institutions reached a provisional agreement on the texts. The text is supposed to be published in the European Journal at the time of writing of this thesis, becoming applicable from 1st January 2025 (Council of the EU, 2023).

The main changes in the ESG context

Given the need for an increased inclusion of ESG risks at prudential level, new articles have been added and several adjustments have been made to both the CRD and the CRR. For what concerns the CRR, Article 4 now contains the definitions of ESG risks, environmental risk, physical risk, transition risk, social risk and governance risk; these sets the foundation for a proper understanding of what these risks entail.

An important peculiarity to highlight is the clarification in Art. 4.52d where it has been specified that ESG risks materialize through the traditional categories of financial risks. As written in recital 54, the provisions on capital requirements set out in the CRR should properly embrace the relevance of ESG risks, together with a proper inclusion of the risks of the exposures linked to the ESG objectives. Moreover, Article 177 (European Banking Authority, 2023) is the one focused on the provisions for sound stress testing to assess capital adequacy, that now must include ESG risks in the adverse scenarios. The latter is required to be severe, but plausible, with physical and transition risks coming from climate change. The issuance of guidelines on the design of the scenarios by the EBA is required in accordance with Article 16 of Reg. 1093/2010.

Finally, Article 449a focuses on the disclosure of ESG risks and now it explicitly distinguishes between the different domains (E, S, G) and physical and transitions risks. Additional information on the integration of ESG risks in the business strategies, processes, and governance and risk management are required. For these reasons, EBA is required to develop Implementing Technical Standards (ITS) to make the ESG disclosure uniform and proportional to the size and complexity of the financial institution. Exposures to ESG risks were also included in Article 430, reporting all the main information to be reported by financial institutions to their competent authorities. The amendments report the need to inform competent authorities on their existing and new

exposures to the fossil fuel sector entities, together with their exposure to physical and transition risks. The reporting is not limited to these two categories.

For what concerns the CRD, Art. 73 and Art 74 highlights the need to account for ESG risks forward-looking nature in the short, medium, and long term. This had to be done through the update of the internal processes and policies identifying and managing the risks the financial institution is exposed to, together with the strategies assessing capital adequacy. Responsibility is attributed to the Management Body (MB) in the context of approving and reviewing every two years the strategies to manage and monitor the risks the financial institutions is exposed to, explicitly mentioning the impacts coming from ESG risks (Art. 76).

Most importantly, CRD6 includes the new article 87a on ESG risks. The main provisions can be summarized as follows:

- *Internal processes and strategies for ESG risks management*
  The policies and procedures of the risk management framework must be robust and proportionate to the scale and complexity of the ESG risks stemming from the business model. Peculiar characteristics such as their forward-looking nature must be taken into account.
  The time horizons to be included are the short, medium, and long-term, with the latter considering a period of at least 10 years.
- *ESG stress testing and ICAAP*
  Given the nature of ESG risks, tools such as stress testing might be insightful in the assessment of potential impacts stemming from ESG risks. Financial institutions are now required to test their resilience against potential negative effects of ESG risks through severe but credible adverse scenarios leveraging on the ones developed by international organizations[20]. This must be done not only in the centrally developed exercises but also at internal level. Given the urgency of risks stemming from environmental degradation and biodiversity loss, particular attention has been given to the climate and environment-related factors, starting point of the stress test.

[20] It is relevant to highlight that CRD 6 appoints the European Supervisory Authorities (ESAs) to jointly develop guidelines to ensure consistent and long-term ESG stress testing.

Moreover, CRD6 required to include the coverage for ESG risks in the internal strategies and processes to evaluate the internal capital adequacy. This is usually done through the Internal Capital Adequacy Assessment Process (ICAAP), consisting in the internal assessment carried out by the bank on the internal capital.

- *ESG risks integration into business organization and strategies*
  As reported above, particular emphasis has been given to the integration of the risk management framework and the internal governance arrangements with the ESG risks. CRD6 proposes the introduction of specific plans, envisaging targets and processes, to address the financial risks arising from ESG risks in the different time horizons. These transition plans have the objective of evaluating the alignment of financial institutions' portfolio with the European objective to become climate-neutral by 2050. The assessment should consider the financial institution's sustainability in its business model entirety, therefore considering the products offered, the limits embedded in the loan policies and their investment targets.
- *Suitability assessment of the Management Body*
  In addition to the responsibility of implementing and reviewing the strategies to achieve targets addressing ESG risks, the Management Body's (MB) suitability will be assessed also under the ESG perspective. The MB is required to meet a sufficient level of collective knowledge, experience and skills to assess the ESG factors impacting the financial institution in the short, medium and long term. CRD 6 explicitly mentions the impacts of the ESG factors, linking this piece of law to the CSRD, focusing on the **double materiality principle**[21].
  High importance is also denoted to the trainings followed by the MB, which shall be characterized by sufficient financial and adequate resources.
- *Banking Supervision*
  During the Supervisory Review and Evaluation Process (SREP), the Joint Supervisory Team (JST) evaluates the risks the bank is facing and inspects whether they are robustly and adequately managed. The main assessed areas are the bank's business model, the internal governance and risk management, together

[21] Concept explained at Chapter 3.6 Disclosure for financial institutions, sub-chapter Corporate Sustainability Directive.

with all the risks[22] to the Capital of the bank and its liquidity and funding (European Central Bank, 2024). At the end of the analysis, each bank will be categorized by an overall score ranging from 1 to 4: higher the score, higher the risks the bank is facing in one or more areas. Given the resulting score, the bank's Pillar 2 requirement is determined, complementing the minimum capital requirements embedded in Pillar 1. In additional to the additional capital requirements, the JST can also impose qualitative requirements, the latter consist in specific requests of action in certain areas with detected weaknesses. All the above-mentioned requirements are legally binding and the bank is subject to delimited deadlines to ensure compliance and avoid sanctions.

The SREP has already put emphasis on ESG risks in all the main areas: for example, the analysis conduct on the business model of the bank includes the focus on the impacts of ESG risks on the viability and sustainability of the institution (European Banking Authority, 2022). Moreover, supervisors continue increasing their expectations on ESG risks, prioritizing climate & environmental risks. Only in the 2023 SREP cycle, 12% of the supervised banks received additional measures aimed at addressing deficiencies in business model and internal governance (European Central Bank, 2023a).

The CRD 6 requires higher pressure played by the supervisory authorities in the context of ESG risks, also considering its exposures and providing considerations in the SREP Decision. In the context of the analysis, the transition plans in accordance with 2050 climate neutrality will also be reviewed. Moreover, supervisors will be entitled to impose requirements reducing the bank's exposure towards ESG risks, therefore adjusting their transition plans. Finally, CRD 6 will put down in black and white the systemic nature of climate risk, which will be included in the respective systemic risk buffer. It is important to highlight that this amendment refers only to climate risk, given the higher experience by legislators on the topic and the higher priority that the first domain received in the last years (Schemmer et al., 2023).

It is important to highlight how the Banking Package represents a change of course in the management of such risks, remarking how it is crucial to finally consider ESG risks in

[22] The risks to capital consist of credit risk, market risk, interest rate risk in the banking book and operational risk.

their entirety. The main regulatory expectations, such as the ones presented by the ECB in the Guide on Climate-related and Environmental Risks, were only considering climate and environmental risks. Given the interconnection between the different factors, it is important that banks start visualizing and managing risks beyond the ones required until now.

3.5 Amendments to the Markets in Financial Instruments Directive (MiFID II)

Another lesson learnt from the Great Financial crisis is the need for a more stringent regulatory framework targeting the markets in financial instruments and their transparency, the protection of investors and their confidence, and ensuring adequate power to supervisors[23]. This is the reason for the adoption of the Directive 2014/65/EU (MiFID II)[24], updating the original one (MiFID I) adopted in 2007.

The MiFID II targets financial markets located in the European Union (EU), regulating the investments and the trading activities traded on them. It applies to investment firms, wealth managers and credit institutions authorized by the NCA or the ECB to carry out such activities, covering all types of securities and derivatives (Central Bank of Ireland, 2023). The main areas impacted by the adoption of the MiFID II relevant for this thesis are investor protection and transparency. In addition, it is important to also highlight the limit related to the trading volume of a stock traded in a dark pool of 8%[25], the stricter reporting requirements concerning the detail of each transaction[26] and stronger supervision on algorithmic trading and high-frequency trading[27].

High importance was given to the preservation of investors' interests, requiring a higher effort from financial undertakings to do everything they can to achieve the best result for the investors while protecting their best interests[28]. This includes higher transparency also in terms of the price of the financial instruments and the related costs of execution of the trade. The fees charged to the research and the transaction have to be displayed separately,

[23] Recital 4 of Directive 2014/65/EU.
[24] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on Markets in Financial Instruments and Amending Directive 2002/92/EC and Directive 2011/61/EU
[25] Article 5 of Regulation (EU) No 600/2014, "Markets in financial instruments regulation" (MiFIR).
[26] Article 58 of Directive 2014/65/EU.
[27] Article 17, Ibid.
[28] Article 27, Ibid.

reducing the fog around the amount to be paid for investors, making researchers accountable for their services and improving competition across the different providers (Anselmi & Petrella, 2021).

The MiFID II, targeted by the Action Plan of the EC, was supplemented by the Commission Delegated Regulation 2021/1253[29] to integrate sustainability factors in the organizational requirements and operating modalities of investments firms. Sustainability factors are integrated under two main perspectives: their inclusion in the assessment of investors' preferences and their integration in the organizational requirements.

For what concerns the first point, investors were already subject to a suitability assessment evaluating their knowledge and experience in terms of financial products and their financial objectives in terms of bearing losses and risk tolerance. This is required by investments firms providing advice to clients to ensure that adequate financial products are proposed to each investor, considering the abovementioned factors. Given that non-financial objectives were not considered, the Delegated Regulation included them in the process of the suitability assessment. Firstly, investment firms are required to inform investors about what sustainable preferences entail: article 2 of the Delegated Regulation describe it as the choice or potential choice to invest in financial products that are environmentally sustainable (Regulation 2020/852/EU) or sustainable (Regulation 2019/2088/EU) and to what extent the client is willing to do so. Moreover, technical language should be avoided and additional information regarding ESG aspects may be communicated to the client, as provided by the guidelines developed by the ESMA (ESMA, 2022).

The latter expanded the provisions of the Delegated Regulation, requiring that the sustainability preferences of the clients should be sufficiently granular to have an adequate match with the characteristics of the financial instruments. The following information should be collected:

- Presence of any sustainability preference;
- Direction of the sustainability preferences, with regards to environmental, social or sustainable objectives;

[29] Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 Amending Delegated Regulation (EU) 2017/565 as Regards the Integration of Sustainability Factors, Risks and Preferences into Certain Organisational Requirements and Operating Conditions for Investment Firms.

- The minimum percentage to be allocated to such sustainable products;
- The Principal Adverse Impact (PAI)[30] to be considered, including quantitative and qualitative criteria.

Moreover, the questionnaire should maintain a neutral approach, avoiding influencing the client's answers in any way. The ESMA proposes also to collect information on the preferences of clients with respect to one or more domain of the ESG, or if they are not focused on such factors. Finally, PAI preferences might be assessed through the PAI indicators, using the categories mentioned in the RTS such as emissions, energy performance and so on (ESMA, 2022).

Figure 5: Process of the assessment of sustainability preferences, (2° Investing Initiative, 2022).

In addition to a more comprehensive and tailored offer of financial products, the introduction of these practices impacts significantly the occurrence of greenwashing, supporting the transition towards a more sustainable financial system. The inclusion of sustainability preferences improves the effectiveness of the regulatory framework on disclosure and ensures an enhanced level of consistency referencing to it.

For what concerns the integration in the organizational requirements, the Delegated Regulation requires manufactures and distributors of financial products to include sustainability factors in the product approval process, together with the governance and the oversight for each financial product (Pugh et al., 2022).

[30] The concept of Principal Adverse Impact will be deeply analyzed in the context of the SDFR.

3.6 Disclosure for financial institutions

Recital 2 of the CSRD describe the disclosure of relevant, comparable and reliable sustainability information as a prerequisite to meet the objectives set out in the Action Plan proposed by the EC. The Directive remarks the financial relevance of sustainability information and how many stakeholders argues about referring to such data with the term non-financial[31]. Even if it is not obvious, the entire financial system benefits from a enhance sustainability reporting. Citizens, savers, and depositors would benefit from higher disclosure because they would be more informed: the ones that intend to invest are able to do so consciously; the perk for the others would consist of a more inclusive and sustainable economy. The information, however, would need to reach two pools of people to concretely achieve these benefits. On one hand, there are the investors and asset managers, who want to quantify the impacts of ESG factors on their investment and vice versa. On the other, there are the non-governmental organizations which should hold undertakings accountable for the results of their actions on people and environment[32]. Finally, the same undertakings would benefit from the enhanced disclosure, being able to adequately map the risks is exposed to, but also foresee potential opportunities stemming from them. Reputation and dialogue with the different stakeholders would certainly improve[33].
The increasing demand for sustainability information is mainly due to the investors' awareness of the financial repercussion of such risks, together with their changing nature and frequent occurrence. Climate and environmental risks have always dominated the discussions and had higher priority in Europe given the climate-neutral objective, but the Covid-19 pandemic attracted attention on topics such as workers' rights, physical and mental rights. The latter remarked the need to drive attention on the social pillar of ESG[34].

The regulatory environment is becoming more and more stringent, with different Directives, Regulation, and guidelines from regulatory and supervisory authorities. The framework financial institutions are subject to is composed by:

- Article 449a, Regulation 575/2013/EU "Capital Requirement Regulation" (CRR);

[31] Recital 8, Directive (EU) 2022/2464.
[32] Recital 9, Ibid.
[33] Recital 12, Ibid.
[34] Recital 11, Ibid.

- Expectation 13, ECB Guide on Climate and Environmental Risks;
- Regulation (EU) 2019/2088, "Sustainable Finance Disclosure Regulation" (SDFR)[35].

Additional provisions financial institutions as "large" companies are subject to are:

- Directive (EU) 2022/2464, "Corporate Sustainability Reporting Directive" (CSRD)[36];
- European Sustainability Reporting Standards (ESRS), in accordance with the CSRD;
- Taxonomy Regulation;

Pillar III

Article 449a of the CRR requires large institutions listed in any Member State's regulate market to disclose information on ESG risks, including physical and transition risks (EBA, 2024a). In accordance with the CRR and the CRD, a financial institution shall be considered large if one of the following conditions is met:

- It is a *"Globally Systemically Important Institution"* or a *"Other Systemically Important Institution"* (Article 131 of CRD);
- It is one of the 3 largest institutions in terms of total value of assets in the Member State in which it is established;
- The total value of its assets, on an individual or consolidated basis, is equal to or greater than €30 billion.

Mandated by the CRR, the EBA developed draft ITS on Pillar 3 disclosures on ESG risks, endorsed by the EC (Morningstar, 2023). The ITS contain tables, templates, and instruction that specifies how financial institutions must publish the ESG data in accordance with Article 449a. The templates cover both qualitative and quantitative data,

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[35] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on Sustainability-related Disclosures in the Financial Services Sector.

[36] Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 Amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as Regards Corporate Sustainability Reporting.

especially focusing on climate risk given its higher priority at European level[37]. The qualitative template, however, covers each ESG domain.

Considering the *qualitative templates*, financial institutions need to disclose information regarding their business strategy and processes, governance, and risk management for each ESG risk. As can be seen from Figure 6, each perspective covers different aspects of the ESG integration in the processes of the financial institution. The qualitative requirements are complementary to the quantitative ones, and give additional value to the plain numbers in the other templates (EBA, 2022).

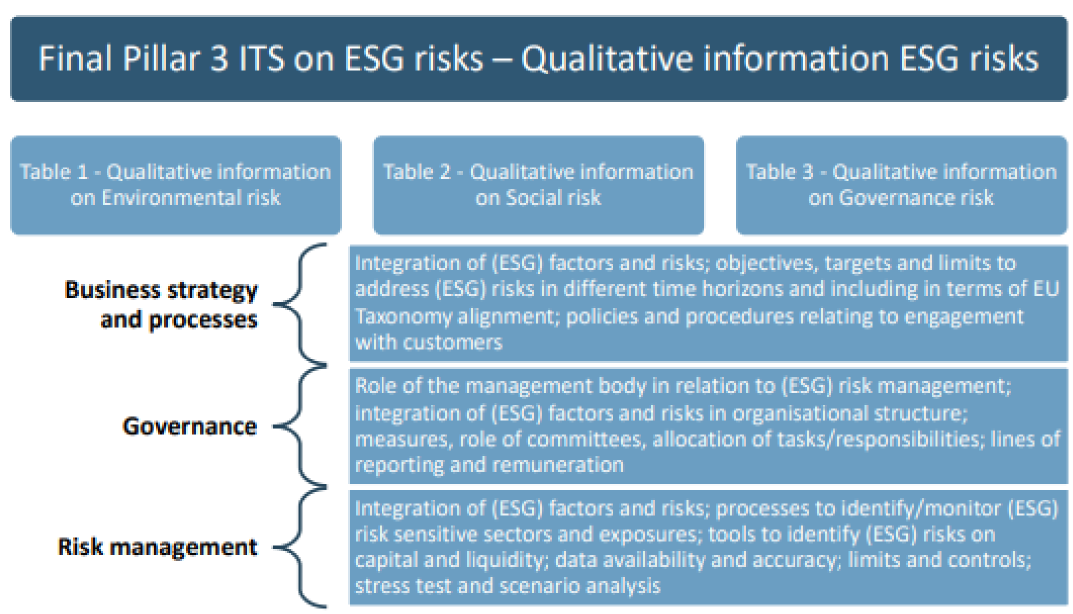


Figure 6: Required qualitative information, EBA.

Considering the *quantitative templates*, the most important data present in the areas of disclosure can be summarized as follows:

- **Risk disclosure**

  Templates from 1 to 5 are related to climate change transition and physical risk and they required data and information on the exposures towards sensitive sectors. Climate change transition risk lies in all the exposures on business activities that may be negatively impacted by the transition towards a more sustainable

[37] As of March 2024, the EBA conducted a public consultation on the amendments to the Pillar 3 disclosure given the implementation of the Banking Package. The consultations run until 14th March 2024 (EBA, 2024b).

economy, such as fossil fuel companies and carbon-related sectors. The latter are exposures linked with extreme weather events given the sector they belong to or the geography where they are located, such as business activities closely related to acute and chronic events. For what concerns real estate exposures, high relevance is given to the energy performance of the collateral.

- **Green Asset Ratio**

  Templates 6, 7, and 8 contain data enabling the calculation of the GAR. The data disclosed by the bank enables to evaluate how financial institutions are outweighing their exposures towards climate and environmental risks by investing in taxonomy-aligned activities (EBA, 2022). Financial institutions must fill the template with data on loans and advances, debt securities and equity instruments held in the banking book, such as the breakdown of the sectors in the TR scope and the breakdown of activities contributing and enabling to the climate change mitigation (CCM) and climate change adaptation (CCA). Examples for such activities might be the generation of renewable energy (enabling CCM) and the afforestation (contributing to CCA).

- **Banking Book Taxonomy Alignment Ratio (BTAR)**

  Template 9 requires the input related to the extent of the Taxonomy-alignment by Non-Financial Corporates (NFC) not subject to disclosure in accordance to CRSD/NSFR. The data, provided on best-effort basis by the financial institutions directly provided by the undertakings, will be used in the calculation of the BTAR. Given the absolute absence of data, financial institutions can use estimates providing an adequate rationale.

  The presence of the BTAR solves the concerns related to the exclusion of exposures excluded from the GAR, given the lack of disclosure obligations. This potential exclusion would have affected the reliability of the GAR in first place, given that these exposures would have been assumed equal to 0, extremely difficult to use ad a hypothesis given the presence of large SMEs. Moreover, there was no advantage for financial institutions to support smaller undertakings in the transitional process, materially reducing their access to credit. Finally, financial institutions would not collect such difficult data to retrieve, and this would have significantly affected the efficiency of their risk management framework(EBA, 2021).

- **Mitigating actions**

  Template 10 reports on additional actions that help the financial institution's counterparties transitioning towards a climate neutral business model or adapting to climate change. Additional explanation on the lack of consideration of such actions under the Green Asset Ratio is also requested, together with their timing, the risks they intend to mitigate and their nature.

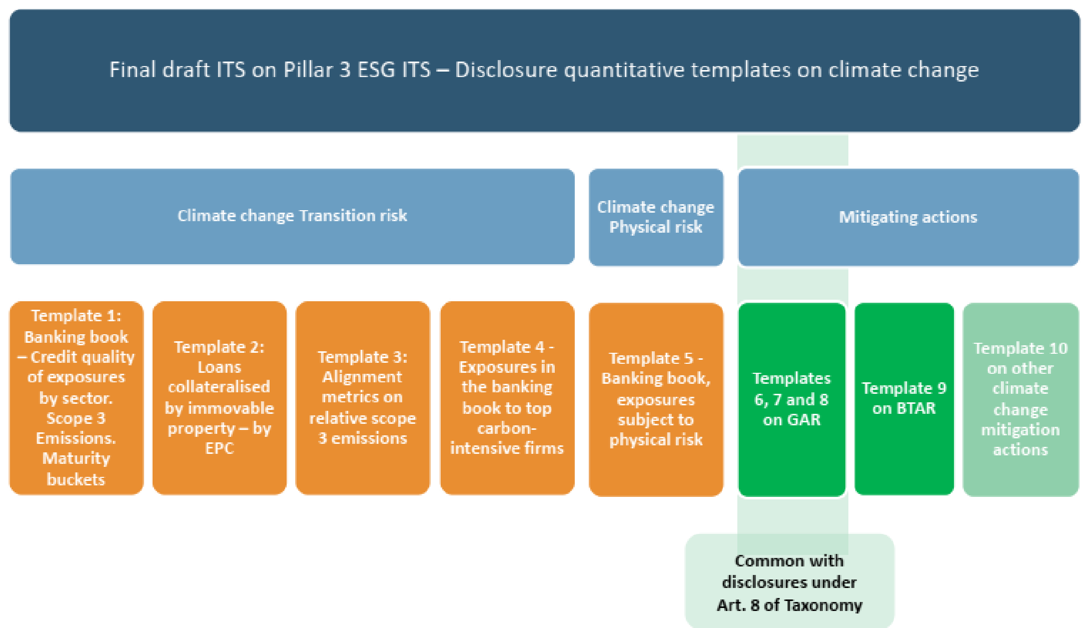
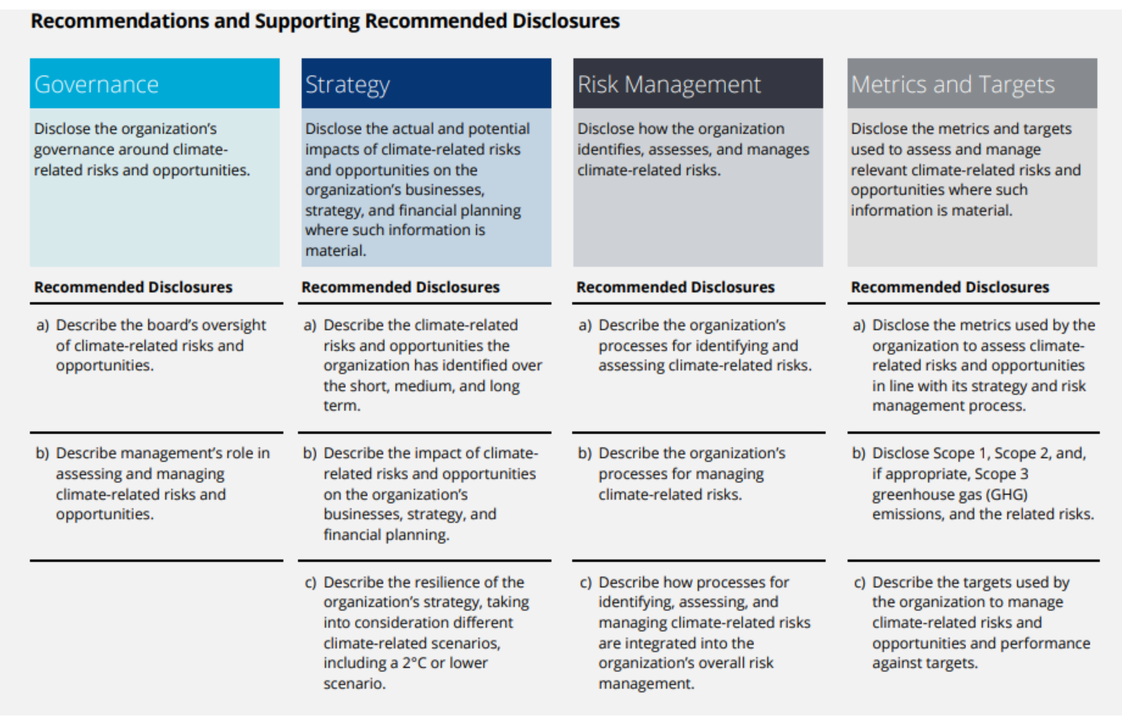


Figure 7: Templates on required quantitative information, EBA.

On top of the regulatory requirements and the guidance provided by the EBA with its guidelines and principles, the ECB displayed its own supervisory expectations on the risk management and disclosure of climate-related and environmental risks (European Central Bank, 2020). ECB's expectation number 13 covers the disclosure of material and meaningful information (but not confidential) on the C&E risks the financial institution is exposed to. In accordance with Article 432 of the CRR, an information is considered material when its presence or omission impact the economic decision-making.
Focusing on the modalities of the disclosure, financial institutions are expected to disclose the materiality assessment of C&E risks carried out considering the business environment they operate in, together with their business strategy and overall risk profile. The assessment shall consider quantitative data complemented with qualitative information while also taking in account the potential reputational impact of its operations on climate

and the environment. The disclosure of material risks must be carried out in accordance with Article 433, 434, 434a of the CRR. It is also expected that financial institutions shall provide an adequate rationale with sufficient documentation supporting the immateriality of one or more risks, given the result of their materiality assessment. The disclosure of this information helps both the financial institutions and the market participants, given that ensures a reliable representation of the institution's risk profile. In order to do this, all the business lines and exposures of the institution have to be considered.

Focusing on the content of the disclosure, the guide developed by the ECB relies on the European Commission's Guidelines on non-financial reporting[38], integrating the recommendations developed by the TCFD[39]. The disclosure, as can be seen in Figure 8, has four main pillars. The latter comprehensively covers the most important areas of a financial institution, going from the strategy adopted in order to achieve the chosen targets to the suitability assessment of the human resources in terms of knowledge and experience on climate-related risks.



Recommendations and Supporting Recommended Disclosures

Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	**Recommended Disclosures**	**Recommended Disclosures**	**Recommended Disclosures**
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Figure 8: Recommendations of the TCFD, TCFD Final Report 2017.

[38] Non-binding guidelines published by the EC in accordance with Directive 2014/95/EU.

[39] The TCFD, created in 2015 by the Basel-based Financial Stability Board, focused on the disclosure of the undertakings' impact on climate. As of October 2023, the TCFD does not exist anymore, leaving its legacy in the hands of the IFRS Foundation.

One important thing to highlight, present in the Metrics and Target pillar, is the disclosure of Scope 1, Scope 2 and Scope 3 GHG emission for the entity as a whole. More specifically, the following data are expected to be disclosed as granular as possible[40]:

- For each portfolio, the amount of carbon-related assets in € million and a forward-looking estimate of this amount during the time horizons considered in the strategy;
- For each portfolio, its weighted average carbon intensity[41] and a forward-looking estimate of this amount during the considered time horizons, given the availability of reliable data or adequate proxies to estimate it;
- The exposures categorized by economic sector of the counterparty and a forward-looking best estimate of this amount;
- Quantitative information regarding exposures and volumes of the collateral categorized by its location, indicating the ones exposed to physical risk.

Additional information regarding the considered hypothesis and the methodology behind the calculation of such amounts have to be disclosed as well.
Finally, a similar treatment is expected for the disclosure of targets and objectives set by the financial institutions. Information on the methodologies, rationales, and criteria considered while committing to contribute to one or more C&E goals are expected be disclosed. Moreover, the KPIs and the Key Risk Indicators (KRIs) included in the financial institution's Risk Appetite Framework used to monitor and manage the C&E performance shall be disclosed, providing the criteria and the metrics used in their development. Financial institutions are expected to display their current status against the targets of short-, medium- and long-term horizons.

Financial products

Regulation 2019/2088/EU "Sustainable Finance Disclosure Regulation" (SFDR), firstly came into force on the 10th of March 2021, lies out principles on FMPs' disclosure of sustainability information, especially with regards to the integration of ESG risks in their

[40] See Annex 1 of the European Commission Guidelines on non-financial reporting: Supplement on reporting climate-related information.

[41] Weighted Average Carbon Intensity (WACI): "– the weighted sum of carbon emissions per million euro of revenue; the weight is equal to the percentage share of the investment in a private company in the portfolio value."(European Central Bank, 2023c).

investment decision process. Currently under consultation launched by the EC, the Regulation is being assed for future potential changes (European Commission, 2021b). In addition, the Joint Committee (JC) of the ESAs developed RTSs on the methodologies, content, and presentation of the disclosures, in accordance with the SFDR, and provided templates to enhance the level of comparability across FMPs.

The main provision set by the SDFR is the classification of funds and their respective disclosure, to make investors able to have transparent and reliable information on their investments. There are three main categories of financial products depending on their sustainable characteristics: "Article 9" investments, "Article 8" investments and "Article 6" investments.

In accordance with Article 9 of the SFDR, financial products having as objective a sustainable investment and an index has been designated as a reference benchmark, information on the alignment of the index with the sustainable objective and the rationale under which the index may be considered different form a broad market index must be provided. If no index has been designated as reference benchmark, additional explanation on the modalities of the attainment of the objective must be disclosed.

Article 8 of the SFDR covers financial products that, between the others, takes also into account environmental and social criteria. It is required to disclose information on how the criteria are met and, if present, how the designated index is consistent with such criteria.

Finally, Article 6 covers all the remaining financial products that are left out of the previous articles, therefore not considering sustainability. FMPs are required to disclose how sustainability risks are integrated in their investment choices and the result and the explanation behind the materiality assessment of sustainability risks on the returns of the financial products. If the sustainability risks are deemed material, confirmation of the integration of such risks in the investment decision and a policy regarding the potential mitigation actins to implemented must be disclosed.

As briefly mentioned before, the ESAs were empowered to develop RTS in accordance with articles 4.6, 8.3, 9.5, 10.2, 11.4, 13.2 of the SFDR. The areas for intervention of the RTSs are the adverse impact reporting at entity level and the product disclosures, differentiated depending on the "type" of product in consideration.

The SDFR already lies provisions on the modalities of disclosure on the PAIs. Article 4 requires FMPs to disclose a statement on their due diligence policies linked to the PAIs

of investment decisions on sustainability factors. PAIs consist in "the most significant negative impact of investments on the environment and people. When a financial market participant considers principal adverse impacts, it means that it should seek to reduce the negative impact of the companies they invest in." (ESMA, 2023). If the FMP does not intend to consider such impact, it must provide the clear reason why it is doing so, and provide whether and when they are considering to do it. The RTSs include a mandatory reporting template, which includes indicators covering areas such as climate and environment one, including also biodiversity, and the social and employee ones, including human rights, anti-corruption, and anti-bribery matters (ESAs, 2021). The template contains some core indicators, that are mandatory to fill in irrespectively of the absence of impact by the funds, and some that can be included by the financial institution depending on the needs. The indicators are complemented by the narrative written by the FMP. The list of the mandatory indicators can be found in Figure 9.

Climate and other environment indicators

- GHG Emissions (Scope 1,2,3 & Total)
- Carbon Footprint
- GHG Intensity
- Fossil fuel sector
- Non-renewable energy consumption and production
- Energy consumption intensity per high impact climate sector
- Biodiversity sensitive areas
- Emissions to water
- Hazardous waste ratio

Social and governance indicators

- Violations of UN Global Compact principles and OECD Guidelines
- Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines
- Gender pay gap
- Board gender diversity
- Exposure to controversial weapons

Figure 9: Mandatory adverse sustainability indicators, (Vanhomwegen, 2021).

The template is integrated with the level of engagement and efforts of the FMPs, therefore reporting the actions completed and the respective values of the PAI indicators.
Finally, the disclosure at entity level also includes the reporting of the FMP's policies on the identification of the PAI, the planned mitigation actions, the extent of the adherence to the international standards, and a historical overview of the past PAIs of the FMP.

Continuing with the disclosure at product level, the SDFR differentiates it depending on the type of disclosure and product considered. For what concerns the pre-contractual disclosures, the modalities of the integration of sustainability risks and the PAIs for each type of product have to be disclosed; the only two exceptions consist in Article 6 products, where it is not mandatory to consider the PAIs into the investment decision process, and FMP with less than 500 employees, which can apply the same reasoning also to Article 8 and 9 products. It is important to highlight how this requirement is subject to the "comply or explain" principle, therefore requiring an explanation by the FMP if the sustainability risks and the PAIs are not considered.
Article 8 products, defined as "light green", and Article 9 products, defined as "dark green" are subjected to additional reporting, as mentioned above. FMPs need to disclose also additional information on the alignment with Taxonomy Regulation of the products, together with "do not significant harm" criteria. Similar requirements are applied also for the periodic reports to be disclosed for the different products (Cole, 2022).

Corporate Sustainability Reporting Directive

Enhanced, comparable and transparent information on ESG factors, impacts and risks do not benefit the financial market only. The duty imposed by society on undertakings to be accountable for their impacts on people and the environment is extended to all sectors. The first European step in this direction is Directive 2014/95/EU "Non-financial Reporting Directive" (NFRD), which increased the level of transparency on social and environmental issues. Adopted in 2014, NFRD required public interest companies with more than 500 employees to disclose reports on their actions regarding the respect of human rights, the treatment of the employees and other aspects related with the social sphere. Moreover, undertakings were required to publish KPIs and KRIs relevant to the business the undertaking was carrying out. The disclosure modalities left room for flexibility to undertakings, which were free to choose the most useful reporting standard depending on their needs. Moreover, there was no specification on the standards to be used, that could follow international, European, or national guidelines.
One of the most important provisions included in the NFRD is the concept of "**double materiality**": undertakings were required to disclose the impact of sustainability risks on their business ("outside-in risks") but also how the business conducted by the undertaking was affecting sustainability factors ("inside-out risks").

Finally, the NFRD required the audit firm or audit function to confirm the non-financial information was provided, as a minimum requirement.

Notwithstanding the revolution in term of disclosure that the NFRD represented, the piece of law was subject to critics, given rise to the need of reviewing it. The EC launched a consultation strategy, composed by surveys, workshops, and studies to understand the strengths and the weaknesses of the NFRD. The key messages, result of the consultation process, were the following:

- Given the overlapping of different legislations on non-financial disclosure, the data resulted as unreliable and incomparable across undertakings, impacting the quality of it.
- Given the level of flexibility left to undertakings, the need for standardized reporting was stressed by the surveys, mentioning a simplified approach for SMEs.
- Need for higher support in terms of stronger audit requirements was displayed, together with the digitalization of the information retrieved.
- Given the limited scope of the NFRD, the need to extended the undertaking subject to such requirements beyond the one resulting as "public interest entities" was expressed (European Parliament, 2021).

The result of the consultation process and the key messages consist in Directive 2022/2464/EU "Corporate Sustainability Reporting Directive" (CSRD), entered into force in January 2023. After a transitional period, the CSRD officially replaced the NFRD in January 2024. The CSRD renovates the requirements present in the NFDR and makes them stricter and applicable to more undertakings.

The scope has been indeed extended considering that, as of March 2024, the CSRD is applicable to all large undertakings meeting 2 or more of the following criteria: employees higher than 250, turnover higher than 40 million euro, and total assets higher than 20 million euro. With the inclusion of such criterium, the number of companies falling into scope increased from the 11.000 that were subject to the NFRD to more than 50.000 subject to the CSRD (Ferrie, 2021). In future, the scope will be ulteriorly extended, including listed SMEs subject to specific and proportional standards by 2026, together with SMEs, small and non-complex credit institutions and captive insurance undertaking that will have the possibility to opt out until 2028. Finally, non-European companies located in the European market with a turnover higher than 150 million euro will be

subject to the reporting requirements by 2029.

The CSRD innovates, moreover, the modalities of reporting. As of January 2024, undertakings are required to prepare the management reports in HTML format, following the European Single Electronic Formats (ESEF). Being reviewed every year by the ESMA, these standards ensure an adequate level of accessibility, analysis and comparability given their digital and standardized nature.

Another area subject to changes is the content of the reporting. Companies, differently from that the NFRD set, must follow the European Sustainability Reporting Standards (ESRS) developed by the European Financial Reporting Advisory Group (EFRAG). Adopted by the EC under the form of the Delegated Regulation 2023/2772/EU, the standards are applicable to companies from all sectors (European Commission, 2023a).

The ESRS cover 12 sustainable topics, ensuring an adequate level of standardization of the information while leaving a certain degree of flexibility to undertakings that can adequately represent the risks and opportunities tailored to its business model. The standards can be divided in: mandatory cross-cutting standards (ESRS 1 and 2), topical standards (E1 – E5, S1 – S4, G1), sector specific standards (still ongoing, expected by 2026) (Plan A Earth, 2023). The general overview can be found at Figure 10 (Chaurlet, 2024).

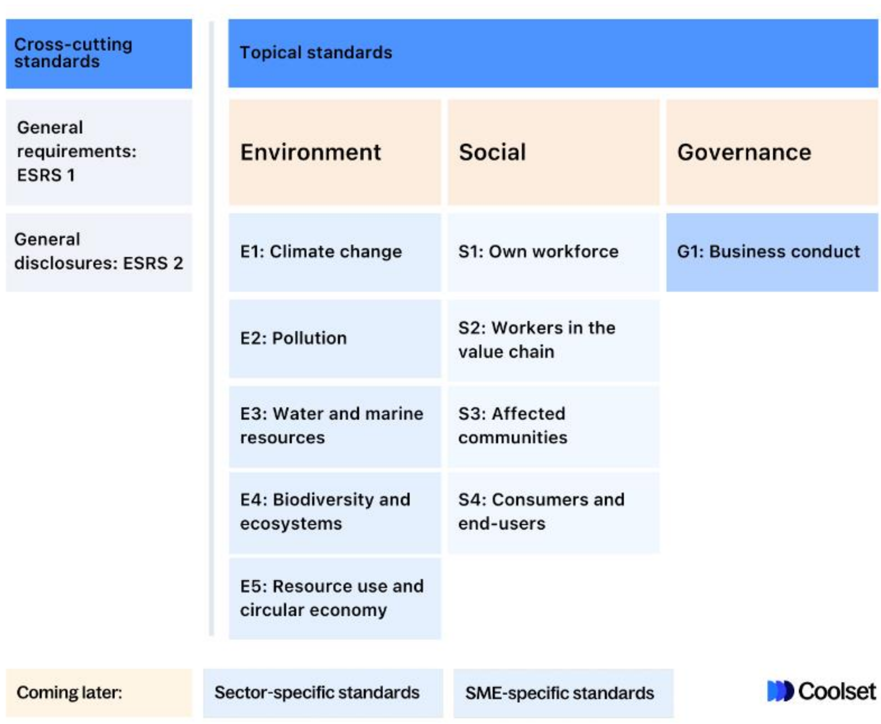


Figure 11: overview of the macro-areas covered by the ESRS, Coolset.

On one hand**, ESRS 1** cover the general requirements for the disclosure to be compliant, describing the overall architecture of the standards and the drafting conventions. On the other, **ESRS 2** sets the requirements valid for all the sustainability matters under the three main perspectives: governance, strategy, and impact, risk and opportunity management[42]. All of them are mandatory for all companies, constituting the foundation of the standards. The topical standards, which delve into the famous ESG pillars, are not entirely mandatory: disclosure is only required for topics deemed material by the undertaking, from an impact perspective, from a financial perspective, or from both. As it can be seen from Figure 12, the ESRS continue to maintain the "double materiality" principle in consideration (Deloitte, 2022).

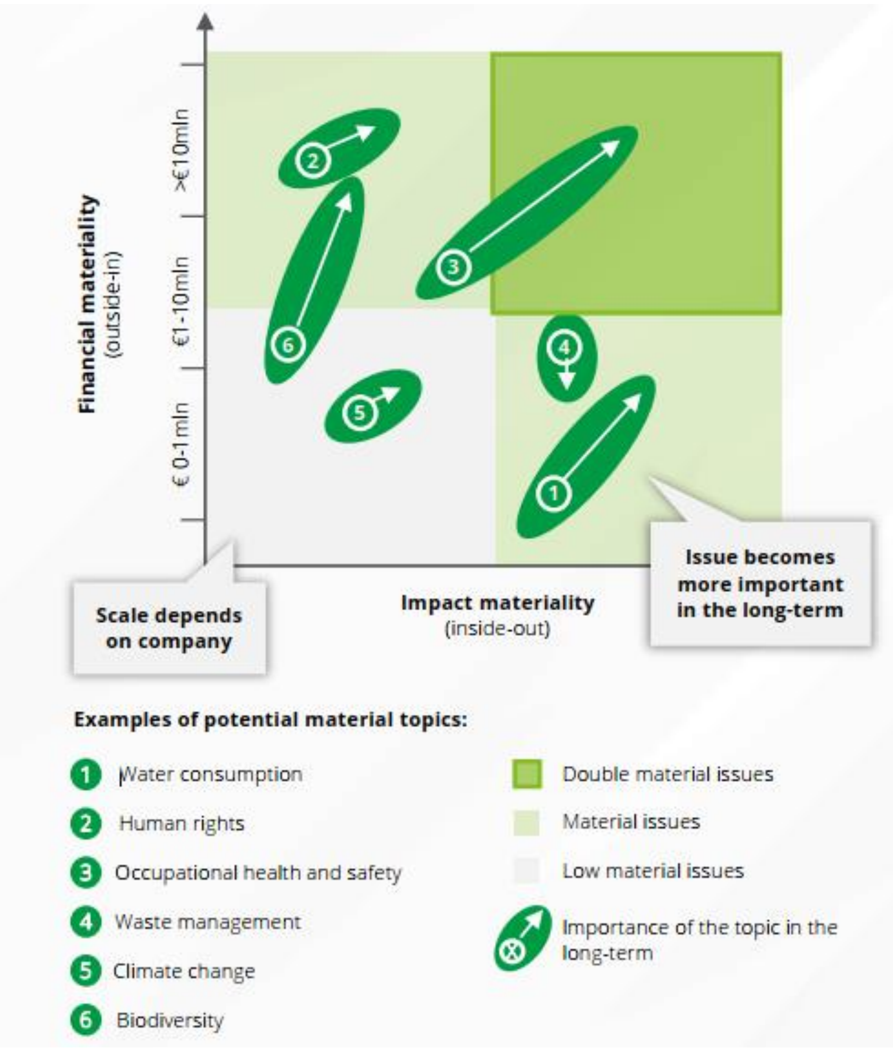


Figure 12: Example of a double materiality analysis, Deloitte.

[42] Article 1.1.5 and 1.1.6 of the Delegated Regulation 2023/2772/EU.

A sustainability matter is defined as material from the impact perspective when the topic is included in the actual or potential impact of the undertaking on the society or the environment, in all the time horizons ("inside-out")[43].
A sustainability matter is defined as material from the financial perspective when such matters trigger or may potentially trigger financial effects on the undertaking, therefore generating risks or opportunities with a material influence[44].
In addition, the EFRAG is working on the development of industry-specific standards, that will be adopted by the EC by June 2026 (EFRAG, 2023). Notwithstanding the importance of standardization and comparability between the several undertakings, a certain degree of tailoring is needed to properly represent the sustainable impact of the different sectors.

The evolving regulatory framework is being set by the authorities in order to protect consumers from unfair and misleading practices of companies claiming to do something good for the planet and the society, but also to promote and push companies and financial institutions in doing better. As discussed in the previous chapter, the framework is broad and comprehensive, but intricated at the same time given the different levels of recommendations, expectations, and requirements. It is easy to see the weight of the mandatory and voluntary pressures coming from authorities and other financial organizations on the shoulder of financial institutions. The areas covered are very different, going from the "simple" disclosure of sustainability reports and Pillar III information up to the integration of ESG risks into the Probability of Default and the Loss Given Default of the financial institution's internal models. However, every cloud has a silver lining: if a financial institution fulfils these expectations and does actual good, the public will recognize it and repay for it through different channels: trust, Customer Company Identification and loyalty.

[43] Article 3.4, Ibid.
[44] Article 3.5, Ibid.

CHAPTER 4: ENHANCING CUSTOMER LOYALTY THROUGH SUSTAINABLE PRACTICES

The chapter is focused on presenting the empirical study conducted on a sample of retails clients of a financial institution, testing a theoretical model envisaging potential effects of the sustainable practices on customer loyalty. On top of the direct relation between implementing such initiatives and a higher level of customer loyalty, the phenomenon of Customer Company Identification and the construct of trust will be analyzed in their mediator role. Given the costs for the compliance with both requirements and recommendation on including sustainability in the banking business model and the difficulties in finding a way to differentiate from competitors, financial institutions might adopt a more sustainable approach in order to set best practices in terms of ESG risks management but also to gain a lasting competitive advantage.

4.1 Theoretical background and hypothesis development

As discussed in Chapter 3, the compliance with all the requirements set by authorities in the context of ESG risks management and monitoring is extremely demanding for financial institutions. On one hand, it is difficult to navigate in the framework, given the level of intricateness it presents and for its constant evolution. On the other, the heterogeneity of the requirements, covering completely different aspects of the banking business, requires the creation of specific functions, guiding financial institutions in this transition. The process is not easy, financial institutions need to change and evolve as all the things on the path of improvement. The change required to banks is not limited to the offer of sustainable products, but to a concrete re-organization of its structure together with its risk management framework. On top of all of that, financial institutions are made accountable for their actions and they need to set in place an adequate level of disclosure of their activities, that is reliable and updated. All these activities require additional resources to be implemented that easily translate into investments and cost for the financial institution. It is important and strategic to make financial institutions accountable for the direction of their investments, but it also quite inevitable that they start analyzing what is in it for them.

The introduction of sustainable banking on a larger scale is revolutionizing the financial market. New products are being developed to fulfill the expectations coming from clients, therefore opening markets that were not present before. In addition, financial institutions are moving towards sustainability also under other different aspects, including the monitoring of the businesses' emissions, the level of transparency sued in their disclosure and sponsorship of cultural events. This gave the possibility to add an additional layer of differentiation between financial institutions, making it easier for demand to meet the most suitable supply. This is extremely important for the banking sector, given the highly standardized product that is difficult to specifically tailor to the client. Leaving out some exceptions, the same products and services are offered in almost all financial institutions, in a comparable modality and through similar channels. In a homogenized sector as the banking one, customer loyalty is extremely challenging to find and to maintain (Ahmad et al., 2021). The fragile connection is even more challenged given the factor played by sustainability, being one of the main reasons to switch from a bank to another, overcoming even the economic perspective of the deal (Roland Berger, 2023).

Notwithstanding the resources invested to be compliant with both expectations of the market and the authorities, the implementation of sustainable initiatives by financial institutions may be seen as a source of value creation and the foundation of a stronger long-term relationship between the client and the bank (Shah & Khan, 2019). This is mainly due to the consideration of the social responsibility print of the financial institution by the client into its consumption choices. Knowing that the company is investing its efforts into sustainable initiatives generates value for the client, triggering positive sentiments (Vera-Martínez et al., 2022). The consideration of the price paid for the product and its quality are not the only main factors of the equation and sustainability may be potentially added, creating a stronger bond between the client and the financial institution. Clients gets emotionally involved with the company (and, subsequently, with its products) given its material contribution to cases close to their heart, going from the environment up to the contribution to the communities. The effects do not stop: in addition, customers seek to provide some sort of reward to businesses genuinely moving towards sustainability (Agyei et al., 2021): the reward may consist in an improved evaluation of its image but also stronger willingness to buy its products. It is easy to see the switch into an even more client-centric perspective, given that consumers understood their right and their power in influencing how companies conduct their businesses (Wang et al., 2016).

The relation between the implementation of sustainable initiatives and the customer behavior reaction is, however, extremely complex. As presented by Pérez & Rodríguez del Bosque (2015), the conceptual framework behind customer behavior takes into account three main phases:

- The **cognitive domain**, related to customers' thoughts and beliefs resulting from the *image of the company* (Kim et al., 2017);
- The **affective domain**, related to the whole dimension of the emotions and link with *CCI*;
- The **conative domain**, related to the actual customer behavioral responses and its commitment in *recommending the company* and the *repurchasing the products*.

The last ambitious step is measuring how strong the sustainability factor in the equation of purchasing behavior is, given that emotions may potentially have a greater weight with respect to price or consumer taste (Jiang et al., 2014). Moreover, the awareness of the client of such initiatives consists in a material contribution in the positive reaction, if communicated adequately by the company. Even if it seems simplistic, the awareness of such initiatives might impact the trust and the behavior of both clients and employees (Raza et al., 2018).

Between the other impacts, sustainable initiatives have been proven to have effect on the company reputation and subsequent marketing outcomes, supporting the brand image of the company, and improving the customer's evaluation of the firm and its products (Raza et al., 2020; Vera-Martínez et al., 2022). Sustainable initiatives, if implemented and integrated into a long-term management policy, benefit the financial returns of the company, improving its financial performance: this phenomenon is called "doing well by doing good" and has many evidences on its side (Chernev & Blair, 2015).

Customer loyalty and the impacts of sustainable initiatives

Loyalty in the banking context may be defined as "the biased (i.e. non-random) behavioral response (i.e. revisit), expressed over time, by some decision-making unit with respect to one bank out of a set of banks, which is a function of psychological (decision-making and evaluative) processes resulting in brand commitment" (Bloemer et al., 1998). Brand commitment, the intention of maintaining a valued relationship between the parties, is key to achieve effects valuable for the subject and the business; both parties, as a result,

invest their efforts in maintaining this precious link (Morgan & Hunt, 1994). If the loyalty is merely superficial, the interactions in the relationship will be almost random and caused by inertia. The attachment to the bank may be caused by other factors, such as pricing policies, which can be easily attracted by more competitive offers made by other financial institutions (Dick & Basu, 1994).
Achieving an adequate level of customer loyalty and fostering it are an extremely strategic factors for businesses living in an intense competitive landscape. Considering the expenses for the potential acquisition of new clients, ranging around five times more than retaining the existing ones, is easy to understand how relevant customer retention is for the business sustainability over the long-term horizon (Webber & Brown, 2008). This area has attracted the attention of research but it needs further exploration: times have changed and with it, the behavior of clients. Producing high quality products or services is not enough to build a solid and devoted customer base anymore, as it was in past years. The present requires strategic approaches to secure customer loyalty against the external pressures coming from globalization, market saturation and digitalization: among the others, we can find sustainability embedded in the mission and core values of the business (Maniora, 2018; Tarnowska et al., 2020). As reported by Ahmad et al. (2021), the link between sustainable initiatives and the recognition of its efforts is not automatic: it is difficult to convince clients with simple and basic practices. A bank is not automatically sustainable if it offers sustainable bonds and this action does not create any emotional link. The important step is being proactive towards addressing social and environmental problems, through real and genuine sustainable practices embedded into the entire business model. Moreover, the practices should be tangible and solid to demonstrate the mission of the financial institution and avoid that a nice intent of doing good transforms into a double-edged weapon displaying it as misleading (Khazaei Pool et al., 2018).

The theory supporting the direct relationship between sustainable activities and customer loyalty is *attribution theory*: the latter affirms that humans act upon the interpretations they make of the interactions they have with a specific subject or the information they receive from external sources (Folkes, 1988; Kelley, 1973). Consequently, consumers tend to associate positive feelings to the organization given its sustainable conduct. Internalizing the behavior adopted by the financial institutions, customers are then inclined to reward the commitment perceived as a benefit to the society. On one hand, the financial institution contributes to the greater good being the environment or the society;

on the other, clients reciprocate positively this effort towards the same sustainable businesses by displaying a higher level of loyalty. The implementation of sustainable activities, impacting customer behavior and attitude towards the products and the business, has positive effect on customer loyalty (Raza et al., 2018).
There are, however, different studies which argue against the hypothesis of a direct relationship between the implementation of sustainable initiatives and customer loyalty (Kim et al., 2017). Some researchers agreed upon an indirect relationship, supported by other constructs acting as a mediator between the implementation of sustainable activities and an actual enhanced customer loyalty (Feliciano et al., 2023; Leclercq-Machado et al., 2022). The mixed signals coming from previous studies which analyzed intrinsically different sectors gave this research the possibility to investigate further into the direct relationship between sustainable activities and customer loyalty, focusing on the banking sector. Given the abovementioned argumentation drawn upon past literature, the following hypothesis has been made:

H1: Implementing sustainable initiatives impacts positively customer loyalty.

Given the complexity of the relationship between the two abovementioned constructs, the research includes two other factors fostering customer loyalty by extension. Relying on past literature (Osakwe & Yusuf, 2021; Raza et al., 2020), the research included Trust and Customer Company Identification as mediators in the relationship between sustainable initiatives and customer loyalty.

Trust as a mediator

"While trust is fundamental to all trade and investment, it is particularly important in financial markets, where people depart with their money in exchange for promises. Promises that aren´t worth the paper they´re written on if there is no trust" (Sapienza & Zingales, 2009, Page 2).
Financial institutions are characterized by peculiar aspects linked with their intangible product offering and complexity, together with the associated long-term nature. Customers usually face higher levels of risks while closing a contract with a financial institution with respect to other businesses, especially given the weight of such decisions on the shoulders of the client. The difficulties in judging the quality of a certain product requires a stronger trust in the financial institution by the client, constituting one of the

main factors playing in financial markets sustainability (Ennew & Sekhon, 2007). Considering a scenario with a relationship characterized by interdependence and risk, trust may be described as the willingness of an individual to enter in such relationship while clearly knowing she/he is on the vulnerable side and expecting positive results given the other subject's behavior in the relationship.

The acceptance of vulnerability is influenced by the inner predisposition to trust of the individual, an evaluation of the pros and cons of entering such relationship and the knowledge and impression coming from the other subject (Sheppard & Sherman, 1998). The expected results of the relationship are usually based on the responsibility, the fairness and the honesty of the subject, in our case the financial institution, perceived by the individual (Martínez & Rodríguez del Bosque, 2013). Genuine concern for sustainability has been proven to stimulate these impressions, earning the trust of customers and enhancing the relationship with the business. This is mainly due to the positive feelings associated with the socially responsible behavior (benevolence and kindness) (Park et al., 2014).

Going hand in hand with the abovementioned attribution lens, Osakwe & Yusuf (2021) argue that implementing extensive sustainable initiatives influences trust in the financial institution, further evolving into loyalty.

Trust stems from the brand's appreciation, evolving under the alignment of the values of the financial institution and the consumers' values, and it is considered as one of the immediate effects of a business' social performance (Ahmad et al., 2021; Pivato et al., 2008). A company particularly invests significant efforts in establishing a reputable identity among its clientele given its pivotal role played in the mutual trust between a company and its customers for proficient interactions.

In order to create and to maintain stable long-term relationship, trust is the mandatory prerequisite to be established, as a strong determinant of loyalty (Kantsperger & Kunz, 2010). In past literature, the role as mediator of trust between sustainable initiatives and loyalty has been demonstrated in different sectors: hospitality (Martínez & Rodríguez del Bosque, 2013), tourism (Park et al., 2014) and in the banking sector (Khan et al., 2015).

Finally, trust is not impacting only the final purchasing behavior, but also the entire process behind the relationship. This entails that trust impacts the quality of such relationship (Hikkerovaa, 2011).

Given the abovementioned argumentations, the following hypothesis have been made:

H2: Implementing sustainable initiatives impacts positively customer trust.

H3: Trust impacts positively customer loyalty.

Customer Company Identification as a mediator

In the context of Social Identity Theory (SIT) as proposed by Tajfel and Turner in the seventies, individuals form part of their identity based on their membership in social groups. The theory focuses on explaining mechanisms underlying intergroup behaviors and proposed that social groups were sources of pride and self-esteem (Tajfel & Turner J C, 1979). Another relevant aspect linked with how sustainable initiatives are perceived by customers is the sense of identity that a social group can give to individuals, helping the latter define who they are given shared values and objectives (Mcleod, 2023).

On the foundation of the SIT, Customer Company Identification (CCI) is a cognitive state in which the individual feels psychologically connected and attached to the firm. The main underlying reason of this link is the alignment of the customer's values with the ones of the business. The more the consumer identifies with the business, the stronger the connection between the two subjects is: this link stimulate the consumer to increase the level of commitment towards the business' objectives and to invest personal efforts to support it (S. Y. Lee et al., 2019).

Customers are inclined to identify with a business characterized by a lasting and remarkable identity, able to make the customers' self-esteem grow. Highlighted by sustainable initiatives, the business' commitment of doing something good positively impacts its image and consequently the one of the clients (J. D. Brown & Smart, 1991). This process strengthens the association of the business' reputation with the customer's identity (Sen & Bhattacharya, 2001). The implementation on sustainable initiatives has even a stronger impact on the association between the two identities than the quality of the products and services, one of the main factors playing into the purchasing behavior, as presented by Huang et al. (2017).

When the link is established, the SIT claims that customers are more inclined to be positively biased towards the business, therefore supporting it with their means, but also growing apart from the market and the competitors present in it. This is due to a real clash between the identity of the client and the ones of other businesses, that are not linked with it as the first business (Lam et al., 2010). Finally, the isolation from competitors also withstands negative information about the business, apart from the ones related to

hypocrisy on sustainable matters (e.g. greenwashing) (Einwiller, 2006).

Notwithstanding the abovementioned argumentation, previous literature provides different effects on the mediated relationship through CCI between the implementation of sustainable initiatives and loyalty. Some studies demonstrated a positive relationship between the three constructs, reporting the impact of sustainable initiatives on an even enhanced CCI over time (Huang et al., 2017; Marin et al., 2009) and long-lasting loyalty predicted by the presence of CCI (Haumann et al., 2014). In parallel with these studies, others propose the absence of CCI effects on loyalty, up to negative impacts of sustainable initiatives on customers (Arli et al., 2015; Homburg et al., 2013). Given the unclarity that hovers these relationships and the peculiarities that each study had (mainly related to the definition of "sustainable initiatives" and the analyzed sector), the following hypothesis have been made:

H4: Implementing sustainable initiatives impacts positively Customer Company Identification.

H5: Customer Company Identification impacts positively customer loyalty.

Considering the hypothesis drafted following past literature on the topic, the following model has been defined:

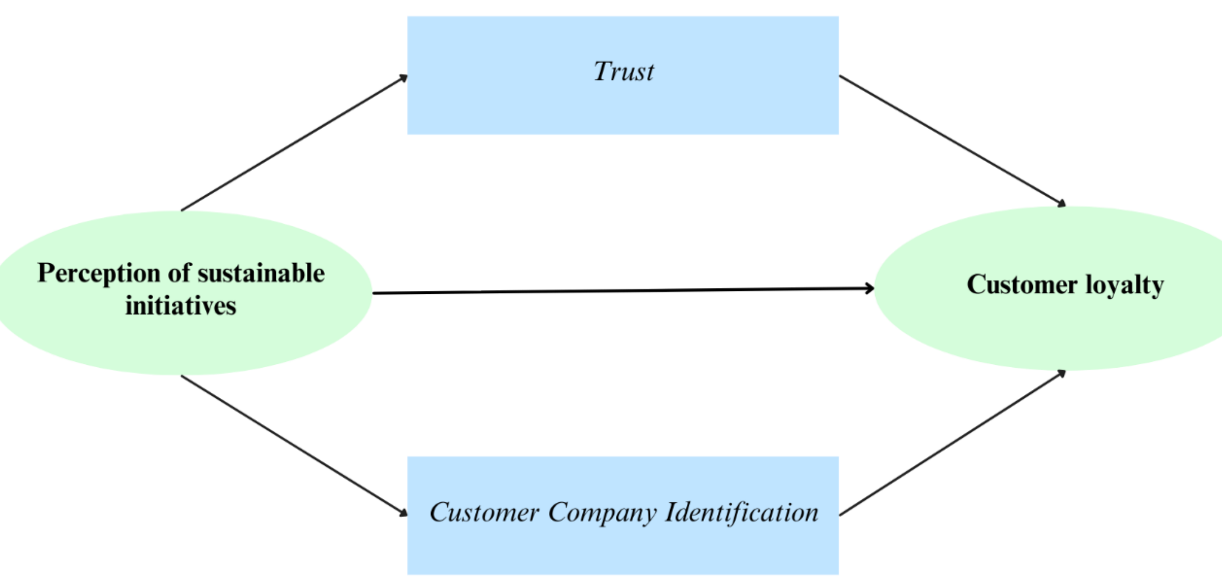


Figure 13: Hypotheses model, own production.

Cooperative banks and their role towards sustainability

Notwithstanding the several competitors that entered the financial market in the last years serving the purpose of a bank, cooperative banks maintained their unique business model across the banking landscape. What makes them able to differentiate across the other banks are the founding values they are founded on (D'Onza et al., 2023):

- *Promotion of the local development*

  Cooperative banks, as local stakeholders, are closely interconnected into the economic and social fabric of the community. Given the close relationship with the clients, cooperative banks practice relationship lending and significantly reduce the information asymmetry between lenders and borrowers, creating value (Migliorelli & Lamarque, 2022). Cooperatives banks focus on supporting local businesses and subsequently the communities that rely on them. This significant role fosters the growth and the survival of local community development. Moreover, their strong presence in the social networks of the community through initiatives and charity further strengthen cooperative banks' proximity (European Association of Co-operative Banks, 2024).
- *Sectionalism*

  Strategically going in the opposite direction of recent trends, cooperative banks maintained their physical presence in the local territory with a consistent number of branches (Groeneveld, 2018). It is important to highlight the example of Italian cooperatives, given the territorial limit they are subject to. Italian cooperatives, following the national regulation (The Italian Banking Act, 1993[45]), can only operate in the municipalities where their own branches are located, together with the contiguous territories.
- *Cooperation*

  The democratic principle established during the polls (*one-head-one-vote principle*) still display the importance of each stakeholder into the decision-making process, following a common path that truly represent the interests of the entire community.
- *Mutuality*

  Cooperative banks do not seek profit to distribute it to shareholders, rather to

[45] Legislative decree 1 September 1993, n. 385, (Testo Unico Bancario) and following amendments (1999 and 2004).

being able to survive the market and expand the activities to benefit the local communities where they are established. Cooperative banks consider the interest of the different stakeholders (members, clients, community) in the picture, while maintain a long-term perspective in the horizon. Given the nature they present and their closeness to the territory, cooperative banks can carry out an in-depth risk assessment of the clients and investments, resulting in an appropriate allocation of the credit and higher level of stability of the latter (Bolton et al., 2013).

Moreover, sustainability has always been present in the objectives of cooperative banks, although embedded in the other founding principles. They are naturally inclined to promote it, given the values that differentiate them from the entire banking system: the democratic governance, the support of local communities, the reinvestment of the profits and the preservation of the environment (Migliorelli, 2018).

Notwithstanding the challenges on the path of compliance with the European legislative framework and the new competitors claiming similar values, cooperative banks are figuring out how to preserve their principles and continue to differentiate from the rest of the market.

One way, as proposed by Giagnocavo et al. (2012), is to leverage on ethical banks' strategies to build communities on shared values, not just territory. Going beyond and see how communities can be built, without sharing physical proximity, but through initiatives supporting environmental and social matters can genuinely reinforce the scope of sustainable banking. Embracing sustainability, communicating to the public properly and building communities that share the same values may reinforce the role of cooperative banks, maintaining them viable and conserving their core values intact.

For the abovementioned arguments, clients of cooperative banks may be more sensitive to sustainability with respect to clients of banks with a common business model. This is due to the founding values embedded in the core mission of the bank, not strictly focused on achieving profits. The following hypothesis has been made:

H6: Cooperative banks' customers are more sensitive to sustainability.

4.2 Research methodology

The proposed model was tested through the distribution of a questionnaire through three different channels. Thanks to the cooperation of a cooperative bank[46], the questionnaire was distributed through:

- E-mails to clients and members of the cooperative bank;
- Social media of the cooperative bank;
- Social media (LinkedIn and Instagram) by private means.

The questionnaire was drafted in the platform Qualtrics and it was available from the 22nd of May and the 2nd of June 2024. The distribution collected 568 questionnaires in total, out of which 425 from the means of the cooperative bank and 143 from the private ones. The model was tested through the Partial Least Squares Structural Equation Modeling (PLS-SEM), a variance-based approach which estimates parameters through total variance. As compared with other models, this approach does not require large samples in order to function, as the one of this research, and it is superior in assessing mediation analysis (Hair et al., 2019a). The data was analyzed through Stata18.

The structure of the questionnaire is reported below; its integral version can be found in Appendix A.

- *Demographic section*
  Multiple choice questions aimed at tracing the profile of the sample under demographic perspective: age, sex, education, income, level of sustainable behavior (OECD, 2023), etc.
- *"Main[47]" bank section*
  Questions focused on categorizing the relationship between the subject and the main bank she/he refers to, considering the business model of such bank, the time as client of the individual and how she/he interacts with the bank. Moreover, it is asked whether the subject holds any banking products in other banks.

[46] The bank is a cooperative bank, firstly established in 1892 and underwent several transformations. Since 2019, it is a member of a Cooperative Banking Group. Through 33 branches, it is established in Treviso and Venice territories.
[47] As reported in the questionnaire, a bank is defined as "main" for a subject because she/he carries out the highest number of operations in this bank with respect to others.

- *Knowledge and perceptions section*

  After having assessed whether the subject is aware of the sustainable initiatives implemented by the main bank, it is asked to rank sustainable initiatives based on the subject's own priority. The activities are general and are divided under the environmental and social pillars. This is due to the limited knowledge of the hierarchical structure of the bank by external people, therefore it was deemed useful to include governance activities in the social pillar. Moreover, there are questions focused on measuring the level of trust presented by the subject, through a 7-point Likert scale. Conversely to previous studies where simple and direct questions on trust have been adopted ("This bank can be trusted by customers", Raza et al., 2020)), this research adopted questions depicting a real scenario to get sincere answers. In addition to measuring the trust, some questions are focused to capture other factors of stickiness, such as the physical proximity of a branch and a relation with a branch manager.

  Finally, there are three questions assessing the Customer Company Identification of the subject with the main bank and three assessing his/her loyalty through a 7-point Likert scale (Raza et al., 2020).
- *Financial literacy section* (Lusardi & Mitchell, 2023)

  The perceived (CONSOB, 2022) and the actual financial literacy of the subject is tested through one multiple choice question, asking the awareness of certain financial topics (for example, diversification) and other three multiple-choice questions on the same financial topic, assessing the actual knowledge. The questions are derived from Lusardi & Mitchell (2011).
- *Financial self-efficacy and trust as a propension section*

  Through a 7-point Likert scale, questions measure how confident the subject is to manage her/his personal finances (Lown, 2011) and how inclined she/he is to trust different subjects and institutions.
- *TIPI section*

  To measure the main psychological traits of the subject, this research adopts the test Ten-Item Personality Inventory (TIPI) following the Big Five model (Gosling et al., 2003).

4.3 The composition of the sample: descriptive statistics and the main variables observed

After the closure of the data collection, the obtained results were cleaned from the questionnaires that could not be used during the analysis. The latter consisted in those lacking consent to proceed with the questions and those not completed up to the final question relevant for the model. Consequently, the final dataset consisted of 395 questionnaires: 288 coming from the bank sample and 108 coming from the control sample.

To determine if the two samples followed the same distribution for certain variables, non-parametric tests on the answers given in the questionnaires were done, such as the Kruskal – Wallis[48] test. The results of the tests highlighted that there were sufficient grounds to reject the null hypothesis that the two samples come from different populations; the complete results can be found in Annex B. The differences between the two samples are both related to demographics (age, education, total income) and in the answers of the questionnaire.

Key demographic information for the samples is summarized in Table 1. As it can be seen, both genders are adequately represented, with a slightly higher values for males (52.91%) than for females (45.57%). The remaining part, equal to 1.52%, chose not to disclose their gender. For what concerns the age of the respondents, the two samples differ notably. In the sample of the cooperative bank, the strong majority (79.44%) belongs to the older thresholds ranging from 43 to 58 years (35.19%) and ranging from 59 to 77 (44.25%). Conversely, the control sample included younger respondents: 18 – 26 years representing the 30.56% of the sample, 43 – 58 years representing 26,85% and 58 – 77 years representing 33.3%.

Educational levels also vary between the samples. On one hand, the sample of the cooperative bank is characterized by a high number of people having at least the High School Diploma (68.64%). Only the 18.84% has the Bachelor's Degree. On the other hand, the control sample displays more than half respondents having at least the Bachelor's Degree. Notwithstanding the material number of people having the High School Diploma, the two sample are significatively different also under this lens.

Income distribution further distinguish the samples. The distribution of the income

[48] Kruskal – Wallis is a non-parametric test used confirm whether two different samples come from the same population.

thresholds for the control sample is concentrated on+ the lower thresholds. 73.15% of the respondents lies in the first three thresholds, up to 35.000 €. The cooperative bank sample is distributed in the central thresholds, ranging from 15.001 € up to 50.000 €. Material portion of the respondents (13.24%) confirms to be in the threshold between 50.001 € to 100.000 €.

For what concerns the different types of job, both samples present a significative level of employees (45.18%), followed by retired people (26.90%). Finally, self-employed people represent the 18.02% of the sample. Missing categories such as unemployed, student, worker student and other jobs sum up to 10%. Finally, the categories of studies are similar across the two samples. More than half of the sample studied business with almost 40% of the respondents, followed by sciences and technology with 18.48%, together with human and social sciences at 12.66%.

	Frequency	*Percentage*
Gender		
Male	209	52,91%
Female	180	45,57%
Prefer not to answer	6	1,52%
Age		
18 - 26	42	10,63%
27 - 42	47	11,90%
43 - 58	130	31,91%
58 - 77	163	41,27%
78 +	13	3,29%
Status		
Married	239	60,51%
Separate	9	2,28%
Divorced	23	5,82%
Maiden/celibate	109	27,59%
Widower/widow	15	3,80%
Job		
Employee	178	45,18%
Self-employed	71	18,02%
Retired	106	26,90%
Unemployed	7	1,78%
Student	9	2,28%
Student worker	16	4,06%
Other	7	1,78%
Education		
Elementary School	4	1,01%
Middle School	36	9,11%
High School Diploma	208	52,66%

Bachelor's degree	76	19,24%
Master's degree	51	12,91%
PhD	9	2,28%
Master	11	2,78%
Area		
Science and Technology	73	18,48%
Law	16	4,05%
Economics	148	37,47%
Human and Social sciences	50	12,66%
Art and Science of Spectacle	8	2,03%
Food and catering	12	3,04%
Healthcare	20	5,06%
Other	68	17,22%
Income (personal or of the family)		
Up to 15.000 €	44	11,14%
From 15.001 to 25.000 €	89	22,53%
From 25.001 to 35.001 €	110	27,85%
From 35.001 to 50.000 €	84	21,27%
From 50.001 to 100.000 €	50	12,66%
Over 100.000 €	18	4,56%

Table 1: Demographic of the sample, own production.

The following set of questions focused on tracing the characteristics of the sustainable profile, embedding the main domains of sustainability. The sustainable profile was constructed on what people think about sustainability and how many resources they are willing to allocate to sustainable goals and what people do in their everyday life through their habits. The questionnaire remains an opinion survey in any case and it is therefore not possible to properly assess whether this information is true or not. Given its anonymity, it is possible to assume that the questions are reliable. As it can be seen from Table 2 below, almost 40% of the sample did not carry out any social activity in the last two years. Similar distribution occurred to volunteering and being member of an association, ranging around 35 and 40%. Only 62 respondents out of 395 have donated blood in the last two years. This data must be read considering that it was possible to indicate multiple answers, therefore the different frequencies do not sum up to the total of the sample. It is important to highlight that 61,01% of the sample has at least performed one activity.

The next section focused on potential daily actions divided in four main categories: waste (recycling, reusable shopping bags, recycled packaging), energy (turning off the lights,

using the drier), food (local products, meat) and transport. The best performance of the sample is related to recycling, where 90,84% confirms to always do it. Given the geographical distribution of the questionnaire (Italy, Veneto region), this datum confirms the rooted culture of recycling in Italy, which confirms to be the best performers in the European Union[49] (Fondazione Symbola - Unioncamere, 2023). Continuing the "waste" category, 71,68% of the sample always uses reusable shopping bags, with the remaining portion concentrated in often. Worse performance in opting for recycled packaging of the products, with 67,51% buying it often. Switching to the category "energy", the sample displays strong majority of the sample turning off the lights as they leave the room (75,51%), similarly to the use of the drier (70% of the sample use it at most rarely). The worse[50] performances of the sample occurred in the "food" and "transport" categories. Half of the sample often eats local products, followed 43,8% which never or rarely does it. Moreover, the vast majority (91,85%) often or always includes meat in their diet. Finally, the sample display a strong preference to use the car as a mean of transport, with 40% of the respondents confirming that they would choose it even if it is possible to avoid it.

The second section of the sustainable profile is focused on assessing the predisposition of the respondent in allocating resources towards sustainable objectives and economic growth, together with evaluating its personal view on the responsibilities of the main subjects of the economic system in transition towards a more sustainable world.

In the first question, respondents were asked to allocate up to 10 points divided between three different objectives: fighting climate change, eradicating poverty and inequalities, and contributing to economic growth. On average, the sample was characterized by an overall preference towards environmental and social goals, with 7,2 points distributed between the two. In the second question, the sample had to measure from 1 to 10 the responsibility of each subject. The highest value was displayed by Government and Parliament, (8,022), immediately followed by Consumers (7,491). Values above 7 are displayed for Businesses (7,118) and for Banks and Financial Institutions (7,061). It is important to highlight that, notwithstanding having the highest value, Government and Parliament displayed the highest number of no answers provided (36).

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[49] As reported in "GreenItaly 2023", Italy has achieved the record of 83,4% (European average equal to 52,6%) of ratio of recycled material on the overall amount of waste in 2020.

[50] Worse performance is defined based on the sustainability perspective, in terms of emissions, waste and resources used.

	Frequency				Percentage			
Altruism (in the last two years)								
Donating blood	62				15,70%			
Volunteering	140				35,44%			
Being member of an association	164				41,52%			
None of the above	154				38,99%			
Habits								
	Never	*Rarely*	*Often*	*Always*	*Never*	*Rarely*	*Often*	*Always*
Recycling	1	3	32	357	0,25%	0,76%	8,14%	90,84%
Using reusable shopping bags	3	14	94	281	0,77%	3,57%	23,98%	71,68%
Turning off the light as you leave the room	1	4	91	296	0,26%	1,02%	23,21%	75,51%
Buy products with entirely or partially recycled packaging	4	74	266	50	1,02%	18,78%	67,51%	12,69%
Using the drier	207	67	69	49	52,81%	17,09%	17,60%	12,50%
Eating local products	6	167	203	19	1,52%	42,28%	51,39%	4,81%
Eating meat	1	31	302	59	0,25%	7,89%	76,84%	15,01%
Avoiding using the car if possible	13	143	176	63	3,29%	36,20%	44,56%	15,95%
Political objectives (up to 10 points)								
	Average			*Standard deviation*			*No answers*	
Fighting climate change	3,395			1,66			0	
Solve poverty and inequalities	3,799			1,788			0	
Economic growth	2,806			1,841			0	
Subject's responsibilities (from 1 to 10 each)								
Businesses	7,118			1,967			5	
Government and Parliament	8,022			2,128			36	
Banks and financial institutions	7,061			2,414			4	
Consumers	7,491			2,242			8	

Table 2: Sustainable habits and values of the sample, own production.

The last relevant characteristic of the sample to be highlighted is the respondents' awareness of sustainable initiatives undertaken by their bank. The control sample is characterized by a lower level of people who states to be informed about the initiatives (22.22% of the control sample) with respect to the cooperative bank sample, which display a higher level in comparison (41,88% of the cooperative bank sample). Observing the sample in its entirety, 229 respondents confirmed that they are not informed about the initiatives for different reasons, summarized in Table 3 below.

	Frequency	*Percentage*
I am not interested	25	10,92%
It is not one of my priorities	98	42,79%
I do not trust bank's intentions on sustainable topics	26	11,35%
I have limited information about it	77	33,62%
I do not believe in their efficacy	19	8,30%
I do not know where to look for information	60	26,20%
Other	7	3,06%

Table 3: Reasons why respondents are not informed, own production.

Considering that the question allowed the possibility to include more than one reason, sustainability initiatives not being one of the priorities was the most voted option, followed by having limited information about it and not knowing where to look for information.

The hypothesis model was built on four constructs, measured through several observed variables constructed following past literature and the results of a pilot exercise[51]. They can be seen in Table 4 below. The first construct, representing sustainable initiatives (SUS), was constructed differently than the others given the different structure of the items. As briefly mentioned above, respondents were asked to rank sustainable initiatives covering different domains. The ranking was inverted to get higher values for initiatives ranked as more important with respect to others; the average value for each pillar of sustainability was then calculated and it represented the observed variable. The other

[51] During the month of December 2023, a pilot exercise of a similar questionnaire was launched to test the reliability of the questions and the general experience of the questionnaire compilation by the respondents.

observed variables were measured through a series of questions constructed on a Likert scale from 1 to 7. Some items were directly considered as the observed variable, others were considered in the average value; some items, however, were also inverted to have all questions moving in the same direction. The choice of adopting the average was due to the similar nature of the aspects measure by the observed variables. The complete hypothesis model can be found at Figure 14, supported by the observed variables and their relation with the latent ones.

Constructs	Observed variable	Items
Sustainable initiatives (SUS)	ENV	Inverted value of the ranking for the enviromental question (E1).
	SOC	Average of the inverted values of the raking for the social and governance questions (S1, S2, G1, G2).
Trust (TR)	TR_esg	Average of the values allocated to trust the bank for sustainability efforts (stay_esg, R_leave_esg).
	TR_econ	Average of the values allocated to trust the bank for economic efforts (stay_econ, R_leave_econ).
	TR_stick	Average of the values allocated to remaining with the bank for "sticky" reasons (stay_stick1, stay_stick2, stay_stick3, R_leave_branch1, R_leave_branch2, R_leave_branch3).
	TR_heart	Average of the values allocated to trust the bank for respecting the client's and its own values (stay_values, R_leave_values1, R_leave_value2).
	TR_values	Average of the values allocated to trust the bank for its consideration of the client (stay_heart, R_leave_heart).
Customer Company Identification (CCI)	CCI1	When someone criticizes my bank, I perceive it as a personal insult.
	CCI2	I am happy that my bank is valued by media for its activities.
	CCI3	I am interested in knowing that my bank has a good reputation.
Loyalty (LOY)	LOY1	I commit to remaining a client.
	LOY2	I would suggest my bank to my family and to my friends.
	LOY3	I would remain client of my bank notwithstanding better economic conditions in other banks.

Table 4: Constructs, observed variables and items of the model, own production.

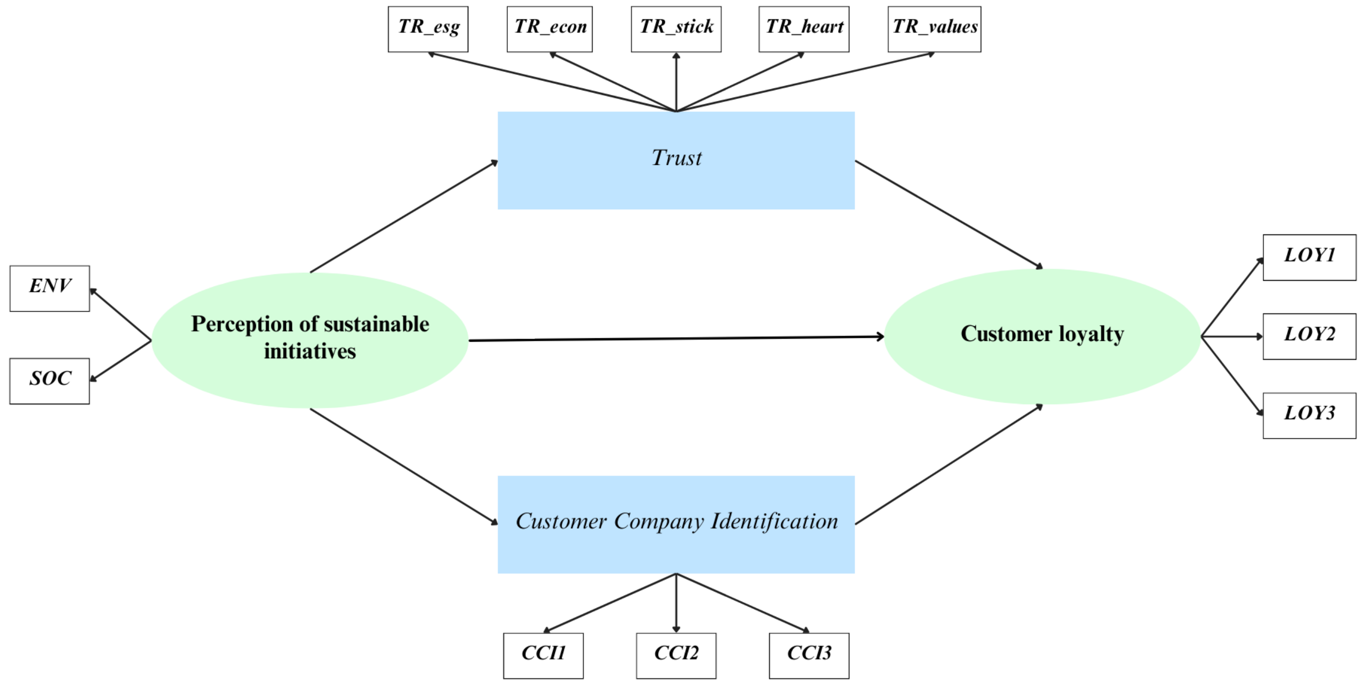

Figure 14: Hypothesis model, latent variables and observed variables, own production.

4.4 Testing of the model

Before assessing the results of the model, it is important to evaluate the reliability of the model based on different criteria covering its observed variables and its items. After the assessment of the criteria that will be explained down below, it is possible to further proceed with the analysis. It is important to highlight that these criteria must be considered as rules of thumb, guidelines that can be followed in conjunction with the understanding of the context of own analysis. The indicators' values for this study can be found at Table 5 down below.

In terms of convergent validity of the constructs, the standardized loadings of the items and the Average Variance Extracted (AVE) must be assessed. For the former, values above 0,70 are recommended in order to have a sufficient level of variance (around 50%) of the indicator represented by the construct (F. Hair Jr et al., 2014). The value might range between -1 and 1, with the sign indicating the direction of the relationship between the observed variable and the construct. For the latter, values above 0,50 indicates that the construct has a sufficient level of convergence towards explaining its items. As it can be

seen, different observed variables belong to the construct TR have loadings lower than 0,70 (TR_econ, TR_stick, TR_heart). Given that loadings above 0,60 might be considered acceptable during research phases (TR_econ and TR_heart), it is deemed appropriate to remove only TR_stick from the next steps of the analysis. Moreover, TR presents an AVE slightly lower than 0,50. The latter might be influenced from the presence of the different items having standardized loadings around 0,60.

The second step entails the assessment of the internal consistency reliability of the construct measures. This can be done through the evaluation of the Cronbach's α (Cronbach and Meel 1995) or the composite reliability (Fornell & Larcker, 1981). On one hand, Cronbach's α is considered more conservative, given that the items are unweighted and it produced lower values while considering similar thresholds for acceptable values. On the other, composite reliability is considered more reliable given that the items are weighted on the construct indicators' individual loadings, but more liberal with respect to the Cronbach's α. The true reliability of the model is often considered in the middle between the two values (Hair et al., 2019b). For both measures, the general rule consists in the higher the value, the higher the reliability. It is recommended to have values equal and above 0,70, but values up to 0,60 are also considered acceptable in exploratory research. Items having values above 0,95 display a high level of redundancy, undermining the entire model's validity (Diamantopoulos et al., 2012).

In this case, the construct SUS presents a Cronbach's α equal to 0. Given the reflective structure of the model, the indicator for Composite Reliability might be considered more adequate to evaluate the construct (Henseler et al., 2015). Potential weaknesses of the variables' structure will be discussed in the final remarks.

Proceeding further with the analysis, Table 6 presents the different hypothesis together with the path coefficients, indicating the strength of the relationship between the constructs, and the related p-value. The direct effect of sustainable initiatives on loyalty, H1, and on trust, H2, are not accepted given that their p-values are higher than 0,05.

As it can be seen, the only accepted pathway considering the sample in its entirety is SUS → CCI → LOY, therefore H3 and H5. Therefore, there are sufficient grounds to say that the implementation of sustainable initiatives has a significant impact on the Customer Company Identification, enhancing the level of personal identification of the client with the mission of the bank. Considering the values of the path coefficients, it is important to

Constructs	Items	Standardized Factor Loadings	Cronbach's α	Composite Reliability	Average Variance Extracted (AVE)
Sustainable initiatives (SUS)	ENV	-0,820	0,000	0,741	0,755
	SOC	0,915			
Trust (TR)	TR_esg	0,774	0,737	0,773	0,489
	TR_econ	0,644			
	TR_stick	0,593			
	TR_heart	0,623			
	TR_values	0,830			
Customer Company Identification (CCI)	CCI1	0,766	0,787	0,794	0,704
	CCI2	0,890			
	CCI3	0,855			
Loyalty (LOY)	LOY1	0,921	0,842	0,864	0,762
	LOY2	0,915			
	LOY3	0,775			

Table 5: Constructs reliability and validity, own production.

Hypothesis	Path coefficent	P-value
H1: SUS → LOY	-0,023	0,555
H2: SUS → TR	0,079	0,181
H3: SUS → CCI	0,157	0,002
H4: TR → LOY	0,209	0,000
H5: CCI → LOY	0,546	0,000

Table 6: Structural model results, own production.

highlight the strength of the relationship CCI → LOY. The implementation of sustainable initiatives allows clients to identify even more with the business, creating a stronger bond which translates into loyalty. The accepted pathway suggests the relevance of a genuine and true commitment of banks to sustainability matters, given its strict relation with client's identification with mission of the bank. As mentioned before, Customer Company Identification strengthens the relationship with the client, making it more resilient to negative information such as price increase. It could transform, however, into a double-edged sword if the initiatives are hypocritical. Moreover, the absence of a direct relationship between the implementation of such initiatives and the increased level of loyalty highlights the complex and intricated behaviors playing between the constructs.

The first set of results confirms the relevance of sustainable initiatives in the client – bank relationship, highlighting the potential opportunity to increase the level of identification of clients with financial institutions. Considering the nature of banking sector and the legacy built on the past crises, sustainability might be the right pathway to follow to contribute to sustainability, but also to build a solid customer base sharing similar values.

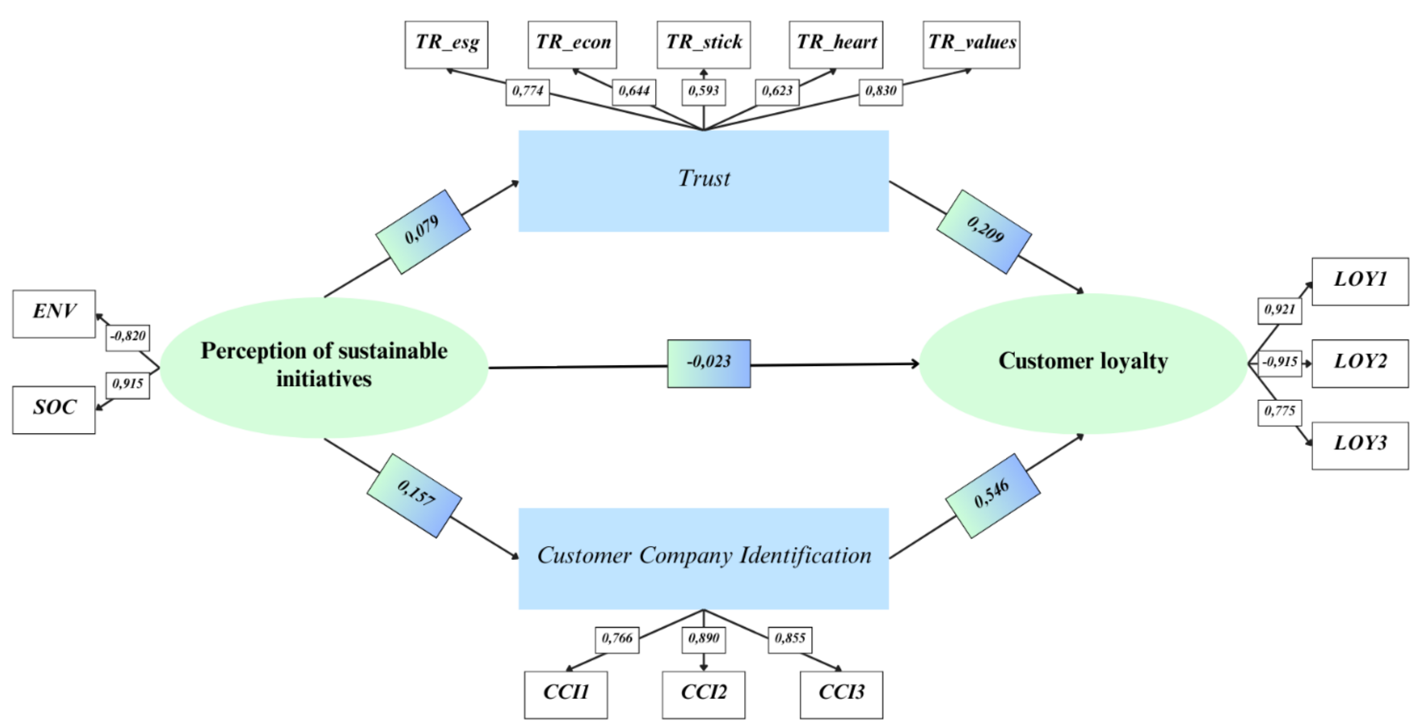

Figure 15: Model with path coefficients and item loadings, own production.

4.5 Model with sub-samples

In order to understand whether there are different dynamics linked to specific characteristics of the respondents, further analysis of the samples has been conducted. This is done in order to understand whether specific segmentation of clients is potentially more sensitive to the implementation of sustainable initiatives, resulting in a more efficient communication considering the bank's perspective.

As mentioned in the assessment of the descriptive characteristics, the sample collected from the clientele of the cooperative bank and the control sample presented different distribution in some features: age, education, income. On one hand, the sample of the cooperative bank presented higher average age and higher average total income. Moreover, the client - bank relationship has longer duration in this sample. This datum must be read, however, in conjunction with the higher average age, but it still represents a starting point for discussing whether specific features lead to clientele loyalty. On the other hand, the control sample displayed a higher level of education. These differences might have impacts on the interpretation of sustainable initiatives and on the preferred pathway that leads to loyalty. With these premises, additional tests have been carried out on the answers given on the ranking of the sustainable initiatives, to assess the existence of trends between the two samples. They can all be found in Annex B.

For what concerns the SUS construct, no relevant differences between the two samples have been raised from the Kruskal Wallis test, which did not have sufficient grounds to reject the null hypothesis. Different behaviors, however, are linked with the answers for the observed variables ENV and SOC, related to environmental and social initiatives respectively. As confirmed by the tests, the control sample has a higher average value associated with environmental initiatives and therefore a potential higher predisposition towards these types of initiatives. The sample of the cooperative bank displayed a higher average value attributed to social initiatives, in line with cooperative banks' principles. The respective average values and their standard deviation can be found at Table 7.

Sample	ENV		SOC	
	Average	**Standard deviation**	**Average**	**Standard deviation**
Control sample	5,5833	1,6807	3,1597	0,7539
Cooperative bank sample	5,1757	1,6911	3,8107	0,8569

Table 7: Averages and standard deviations of observed variables ENV and SOC, own production.

This relationship has been ulteriorly tested through the Chi-squared test of Pearson, which confirmed a correlation between the score allocated to social initiatives and the membership in the cooperative bank sample, rejecting the independence hypothesis with a p-value close to 0.

With sufficient grounds to start the analysis and suppose different dynamics and perception of sustainable initiatives between the two samples, a similar model to the one analyzed before was applied to the samples individually. The only difference lies in the starting point of the relationship, that it will consider ENV in the first case and SOC in the second. As mentioned before, ENV represents the inversion of the value allocated to the environmental initiative by the respondents. SOC represents the average value allocated to social and governance initiatives. In this way, it is possible to disentangle and analyze the impacts coming from the different domains of sustainability on the two samples.

The tables that can be found below display the results for the environmental initiatives divided in the two samples. Notwithstanding the higher values allocated to the environmental initiative by the control sample, the latter does not support any pathway of the model starting from environmental initiatives as reported in Table 9. In addition, the model presents deficiencies for the observed variable TR: two out of four items present standardized loadings lower than 0,60, indicating a low representation of the indicator's variance by TR. Moreover, the Cronbach's α and the composite reliability are both slightly below the suggested value of 0,70. Finally, TR does not display an adequate AVE as it should be, with a value below 0,50. The observed variables CCI and LOY present adequate values in line with the main guidelines, similarly to the first model. Notwithstanding the limitations of the variable structure that will be discussed in the

conclusions, the model rejects all the proposed hypothesis, as the sample does not provide sufficient evidence of the effects of environmental initiatives on Trust, Customer Company Identification and Loyalty.

The cooperative bank sample accepts the same pathway of the first model (ENV → CCI → LOY) with significantly low p-values. It is important to understand the negative sign on the ENV → CCI path coefficient (-0,181), given that it indicates a negative relationship between the two observed variables. This is mainly due to the structure of the question, which negatively impacts the sustainability pillar of the initiatives with lower ranking. Given that this specific sample ranked social initiatives higher than the environmental on average, the model displays a negative coefficient. Focusing on the validity and reliability of the model, the cooperative sample presents adequate values for all observed variables, with improved standardized loadings and AVE for TR except for the item TR_heart. The model with the accepted hypotheses can be found in Figure 16 below.

Constructs	**Items**	**Standardized Factor Loadings**	**Cronbach's α**	**Composite Reliability**	**Average Variance Extracted (AVE)**
Environmental initiatives (ENV)	E1_transposed	1,000	1,000	1,000	1,000
Trust (TR)	TR_esg	0,831	0,631	0,687	0,481
	TR_econ	0,505			
	TR_heart	0,585			
	TR_values	0,797			
Customer Company Identification (CCI)	CCI1	0,710	0,754	0,800	0,665
	CCI2	0,865			
	CCI3	0,861			
Loyalty (LOY)	LOY1	0,913	0,846	0,873	0,766
	LOY2	0,925			
	LOY3	0,781			

Table 8: Constructs reliability and validity for the control sample, own production.

Hypothesis	Path coefficent	P-value
H1: ENV → LOY	-0,001	0,995
H2: ENV → TR	-0,093	0,596
H3: ENV → CCI	0,118	0,226
H4: TR → LOY	0,206	0,056
H5: CCI → LOY	0,472	0,000

Table 9: Structural model results for the control sample, own production.

Constructs	Items	Standardized Factor Loadings	Cronbach's α	Composite Reliability	Average Variance Extracted (AVE)
Environmental initiatives (ENV)	E1_transposed	1,000	1,000	1,000	1,000
Trust (TR)	TR_esg	0,758	0,736	0,755	0,562
	TR_econ	0,738			
	TR_heart	0,629			
	TR_values	0,857			
Customer Company Identification (CCI)	CCI1	0,755	0,790	0,797	0,707
	CCI2	0,901			
	CCI3	0,861			
Loyalty (LOY)	LOY1	0,926	0,837	0,865	0,757
	LOY2	0,912			
	LOY3	0,762			

Table 10: Constructs reliability and validity for the cooperative bank sample, own production.

Hypothesis	Path coefficent	P-value
H1: ENV → LOY	0,023	0,617
H2: ENV → TR	-0,016	0,793
H3: ENV → CCI	-0,181	0,004
H4: TR → LOY	0,224	0,000
H5: CCI → LOY	0,567	0,000

Table 11: Structural model results for the cooperative bank sample, own production.

From this first step of the analysis, it is possible to understand how demographic information might not be the best behavioral predictors. Past literature indicated how younger and more educated people are proportionally more invested on sustainability topics with respect to other demographic characteristics. However, the trend is changing, with more and more authors claiming the importance of the values shared by the person together with the attitude and knowledge (Laroche et al., 2001). On one hand, the control sample did not value the implementation of environmental initiatives through the constructs proposed by this research. On the other, the cooperative bank sample confirmed the link between the two, giving additional possibilities to cooperative banks to expand their efforts in environmental topics to reinforce the bond with the clientele ulteriorly.

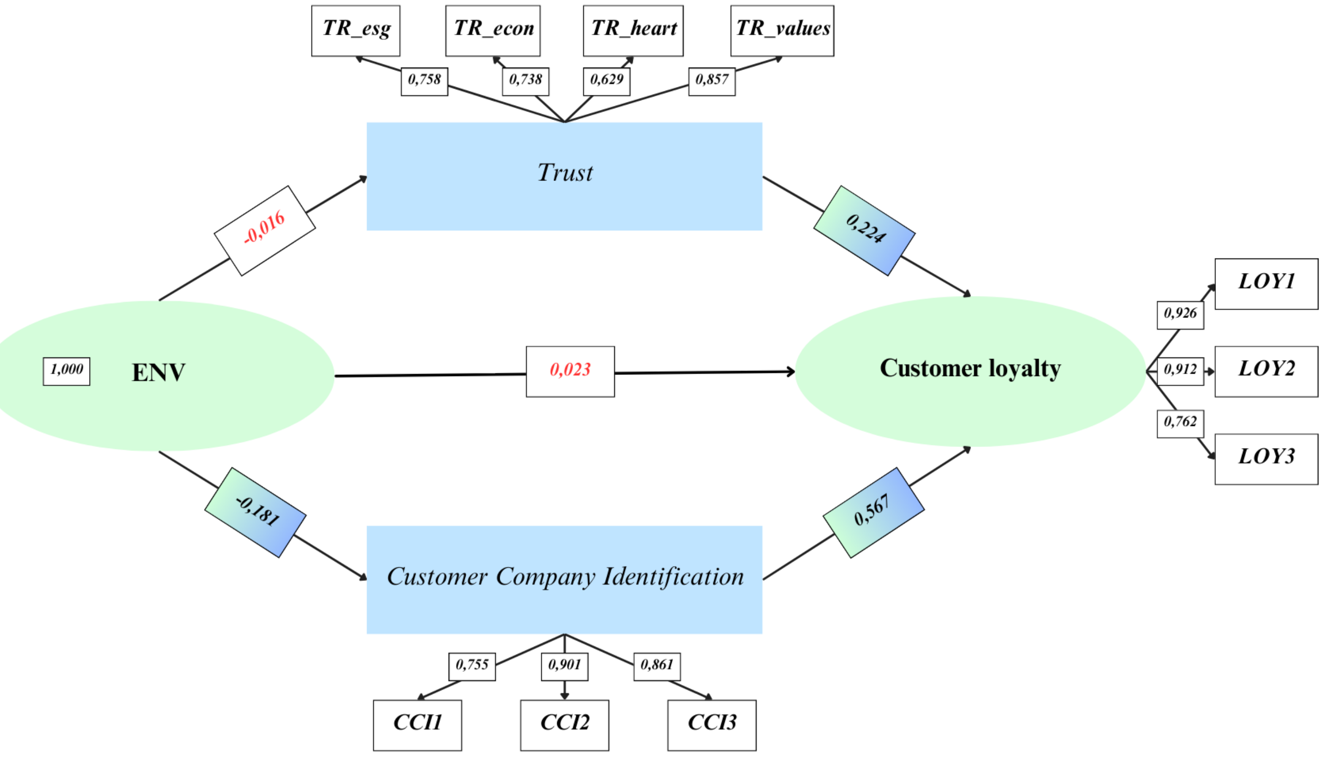

Figure 16: Accepted hypotheses for environmental initiatives (cooperative bank sample), own production.

Going forward with the second step of the analysis, the unique consideration of social initiatives has displayed completely opposite results for the two samples. As it can be seen in Table 12 and 13, the control sample displays even more severe weaknesses in terms of Standardized Loadings for SOC, which inevitably impacts the other measures of validity and reliability of the model below the safe threshold. Needless to say, all the hypotheses considered are rejected due to p-values higher than 0,05. The cooperative bank sample, however, performed differently. Taking into consideration the deficiencies of the items' standardized loadings which are not completely adequate, the model displays significantly better results compared to the other sample. All the hypothesis, except from the direct relationship between SOC and LOY, are accepted with significantly low p-values, therefore accepting both pathways through Trust and Customer Company Identification for enhanced Loyalty. The strength of the relationship is similar given the almost equal path coefficient; the path SOC → TR is however slightly stronger. The difference between the path coefficients of the second step of the pathway is peculiar; the relationship between CCI and Loyalty is significantly stronger than Trust and Loyalty.

The main reason of this relation may be the strong identification of clients with their own cooperative banks, which is furtherly reinforced by the implementation of social initiatives that are closer to their founding values.

Constructs	Items	Standardized Factor Loadings	Cronbach's α	Composite Reliability	Average Variance Extracted (AVE)
Social initiatives (SOC)	S1_transposed	0,123	0,000	-0,046	0,249
	G1_transposed	0,300			
	S2_transposed	-0,029			
	G2_transposed	0,943			
Trust (TR)	TR_esg	0,822	0,631	0,668	0,481
	TR_econ	0,500			
	TR_heart	0,637			
	TR_values	0,771			
Customer Company Identification (CCI)	CCI1	0,716	0,754	0,795	0,666
	CCI2	0,864			
	CCI3	0,859			
Loyalty (LOY)	LOY1	0,910	0,846	0,867	0,766
	LOY2	0,923			
	LOY3	0,787			

Table 12: Constructs reliability and validity for the control sample, own production.

Hypothesis	Path coefficent	P-value
H1: SOC → LOY	-0, 125	0,286
H2: SOC → TR	0,243	0,168
H3: SOC → CCI	-0,033	0,867
H4: TR → LOY	0,238	0,015
H5: CCI → LOY	0,457	0,000

Table 13: Structural model results for the control sample, own production

Constructs	Items	Standardized Factor Loadings	Cronbach's α	Composite Reliability	Average Variance Extracted (AVE)
Social initiatives (SOC)	S1_transposed	0,666	0,211	0,575	0,448
	G1_transposed	-0,689			
	S2_transposed	0,578			
	G2_transposed	-0,735			
Trust (TR)	TR_esg	0,763	0,736	0,774	0,563
	TR_econ	0,748			
	TR_heart	0,598			
	TR_values	0,868			
Customer Company Identification (CCI)	CCI1	0,751	0,790	0,795	0,708
	CCI2	0,903			
	CCI3	0,861			
Loyalty (LOY)	LOY1	0,927	0,837	0,867	0,757
	LOY2	0,913			
	LOY3	0,760			

Table 14: Constructs reliability and validity for the cooperative bank, own production.

Hypothesis	Path coefficent	P-value
H1: SOC → LOY	0,043	0,418
H2: SOC → TR	0,237	0,001
H3: SOC → CCI	0,200	0,005
H4: TR → LOY	0,218	0,000
H5: CCI → LOY	0,557	0,000

Table 15: Structural model for the cooperative bank, own production

The second step of the analysis confirmed the findings of the first step for the control sample. Social initiatives are not positively evaluated in terms of higher trust towards the bank nor stronger identification with its core mission for the control sample. Moreover, there is no evidence of a direct relationship between these initiatives and enhanced loyalty. In the cooperative bank sample, social initiatives are evaluated differently: not only their implementation influences the CCI with the financial institution, but it impacts also the trust towards it. This aspect particularly influences the client - bank relationship for cooperative banks, given that it gives an alternative way of retaining clients: sharing of the founding principles and identification with the core mission, but also trust and reliability of the sustainable initiatives implemented by the same financial institution.

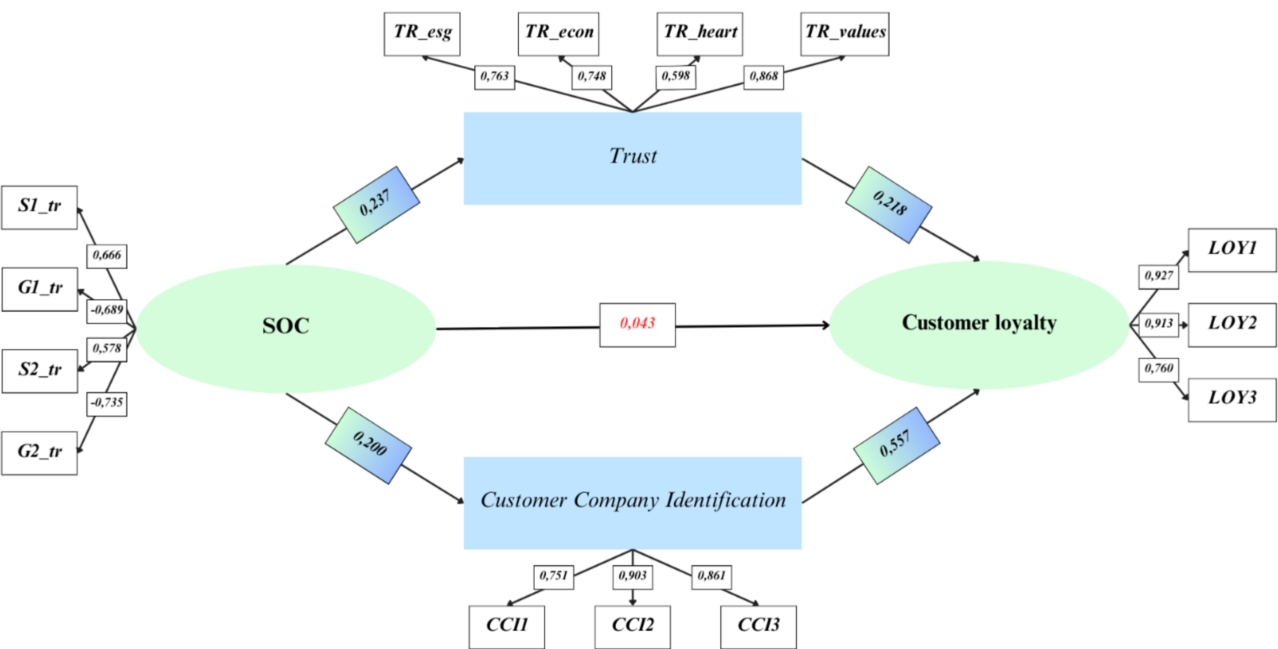

Figure 17: Accepted hypotheses for social initiatives (cooperative bank sample), own production.

To conclude, Table 16 briefly summarizes the hypotheses accepted in the research, highlighting the strong and differentiated link of sustainable, environmental and social initiatives with loyalty through CCI and trust.

Hypothesis	Path coefficent	P-value
H2b: SOC → TR	0,237	0,001
H3: SUS → CCI	0,157	0,002
H3a: ENV → CCI	-0,181	0,004
H3b: SOC → CCI	0,200	0,005
H4b: TR → LOY	0,218	0,000
H5: CCI → LOY	0,546	0,000
H5a: CCI → LOY	0,567	0,000
H5b: CCI → LOY	0,557	0,000

Table 16: Accepted hypotheses of the research, own production.

As it can be seen, the analyzed relationships have different degree of strengths: both relationships stemming from the consideration of SUS, SUS → CCI → LOY, are weaker if compared to the others. Even if the difference is marginal, this highlights the role played by personal preferences and values when respondents are exposed to causes dear to their heart. Moreover, the same relationship has different levels of intensity if the starting point considered is different, as it happened for H5 (SUS), H5a (ENV) and H5b (SOC). Finally, it is interesting to see the different degrees of strength of the pathways accepted in SOC (H2b and H5b); this aspect remarks once again the feature that distinguishes cooperative banks: the importance of having a clearly defined mission shared by your clients.

4.6 Final remarks

The research has produced interesting results, raising potential discussion on whether there might be a client segmentation acting as a better and more efficient target of sustainable initiatives. For what concerns the control sample, no relationship between the implementation of sustainable initiatives and trust, CCI and loyalty have been detected, suggesting that there are no additional effects in implementing these initiatives.

The results coming from this sample might be influenced by different aspects anyway: the first one might be the lower number of people informed about the sustainable initiatives of the bank (20% belonging to the control sample and 50% of the cooperative bank sample). Moreover, this sample was more heterogenous than the other one, including clients of different financial institutions with potentially different business models. This might have diluted the results attributed to the variables, increasing the fogginess on the relationships. On the other hand, the cooperative bank sample displayed significantly better results, supporting the model in different ways depending on the observed variable considered. The interpretation of this result might consist in the reliability of the initiatives, especially the social ones, which are truly embedded in the core mission of the bank. The key may potentially be that sustainable initiatives of cooperative banks are not perceived as initiatives external to the bank, but embedded into the business-as-usual.

Given the strict relationship of the cooperative bank with the community and their own principle to be physically and economically close to local communities, cooperative banks have already a stronger bond with the clients as compared with other commercial financial institutions. This has been demonstrated through the answers of the respondents; LOY1, LOY2 and LOY3, measuring the degree of loyalty of the clients, obtained higher values for the cooperative bank sample on average. Moreover, the bond was demonstrated through the efforts of the clients who purposedly wrote additional positive reasons to remain as a client, on top of the already present ones. An extract of the results can be found in Table 17 below.

Sample	**Additional reason**
Cooperative bank	Courtesy and efficiency of all staff from cashiers to officers
	Attention to customer needs, good human relationship with staff
	Availability of employees
	Grandfather was a founding member
	It's a bank from our territory that knows the needs and requirements of the locals and does not only think about profit
	Prepared and courteous staff. Efficient Head Office
	Former employee
	Friendliness of the staff at my branch
	Takes into account the values and needs of members
	In other banks, I haven't found the availability of staff to follow me
	Trust over time
	Humanity and courtesy in relationships with clients
	Bank that maintains what it promises, very professional staff

	I would like them to lower the mortgage rate and also the installment, eagerly
	In 2023, I was not granted a mortgage, which I took out with another bank. I was thinking of leaving the bank altogether, but I didn't because of the human relationship with the Mestre Branch. It's the most important thing! Always attentive, prepared, and very kind.
	Convenience, diversification of banking institutions
	Attention to customer needs
	Home mortgage, I don't have much time available
	Lack of professionalism in the operators and marked rudeness of the management, they should send employees to training courses on how to deal with customers
	Trust and available and competent staff
	At the branch, there are courteous and available operators and officers
	I get along well with the person in charge of managing my assets
	I have many ex-colleagues
	Positive relationship with the employees
	We have always considered them a banking institution present for our needs and that has supported us
	They granted me a mortgage during a difficult time
	Family banker service
Control sample	I am lazy
	Laziness
	It is very efficient and well organized
	It's convenient and I have a trust relationship with the officer who follows my investment in savings
	Habit
	Ease of finding branches always available or ATMs for withdrawals
	It is the bank that my whole family uses, there is a personal relationship with the employees
	Customer support loyalty for many years
	We are members
	It is an online bank
	Convenience
	Laziness to change due to too much bureaucracy

Table 17: Additional reasons of the respondents to remaining as a client, own production.

As it can be seen, there is a stronger and emotional link between the cooperative bank and its extensions (branches and employees) and the clients. The difference between the answers given from the samples are significantly different; focusing only on the contents, the cooperative bank respondents remarked the emotional link created with the bank, commenting the relationship with the staff, the general experience of being a client, and

the support received during difficult times. On the contrary, the control sample refers to other factors, such as the local proximity of the ATMs or the difficulties in finding an alternative. There is no right or wrong answer, but simply different factors playing in a complex equation. This is also confirmed by the poor results obtained during the testing of the model, where the proposed constructs were not representative. Confirming potential links between factors contributing in customer loyalty and specific profiles of respondents would enhance the communication towards the different segments, directing the truly relevant information to the client. Developing the TR construct would constitute an attempt of objectifying most of the behavioral responses of clients to specific information of the bank.

The implementation of sustainable initiatives takes advantage of the bond created by the cooperative bank, reinforcing it, and fueling the loyalty of clients furthermore. Focusing on the managerial implication of this analysis, sustainable initiatives may give the possibility to cooperative banks to expand their efforts on the local territory, covering different and complementary aspects of sustainability. This would not only entail in a higher pool of activities to choose from, always in line with the founding values, but also a stronger bond with the client and even more resilient loyalty. This lesson might be captured by banks with different business models; incorporating sustainability in the mission of the business, ensuring it is embedded in the activities carried out every day, might be the key of a consistent transformation of these efforts into value.
Moreover, it is important to highlight how no samples highlighted a direct effect of the sustainable initiatives on loyalty; efforts and investments implemented in the field of sustainability have to be carried out in a wider context and not simply on their own. Sustainable initiatives, truly embedded in the traditional baking core business, may achieve tangible results in terms of loyalty only if considered as the intricate mechanism they are, as it was possible to observe in this research.

CONCLUSIONS

Sustainability banking has come a long way since its birth and it is in constant evolution. The Mounts of Piety, the Socially Responsible Investing of the 60s and the 70s, together with the more recent action plan for "Financing Sustainable Growth" were relevant milestones, sharing the same fil rouge all along: the importance of giving something back to the environment and to the society. After the setting of SDGs in 2015 and the limited time left for action until 2030, the role played by financial institutions in their achievement was immediately clear. Being the beating heart of the economic system, they are in the position of directing funds towards specific businesses contributing to the cause. The legislation in force, moreover, pushes financial institutions even further, stressing the importance of transparency and disclosure in the financial system, and the need for a deeper integration of ESG factors in the traditional banking core business. Sustainable banking represents at the same time an incredible opportunity to be exploited, considering the new markets it created thanks to the new product offer, but also an intricate maze of legislation and reputational risk, requiring a high level of efforts and investments in order to enter.

Given the relevance obtained by sustainable banking, past literature started to analyze whether implementing sustainable initiatives had additional effects on the customer base of the bank, and more specifically, their role in customer retention.

This research, after a review of the literature and a previous pilot exercise, constructed a questionnaire divided into different blocks, each supporting the different constructs of the proposed model and relationships. The model proposed entailed two different lenses through which sustainable initiatives contribute to customer loyalty: through CCI, where clients fully share the core mission of the bank identifying it as theirs, or through trust, where clients consciously accept their vulnerable position in the relationship with bank. Moreover, it was also considered the direct relationship between the two first constructs. More than 500 questionnaires were collected, distributed through private means and through the channels of a cooperative bank, in the month of May 2024.

The structure of the constructs and the questions linked to them have room for improvement. For what concerns the construct summarizing the perception of sustainable initiatives, the choice of the question measuring it is extremely important. In the pilot exercise conducted in December, questions requiring an evaluation on a Likert scale from

1 to 7 were used. However, the limited awareness of the respondents on the sustainable initiatives mined the results, resulting unreliable. For this reason, a question structured as a ranking of different initiatives divided between the main pillars of sustainability was the chosen option for this collection. However, this structure also had weaknesses, which translated into difficulties in finding a reliable construct summarizing the perception of the initiatives. In addition, choosing initiatives coming from the same pillar inevitably impacted the others, having significantly lower points than the other. Considering the heterogeneity of sustainability, it is relevant to consider how different sustainable initiatives might have the same weight for a respondent. Allowing for ties among two or more initiatives might contribute in improving this construct. Moreover, it is relevant to further analyze the impact coming from the different types of initiatives: this would ensure a reduction in compensation between the different domain of sustainability.

Additional deficiencies have been showed by the construct TR, given the several questions adopted to separate the "true trust" from other factors determining stickiness towards the bank: local proximity, difficulties in finding an alternative, contractual obligations and so on. If on one hand the proposed construct has indeed more informative value than the one proposed by past literature, on the other it still has a long way to go to be a reliable source of information. Further analyses on this construct may suggest that different profiles of clients, such as the two samples identified in this research, consider different factors when evaluating their trust towards the bank. It is therefore relevant to further expand the block on trust, maintaining the structure of scenarios to obtain genuine answers and providing the possibility to respondents to contribute with their own opinions.

Finally, it is crucial to ensure a representative sample, influencing the reliability of the variables discussed above. Sustainability is itself a multifaced topic; if coupled with behavioral responses of clients, it is difficult to avoid compensation and generalization between the different answers, maintaining an adequate number of questions. Given the latter, it is necessary to have a sufficiently big sample to tackle the different dynamics developed between the initiatives and the clientele.

Focusing on the positive results obtained by this research, the hypothesis affirming that sustainable initiatives positively impacted customer loyalty through CCI was accepted for the whole sample. This finding highlighted the value creation of these initiatives, which add an additional level of differentiation between financial institutions and allows clients to identify even further with the values shared by the bank. Investing in these sustainable

initiatives is not an end in itself, but silently funds the pride of the clientele. Another interesting aspect highlighted by the analysis is the different responses of the two identified samples to the same model. The control sample display environmental initiatives as a strong priority, but no hypothesis was accepted suggesting no significant relationship between the different constructs. The cooperative bank not only confirmed the role played by CCI as mediator between the environmental initiatives and loyalty, but it included trust as an additional pathway for social initiatives. However, the direct relationship between sustainable initiatives and loyalty was not confirmed in any model, suggesting the complex dynamics of the reception of this information.

These results are influenced by the different client – bank relationship characterizing the two samples: the cooperative sample displayed a strong emotional link with the bank, denoted by the sharing of the founding values but also by the support provided by the bank to the community. The control sample instead demonstrated that there are different factors playing into the equation, highlighting the need of developing even further the construct representing trust. It would be crucial to identify additional aspects measuring and testing the resistance of bank – client relationship.

Moreover, the research highlighted the importance of considering sustainable initiatives comprehensively, but also divided in their main domains. In this way, it is possible to detect stronger preference towards a specific type of initiatives, which is lost if considered together with the others.

With this additional information, together with a personal profile measuring the propension to embrace sustainability of the client, it would be possible to test whether different profiles of clients might elaborate different behavioral responses to the implementation of sustainable initiatives. However, the client profile should not focus only on demographics, but it should include values, habits of the respondents and the type of client – bank relationship she/he has. In this way, targeted communication of sustainable initiatives, in their entirety or divided in the different pillars, could be more efficient in terms of impact on trust, CCI and loyalty. Moreover, objectifying at the highest level possible the factors playing into the client – bank relationship would inevitably benefit the bank in their entirety, understanding the needs of the clients deeply and improving services also outside the sustainability domain.

ACKNOWLEDGEMENTS

Questi ringraziamenti segnano la fine di un percorso che mi ha fatto maturare, contribuendo immensamente a cambiarmi fino a rendermi la persona che sono ora. Voglio cogliere l'occasione per ringraziare tutte le persone che mi hanno supportato in questi tre anni, un supporto che è stato di vitale importanza per arrivare ad oggi.

Ringrazio le prof.sse Cruciani e Gardenal, per la loro guida, le loro indicazioni in questo mio primo approccio alla ricerca e per gli infiniti ricevimenti per ultimare questo progetto.

Ringrazio i miei genitori, per avermi dato la possibilità di studiare e la libertà di scegliere consapevolmente che ne consegue, per tutte le "situazioni ad imbuto" nelle quali mi hanno aiutato e per aver creato un porto sicuro dove posso rifugiarmi ogni volta che ne ho bisogno.

Ringrazio i miei nonni, a cui dedico questa Laurea, per i sacrifici fatti e per la loro presenza incessante nella vita di tutti i giorni. Ringrazio mia nonna Adriana per averla avuta accanto, per la sua estrema convinzione delle mie capacità e per i suoi caffè che mi spronavano a studiare.

Ringrazio il mio fidanzato Thomas, per continuare ad essere un punto fermo nella mia vita, per tentare di insegnarmi a dare il giusto peso alle cose ed affrontarle con leggerezza, per spronare a migliorarmi ogni giorno che passa con la sana competitività che ci caratterizza, per essere cresciuti.

Ringrazio le amicizie più durature, con le quali ho condiviso banchi di scuola dalle elementari alle superiori o fin troppi allenamenti con ginocchiere sudate, per tutto il supporto che mi avete dato, attraverso chiacchierate che non sembravano finissero mai.

Ringrazio i miei compagni dell'università, per lo studio di gruppo che mi ha fatto sentire meno sola, per tutti i "tanto questo non lo chiede" e per la tappa fissa pre e post lezione al bar.

Ringrazio i miei colleghi di Francoforte, per aver dato colore ad una città fin troppo grigia attraverso una dose eccessiva di caffeina, cene al Numero 16 e qualche "basically" di troppo.

Infine, ringrazio me stessa per averci creduto dall'inizio, per aver avuto fiducia nell'uscire dalla mia zona di comfort e per tutti i sacrifici fatti.

Ad Maiora!

ANNEX A

Benvenuti e grazie per aver deciso di contribuire a questa ricerca!
Il questionario che stai per compilare è parte di un progetto di ricerca del Dipartimento di Management dell'Università Ca' Foscari di Venezia che si propone di approfondire il tema della percezione da parte dei clienti dell'operato della propria banca e dei servizi offerti. Le domande incluse nel questionario riguardano valutazioni personali su servizi bancari e dimensioni del rapporto tra soggetto e banca, oltre che aspetti socio-demografici e di preferenze individuali utili ai fini dell'analisi. In nessun caso sarà possibile risalire al soggetto che ha compilato il questionario e i dati raccolti saranno analizzati in forma aggregata e completamente anonima per finalità di ricerca scientifica. In particolare, saranno oggetto di una tesi di laurea e, auspicabilmente, di una pubblicazione scientifica. I dati non saranno riutilizzati o ceduti a terzi. La responsabile del trattamento per la raccolta di questi dati è Caterina Cruciani (cruciani@unive.it). Questa informativa è resa ai sensi del "Regolamento 2016/679 del Parlamento europeo e del Consiglio" del 27 aprile 2016, nonché del D. Lgs 196/03 ("Codice in materia di protezione dei dati personali").

Acconsenti allo svolgimento del questionario?

- Sì
- No

Indica il tuo sesso:

- Maschio
- Femmina
- Preferisco non rispondere

Quanti anni hai?

- 18-26
- 27-42
- 43-58
- 59-77
- 78+

Seleziona la Regione in cui hai la residenza:

▼ Abruzzo ... Veneto

Seleziona la provincia in cui hai la residenza:

- Belluno
- Padova
- Rovigo
- Treviso
- Venezia
- Verona
- Vicenza

Seleziona il comune in cui hai la residenza:

▼ Altivole ... Zero Branco

Seleziona il comune in cui hai la residenza:

▼ Annone Veneto (1) ... Vigonovo (46)

Qual è il tuo stato civile?

- Sposato/a
- Separato/a
- Divorziato/a
- Celibe/Nubile
- Vedovo/a

Qual è la tua situazione lavorativa?

- Lavoratore/trice dipendente
- Lavoratore/trice autonomo/a
- Pensionato/a
- Disoccupato/a
- Studente
- Studente/lavoratore
- Altro ____

Qual è il tuo livello d'istruzione?

- Elementari
- Medie
- Diploma di scuola superiore
- Laurea
- Laurea specialistica
- Dottorato
- Master

Quale delle seguenti aree è la più rappresentativa della tua formazione?

- Scienze e tecnologia
- Giurisprudenza
- Economia
- Scienze umane e sociali
- Arti e scienze dello spettacolo
- Cibo e ristorazione
- Medicina
- Altro ____

Negli ultimi due anni hai mai preso parte alle seguenti attività? Sono possibili più risposte.

➔ Donare il sangue
➔ Fare volontariato
➔ Fare parte di un'associazione
➔ Non ho partecipato a nessuna di queste iniziative

Hai una fonte di reddito?

- Sì
- No

Qual è la tua fascia di reddito?

- Fino a 15.000 €
- Da 15.001 a 25.000 €
- Da 25.001 a 35.000 €
- Da 35.001 a 50.000 €
- Da 50.001 a 100.000 €
- Oltre i 100.000 €

Qual è la fascia di reddito della tua famiglia?

- Fino a 15.000 €
- Da 15.001 a 25.000 €
- Da 25.001 a 35.000 €
- Da 35.001 a 50.000 €
- Da 50.001 a 100.000 €
- Oltre i 100.000 €

Indica in una scala da 1 a 4, dove 1 indica "mai" e 4 indica "sempre", quanto frequentemente hai svolto le seguenti attività negli ultimi due anni.

- Fare la raccolta differenziata
- Utilizzare buste per la spesa riutilizzabili
- Spegnere la luce appena esci dalla stanza
- Acquistare prodotti con imballaggi in tutto o in parte riciclati
- Utilizzare l'asciugatrice
- Mangiare carne
- Mangiare prodotti di provenienza locale
- Evitare di usare l'auto per i miei spostamenti quando possibile

Immagina di avere 10 voti da usare per scegliere quali obiettivi di politica internazionale vuoi realizzare e distribuiscili tra le opzioni seguenti.

Combattere i cambiamenti climatici : _______
Combattere povertà e ineguaglianza : _______
Garantire la crescita economica : _______

Total : ________

Indica, su una scala da 1 a 10, dove 1 indica "per niente" e 10 "completamente", quanta responsabilità nell'accelerare la transizione verso una società più sostenibile credi abbiano i soggetti di seguito elencati.

- Aziende - perché scelgono come e cosa produrre
- Governo e Parlamento - perchè fanno le leggi che regolano la produzione e gli scambi
- Banche ed istituti finanziari - perché decidono chi finanziare
- Consumatori - perché scelgono cosa consumare e così influenzano il settore produttivo

La tua banca principale è una banca di Credito Cooperativo?*

**Per banca principale si intende quella presso fai il maggior numero di operazioni.*

- Sì
- No

Secondo te quali dei seguenti valori sono FONDANTI per la tua banca principale? Sono possibili più risposte.

- ➔ Promozione dello sviluppo locale
- ➔ Realizzazione del profitto
- ➔ Cooperazione
- ➔ Distribuzione dei dividendi
- ➔ Mutualità
- ➔ Promozione dello sviluppo su scala nazionale/internazionale
- ➔ Un approccio etico allo sviluppo economico
- ➔ Sostenere la transizione all'economia sostenibile
- ➔ Altro (specificare) ______________________________
- ➔ Non so

Hai rapporti con altre banche (es. conti correnti, mutui o altri finanziamenti, altri prodotti bancari o assicurativi) oltre a quella principale?

- Sì
- No

Con quante altre banche?

- 1
- 2
- Più di 2 altre banche

Indica dalla lista seguente tutti i prodotti bancari e finanziari che hai sottoscritto con le altre banche ESCLUSA quella principale.

- ➔ Conto corrente
- ➔ Carta di credito
- ➔ Carta di debito
- ➔ Prestito
- ➔ Finanziamento
- ➔ Mutuo ipotecario
- ➔ Certificati di deposito
- ➔ Obbligazioni della banca
- ➔ Portafoglio di investimenti
- ➔ Una forma di assicurazione (casa, persona, auto, ecc)
- ➔ Altro (specificare) ______________________________

Da quanto tempo sei cliente della tua banca principale?

- Meno di un anno
- Meno di tre anni
- Meno di cinque anni
- Meno di dieci anni
- Meno di venti anni
- Più di venti anni

Indica dalla lista seguente tutti i prodotti bancari e finanziari che hai sottoscritto con la tua banca PRINCIPALE.

➔ Conto corrente
➔ Carta di credito
➔ Carta di debito
➔ Prestito
➔ Finanziamento
➔ Mutuo ipotecario
➔ Certificati di deposito
➔ Obbligazioni della banca
➔ Portafoglio di investimenti
➔ Una forma di assicurazione (casa, persona, auto, ecc)
➔ Altro (specificare) ____

Ordina in base alla data di sottoscrizione, dal meno recente al più recente, i prodotti bancari e finanziari che detieni con la tua banca principale, trascinando l'opzione nella posizione corretta.

_______ Conto corrente
_______ Carta di credito
_______ Carta di debito
_______ Prestito
_______ Finanziamento
_______ Mutuo ipotecario
_______ Certificati di deposito
_______ Obbligazioni della banca
_______ Portafoglio di investimenti
_______ Una forma di assicurazione (casa, persona, auto, ecc)
_______ Altro (specificare

Su quali canali interagisci con la tua banca principale? Scegli tutte le opzioni che usi.

➔ Filiale
➔ App della banca
➔ Sito web della banca
➔ Altro (specificare) ____

Sei a conoscenza delle iniziative sostenibili intraprese dalla tua banca principale?

- Sì
- No

Indica tra le seguenti opzioni perché non ti informi sulle iniziative sostenibili della tua banca principale. Sono possibili più opzioni.

- ➔ Non sono interessat*
- ➔ Non è tra le mie priorità
- ➔ Non mi fido delle intenzioni della banca in ambito sostenibile
- ➔ Ho informazioni limitate a riguardo
- ➔ Non credo nella loro efficacia
- ➔ Non so dove cercare le informazioni
- ➔ Altro: ____

Come ti informi sulle iniziative sostenibili intraprese della tua banca principale? Scegli tutte le opzioni che usi.

- ➔ Bilancio di sostenibilità
- ➔ Sito web della banca
- ➔ Pubblicità su giornali nazionali o locali
- ➔ Social media della banca (Facebook, Instagram, Linkedin, ecc)
- ➔ Passaparola
- ➔ Partnership di eventi culturali, sportivi e di beneficenza sul territorio

SUS *Ordina in base alla tua personale priorità, dalla più importante alla meno importante, le seguenti iniziative sostenibili, trascinando l'opzione nella posizione corretta.*

E1 La banca sta facendo la sua parte per ridurre la propria impronta ambientale, ad esempio riducendo l'impatto ambientale delle sue filiali.
EC1 La banca è trasparente sui settori dove investe, evitando quelli più sensibili da un punto di vista ambientale e sociale (esempio: armi, tabacco, etc.)
EC2 La banca fornisce supporto ad imprese che adottano a loro volta pratiche sostenibili.
S1La banca partecipa attivamente a progetti ed iniziative culturali e sociali.
G1 La banca appare come un luogo di lavoro stimolante.
S2 La banca sostiene il territorio con beneficenza e partnership a progetti con valenza sociale.
G2 La banca promuove il benessere dei propri dipendenti

TR *Utilizzando una scala da 1 a 7, dove 1 è il minimo e 7 il massimo, individua l'importanza delle seguenti motivazioni per cui continui a rimanere nella stessa banca (opzione "non so" disponibile).*

La banca si impegna più di altre in ambito sostenibile ()	
Ti offre condizioni economiche più vantaggiose di altre banche ()	
Hai difficoltà a scegliere un'alternativa ()	
E' la filiale più vicina a casa ()	
La banca ha a cuore i miei interessi ()	
Ho in corso impegni contrattuali ()	
La banca rispetta fedelmente i suoi valori fondanti ()	

Hai altre ragioni per cui resti presso la tua banca principale che vorresti indicare?

- Sì
- No

Indica quali nel riquadro sottostante.

____

TR *Utilizzando una scala da 1 a 7, dove 1 è il minimo e 7 il massimo, indica quanto importanti ritieni questi eventi nel farti valutare l'idea di cambiare banca rispetto a quella principale (opzione "on so / non mi interessa questo aspetto" disponibile).*

Viene chiusa la mia filiale di fiducia ()	
La banca si fonde con una banca/gruppo che non conosco ()	
Il direttore della mia filiale cambia ()	
Ultimamente la banca mi contatta solamente per vendermi prodotti ()	
Un'altra banca offre condizioni migliori ()	
La banca va contro i suoi valori fondanti ()	
La banca attua delle iniziative che non sono concordi con i miei valori ()	
Un'altra banca si impegna maggiormente in ambito sostenibile ()	

Pensa alla tua banca IDEALE. Riordina i seguenti valori che vorresti avesse dal più importante al meno importante per te.

_______ Promozione dello sviluppo locale

_______ Realizzazione del profitto

_______ Cooperazione

_______ Distribuzione dei dividendi

_______ Mutualità

_______ Promozione dello sviluppo su scala nazionale/internazionale

CCI *Utilizzando una scala da 1 a 7, dove 1 indica che sei completamente in disaccordo e 7 completamente d'accordo, indica quanto concordi con le seguenti affermazioni.*

- Quando qualcuno critica la mia banca, lo percepisco come un insulto personale.
- Sono content* che la mia banca venga apprezzata dai media per le sue attività.
- Mi interessa sapere che la mia banca abbia una buona reputazione.

LOY *Utilizzando una scala da 1 a 7, dove 1 indica che sei completamente in disaccordo e 7 completamente d'accordo, indica quanto concordi con le seguenti affermazioni.*

- Intendo rimanere cliente della mia banca ()
- Consiglierei la mia banca alla mia famiglia ed ai miei amici ()
- Rimarrei in questa banca nonostante condizioni economiche migliori presso altri istituti finanziari ()

Grazie, siamo giá oltre la metà del questionario!

Hai mai sentito parlare dei seguenti argomenti? (Mai sentito parlare, Solo sentito parlare, Ne sono a conoscenza):

- Tasso di interesse composto
- Potere d'acquisto
- Diversificazione

Per favore rispondi alle domande seguenti relativamente ad alcuni possibili scenari. Questo non è un test e ciò che conta non è il numero di risposte giuste, ma é rispondere in modo spontaneo e sulla base delle proprie competenze. Ti ricordiamo che il questionario è completamente anonimo e non sarà possibile risalire in alcun modo alle tue risposte.

Supponi di avere € 100 in un conto di risparmio e che il tasso di interesse sia del 2% annuo. Dopo 5 anni, quanto pensi che avresti sul conto se lasciassi crescere il denaro?

- Più di € 102
- Esattamente € 102
- Meno di € 102
- Non so
- Preferisco non rispondere

Immagina che il tasso di interesse sul tuo conto di risparmio sia dell'1% annuo e che l'inflazione sia del 2% annuo. Dopo 1 anno, quanto potresti acquistare con il denaro presente su questo conto?

- Più di oggi
- Esattamente lo stesso
- Meno di oggi
- Non so
- Preferisco non rispondere

Ritieni che la seguente affermazione sia vera o falsa? L'acquisto di azioni di una singola società offre di solito un rendimento più sicuro rispetto a un fondo comune di investimento azionario.

- Vero
- Non so
- Preferisco non rispondere

Grazie, ancora poche domande.

Utilizzando una scala da 1 a 7, dove 1 indica che sei completamente in disaccordo e 7 completamente d'accordo, indica quanto concordi con le seguenti affermazioni.

- Mi risulta difficile rispettare i miei piani di spesa quando sorgono spese impreviste.
- Quando devo affrontare una sfida finanziaria, ho serie difficoltà a trovare una soluzione.
- Non mi sento sicuro/a nel gestire le mie risorse finanziarie.
- Sono preoccupato/a di finire i soldi dedicati alla mia pensione.

Utilizzando una scala da 1 a 7, dove 1 significa che non ti fidi per niente e 7 significa che ti fidi completamente, indica quanto ti fidi delle persone e istituzioni che trovi sotto riportate.

- La tua famiglia ed i tuoi vicini
- I tuoi colleghi
- Gli sconosciuti
- Le istituzioni europee ed il mondo della politica
- I media
- Le istituzioni finanziarie
- Le multinazionali

Abbiamo finito, queste sono le ultime domande.

Leggi le seguenti caratteristiche della personalità e indica, utilizzando una scala da 1 a 7, quanto ti senti descritto da ogni coppia, anche se pensi che una delle due caratteristiche ti descriva più dell'altra. Non esistono risposte giuste o sbagliate, ma solo risposte che ti descrivono in maniera più o meno adeguata.

Sono una persona...

- Estroversa, esuberante
- Polemica, litigiosa
- Affidabile, auto – disciplinata
- Ansiosa, che si agita facilmente
- Aperta alle nuove esperienze, con molti interessi
- Riservata, silenziosa
- Comprensiva, affettuosa
- Disorganizzata, distratta
- Tranquilla, emotivamente stabile
- Tradizionalista, abitudinaria

ANNEX B

```
. kwallis SUS, by(controllo)

Kruskal-Wallis equality-of-populations rank test
```

contro~o	Obs	Rank sum
1	108	17419.50
2	239	42958.50

```
chi2(1) =   2.517
   Prob = 0.1127

chi2(1) with ties =   2.526
             Prob = 0.1120

. kwallis ENV, by(controllo)

Kruskal-Wallis equality-of-populations rank test
```

contro~o	Obs	Rank sum
1	108	20778.50
2	239	39599.50

```
chi2(1) =   5.272
   Prob = 0.0217

chi2(1) with ties =   5.595
             Prob = 0.0180

. kwallis SOC, by(controllo)

(ruskal-Wallis equality-of-populations rank test
```

contro~o	Obs	Rank sum
1	108	12586.50
2	239	47791.50

```
chi2(1) = 51.444
   Prob = 0.0001

chi2(1) with ties = 52.023
             Prob = 0.0001
```

```
. tab SOC controllo, chi2
```

SOC	controllo 1	2	Total
2.50	33	7	40
2.75	13	21	34
3.00	21	35	56
3.25	12	34	46
3.50	10	14	24
3.75	3	23	26
4.00	5	23	28
4.25	0	29	29
4.50	2	9	11
4.75	4	15	19
5.00	1	4	5
5.25	1	12	13
5.50	3	4	7
5.75	0	6	6
6.00	0	2	2
6.25	0	1	1
Total	108	239	347

Pearson chi2(15) = 82.8535 Pr = 0.000

BIBLIOGRAPHY

2° Investing Initiative. (2022). *Questionnaire for assessing client sustainability preferences*.

Action Plan: Financing Sustainable Growth, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN CENTRAL BANK, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS (2018). http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1483696687107&uri=CELEX:52016SC0405.

Agyei, J., Sun, S., Penney, E. K., Abrokwah, E., & Ofori-Boafo, R. (2021). Linking CSR and Customer Engagement: The Role of Customer-Brand Identification and Customer Satisfaction. *SAGE Open*, *11*(3), 215824402110401. https://doi.org/10.1177/21582440211040113

Ahmad, N., Mahmood, A., Ariza-Montes, A., Han, H., Hernández-Perlines, F., Araya-Castillo, L., & Scholz, M. (2021). Sustainable businesses speak to the heart of consumers: Looking at sustainability with a marketing lens to reap banking consumers' loyalty. *Sustainability (Switzerland)*, *13*(7). https://doi.org/10.3390/su13073828

Anselmi, G., & Petrella, G. (2021). Regulation and stock market quality: The impact of MiFID II provision on research unbundling. *International Review of Financial Analysis*, *76*, 101788. https://doi.org/10.1016/j.irfa.2021.101788

Aracil, E., Nájera-Sánchez, J. J., & Forcadell, F. J. (2021). Sustainable banking: A literature review and integrative framework. *Finance Research Letters*, *42*. https://doi.org/10.1016/j.frl.2021.101932

Arli, D., Rundle-Thiele, S., & Lasmono, H. (2015). Consumers' evaluation toward tobacco companies: implications for social marketing. *Marketing Intelligence & Planning*, *33*(3), 276–291. https://doi.org/10.1108/MIP-01-2014-0015

Azimut Direct. (2021). *Sustainability-linked bond: cosa sono e come funzionano*.

Barral Casado, A. (2022). Relationships Between CSRD, EU Taxonomy, and SFDR. *Greenomy*.

Bergman, M. S., Deckelbaum, A. J., & Karp, B. S. (2020). *Introduction to ESG*. Harvard Law School Forum on Corporate Governance.

Beyene, W., & Manthos, D. D. (2020, April 24). *Fuelling fossil fuel: Bond to bank substitution in the transition to a low-carbon economy*. Principles for Responsible Investing.

Bloemer, J., de Ruyter, ko, & Peeters, P. (1998). Investigating drivers of bank loyalty: The complex relationship between image, service quality and satisfaction. *International Journal of Bank Marketing*, *16*(7), 276–286. https://doi.org/10.1108/02652329810245984

Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. In *Journal of Cleaner Production* (Vol. 65, pp. 42–56). https://doi.org/10.1016/j.jclepro.2013.11.039

BofA Securities. (2020). *10 reasons to care about environmental, social and governance (ESG) investing*. https://www.bofaml.com/content/dam/boamlimages/documents/articles/ID19_12722/ESG_from_A_to_Z.pdf

Bolton, P., Freixas, X., Gambacorta, L., & Mistrulli, P. E. (2013). *Relationship and transaction lending in a crisis* (917; Temi Di Discussione).

Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. *Journal of Cleaner Production*, *45*, 9–19. https://doi.org/10.1016/j.jclepro.2012.07.007

Bouma, J., Jeucken, M., & Klinkers, L. (2017). *Sustainable Banking The Greening of Finance* (1st ed.).

Bowden, A., Lane, M., & Martin, J. (2002). *Triple Bottom Line Risk Management : Enhancing Profit, Environmental Performance, and Community Benefits* (1st ed.). Wiley.

Bragg, I. (2013). *Canadian socially responsible investment review 2012*.

Brock, C. (2023, September 29). *What Is ESG Investing & What Are ESG Stocks?* The Motley Fool.

Brown, J. D., & Smart, S. A. (1991). The self and social conduct: Linking self-representations to prosocial behavior. *Journal of Personality and Social Psychology*, *60*(3), 368–375. https://doi.org/10.1037/0022-3514.60.3.368

Brown, M., Almeida, H., Berlin, M., Carey, M., Romero Cortes, K., James, C., Johnson, K., Lewellen, S., Meisenzahl, R., Mihov, A., Nichols, J., Ranish, B., Sarama, R., Schoar, A., Seru, A., Strahan, P., Swem, N., von Beschwitz, B., & Wang, J. (2021). *Weathering Cash Flow Shocks*. https://ssrn.com/abstract=2963444

Busch, D., Ferrarini, G., & van den Hurk, A. (2021). *The European Commission's Sustainable Finance Action Plan and Other International Initiatives* (pp. 19–59). https://doi.org/10.1007/978-3-030-71834-3_2

Campbell, D., & Slack, R. (2011). Environmental disclosure and environmental risk: Sceptical attitudes of UK sell-side bank analysts. *The British Accounting Review*, *43*(1), 54–64. https://doi.org/10.1016/j.bar.2010.11.002

Carè, R. (2018). *SUSTAINABLE BANKING Issues and Challenges*.

Carlucci, D., Ferreira, F. A. F., Schiuma, G., Jalali, M. S., & António, N. J. S. (2018). A holistic conception of sustainable banking: Adding value with fuzzy cognitive mapping. *Technological and Economic Development of Economy*, *24*(4), 1303–1322. https://doi.org/10.3846/20294913.2016.1266412

Carney, M. (2013). *Rebuilding Trust in Global Banking*.

Carroll, A. B. (1999). *Corporate social responsibility: Evolution of a definitional construct*. https://www.researchgate.net/publication/282441223

Carroll, A. B. (2016). Carroll's pyramid of CSR: taking another look. *International Journal of Corporate Social Responsibility*, *1*(1). https://doi.org/10.1186/s40991-016-0004-6

Carson, R. (1962). *Silent Spring*.

Caselli, S., Gigante, G., & Tortoroglio, A. (2021). *CORPORATE AND INVESTMENT BANKING: A Hands-On Approach*.

Central Bank of Ireland. (2023). *Introduction to MiFID Investment Firms*. https://www.centralbank.ie/regulation/industry-market-sectors/investment-firms/mifid-firms

Chaurlet, C. (2024). *Understanding the European Sustainability Reporting Standards (ESRS)*. Coolset.

Cheng, M., & Hasan, I. (2023). *Firm ESG Practices and the Terms of Bank Lending* (pp. 91–124). https://doi.org/10.1007/978-3-031-24283-0_5

Chernev, A., & Blair, S. (2015). Doing Well by Doing Good: The Benevolent Halo of Corporate Social Responsibility. *Journal of Consumer Research*, *41*(6), 1412–1425. https://doi.org/10.1086/680089

Climent, F. (2018). Ethical versus conventional banking: A case study. *Sustainability (Switzerland)*, *10*(7). https://doi.org/10.3390/su10072152

Cochelin, P., Popoola, B., & Volland, E. (2024). Sustainable Bond Issuance To Approach $1 Trillion In 2024. *S&P Global Ratings*, 2–4.

Cole, C. (2022). *SFDR: Product Level Disclosures*. Greenomy. https://www.greenomy.io/blog/sfdr-product-level-disclosures

Commission Delegated Regulation (EU) 2021/1253 of 21 April 2021 Amending Delegated Regulation (EU) 2017/565 as Regards the Integration of Sustainability Factors, Risks and Preferences into Certain Organisational Requirements and Operating Conditions for Investment Firms.

CONSOB. (2022). Report on financial investments of Italian households - Focus investors. *Statistics and Analyses*, 125–142.

Council of the EU. (2023, June). *Banking sector: Provisional agreement reached on the implementation of Basel III reforms*. Press Releases. https://www.consilium.europa.eu/en/press/press-releases/2023/06/27/banking-sector-provisional-agreement-reached-on-the-implementation-of-basel-iii-reforms/

Council of the EU. (2024). *Environmental, social and governance (ESG) ratings: Council and Parliament reach agreement*.

Crane, A., & Matten, D. (2007). *Corporate Social Responsibility as a Field of Scholarship*.

Curtis, Q., Fisch, J., & Robertson, A. Z. (2021). DO ESG MUTUAL FUNDS DELIVER ON THEIR PROMISES? *Michigan Law Review*, *120*(3), 393–450. https://doi.org/10.36644/mlr.120.3.ESG

da Silva Inácio, L., & Delai, I. (2022). Sustainable banking: a systematic review of concepts and measurements. In *Environment, Development and Sustainability* (Vol. 24, Issue 1). Springer Science and Business Media B.V. https://doi.org/10.1007/s10668-021-01371-7

da Silva Monteiro, S. M., & Aibar-Guzmán, B. (2010). Determinants of environmental disclosure in the annual reports of large companies operating in Portugal. *Corporate Social Responsibility and Environmental Management*, *17*(4), 185–204. https://doi.org/10.1002/csr.197

Deloitte. (2021). *Final report on the EC's fitness check on public reporting by companies*.

Deloitte. (2022). *Working paper: Balancing your materiality assessment. How to move beyond the matrix*.

Denchak, M. (2021, February 19). *Paris Climate Agreement: Everything You Need to Know*.

Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P., & Kaiser, S. (2012). Guidelines for choosing between multi-item and single-item scales for construct measurement: a predictive validity perspective. *Journal of the Academy of Marketing Science*, *40*(3), 434–449. https://doi.org/10.1007/s11747-011-0300-3

Dick, A. S., & Basu, K. (1994). *Customer Loyalty: Toward an Integrated Conceptual Framework*.

Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on Access to the Activity of Credit Institutions and the Prudential Supervision of Credit Institutions and Investment Firms, Amending Directive 2002/87/EC and Repealing Directives 2006/48/EC and 2006/49/EC.

Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU. (n.d.).

Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 Amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as Regards Corporate Sustainability Reporting.

D'Onza, G., Formisano, V., Landi, A., & Modina, M. (2023). *Position Paper - Il credito cooperativo: modello di business, governance e sostenibilità*.

Dossa, Z., & Kaeufer, K. (2014). Understanding Sustainability Innovations Through Positive Ethical Networks. In *Source: Journal of Business Ethics* (Vol. 119, Issue 4). POE.

Doyle, D. H. (2021). A Short Guide to the EU's Taxonomy Regulation. *S&P Global* .

Dzebo, A., Janetschek, H., Brandi, C., & Iacobuta, G. (2019). *Connections between the Paris Agreement and the 2030 Agenda The case for policy coherence*.

EBA. (2021). *ESG Factsheet update*.

EBA. (2022). *Final draft implementing technical standards on prudential disclosures on ESG risks in accordance with Article 449a CRR*.

EBA. (2024a). *Article 449a - Disclosure of environmental, social and governance risks (ESG risks)*. https://www.eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook/15877

EBA. (2024b). *Implementing Technical Standards on supervisory reporting changes related to CRR3/CRD6 in step 1*. https://www.eba.europa.eu/activities/single-rulebook/regulatory-activities/supervisory-reporting/implementing-technical-1

Economist Intelligence Unit. (2021). *An Eco-wakening: Measuring global awareness, engagement and action for nature*.

EFRAG. (2023). *EFRAG Sector Specific ESRS*. https://efrag.org/lab5

Einwiller, S. A. (2006). Enough Is Enough! When Identification No Longer Prevents Negative Corporate Associations. *Journal of the Academy of Marketing Science*, *34*(2), 185–194. https://doi.org/10.1177/0092070305284983

Elderson, F. (2023). *Climate-related and environmental risks - a vital part of the ECB's supervisory agenda to keep banks safe and sound*.

Emerson, J. (2003). The Blended Value Proposition: Integrating Social and Financial Returns. *California Management Review*, *45*(4), 35–51. https://doi.org/10.2307/41166187

Ennew, C., & Sekhon, H. (2007). Measuring trust in financial services: the Trust Index. *Consumer Policy Review*, *17*, 62–68.

Envoria. (2023). *What is the EU Taxonomy and which companies are required to report?* https://envoria.com/insights-news/what-is-the-eu-taxonomy-and-which-companies-are-required-to-report

ESAs. (2021). *Final Report on Draft Regulatory Technical Standards with regard to the content, methodologies and presentation of disclosures pursuant to Article 2a(3), Article 4(6) and (7), Article 8(3), Article 9(5), Article 10(2) and Article 11(4) of Regulation (EU) 2019/2088*.

ESMA. (2022). *Final Report Guidelines on certain aspects of the MiFID II suitability requirements*. www.esma.europa.eu

ESMA. (2023). *ESAs analyse the extent of voluntary disclosure of principal adverse impacts under the SFDR*. https://www.esma.europa.eu/press-news/esma-news/esas-analyse-extent-voluntary-disclosure-principal-adverse-impacts-under-sfdr#:~:text=Principal%20Adverse%20Impacts%20(PAI)%20are,the%20companies%20they%20invest%20in.

European Association of Co-operative Banks. (2024). *The strength of the Cooperative Banking Business Model*.

European Banking Authority. (2022). *Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP) and supervisory stress testing under Directive 2013/36/EU*.

European Banking Authority. (2023). *Article 177 - Stress tests used in assessment of capital adequacy*. https://www.eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook/13897

European Banking Authority. (2024). *Draft Guidelines on the management of ESG risks*.

European Central Bank. (2020). *Guide on climate-related and environmental risks*.

European Central Bank. (2022). *Good practices for climate-related and environmental risk management*. https://doi.org/10.2866/417808

European Central Bank. (2023a). *Aggregated results of SREP 2023*.

European Central Bank. (2023b). *ECB Banking Supervision: SSM supervisory priorities for 2024-2026*.

European Central Bank. (2023c). *Towards climate-related statistical indicators - Technical Annex*.

European Central Bank. (2024). *Supervisory review (SREP)*.

European Commission. (2011). *A renewed EU strategy 2011-14 for Corporate Social Responsibility*.

European Commission. (2015). *Sustainable Development Goals*.

European Commission. (2018). *Renewed sustainable finance strategy and implementation of the action plan on financing sustainable growth*. https://finance.ec.europa.eu/publications/renewed-sustainable-finance-strategy-and-implementation-action-plan-financing-sustainable-growth_en

European Commission. (2020a). *EU labels for benchmarks (climate, ESG) and benchmarks' ESG disclosures*.

European Commission. (2020b). *EU taxonomy for sustainable activities*. https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

European Commission. (2021a). *FAQ: What is the EU Taxonomy Article 8 delegated act and how will it work in practice?*

European Commission. (2021b). *Sustainability-related disclosure in the financial services sector*. https://finance.ec.europa.eu/sustainable-finance/disclosures/sustainability-related-disclosure-financial-services-sector_en

European Commission. (2023a). *Corporate sustainability reporting*. https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

European Commission. (2023b). *The European green bond standard – Supporting the transition*.

European Investment Bank. (2024). *EFSI project list*.

European Parliament. (2021). *BRIEFING Implementation Appraisal: Non-financial Reporting Directive*.

European Union. (2024). *About the InvestEU Fund*.

F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Federal Reserve. (2022). *Community Development Finance*.

Feliciano, A. S., Mendoza, X. L. D., Tadeo, J. B., Perez, M. A., & Villalobos, M. C. P. (2023). The Influence of Corporate Social Responsibility on Product Loyalty Focuses on the Beverage Firms: An Ordinary Least Square Approach. *International Journal of Business, Technology and Organizational Behavior (IJBTOB)*, *3*(3), 178–196. https://doi.org/10.52218/ijbtob.v3i3.274

Ferrie, D. (2021). Sustainable Finance and EU Taxonomy: Commission takes further steps to channel money towards sustainable activities. *European Commission*. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1804

Fitts, D., & McBride, C. (2023). Green loans vs sustainable loans: what you need to know. *Lexology*.

Folkes, V. S. (1988). Recent Attribution Research in Consumer Behavior: A Review and New Directions. *Journal of Consumer Research*, *14*(4), 548. https://doi.org/10.1086/209135

Fondazione Symbola - Unioncamere. (2023). *GreenItaly 2023 - Un'economia a misura d'uomo contro le crisi*.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39. https://doi.org/10.2307/3151312

Francis, B., Hasan, I., Koetter, M., & Wu, Q. (2012). *Corporate boards and bank loan contracting CORPORATE AND BANK LOAN*. http://ssrn.com/abstract=2060946Electroniccopyavailableat:https://ssrn.com/abstract=2060946Electroniccopyavailableat:http://ssrn.com/abstract=2060946https://ssrn.com/abstract=2060946Electroniccopyavailableat:http://ssrn.com/abstract=2060946

Friedman, M. (1970, September 13). *A Friedman doctrine - The Social Responsibility of Business Is to Increase Its Profits*.

Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: Empirical evidence from Germany. *Review of Managerial Science*, *5*(2), 233–262. https://doi.org/10.1007/s11846-010-0052-3

Gardiner, J., & Freke, T. (2024). Green bonds reached new heights in 2023. *Bloomberg Professional Services*.

Giagnocavo, C., Gerez, S., & Sforzi, J. (2012). COOPERATIVE BANK STRATEGIES FOR SOCIAL-ECONOMIC PROBLEM SOLVING: SUPPORTING SOCIAL ENTERPRISE AND LOCAL DEVELOPMENT. *Annals of Public and Cooperative Economics*, 281–315.

Giglio, S., Kelly, B., & Stroebel, J. (2021). *Climate Finance*. https://doi.org/10.1146/annurev-financial-102620

Gortsos, C. V. (2021). *The Taxonomy Regulation: More Important Than Just as an Element of the Capital Markets Union* (pp. 351–395). https://doi.org/10.1007/978-3-030-71834-3_11

Gosling, S. D., Rentfrow, P. J., & Swann, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*(6), 504–528. https://doi.org/10.1016/S0092-6566(03)00046-1

Gözlügöl, A. A. (2022). *The Clash of "E" and "S" of ESG: Just Transition on the Path to Net Zero and the Implications for Sustainable Corporate Governance and Finance*. https://ssrn.com/abstract=3962238Electroniccopyavailableat:https://ssrn.com/abstract=3962238

Groeneveld, H. (2018). *European co-operative banks in 2018: a concise assessment*.

Gupta-Mukherjee, S. (2020). Climate Action Is Too Big for ESG Mandates. *Stanford Social Innovation Review*.

Gupta-Mukherjee, S. (2022, July 6). *Clarity, Climate and Principles: Aligning Social and Economic Value Through Finance*. Aspen Institute.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019a). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019b). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Haumann, T., Quaiser, B., Wieseke, J., & Rese, M. (2014). Footprints in the Sands of Time: A Comparative Analysis of the Effectiveness of Customer Satisfaction and Customer–Company Identification over Time. *Journal of Marketing*, *78*(6), 78–102. https://doi.org/10.1509/jm.13.0509

Hawkins, A. J. (2023, August 16). *Tesla's 'ultra hardcore' work culture — as told by its employees*. The Verge.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hikkerovaa, L. (2011). The effectiveness of loyalty programs: An application in the hospitality industry. *International Journal of Business*, *16*, 150–164.

Homburg, C., Stierl, M., & Bornemann, T. (2013). Corporate Social Responsibility in Business-to-Business Markets: How Organizational Customers Account for Supplier Corporate Social Responsibility Engagement. *Journal of Marketing*, *77*(6), 54–72. https://doi.org/10.1509/jm.12.0089

Huang, M.-H., Cheng, Z.-H., & Chen, I.-C. (2017). The importance of CSR in forming customer–company identification and long-term loyalty. *Journal of Services Marketing*, *31*(1), 63–72. https://doi.org/10.1108/JSM-01-2016-0046

Igbudu, N., Garanti, Z., & Popoola, T. (2018). Enhancing bank loyalty through sustainable banking practices: The mediating effect of corporate image. *Sustainability (Switzerland)*, *10*(11). https://doi.org/10.3390/su10114050

Inderst, G., & Stewart, F. (2018). *Incorporating ENVIRONMENTAL, SOCIAL and GOVERNANCE (ESG) Factors into FIXED INCOME INVESTMENT*.

Institute of Medicine. (1994). *Veterans and Agent Orange - Health Effects of Herbicides Used in Vietnam*.

Jeucken, M. (2010a). *Sustainable Finance and Banking - The Financial Sector and the Future of the Planet*.

Jeucken, M. (2010b). *Sustainable Finance and Banking: The Financial Sector and Future of the Planet*.

Jeucken, M., & Bouma, J. J. (1999). *The Changing Environment of Banks*. http://www.ifc.org/enviro.

Jeucken, M., & Jaap Bouma, J. (2001). *The changing environment of banks**. www.ifc.org/enviro.

Jiang, Y., King, J. M., & Prinyawiwatkul, W. (2014). A review of measurement and relationships between food, eating behavior and emotion. *Trends in Food Science & Technology*, *36*(1), 15–28. https://doi.org/10.1016/j.tifs.2013.12.005

Kantsperger, R., & Kunz, W. H. (2010). Consumer trust in service companies: a multiple mediating analysis. *Managing Service Quality: An International Journal*, *20*(1), 4–25. https://doi.org/10.1108/09604521011011603

Karavitis, P., Kokas, S., & Tsoukas, S. (2021). Gender board diversity and the cost of bank loans. *Journal of Corporate Finance*, *71*, 101804. https://doi.org/10.1016/j.jcorpfin.2020.101804

Kay, M. J. (2006). Strong brands and corporate brands. *European Journal of Marketing*, *40*(7/8), 742–760. https://doi.org/10.1108/03090560610669973

Kelley, H. H. (1973). The processes of causal attribution. *American Psychologist*, *28*(2), 107–128. https://doi.org/10.1037/h0034225

Kerber, R., Wilkes, T., & Binnie, I. (2023, December 21). *ESG funds suffer weaker demand despite help from tech-sector performance*. Reuters.

Kerola, E., Weill, L., & Fungáčová, Z. (2020). *Experience of banking crises reduces trust in banks*. VoxEU.

Khan, Z., Ferguson, D., & Pérez, A. (2015). Customer responses to CSR in the Pakistani banking industry. *International Journal of Bank Marketing*, *33*(4), 471–493. https://doi.org/10.1108/IJBM-07-2014-0097

Khazaei Pool, A., Hanifi, F., Mirabi, V. R., & Taghipourian, M. J. (2018). MOVING FROM COGNITIVE LOYALTY TO BEHAVIORAL LOYALTY THROUGH BRAND ROMANCE: EVIDENCE FROM HOTEL INDUSTRY OF IRAN. *Deturope*, *10*.

Kim, J. (Sunny), Song, H., Lee, C.-K., & Lee, J. Y. (2017). The impact of four CSR dimensions on a gaming company's image and customers' revisit intentions. *International Journal of Hospitality Management*, *61*, 73–81. https://doi.org/10.1016/j.ijhm.2016.11.005

Kolbel, J., Berg, F., & Rigobon, R. (2023). Rating the ESG rating agencies. *FT Business School Insights*.

Lam, S. K., Ahearne, M., Hu, Y., & Schillewaert, N. (2010). Resistance to Brand Switching when a Radically New Brand is Introduced: A Social Identity Theory

Perspective. *Journal of Marketing*, *74*(6), 128–146. https://doi.org/10.1509/jmkg.74.6.128

Larcker, D. F., & Tayan, B. (2022). The Case for Taking the ‘G’ Out of ESG - Why governance isn’t a good way to measure a company’s commitment to stakeholders. *The Wall Street Journal*.

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, *18*(6), 503–520. https://doi.org/10.1108/EUM0000000006155

Larry Fink. (2022). The Power of Capitalism - Larry Fink’s 2022 letter to CEOs. *Blackrock*.

Leclercq-Machado, L., Alvarez-Risco, A., Esquerre-Botton, S., Almanza-Cruz, C., de las Mercedes Anderson-Seminario, M., Del-Aguila-Arcentales, S., & Yáñez, J. A. (2022). Effect of Corporate Social Responsibility on Consumer Satisfaction and Consumer Loyalty of Private Banking Companies in Peru. *Sustainability (Switzerland)*, *14*(15). https://doi.org/10.3390/su14159078

Lee, M.-D. P. (2007). A review of the theories of corporate social responsibility: Its evolutionary path and the road ahead. *International Journal of Management Reviews*, *10*(1), 53–73.

Lee, S. Y., Zhang, W., & Abitbol, A. (2019). What Makes CSR Communication Lead to CSR Participation? Testing the Mediating Effects of CSR Associations, CSR Credibility, and Organization–Public Relationships. *Journal of Business Ethics*, *157*(2), 413–429. https://doi.org/10.1007/s10551-017-3609-0

Louche, C., Busch, T., Crifo, P., & Marcus, A. (2019). Financial Markets and the Transition to a Low-Carbon Economy: Challenging the Dominant Logics. *Organization and Environment*, *32*(1), 3–17. https://doi.org/10.1177/1086026619831516

Lown, J. M. (2011). Development and Validation of a Financial Self-Efficacy Scale. *Journal of Financial Counseling and Planning*, *22*, 54–63.

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of Pension Economics and Finance*, *10*(4), 497–508. https://doi.org/10.1017/S1474747211000448

Lusardi, A., & Mitchell, O. S. (2023). The Importance of Financial Literacy: Opening a New Field. *Journal of Economic Perspectives*, *37*(4), 137–154. https://doi.org/10.1257/jep.37.4.137

Maniora, J. (2018). Mismanagement of Sustainability: What Business Strategy Makes the Difference? Empirical Evidence from the USA. *Journal of Business Ethics*, *152*(4), 931–947. https://doi.org/10.1007/s10551-018-3819-0

Marens, R. (2004). Wobbling on a One-Legged Stool: The Decline of American Pluralism and the Academic Treatment of Corporate Social Responsibility. *Journal of Academic Ethics*, *2*, 63–87.

Marin, L., Ruiz, S., & Rubio, A. (2009). The Role of Identity Salience in the Effects of Corporate Social Responsibility on Consumer Behavior. *Journal of Business Ethics*, *84*(1), 65–78. https://doi.org/10.1007/s10551-008-9673-8

Martínez, P., & Rodríguez del Bosque, I. (2013). CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction. *International Journal of Hospitality Management*, *35*, 89–99. https://doi.org/10.1016/j.ijhm.2013.05.009

McKinsey & Company. (2023). Banks enjoying highest profits since 2008 global financial crisis. *Consultancy.Uk*.

Mcleod, S. (2023). *Social Identity Theory In Psychology (Tajfel & Turner, 1979)*. SimplyPsycology.

Migliorelli, M. (2018). *New Cooperative Banking in Europe* (M. Migliorelli, Ed.). Springer International Publishing. https://doi.org/10.1007/978-3-319-93578-2

Migliorelli, M., & Lamarque, E. (2022). The Co-evolutionary Nature of European Cooperative Banks. In M. Migliorelli & E. Lamarque (Eds.), *Contemporary Trends in European Cooperative Banking Sustainability, Governance, Digital Transformation, and Health Crisis Response* (pp. 1–27). Springer International Publishing. https://doi.org/10.1007/978-3-030-98194-5

Ministry of Economy and Finance (Italy). (2023). BTP Green: 10 billion euros issued. *Press Release*, *56*.

Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, *58*(3), 20. https://doi.org/10.2307/1252308

Morningstar. (2023). *ESG Pillar 3 Disclosures & Sustainalytics Solutions Background - EBA ITS on Pillar 3 Disclosures*.

Muhammad, R., Jafar, S., Hussain, S., Ahmed, W., Ullah, S., Waqas, S. U., Latif, U., & Zhuang, P. (2016). Micro-Finance and Its Impacts on People and Societies. In *An International Peer-reviewed Journal* (Vol. 27). www.iiste.org

Nájera-Sánchez, J. J. (2019). A Systematic Review of Sustainable Banking through a Co-Word Analysis. *Sustainability*, *12*(1), 278. https://doi.org/10.3390/su12010278

Napoletano, E. (2024). Environmental, Social And Governance: What Is ESG Investing? *Forbes*. https://www.forbes.com/advisor/investing/esg-investing/

Nicholls, A. (2010). The Institutionalization of Social Investment: The Interplay of Investment Logics and Investor Rationalities. *Journal of Social Entrepreneurship*, *1*(1), 70–100. https://doi.org/10.1080/19420671003701257

OECD. (2023). *How Green is Household Behaviour? Sustainable Choices in a Time of Interlocking Crises*.

Olmo, B. T., Saiz, M. C., & Azofra, S. S. (2021). Sustainable banking, market power, and efficiency: Effects on banks' profitability and risk. *Sustainability (Switzerland)*, *13*(3), 1–23. https://doi.org/10.3390/su13031298

Orsato, R. J. (2006). Competitive Environmental Strategies: When Does it Pay to Be Green? *California Management Review*, *48*(2), 127–143. https://doi.org/10.2307/41166341

Osakwe, C. N., & Yusuf, T. O. (2021). CSR: a roadmap towards customer loyalty. *Total Quality Management and Business Excellence*, *32*(13–14), 1424–1440. https://doi.org/10.1080/14783363.2020.1730174

Panebianco, P. (2020, December 16). *Quale è la differenza tra ESG e SRI*. Finscience.

Park, J., Lee, H., & Kim, C. (2014). Corporate social responsibilities, consumer trust and corporate reputation: South Korean consumers' perspectives. *Journal of Business Research*, *67*(3), 295–302. https://doi.org/10.1016/j.jbusres.2013.05.016

Pérez, A., & Rodríguez del Bosque, I. (2015). Corporate social responsibility and customer loyalty: Exploring the role of identification, Satisfaction and type of company. *Journal of Services Marketing*, *29*(1), 15–24. https://doi.org/10.1108/JSM-10-2013-0272

Pivato, S., Misani, N., & Tencati, A. (2008). The impact of corporate social responsibility on consumer trust: the case of organic food. *Business Ethics: A European Review*, *17*(1), 3–12. https://doi.org/10.1111/j.1467-8608.2008.00515.x

Plan A Earth. (2023). *European Sustainability Reporting Standards (ESRS)*. https://plana.earth/policy/esrs-european-sustainability-reporting-standards#:~:text=The%20European%20Sustainability%20Reporting%20Standards%20(ESRS)%20serve%20as%20the%20foundation,for%20better%20understanding%20and%20application.

Platform on Sustainable Finance. (2022). *Annex to the platform on Sustainable Finance's report with recommendations on technical screening criteria for the four remaining environmental objectives of the EU taxonomy*.

Pollman, E. (2022). *ILE INSTITUTE FOR LAW AND ECONOMICS - The Making and Meaning of ESG*. https://ssrn.com/abstract=4219857Electroniccopyavailableat:https://ssrn.com/abstract=4219857Electroniccopyavailableat:https://ssrn.com/abstract=4219857

Puaschunder, J. M. (2016). On the Emergence, Current State and Future Perspectives of Socially Responsible Investment (SRI). *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2720686

Pugh, R., Sehgal, A., & Sachs, E. (2022). *MiFID II ESG product governance amendments in force from 22*. Dechert LLP.

Qian, C., Crilly, D., Wang, K., & Wang, Z. (2021). Why do banks favor employee-friendly firms? A stakeholder-screening perspective. *Organization Science*, *32*(3), 605–624. https://doi.org/10.1287/orsc.2020.1400

Rajan, R., & Winton, A. (1995). Covenants and Collateral as Incentives to Monitor. In *Source: The Journal of Finance* (Vol. 50, Issue 4).

Ramnarain, T. D., & Pillay, M. T. (2016). Designing Sustainable Banking Services: The Case of Mauritian Banks. *Procedia - Social and Behavioral Sciences*, *224*, 483–490. https://doi.org/10.1016/j.sbspro.2016.05.424

Raza, A., Rather, R. A., Iqbal, M. K., & Bhutta, U. S. (2020). An assessment of corporate social responsibility on customer company identification and loyalty in banking industry: a PLS-SEM analysis. *Management Research Review*, *43*(11), 1337–1370. https://doi.org/10.1108/MRR-08-2019-0341

Raza, A., Saeed Bhutta, U., Anser, M. K., Faraz, N. A., Bhutta, S., & Khalid Iqbal, M. (2018). Corporate Social Responsibility and Customer Loyalty: A mediating role of trust. In *European Journal of Business and Social Sciences* (Vol. 07, Issue 01).

Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on Sustainability-related Disclosures in the Financial Services Sector.

Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the Establishment of a Framework to Facilitate Sustainable Investment, and Amending Regulation (EU) 2019/2088.

Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012. (n.d.).

Reinhardt, F. L., Stavins, R. N., & Vietor, R. H. K. (2008). Corporate social responsibility through an economic lens. *Review of Environmental Economics and Policy*, *2*(2), 219–239. https://doi.org/10.1093/reep/ren008

Relano, F. (2015). DISAMBIGUATING THE CONCEPT OF SOCIAL BANKING. *ACRN Journal of Finance and Risk Perspectives Special Issue of Social and Sustainable Finance*, *4*(3), 48–62. http://www.acrn-journals.eu/jofrp/jofrp0403.html

Report of the World Commission on Environment and Development - Our Common Future. (1987).

Riegler, M. (2023). Towards a definition of sustainable banking - a consolidated approach in the context of guidelines and strategies. *International Journal of Corporate Social Responsibility*, *8*(1). https://doi.org/10.1186/s40991-023-00078-4

Ringe, W.-G. (2021). *Investor-led Sustainability in Corporate Governance*. http://ssrn.com/abstract_id=3958960https://ecgi.global/content/working-papers

Rizzi, F., Pellegrini, C., & Battaglia, M. (2018). The structuring of social finance: Emerging approaches for supporting environmentally and socially impactful projects. *Journal of Cleaner Production*, *170*, 805–817. https://doi.org/10.1016/j.jclepro.2017.09.167

Road to recovery. (2021). *Strategic Direction*, *37*(12), 25–27. https://doi.org/10.1108/SD-10-2021-0130

Robins, N., Brunstig, V., & Wood, D. (2018). *Climate change and the just transition: A guide for investor action*. www.lse.ac.uk/GranthamInstitute/

Robinson, C. (2021). *The History and Importance of Earth Day*.

Roland Berger. (2023). *Retail banking survey: Sustainability and retail banking*.

Rose, A. M. (2021). *A RESPONSE TO CALLS FOR SEC-MANDATED ESG DISCLOSURE*. https://perma.cc/CHV4-QEPX];

Rzegocki, M. (2021, June 21). *The mounts of piety: A case study in Christian innovation*. https://www.acton.org/publications/transatlantic/2021/06/23/mounts-piety-case-study-christian-innovation#:~:text=Mounts%20of%20piety%20were%20small,which%20disproportionately%20affected%20the%20poor.

Sapienza, P., & Zingales, L. (2009). *Financial Trust Index: Wave 1*.

Schemmer, E., Struckmann, J., & Glasow, F. (2023). *Road to CRD 6 – ESG takes center stage in financial regulation*. https://sustainability.freshfields.com/post/102ivvu/road-to-crd-6-esg-takes-center-stage-in-financial-regulation

Sen, S., & Bhattacharya, C. B. (2001). Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility. *Journal of Marketing Research*, *38*(2), 225–243. https://doi.org/10.1509/jmkr.38.2.225.18838

Shah, S. S. A., & Khan, Z. (2019). Corporate social responsibility: a pathway to sustainable competitive advantage? *International Journal of Bank Marketing*, *38*(1), 159–174. https://doi.org/10.1108/IJBM-01-2019-0037

Sheppard, B. H., & Sherman, D. M. (1998). The Grammars of Trust: A Model and General Implications. *The Academy of Management Review*, *23*(3), 422. https://doi.org/10.2307/259287

S&P Global. (2020, February 25). *What is the difference between ESG investing and socially responsible investing?*

S&P Global Ratings. (2023). *Global Sustainable Bonds 2023 Issuance To Exceed $900 Billion*.

Tajfel, H., & Turner J C. (1979). An integrative theory of intergroup conflict. *The Social Psychology of Intergroup Relations*, 33–37.

Tarkhanova, E. A. (2018). Innovations and sustainability in the financial and banking sectors. *Terra Economicus*, *16*(2), 75–82. https://doi.org/10.23683/2073-6606-2018-16-2-75-82

Tarnowska, K., Ras, Z. W., & Daniel, L. (2020). *Recommender System for Improving Customer Loyalty* (Vol. 55). Springer International Publishing. https://doi.org/10.1007/978-3-030-13438-9

Tenbarge, K. (2023, December 1). Social media fuels boycotts against McDonald's and Starbucks over Israel-Hamas war. *NBC News*.

The Economist. (2022). *Measure less, but better: It's the environment, stupid*.

The World Bank. (2005). *Opportunities and Options for Governments to Promote Corporate Social Responsibility in Europe and Central Asia*.

The World Bank Group's IFC. (2021). *What You Need to Know About Green Loans*.

Think Thank European Parliament. (2023). *Amendments to banking capital requirements legislation*.

Townsend, B. (2020). *From SRI to ESG: The Origins of Socially Responsible and Sustainable Investing*.

Treaty on European Union, Official Journal of the European Union (2012).

Úbeda, F., Javier Forcadell, F., & Suárez, N. (2022). Do formal and informal institutions shape the influence of sustainable banking on financial development? *Finance Research Letters*, *46*. https://doi.org/10.1016/j.frl.2021.102391

United Nations. (2023). *The 17 SDGs*. https://sdgs.un.org/goals

United Nations Conference on Environment and Development, Rio de Janeiro. (1992).

University of Cambridge. (2016). *The Paris Climate Agreement: Implications for banks, institutional investors, private equity and insurers*.

Vanhomwegen, H. (2021). *SFDR Mandatory Indicators & Principal Adverse Impact (PAIs)*. Greenomy. https://www.greenomy.io/blog/sfdr-principal-adverse-impact

Vera-Martínez, J., Alvarado-Herrera, A., & Currás-Pérez, R. (2022). Do Consumers Really Care about Aspects of Corporate Social Responsibility When Developing Attitudes toward a Brand? *Journal of Global Marketing*, *35*(3), 193–207. https://doi.org/10.1080/08911762.2021.1958277

Vilar, V. H., & Simão, J. (2015). CSR disclosure on the web: Major themes in the banking sector. *International Journal of Social Economics*, *42*(3), 296–318. https://doi.org/10.1108/IJSE-10-2013-0240

Wang, Q., Dou, J., & Jia, S. (2016). A Meta-Analytic Review of Corporate Social Responsibility and Corporate Financial Performance. *Business & Society*, *55*(8), 1083–1121. https://doi.org/10.1177/0007650315584317

Webber, E. A., & Brown, E. G. (2008). *B2B Customer Experience Priorities in an Economic Downturn: Key Customer Usability Initiatives in a Soft Economy*.

Weber, O. (2023). *ESG Issues as Strategic Components of Long-term Success of Financial Institutions: Are There Differences in Financial Performance and Firm Value?* Palgrave Macmillan Studies in Banking and Financial Institutions.

Weber, O., & Chowdury, R. K. (2020). Corporate sustainability in bangladeshi banks: Proactive or reactive ethical behavior? *Sustainability (Switzerland)*, *12*(19), 1–18. https://doi.org/10.3390/su12197999

Weber, O., & Feltmate, B. (2016). *Sustainable Banking*. University of Toronto Press. https://doi.org/10.3138/9781442629325

Weber, O., Fenchel, M., & Scholz, R. W. (2008). Empirical analysis of the integration of environmental risks into the credit risk management process of European banks. *Business Strategy and the Environment*, *17*(3), 149–159. https://doi.org/10.1002/bse.507

Weber, O., & Saravade, V. (2019). *Green Bonds: Current Development and Their Future* (210).

Weber, O., Scholz, R. W., & Michalik, G. (2010a). Incorporating sustainability criteria into credit risk management. *Business Strategy and the Environment*, *19*(1), 39–50. https://doi.org/10.1002/bse.636

Weber, O., Scholz, R. W., & Michalik, G. (2010b). Incorporating sustainability criteria into credit risk management. *Business Strategy and the Environment*, *19*(1), 39–50. https://doi.org/10.1002/bse.636

Wood, D. (2015). *What do we mean by the S in ESG? Society as a stakeholder in responsible investment*.

Yip, A. W. H., & Bocken, N. M. P. (2018). Sustainable business model archetypes for the banking industry. *Journal of Cleaner Production*, *174*, 150–169. https://doi.org/10.1016/j.jclepro.2017.10.190

Zimmermann, S. (2019). Same same but different: How and why banks approach sustainability. *Sustainability (Switzerland)*, *11*(8). https://doi.org/10.3390/su11082267