Haute Ecole
Groupe ICHEC – ECAM – ISFSC

et

Université catholique de Louvain
Louvain School of Management

Impact investing: from niche to mainstream?

Exploring how to develop impact investing in listed equities

Mémoire présenté par :
Eliot van Oosterzee

Pour l’obtention du diplôme de :
Master en gestion de l’entreprise (ICHEC)
Master en Sciences de Gestion (LSM)

Année académique 2020-2021

Promoteur :
Christel Dumas

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Table of contents

List of figures

List of tables

List of abbreviations

AUM	Asset Under Management
CAGR	Compound Annual Growth Rate
CSR	Corporate Social Responsibility
DFIs	Development Finance Institutions
ESG	Environmental, Social and Governance
EU	European Union
EVPA	European Venture Philanthropy Association
GDP	Gross Domestic Product
GIIN	Global Impact Investing Network
GIIRS	Global Impact Investing Rating System
GSIA	Global Sustainable Investment Alliance
II	Impact Investing
IMF	International Monetary Fund
IMP	Impact Management Project
IRIS	Impact Reporting and Investment Standards
LFDE	La Financière De l’Echiquier
NASA	National Aeronautics and Space Administration
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
SDG	Sustainable Development Goals
SFDR	Sustainable Finance Disclosure Regulation
SRI	Sustainable and Responsible Investment
UN	United Nations
UNEP	United Nations Environment Program

Introduction

What is the role of the financial world in addressing environmental and social challenges? Can impact investing put the focus back on the outcome of an investment?

In the face of growing social disparities and environmental challenges, traditional finance seems powerless to address them. This finance focused on financial return and enrichment of a minority of people seems difficult to combine with the challenges of tomorrow. Even if they are opposed to each other, the resolution of social and environmental problems cannot be done without the involvement of the financial world. The Sustainable Development Goals developed by the United Nations, which bring together all the challenges that our world must resolve to regulate the climate and limit disparities, will not be achieved without significant financial resources. It is estimated that $2.5 trillion per year will have to be released by the private sector to solve all these challenges before 2030 (Gilbert, Murphy, & Zafiris, 2021, p.3).

Who better than the financial sector to attract this much capital? Although criticized for some of its current and past abuses, finance is beginning to reinvent itself by developing investment vehicles that are increasingly focused on taking into account the environmental and social impacts of investments. Financial products, such as investment funds, that decide not to invest in certain polluting products or to only invest in companies that share strict ESG standards, are already well developed. However, more needs to be done to address the SDGs. For this, other investment methods exist, notably impact investing. The particularity of this investment is that it aims to combine positive environmental or social impact with financial return. The difference with the other ways of investing is that the impact in question must be intentional and measurable, to prove that it has contributed positively to solving the problem identified before the investment. Mainly developed in the form of private equity funds (investments in private companies) or in the form of bonds, impact investing is increasingly present in listed equities (investments in publicly traded companies).

In view of this development, our thesis aims to answer our research question:

Impact investing: from niche to mainstream? Exploring how to develop impact investing in listed equities

As it is not well developed in the stock markets, its development faces many challenges. The characteristics of impact investing and the stock market can sometimes be contradictory. A better knowledge of this sector is therefore necessary so that impact investing can be integrated into the world of listed markets without losing its fundamental characteristics. The objective of our research is to facilitate this development in listed equities by proposing a series of recommendations for banks and asset managers active in this sector. In addition, we want to provide a better understanding of impact investing in listed equities by presenting how it works and the challenges it faces. Even if considered marginal today, impact investing is necessary to increase the capital available to solve social and climate issues.

The choice of this thesis is based on 2 elements that characterize us: our interest in finance and our particular attention to climate issues. These 2 elements led us to analyze what the financial world was doing to address these issues. This led us to the exploration of impact investing, considered as one of the most effective way to address these concerns. As this sector is growing rapidly and does not currently have a significant amount of literature, we wanted to participate in the development of this niche market into a mainstream market.

Considering the theory of change has been fundamental in the structure of our thesis. After identifying our main objective, which is increasing the use of impact investing to address environmental and social issues, the theory of change enabled us to understand what needed to be put in place to achieve it. The development of recommendations for the sector seemed to be the most effective way to reach our goal. To develop these guidelines, we had to understand the field and the challenges faced by the stakeholders. To do this, we used a rigorous methodology.

First, we decided to collect existing data. We wanted to identify all the impact investing funds present in listed equities. To ensure the relevance of our selection, we established strict criteria in terms of key words, asset allocation, number of years of existence, and localization of asset managers. After selecting the funds, we decided to analyze the asset managers of these funds, given that strategies, such as impact investing, are not established at the fund level but rather at the organization level. This resulted in the identification of 6 asset managers. Once the asset managers were selected, we established an evaluation grid to only study the documents relevant to our research. Second, we conducted interviews with stakeholders of this sector to understand their views on the industry. Finally, we did an internship at KBC Asset Management, which manages an impact investing fund. A logbook was completed throughout the internship to note our findings. These 3 methods enabled us to assess the current state of impact investing in listed equities and to understand the challenges faced by this type of investment. The identification of challenges was done using Gioia's methodology (Gioia et al., 2012). Based on this assessment, we have made recommendations to facilitate the development of this field.

To expose our research, our thesis is divided into 2 parts.

The first part consists of a review of the existing literature with the aim of clarifying impact investing. To do so, we begin by contextualizing impact investing and its ecosystem to enhance the reader's understanding of the characteristics of impact investing. As the notions of impact and risk are fundamental to this type of investment, we examine how financial and impact performance are taken into account, and what risks are incurred when investing using impact investing. This part ends with the presentation of the challenges observed in the literature.

The second part presents the results of our research and the applied methodology. First, we present our findings on the state of impact investing and on the challenges observed in the literature. We then compare our data with the literature to highlight the variations. Our recommendations are then presented, analyzed, and divided into three time periods: short term, medium term, and long term.

Part 1: Literature review

Prior to answering the research question, it is necessary to understand all the variables related to impact investing. This first part will be devoted to a review of the literature, establishing an overview of the characteristics and stakeholders of impact investing.

1 Contextualization of impact investing

This first chapter will cover the historical development that led to the emergence of impact investing, the characteristics and definition of this type of investment, a macro-economic analysis of the elements that influence impact investing, and the size of the market.

1.1 Historical development

According to Grabenwarter and Liechtenstein (2011), the development of impact investing stems from the evolution of investments that are not primarily focused on profit but also consider social principles. These are known as responsible investing, social investing, or corporate social responsibility (CSR) investing, among others. The historical analysis of impact investing must consequently begin by exploring the origins of responsible investment.

Ethics is the foundation of responsible investing as we know it today, according to Revelli (2013), its origins date back to the 17th century with the creation of the "Religious Society of Friends" which through its members "the Quakers" had the morality of assisting other individuals. Quakers were considered to be businessmen but also philanthropists who sought to generate positive outcomes, e.g., they provided financial assistance when a member was in difficulty, they were involved in adult and child education, and they were concerned about the social conditions of their employees (no Sunday work and construction of houses for workers) (Freeman, 2013). At the origin, there was a focus on the outcome of the investment rather than on the process of the investment.

Knowledge of the religious roots of responsible investment is key to the understanding of its evolution over time (Sparkes, 2008). Sparkes (2008) claims, that religious influence explains, even today, the choice of products that are excluded from investment funds, these precursors have voluntarily excluded products linked to activities considered to be against religion such as alcohol, tobacco, gambling and defense, labelled under the name of "sin-stocks".

These principles will gradually be implemented by the financial markets and will become institutionalized into mutual funds that are accessible to everyone (Revelli, 2013). The first ethical fund was created in 1928 in the United States in the context of prohibition, which prohibited the sale of alcohol. The pioneer fund embraced this trend by establishing a selection of investments that were free of alcohol and tobacco sales (Sparkes, 2008). It can also be seen in this fund that the focus is on outcome, with the aim of limiting the development of businesses offering alcohol and tobacco.

With a changing international context, concerns became more social, notably with the protests against the war in Vietnam or against apartheid in South Africa. People wanted to be sure that their investments did not have a negative impact on society. The first modern mutual fund linked to responsible investment, the "pax world fund", was created in 1971 following the

Vietnam war; the purpose was to prevent certain companies from participating financially in this conflict. In the 1980s, race conflicts in South Africa also speeded up the growth of investor awareness on the negative impact of their investments. Many of them have pressurized companies and investment funds to withdraw all investments made in the South African state or in companies operating in that country (Renneboog, Host, & Zhang, 2007; Sparkes, 2008). We notice that the outcome is again present but with a different perspective, more focused on the prevention of a negative impact.

Revelli (2013) explains that, at the same time, the idea of stakeholders also took shape under the impetus of the concept of sustainable development in 1972, shared by the Stockholm Summit. This notion took on a global dimension in 1987 with the Brundtland report, which laid the foundations for this concept. Serious environmental incidents underline the importance of the environment, disasters such as Chernobyl in 1986 or gas leaks in the 1980s lead to the advent of green investing (Sparkes, 2008). The first green fund was created in 1988 in Great Britain under the name of "Merlin Ecology Fund" (Arjaliès, 2014; Sparkes 2008).

The 1990s saw a gradual increase in the use of socially responsible investments. The supply was mainly concentrated in the United States and in the Anglo-Saxon countries. The arrival of SRI in France, for example, was very slow. In 1999, SRI funds represented only 0.8 billion euros in France (Arjaliès, 2014, p.4). In the late 1990s and early 2000s, an additional principle was added: governance. In the wake of several scandals involving the management of companies such as Enron and Worldcom, the authorities began to demand accountability from companies through quality reporting on their activities. This principle will be added to the social and environmental criteria and will constitute the ESG criteria (Environment, Social, Governance), which are still commonly used today for the SRI (Revelli, 2013; Dumas & Louche, 2015).

According to Arjaliès (2014), during the 2000s, a series of government reforms reinforced the creation of SRIs and in 2006, the "Six Principles for Responsible Investment" were introduced to reinforce the role of SRIs around the world. This will result in the creation of several types of investments, moving from an exclusive to an inclusive approach. Revelli (2013) explains that investment funds attempted to find the best companies, those that have a significant societal impact. To do this, analysts relied on scoring systems, and that marked the emergence of best-in-class investments (Revelli, 2013).

In a nutshell, Dumas & Louche have written: "We found five RI periods in our data, spanning the period between 1982 and 2010: the «civil rights» years (1982-1991), the «green niche» years (1992-1997), the «professionalization» years (1998-2000), the «SRI» years (2001-2004) and the "ESG" years (2005-2010)" (2016, p.16). As this analysis was published before the advent of impact investing. We can safely say "Impact" would have been the next period.

Impact investing (II) emerged for the first time in 2007 and 2008 during meetings between investors on behalf of the Rockefeller Foundation in Bellagio, near Lake Como in Italy (Clarkin & Cangioni, 2015; Bradenburg, 2012; Bugg-Levine & Emerson, 2011). If we look at this evolution, we notice that the notion of outcome and impact have been present since the beginning of responsible investment, but it was not until 2007 that their existence was theorized.

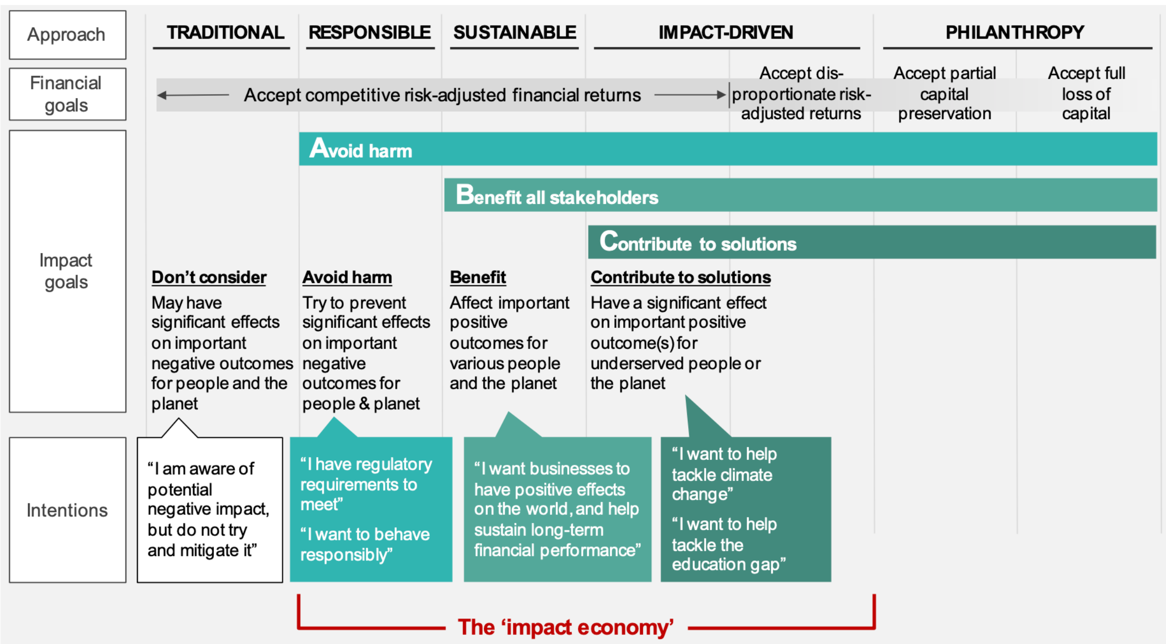
1.2 Positioning impact investing in the investment universe

This historical development has led to a diversification in the strategies adopted for SRI. According to the report of the Global Sustainable Investment Alliance (GSIA) in 2018, there are 7 different strategies:

- **Negative/Exclusionary screening:** "The exclusion from a fund or portfolio of certain sectors, companies or practices based on specific ESG criteria" (Lang & Electris, 2018, p.7).
- **Positive/Best-in-class screening:** "Investment in sectors, companies or projects selected for positive ESG performance relative to industry peers" (Lang & Electris, 2018, p.7).
- **Norms-based screening:** "Screening of investments against minimum standards of business practice based on international norms, such as those issued by the OECD, ILO, UN and UNICEF" (Lang & Electris, 2018, p.7).
- **ESG integration: "**The systematic and explicit inclusion by investment managers of environmental, social and governance factors into financial analysis" (Lang & Electris, 2018, p.7).
- **Sustainability themed investing:** "Investment in themes or assets specifically related to sustainability (for example clean energy, green technology or sustainable agriculture)" (Lang & Electris, 2018, p.7).
- **Impact/Community investing: "**Targeted investments (...) with a clear social or environmental purpose" (Lang & Electris, 2018, p.7).
- **Corporate engagement and shareholder action:** "The use of shareholder power to influence corporate behavior, (...)" (Lang & Electris, 2018, p.7).

In addition to SRI investments, 2 other types of investments can be considered to complete the investment spectrum: traditional investments and philanthropy. The figure below synthesizes the entire investment landscape.

Figure 1: Investment landscape



Source: UK National Advisory Board on impact investing. (2017). *The rise of impact: Five steps towards an inclusive and sustainable economy.* United Kingdom: UK NAB. Retrieved from https://www.impactinvest.org.uk/wp-content/uploads/2020/11/NAB-The-Rise-of-Impact-report-October-2017.pdf

As seen in the historical development of impact investing, the notion of impact has taken many forms over the course of its evolution. This can be seen in Figure 1, which highlights that the impact economy includes responsible investing, sustainable investing, and impact investing. Although these three investment approaches have different visions of impact, it can be argued that they share a common goal of providing investment opportunities to have a positive outcome on social and environmental issues.

1.3 Defining impact investing

In view of its relatively recent creation, the definition of impact investing is continuously evolving, from a rather broad and imprecise definition to a more complex one nowadays (Agrawal & Hockerts, 2019).

The emergence of impact investing was based on the need to unify certain types of investments because their terminology was increasingly unclear or did not adequately reflect the purpose of investors. Terms such as "socially responsible investing" or "ethical investing" only covered the ethical aspect of investing, "sustainable finance" only described investments made for the environment and "community development finance" was only meaningful for Americans, which made it difficult to apply the term internationally (Bugg-Levine & Emerson, 2011).

The term impact investing brings together several actors in the financial world (microfinance, low-income housing lender, or green tech lender) so that they can work collaboratively to overcome the obstacles they face and move forward more quickly (Bugg-Levine & Emerson, 2011).

Bugg-Levine & Emerson have written that “impact investors intend to have a positive impact as they generate financial return, and to manage and measure the blended value they create” (2011, p.13). Blended value can be seen as the objective of investors to blend social, economic, and environmental aspects (Bugg-Levine & Emerson, 2011).

“The Parthenon Group defined impact investing as being an investment that creates social or environmental benefits while also providing a return of principal, with returns ranging from zero to market rate” (Quoted by Rangan, Appleby, & Moon, 2012, p.2). While the Bugg-Levine and Emerson definition concentrates on the total impact of the investment, the Parthenon group tends to focus more on the financial aspect, placing emphasis on the need for a market-rate return.

Quinn & Munir, for their part, wrote: “Impact investing refers to the use of investment capital to help solve social or environmental problems around the world with the expectation of financial returns. Unlike ethical investing or socially responsible investing (SRI), (...), impact investing is positioned as taking a proactive approach actively identifying businesses with the intent to achieve a financial return and create a positive social or environmental impact” (2017, p. 113). This definition brings a global dimension to impact investing and differentiates it from other types of SRI.

Although these definitions share similarities, they demonstrate important variations in views on impact investing.

To ensure clarity, we will retain only one definition, the one shared by the Global Impact Investing Network (GIIN), an organization created by the Rockefeller Foundation, as it is considered to be the reference definition by the impact investing community. “The GIIN defines impact investments as investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return” (Global Impact Investing Network, 2021, para.2). Social impact can be seen as a positive contribution to communities facing challenges of disparity or inequality (Schwartz, 2017). As for the environmental impact, it refers to the effect that a project can have on the environment, the aim being to make the economy more in harmony with the environment (Glasson & Therivel, 2019).

1.4 Impact investing characteristics

In complement to this definition, the GIIN refines it by setting out 4 specific characteristics that an investor must take into account before being considered as impact investor. According to the GIIN (2021), the four core characteristics of impact investors are:

- **Intentionally contribute to positive social and environmental impact**

The financial investment made with the object of having a positive social or environmental impact must be made intentionally. This assertion is characterized by two elements. The first is to transparently disclose financial and impact objectives before investing and the second is to develop and report on a comprehensive strategy that articulates how the investor intends to attain these targets (GIIN, 2021).

- **Use evidence and impact data in investment design**

The investor must employ the best available qualitative and quantitative data to take the best possible decisions to increase his positive contribution. To meet this requirement, it is essential to rely on tangible and scientific evidence before identifying a social and/or environmental need. The quality of the data will be the basis for quantifying the desired impact, for designing the strategy, and for selecting the indicators that will reflect whether or not the investment has achieved its original objectives. Finally, the investor should improve the capacity to analyze his or her investments over time (GIIN, 2021).

- **Manage impact performance**

The investor will need to work with good data to manage his investments in the best possible way. This implies several elements. Firstly, there must be the possibility of feedback loops. Secondly, risks that might prevent the achievement of the objectives need to be identified and complementary strategies to overcome these risks need to be conceived. Thirdly, the objective of creating a positive impact should not be done without considering the possible negative impacts. Finally, the performance data of investments should be reported in a way that enables it to be benchmarked against other projects (GIIN, 2021).

- **Contribute to the growth of impact investing**

An impact investor has a role to promote the evolution of impact investing among new investors. To do this, they transparently share all the impact investing practices they use, they commit to employ the tools and standards shared by the impact investing industry to define their strategies, they take into account the opinions of stakeholders to enhance their decision-making and they exchange data that will serve to reinforce the manner in which impact investing is conducted (GIIN, 2021).

This broad definition distinguishes impact investing from other forms of SRI. It underlines the importance of the proper use of data to professionalize the industry and avoid impact washing. The complexity of the characteristics raises the question of whether they can be applied to all asset classes, especially to listed equities

1.5 Macro-economic context of II

To deepen our understanding of the emergence of II, its development, and its current state, we conducted a PESTEL analysis. This macro-economic assessment serves to situate the main drivers of this form of investment. The study of the macro-economic environment is also essential in our thesis writing process as our aim is to understand the challenges facing impact investing, to suggest recommendations for development. It is therefore necessary to analyze the factors that create these challenges at all levels. The analysis will be made at the global level with a focus on North America and Europe (Western, South, and North), as these 2 regions account for 71% of the world's impact investors (Hand, Dithrich, Sunderji, & Nova, 2020, p.2).

- **Political level**

Governance: As Acevedo & Wu (2018) explain, it is imperative to analyze and understand the major role that governments have in the evolution of impact investing. Besides, countries with strong institutions favor investment and attract more external capital (Gwartney, Holcombe, & Lawson, 2006). To monitor country governance, we have employed the Worldwide Governance Indicator, which is composed of 6 variables: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. This tool provides a score per country between -2.5 and 2.5, the higher the score the better the situation of the country. Even if some criticisms are sometimes levelled at this tool, we believe that it permits to draw the outlines of the political state of a nation. For North America, all the indicators are above 1 in 2019, suggesting a generally good political situation. Most countries in Europe are among the best performers in this World Governance Index. However, one point of attention can be raised. There are indeed disparities within the region, the Nordic countries have the best scores approaching 2, the western countries have low scores on political stability and absence of violence. And the Southern countries, for their part, have lower scores for rule of law (Kaufmann & Kraay, 2019).

Political initiative: The environmental focus at the political level is driving the growth of impact investing. At global and European level, several initiatives have been launched. At the global level, in December 2015, a global climate agreement to limit the increase in global temperature to 1.5° Celsius was signed at the Paris conference (Cop 21). In Europe, the European Union (EU) has introduced pollution quotas for companies, with the aim of pushing private companies to limit their greenhouse gas emissions. In addition, by 2030 the EU aims to have at least 32% of its total energy production from renewable sources and at least 32.5% energy efficiency

(Amanatidis, 2020, para.8). Ecological governance has recently been applied as well, pushing countries to adapt their national plans to show that they are making an effort on climate issues. Finally, the European Commission has recently laid the groundwork for a proposal to make the EU carbon neutral by 2050. The EU is also participating in the global fight against climate change by promoting investments in renewable energy in foreign countries (Amanatidis, 2020; European Commission, 2021).

- **Economic level**

Gross Domestic Product (GDP): After a decline during the Covid-19 pandemic, the world economy is projected to grow by 5.8% in 2021 and by 4.4% in 2022. Despite these increases, the global loss of income is estimated at $3 trillion compared to pre-crisis projections (Organization for economic Co-operation and Development (OECD), 2021, para.2). Moreover, there is a correlation between economic development and the rate of population vaccinated. Europe and North America are among the most highly vaccinated countries in the world and their economies are expected to rebound faster than most other countries. Some countries, on the other hand, are likely to be negatively impacted by the pandemic over several years (OECD, 2021).

Interest rate: In the euro area, prevailing interest rates are low. The cost of a loan for companies is at the minimal level of 1.42%, for households who want to take out a loan for a house it is fixed at the minimal level of 1.31% (European central bank, 2021, para.1). Concerning interest rates on deposits, it is negative for companies (-0.10%) and slightly positive for households (0.25%) (European central bank, 2021, para.2). In the United States, interest rates are also low. One year treasury bills have a rate of 0.08%, the nominal 5-year rate is 0.72% and the 10-year rate is 1.51% (Federal Reserve, 2021, para.1). According to Lian, Ma & Wang (2018), savers are more likely to invest when interest rates are low, and their investments tend to be riskier than when interest rates are high. Moreover, low interest rates lead to an increase in consumption on the part of households with a mortgage (Di Maggio, Kermani, & Ramcharan, 2015).

Other economic indicators: 1) Gross debt: The projection for advanced economies gives a level of 122.5% of GDP in 2021 while for emerging countries the debt is expected to reach 66% of GDP in 2021 (International Monetary Fund (IMF), 2021, para.2). 2) Inflation: Inflation is expected to reach 1.6% in 2021 in advanced economies and 4.9% in emerging economies in 2021 (IMF, 2021, para.2). 3) Unemployment rate: Unemployment is expected to reach 6.2% in developed economies in 2021 (IMF, 2021, para.2).

- **Social level**

Demographics: The world's population is expected to grow to 7.72 billion in 2021, mainly concentrated in emerging economies with 6.64 billion people, compared to 1.08 billion in advanced economies (IMF, 2021, para.2). Moreover, the share of elderly people in this population will continue to grow. There were 703 million people in the world over the age of 65 in 2019, this figure is projected to rise to 1.5 billion people over the age of 65 by 2050 (United Nations, 2019, p.1). The majority of these people will be located in Asia, Europe and

Latin America. To prepare for this demographic shift, it will be vital to invest in promoting gender equality, reducing age discrimination, and investing in education and access to health care for all (UN, 2019).

Inequality: Liberalization and globalization almost always lead to an increase in inequality, both between and within countries. To decrease these inequalities a global coordination is essential (Galbraith, Darity, & Jiaqing, 1998; Bourguignon, 2015). Earnings disparities have been growing in developed countries and in some middle-income countries. Although in some parts of the world inequality is decreasing, the share of wealth going to the richest 1% is on the rise. Two-thirds of the world's population lives in a country where inequality has risen in recent years. Inequality is not only widening in terms of income, but also expanding in terms of access to technology, climate inequality, opportunity, and access to basic commodities (UN, 2020).

- **Technological level**

FinTech: Nowadays, technology is becoming more and more important in the economic world. The banking world has not escaped this with the appearance of online banks, known as FinTech. Starting with retail banking, FinTech's are now increasingly present in investment. These organizations provide access to buying and selling securities but also to receiving investment advice. To do this, FinTech's often make use of big data and artificial intelligence. In addition, they also offer crowdfunding to help companies access capital (Nicoletti, 2017). FinTech's can enable the growth of impact investing because it allows easier access to investment in funds and/or securities.

Challenges: Technological evolution brings many new opportunities and is beneficial in several cases, for example photovoltaics, where costs have dropped by 75% in 10 years, making it easier to access these technologies (UN, 2021, p.72). The technology has also allowed, among other things, great advances in water purification, improved recycling, and the prevention of earthquakes. However, as with any evolution, it also brings its own challenges. According to the UN (2021), the biggest challenges will be: access to these technologies by everyone, inequalities by design (e.g., no access for women or content creation mainly by advanced economies), biases in algorithms, intellectual property (only certain companies or individuals owning most of this ownership) and lack of skilled workers. New technologies are increasing the number of investment opportunities for impact investors, such as photovoltaics and waste treatment and the emergence of certain challenges provides possibilities for impact investing.

- **Environmental level**

Global warming: Global warming is going to be an important issue in the coming years. The most remarkable elements are the increase in temperature (+1.18° Celsius since the end of the 19th century), the warming of the oceans (+ 0.33° Celsius since 1969), the melting of ice and glaciers, the rise in sea level (+ 20 centimeters in 100 years), the acidification of the oceans (+30% acidity since the industrial revolution) and the intensification of extreme natural events (National Aeronautics and Space Administration (NASA), 2021, para.6-14). These effects will have a major impact on the economy and on the way the world operates, especially since it has been proven that this warming is directly caused by human activity (NASA, 2021).

Natural resources: The use of natural resources is also a point of environmental concern. In 2017, 92 million tons of natural resources were extracted, compared to 20 million tons in 1970 (United Nations Environment Program (UNEP), 2019, p.7). The impact of this exploitation is substantial: it contributes to 50% of greenhouse gas emissions, leads to a significant use of water in certain regions and causes a decrease in biodiversity due to land use (UNEP, 2019, p.8). Even if a trend of decoupling between GDP and resource use has been observed for some years, there is still a need to improve the efficient use of these resources as well as a change of mentality at the level of consumption. To achieve this, significant funding will have to be allocated (UNEP, 2019).

- **Legal level**

EU taxonomy: In 2020, the EU has adopted a legislative text with the objective of defining a legal framework on what is or is not a sustainable investment. This text clearly defines the criteria that a financial institution must respect to call an investment, responsible. Another text voted in 2021 also specifies the set of non-financial information that a financial institution will have to share publicly, the objective being to strengthen investor confidence and to develop such type of investments. The Sustainable Finance Disclosure Regulation (SFDR) also aims to increase transparency and avoid greenwashing (European Commission, 2021).

Impact regulation: Despite the establishment of measures and initiatives facilitating impact investing, such as the G8 Social Impact Investing Taskforce, aimed at promoting impact investing worldwide, or the Structural Reform Support Program (SRSP), aimed at facilitating member countries to implement sustainable growth reforms, there is still no specific legislation governing impact investing in Europe (European Parliament, 2020). In the United States, there is little legislation on impact investing as such. However, the Internal Revenue Service (IRS) has encouraged the expansion of impact investing by, firstly, allowing pension funds to invest in impact investing funds if the assets are not considered risky and, secondly, allowing foundations and charities to invest in impact investing funds while retaining their status, thereby allowing them to be tax exempt (Internal Revenue Service, 2021).

- **PESTEL conclusion**

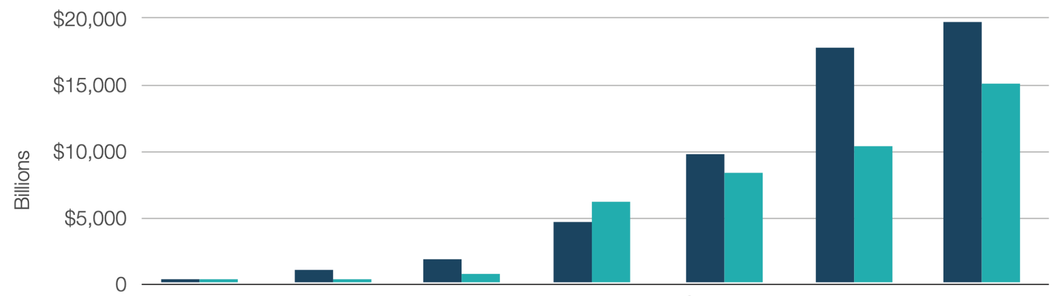
The PESTEL analysis has highlighted the landscape in which impact investing is evolving today. It can be concluded that the current macroeconomic environment favors the growth of impact investing. Firstly, at the political level, political stability, and government initiatives to achieve carbon neutrality provide fertile ground for this class of asset. Secondly, from an economic point of view, the expected recovery from the pandemic and low interest rates could lead to a general increase in investment. Thirdly, the rise in inequality and the aging of the population are likely to make investors more aware of the need to choose socially and/or environmentally focused solutions. Fourthly, technological developments will make it easier to invest and create new projects with responsible targets. Fifthly, the environmental context makes people conscious of investing responsibly. Finally, legal developments can help impact investing grow by creating a legal context that promotes transparency. However, some challenges were identified after this analysis. At the policy and legal level, we note that the evolution of impact investing is linked to policy decisions and the legal framework in place.

Some governments are not taking measures to promote this type of investment and there is little legal framework surrounding impact investing, which could hinder its development. At the social and environmental level, more and more investment will be needed. This need may lead to challenges in selecting the most important projects or in calculating the impact of all future projects. At the technological level, the world is changing rapidly, and this raises the question of whether impact investing will be able to evolve and be flexible to the new environments.

1.6 Sizing the II market

The macroeconomic context explains why impact investing has been growing significantly in recent years. The latest measurement of global and European socially responsible investment was conducted in 2018 by the GSIA and European Sustainable Investment Forum (EUROSIF). At the global level, the report indicates that in 2018, impact investing was estimated to be $444.26 billion invested in assets and at the European level it was estimated to be 108 billion euros invested in assets (Lang & Electris, 2018, p.10; EUROSIF, 2018, p.17). At the Belgian level, 3% of investment funds are categorized as article 9 according to the SFDR categories, which is the category that comes closest to impact investing. This amounts to 5.6 billion euros as of May 2021 (Financial services and markets authority, 2021, para.6).

Table 1: Sustainable investment strategies growth 2016-2018



	Impact/ community investing	Sustainability themed investing	Positive/ best-in-class-screening	Norms-based screening	Corporate engagement and shareholder action	ESG integration	Negative/ exclusionary screening
2018	$444.26	$1,017.66	$1,841.87	$4,679.44	$9,834.59	$17,543.81	$19,770.96
2016	$248.47	$276.16	$818.01	$6,195.40	$8,385.17	$10,353.20	$15,063.57
Growth 2016–18	79%	269%	125%	-24%	17%	69%	31%
CAGR	33.7%	92.0%	50.1%	-13.1%	8.3%	30.2%	14.6%

Note: Asset values are expressed in billions.

Source: Lang, K., & Electris, C. (2018). *2018 global sustainable investment review.* Sydney: GSIA. Retrieved from http://www.gsi-alliance.org/wp-content/uploads/2019/06/GSIR_Review2018F.pdf

From this table, we can observe that the share of impact investing in SRI strategies is minimal. However, if we look at the growth between 2016 and 2018, we can see that impact investing has the 3rd highest growth rate with 79% growth in 2 years, after sustainability themed investing (+269%) and positive/best-in-class-screening (+125%). The same goes for the Compound Annual Growth Rate (CAGR), which reaches 33.7% for impact investing, representing one of the highest CAGRs (Lang & Electris, 2018, p.10).

A more recent report conducted by the GIIN in 2020, based on 1720 impact investors, estimated the global impact investing market to be valued at $715 billion in 2019 (Hand et al., 2020, p.40). This data indicates a significant evolution between 2018 and 2019, accounting for a growth of

61%. While the methodologies for defining the size of the impact investing market are different, all the figures published by GIIN, EUROSIF, and GSIA provide a global estimate of the evolution of this specific investment.

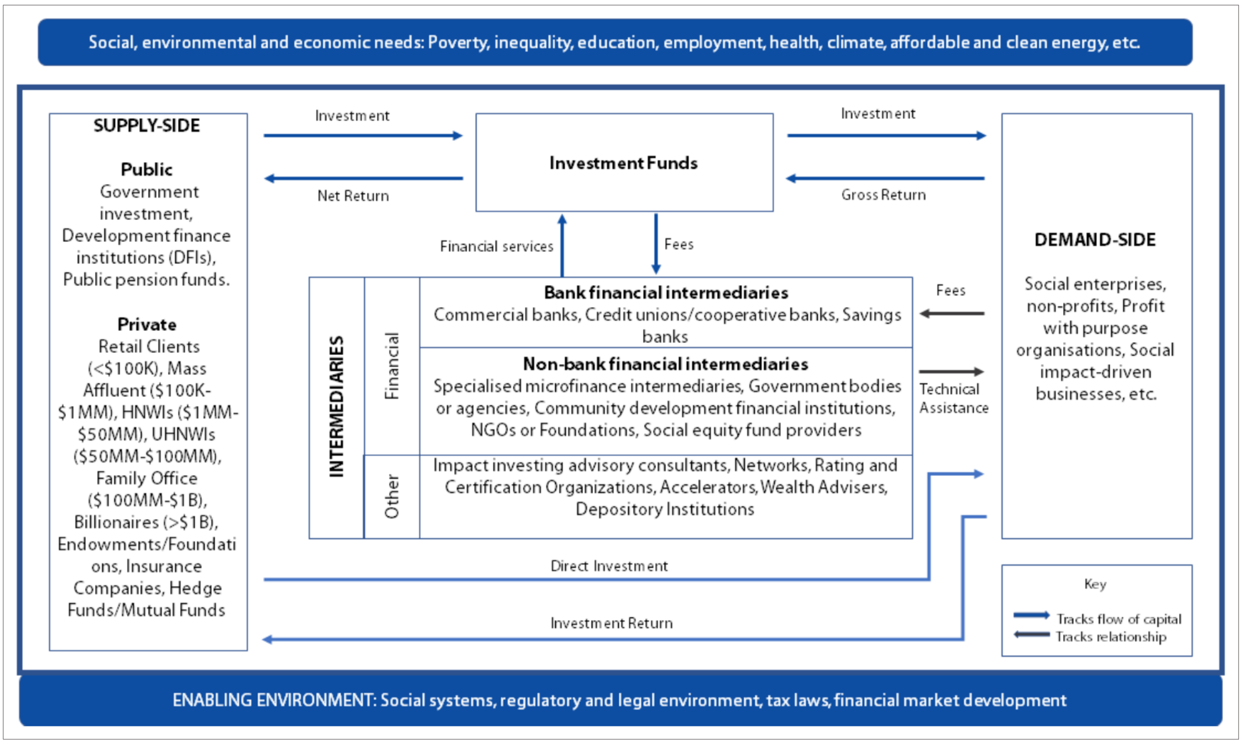
2 Impact investing ecosystem

Following the contextualization of impact investing, this chapter will describe in detail all the stakeholders involved in impact investing. Stakeholders are particularly important in this type of investment as it is necessary to communicate and engage with them to ensure the positive impact that the investment brings. This communication also helps to highlight opportunities for future investments, to leverage stakeholder knowledge, and to potentially increase the positive impact (World Economic Forum, 2017). The importance of stakeholders in listed equities is hardly discussed in the existing literature. The review of these stakeholders, more prevalent in the non-listed market, will enable us to compare them with the results of our research. The first part will be devoted to exploring the different types of investors. Afterwards, the intermediaries will be presented, and their roles will be described. Finally, an analysis will be made of the main people supported by impact investing, the different objectives pursued by the investors will be showed, and the financial instruments used to invest will be introduced.

2.1 Schematic ecosystem

We begin this chapter with a figure to facilitate understanding of all the elements that will be discussed in this section and to better illustrate the relationship between each stakeholder.

Figure 2: Impact investing ecosystem



Source: Mackeviciūtė, R., Martinaitis, Z., Lipparini, F., Scheck, C., & Styczynńska, I. (2020). *Social impact investment: Best practices and recommendations for next generation.* Luxembourg: European Union. Retrieved from https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658185/IPOL_STU(2020)658185_EN.pdf

We have 3 main categories of stakeholders. The supply side, which includes all investors (those who bring in the funding), is divided into 2 categories, public and private. Then the intermediaries, including financial intermediaries like banks and specialized actors, and non-financial intermediaries like consultants and professional networks. Finally, there is the demand side that includes all organizations addressing different social and environmental needs through their activities. It should be noted that players either go through an investment fund requiring intermediaries or invest directly in the organizations.

2.2 Supply side

This section covers the different types of investors, their motivations and the financial instruments deployed.

2.2.1 Impact first investors vs finance first investor

Within impact investing itself, all the players are very different in terms of the strategies they implement, each one having a particular investment profile. One way to present the spectrum of impact investing is to differentiate the primary intention of the investor. 3 profiles of investors can be distinguished: impact first investors, financial first investors, and blended value approach (Rangan, Appleby, & Moon, 2012).

- Impact first investors

Impact first investors can be characterized as investors who are not looking for a financial return on their investment. Their main objective is to have a positive social or environmental impact, while having a return on investment between the repayment of the initial investment and the market rate. These investors will mainly invest in projects that may be riskier or less attractive to mainstream investors due to a below-market return. Among the types of investors focused on impact we find governments that give subsidies or foundations that have no obligation of financial return (Rangan et al., 2012; Lyons & Kickul, 2013; Derwall, Koedijk, & Horst, 2011).

- Financial first investors

Financial first investors are primarily looking for a financial return which must be at least at market level, otherwise they will not invest. Despite being more focused on return than impact first investors, they also pursue a positive societal impact. These individuals tend to invest in sectors that have a proven track record and that provide a financial return. Microfinance, for example, has been present in the investment environment for many years and therefore brings confidence to investors. Financial first investors will never invest in new sectors that have not shown their economic profitability, they will usually invest after the impact first investors have made their entry. These investors are often obliged to achieve a market return because of their structure or legal obligation. Pension funds are the best example of financial first investors as they are legally required to generate a return (Rangan et al., 2012; Lyons & Kickul, 2013; Derwall et al., 2011).

- Blended value approach

When impact first investors and financial first investors get together to invest, it leads to so-called blended value investors. According to Bugg-Levine and Emerson (2011), blended value is the combination of three factors: social, economic, and environmental. Today, many people perceive each of these three factors as separate and difficult to combine but, joining them together can increase the capital available. Blended value is the use of the strengths of each type of investors and therefore creates a more successful investment and a stronger capital structure. In practice, the concept is termed blended finance. The world economic forum and OECD defines it as "the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets" (2015, p.8). This approach makes it possible for Financial First Investors and Impact First Investors to invest together to achieve their respective objectives. This reduces the risk of unprofitable investments and enables private capital to be unlocked to invest in projects with social and/or environmental returns (Rangan et al., 2012).

These investor profiles are not restrictive. An investor could on the one hand invest in a project that is under development and does not guarantee a market-level return, and on the other hand invest in a project with a single objective of high financial return (Rangan et al., 2012).

2.2.2 Types of capital provider

- Development Finance Institutions (DFIs)

DFIs are banks whose primary objective is to finance the private sector. Their management is often state-controlled and the money that finances their funds comes from other countries or from the domestic country. These are large funds, which makes it inaccessible for small investors to invest in them. For example, the DFIs in Europe control over 50 billion euros in developing markets (Yasar, 2021, p.182). Given their size and national scope, investment decisions are complex. Indeed, a cumbersome process is put in place to ensure that the investment will have an impact, as they are obliged to create additionality, i.e., having an impact that would not have happened if they had not been involved. The importance of impact is crucial to DFIs, which explains why they are very advanced in measuring impact, particularly in relation to the SDGs. However, the financial aspect remains essential for these actors as it is needed to continue investing in new projects. They are therefore classified as Financial First Investors (GIIN, 2021).

- Foundations

Foundations are among the main players in impact investing. They are considered impact first investors because their primary goal is to have a positive impact. To achieve their goals, they are willing to take high risks. This risk-taking can take several forms: investment in specific projects, distribution of grants, or helping to launch new funds by guaranteeing any losses. Their autonomy also allows for a great deal of flexibility in the choice of investments, these are very diverse in terms of issue and location. This is why, foundations also play an important role in promoting and developing best practices in impact investing. The most telling example is the Rockefeller Foundation, which helped create the GIIN (one of the largest networks of impact investors) and the first tools to measure the impact of investments. Foundations also connect investors with those who need capital, through their extensive networks, and they provide free training and resources to extend influence (Yasar, 2021; GIIN, 2021; Tekula & Andersen, 2019; Gianoncelli, Gaggiotti, Boiardi, & Picón Martínez, 2019).

- Independent investors

Independent investors are mainly high-net-worth-individuals (HNWI) and family offices (offices that manage the money of wealthy families). The potential capital available to these family offices is estimated at $4 trillion, making them one of the most important players in impact investing (Gianoncelli et al., 2019, p.80). These investors have a wide range of objectives and often rely on the decisions of their wealth managers. It is the wealth managers who propose impact investments and choose the investment opportunities. A portfolio of family office investors includes a wide range of different financial instruments used, including cash, fixed income, private equity, public equity, real estate, and infrastructure. This range of financial instruments allows them to diversify their impact and to achieve their objective of financial return linked to social and environmental concerns (GIIN, 2021; Gianoncelli et al., 2019).

- Institutional investors

Institutional investors include several types of actors: pension funds, insurance companies, sovereign wealth funds, and international banks. In view of their legal obligations to have a minimum return in line with the market, these actors are most often active in SRIs such as screening or ESG factors. They are therefore part of the financial first investors. However, given their available financial mass, these investors could be among the most important players in impact investing. Recent years have seen the rise of these investors in the impact investing ecosystem. This is mainly due to policy measures taken by some countries to allow institutional investors to invest in slightly riskier projects when the objective of these projects is to generate a positive impact (Gianoncelli et al., 2019; Yasar, 2021).

- Non-governmental organizations (NGOs)

NGOs are a less significant actor. These organizations have as their primary goal to contribute to solving social problems at their core. Their first involvement in impact investing was to work with other actors to highlight societal problems and to define with investors where and how to solve them. In recent years, these organizations have increasingly positioned themselves as investors and not just advisors. To this end, they are setting up investment funds to attract more private capital (Gianoncelli et al., 2019; Yasar, 2021).

2.2.3 Intermediaries

- Bank financial intermediaries

These intermediaries link the supply-side and the demand-side. They are essential for the proper management of investment funds. They allow the market to be more liquid, they facilitate payments between the various players, they lower transactions costs, and reduce risk. They also create a relationship of trust, which in the long run can facilitate global investment. They include commercial banks, cooperative banks, and savings banks. Banks offer the possibility to invest in various financial instruments such as private equity funds, green bonds, or funds of funds (Maduro, Pasi, & Misuraca, 2018; Yasar, 2021; World economic forum, 2013).

- Non-bank financial intermediaries

These intermediaries provide the same services as bank financial intermediaries, but they reach out to a population that is not covered by the latter, such as people who are excluded from the financial world or markets where financial services are not well developed. Their objective is not only to develop a financial activity but to provide everyone with a financial access when they need to expand their activities. These include NGOs, DFIs, government agencies, and development institutions (Maduro et al., 2018; Yasar, 2021).

- Networks

Networks play an important role in the development of impact investing. Firstly, they bring together investors and capital seekers, which helps to increase the use of impact investing as an investment strategy. Secondly, they help to improve the practices of the sector, by creating new, more precise, and transparent measurement techniques. They also provide the necessary literary resources for the creation of impact investing funds: for the due diligence process and for the selection of themes in which to invest (taxonomy). Lastly, these groups have important resources for analyzing the market and showing its evolution to raise awareness and expand the importance of this investment practice. Examples of networks are GIIN, EVPA, Toniic, Solifin, ..., which brings together a variety of actors such as service providers, asset managers, and asset owners (World economic forum, 2013; Yasar, 2021).

- Ratings and certifications agencies

The main purpose of these agencies is to check that stakeholders are using a rigorous process to ensure that they are having a positive societal impact. This is driving the evolution of the impact investing market for several reasons. Firstly, it increases the transparency of how impact is measured, and ensures that the pre-screening process is sufficiently developed and relevant. Secondly, these agencies provide a score that assesses the overall performance of the company or fund, improving the comparability of the players and creating a benchmark that makes it easier to select investments. Finally, it contributes to the professionalization of impact investing (World economic forum, 2013; Yasar, 2021).

2.3 Demand-side

- Social enterprises

The European commission defines social enterprises as "an operator in the social economy whose main objective is to have a social impact rather than make a profit for their owners or shareholders. It operates by providing goods and services for the market in an entrepreneurial and innovative fashion and uses its profits primarily to achieve social objectives. It is managed in an open and responsible manner and, in particular, involves employees, consumers and stakeholders affected by its commercial activities" (European commission, 2021, para.2).

These companies can take many different forms such as cooperatives, private companies, associations, humanitarian organizations, charities, foundations, or social impact driven businesses. They mainly invest in 4 areas: work integration (setting up projects to enable everyone to have access to employment), personal social services (a set of services improving living conditions), local development of disadvantaged areas (aiming to develop remote areas to improve their living conditions), and others (environment, recycling, etc.) (European commission, 2021). This business system is a hybrid between for-profit and non-profit companies. The combination of these two worlds enables firms to attract more capital, from crowdfunding to impact investing. The objective of these companies is to initially find the necessary capital to create and develop themselves, and at the end to become financially independent (Roe & Dalton, 2019). These organizations are also characterized by being led by highly motivated people and having a strong focus on internal Corporate Social Responsibility (CSR) (Besley & Ghatak, 2017; Cornelius, Todres, Janjuha-Jivraj, woods, & Wallace, 2008).

- Traditional businesses

With the evolution of impact investing, traditional companies are increasingly present. These are mainly organizations that retain their for-profit status but implement a focus on social and environmental impact in their operations. These companies are mainly present in investment funds in mainstream banks. To be considered an impact company, they must set environmental or social objectives, measure these goals, and report transparently on their progress towards these targets (World Economic Forum, 2013). As traditional businesses represent the vast majority of listed companies, we can expect that this type of business will be the most present in impact investing in listed equities.

2.3.1 Target's beneficiaries

Few data are shared regarding the beneficiaries of impact investing, to understand who the capital is allocated to, we analyze 2 separate industry reports. The first one is the annual impact investor survey, done by the GIIN. It illustrates the year 2019 and gathers information from 294 impact investing actors, managing a total of 404 billion dollars. The second report is the 2020 investing for impact survey from EVPA, analyzing the year 2019, and aggregating data from 112 impact investors. Cross-referencing the data from these two reports provides more accurate and reliable information.

- By sectors

This category is divided into 2 groups. On the one hand, the percentage of total investments made in this sector and on the other hand, the percentage of respondents indicating that they invest in this sector.

Percent of asset under management (AUM): Most financial resources are invested in energy (16%), financial services (12%), forestry (10%), food and agriculture (9%), and microfinance and housing (both with 8%) (Hand et al., 2020, p.33). The remaining sectors include health, sanitation, infrastructure, manufacturing, and education. In the EVPA report, financial services attract the most capital (25%), followed by social services (16%), agriculture (11%), health and education (both 9%), and environment (8%) (Gaggiotti, Gianoncelli, & Piergiovanni, 2020, p.8).

Percent of respondents: The majority of GIIN survey respondents invest in food and agriculture (57%), health (49%), undefined sectors (49%), energy (46%), education (41%) and financial services and housing (39%) (Hand et al., 2020, p.33). EVPA reports that most investors are investing in education (72%), health (56%), social services (46%) and agriculture (45%) (Gaggiotti et al., 2020, p.8).

These figures demonstrate a great diversity in the sectors selected for investments. There is also a strong difference between the amounts invested and the percentage of investors. For example, education represents only 3% of investment in terms of AUM but 41% of investors say they invest in it (Hand et al., 2020, p.33). Similarly, in the EVPA report, education represents 9% of AUM but 72% of investors say they have invested in this sector (Gaggiotti et al., 2020, p.8). This could indicate that some sectors require greater investment to achieve a positive impact, such as energy, compared to education. The sectors selected also depend on the type of investors. It is noticeable that microfinance is more used by investors in emerging countries or that forestry is more of a topic in advanced countries (Hand et al., 2020).

- By stakeholder groups

As this information is not in the first selected GIIN report, we use another GIIN report to answer this point. This report, named “state of impact measurement and management practice “, present information from 274 impact investors.

The types of people most targeted by investors are low- and middle-income earners (81%), followed by women (64%), the unemployed (46%), and children (39%) (Bass, Dithrich, Sunderij, & Nova, 2020, p.21). In the EVPA report, people in poverty are the most targeted (50%), followed by children (48%), the unemployed (41%) and people with disabilities (36%) (Gaggiotti et al., 2020, p.9). It is worth mentioning that some of the investors stated that they did not target any beneficiaries. As with the sectors, the characteristics of the investors impact on the choice of beneficiaries. Investors in emerging countries focus on the poor, women, and children, while in developed countries other categories are more important, such as the unemployed or the elderly (Bass et al., 2020).

- By Sustainable Development Goals (SDGs)

In the GIIN report, the most targeted SDGs are decent work and economic growth (SDG 8), no poverty (SDG 1), good health and well-being (SDG 3), reducing inequality (SDG 10) and affordable and clean energy (SDG 7) (Hand et al., 2020, p.45). On average, an investor targets 8 different SDGs as one project can sometimes impact several SDGs. In the EVPA report, SDG 1 "no poverty" is the most targeted, followed by decent work and economic growth (SDG 8), reduced inequalities (SDG 10), quality education (SDG 4) and good health and well-being (SDG 3) (Gaggiotti et al., 2020, p.10). There is also a difference in targets depending on the investor. In developed countries there is a lot of investment in SDG 11 (Sustainable cities and communities) and SDG 13 (Climate action), while they are less present in emerging countries. SDG 5 (gender equality) and SDG 1 (no poverty) are more present in emerging countries than in advanced economies (Hand et al., 2020).

- By region

This category is divided into 2 groups. On the one hand the percentage of total investments made in this sector and on the other hand the percentage of respondents indicating that they invest in this sector.

Percent of AUM: Based on the responses to the GIIN report, impact investors invest mainly in the United States and Canada (30%), Western, Northern and Southern Europe (15%), Latin America and the Caribbean (12%), and Sub-Saharan Africa (11%). The rest of the investments are dispersed in other parts of the world (Hand et al., 2020, p.30). The EVPA report shows that investments are mainly made in western Europe (59%), in central and eastern Europe (16%), and in Asia (10%) (Gaggiotti et al., 2020, p.11).

Percent of respondents: The most respondents to the GIIN invest in the United States and Canada (47%), followed by sub-Saharan Africa (43%), Latin America and the Caribbean (35%), and South Asia (29%) (Hand et al., 2020, p.30). In the EVPA report, 65% of respondents invest in Western Europe, 33% in Africa, 30% in Asia, followed by Latin America and Eastern Europe with both 19% of respondents (Gaggiotti et al., 2020, p.11).

The differences between the two reports in this point are justified by the fact that the respondents for the GIIN report are mainly from the US and Canada, and the respondents for the EVPA are mainly from Europe. Despite these differences, investors are mainly investing in their own region or in neighboring regions. It is also noticeable that even if investors are attracted to certain regions, the capital invested remains low, as can be seen in the case of Africa. As for future investments, a large proportion of investors expect to invest more in Asia, sub-Saharan Africa, and Latin America. The growth of investments in Europe and North America is expected to be less important (Hand et al., 2020).

2.3.2 Impact investing asset classes

To reach these beneficiaries, investors can choose from a wide range of financial products. This section covers the most used financial products for impact investing and the innovative financial instruments that have emerged in parallel with the evolution of this market. The use of these products depends on the investor's intentions. If he wants some control over the companies, he will favor equity, if he wants to invest in more stable projects with less involvement he will turn to debt, and if he only wants to finance specific projects he can turn to donations. Several variables need to be considered when choosing the most suitable financial instrument for the investor (Spiess-Knafl & Scheck, 2017).

- Equity capital

Equity will be preferred when the investment is long term, and the investor wants to partly control the company. Investors will not be repaid for their investment unless they sell their shares, or the company implements a revenue distribution to shareholders. The main benefit of such an investment is therefore the right to control the activities of the company. If the investor decides to take part in social enterprises, he will have to pay attention to the legislation surrounding this type of company, as some of them cannot distribute profits (Spiess-Knafl & Scheck, 2017).

There are several different mechanisms that can be defined by equity. On the one hand, there is a difference in whether one expects to receive a distribution of profit. Patient capital means that the investor does not specifically expect to receive a distribution of profits and normal capital is the opposite (Spiess-Knafl & Scheck, 2017). On the other hand, investment in equity can be made in private companies (private equity) or in listed companies (public equity).

Private equity: Private equity is the most common financial instrument used by impact investors. According to the GIIN report, 70% of impact investors choose this instrument (Hand et al., 2020, p.36). The type of companies that make use of private equity is very diverse, ranging from start-ups that need investment to get off the ground, to already developed companies. Start-ups often require investment for research and development, investors who decide to invest in them are mainly looking for the potential gain on resale if the technology turns out to be innovative. Control is left to the founders. Established companies often require capital to expand their business or to change their capital structure. Investors who select these companies are more likely to seek partial or total control over the company to influence the decisions taken (Fenn, Liang, & Prowse, 1997). In impact investing, investors are looking for companies with a positive impact or an innovative product, the purchase of shares in the companies will be mainly to help the company expand its impact and to bring in know-how from the investors.

Public equity: With the arrival of traditional investors in the world of impact investing, public equity is starting to grow. The main advantage of public equity is its high liquidity, allowing investors to easily switch investments. In the early days of impact investing, this type of investment was little used because few listed companies measured their social and environmental impact (World Economic Forum, 2013). Today, public equity represents 19% of total AUM, but is only used by 17% of impact investors (Hand et al., 2020, p.36). This is due to the high cost of investing in listed companies. Despite its positive evolution, public equity still has its detractors, as for some it is very difficult to identify whether the impact of the company is positive given the large size of these organizations. Moreover, it seems difficult to influence the decisions of these multinationals, without owning a large number of shares (Hand et al., 2020).

Much of the investment in company equity for an impact investing strategy is made in the form of an investment fund. Funds invest either in private companies like hedge funds or private equity funds, or in listed companies such as mutual funds or specialist funds. Funds often follow a well-defined strategy by investing in a specific region, industry, or theme. Allowing a wide choice for end investors (Maduro, Pasi, & Misuraca, 2018).

- Debt capital

Debt capital is a type of investment that provides a stable and predictable return to investors. Investors usually lend money to companies in exchange for the repayment of the loan and the payment of interest. This type of financial instrument is mainly used by private actors in impact investing (OECD, 2019). According to the GIIN report, private debt accounts for 21% of the AUM of impact investing, making it the most used financial instrument in terms of value. 58% of respondents to the GIIN report said that they used private debt to finance impact projects. As for publicly traded debt, it represents 17% of impact investing's AUM and is used by 15% of investors (Hand et al., 2020, p.36). The following are some examples of debt capital.

Microfinance: Microfinance is about lending small amounts of money mainly to small businesses or people with limited financial resources. The primary goal is to provide financial access to people who do not meet the requirements of traditional banks to receive a loan. Ultimately, the aim is to reduce poverty. According to its proponents, microfinance can increase income, overall consumption, access to healthcare, and access to education. Others question the impact on poverty because the poorest people do not have access to microfinance, as they are seen as too risky to repay loans. However, there is evidence that microfinance has a positive impact on post-disaster recovery and on empowering women. Today, this type of financial instrument has an estimated 200 million clients worldwide and is offered by all types of institutions (traditional banks, NGOs, or microcredit start-ups) (Hermes & Lensink, 2011; Nair, Bijur, Bhattacharjee, & Varma, 2015).

Green bonds: Green bonds are bonds that companies issue to finance projects that will have a positive impact on the environment. These include projects aimed at using renewable energy sources, improving the energy capacity of buildings, or improving the supply chain to reduce the use of raw materials. These obligations have evolved rapidly since 2013. In 2018, this market represented $141.3 billion of bonds (Flammer, 2020, p.3). To qualify as a Green Bond, the money must be dedicated to climate-friendly projects and the company must use a third party to ensure that the information on the positive environmental impact shared by the company is well founded (Flammer, 2020; European Investment Bank, 2019).

Social bonds: Social bonds are bonds intended to finance projects that will have a positive social impact. The institution issuing the bonds will provide support to projects via donations or low-interest loans. To respect the impact investment approach, the return for investors will be around the market return (Maduro et al., 2018).

Guarantees: The guarantee fund aims to make it easier for small and medium-sized enterprises to borrow. To illustrate this, let's take the European guarantee fund launched by the European investment bank (EIB). The fund distributes liquidity to commercial and national banks to make it easier for them to lend to small entrepreneurs. If the entrepreneur repays the loan, then this contributes to economic development and if he fails to repay then the European fund covers any losses (European Investment Bank, 2021).

Social impact bonds: The difference with a classic social bond is that social impact bond is a "pay-for-success" instrument, i.e., investors are only reimbursed if the objective of the financing has been achieved. For example, if the social impact bond aims to reduce poverty in a particular neighborhood and at the end of the project, poverty has not been reduced, then the investors are not repaid. These financial instruments are mainly used by governments or the public sector to solve social problems. This instrument is not really a bond because the investor does not receive a fixed repayment. It is more like a future contract. If the problem is solved, then the investors are reimbursed through the savings made by the government (McHugh, Sinclair, Roy, Huckfield, & Donaldson, 2013; OECD, 2019).

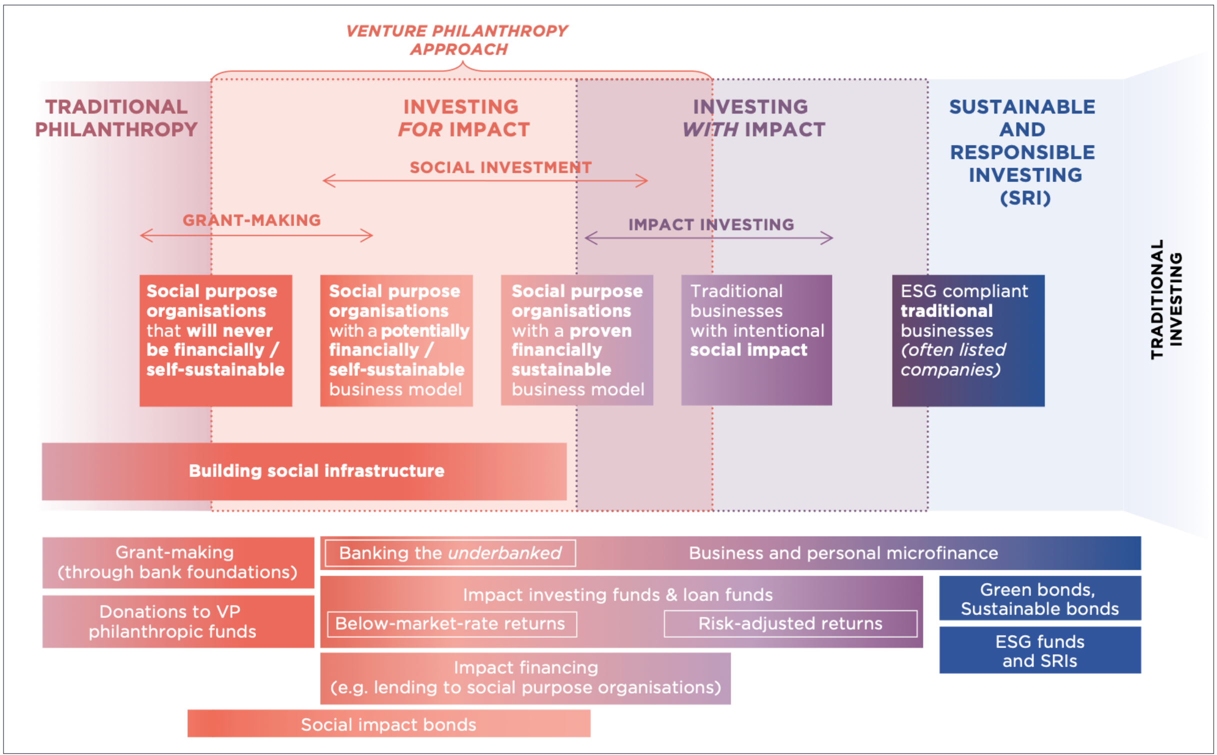
This is a non-exhaustive list, as other types of debt instruments can be created according to needs. Examples include conservation impact bonds, which focus on nature conservation, and the combo bond, which aims to combine capital and interest to increase the impact of an investment by attracting more capital into sustainable finance (Bevacqua, 2019; European combo bond, 2020).

- Real assets

Real assets for impact investing are mainly real estate and infrastructure. This type of financial instrument allows for portfolio diversification, inflation protection, continuous cash flow, and high impact. For real estate, impact investors will focus on the construction or management of buildings that are environmentally friendly or that have a social purpose. In infrastructure, the aim is to build what is essential for the social and economic development of certain populations. An example of this is all the investments made in renewable energies, which have the objective of reducing pollution and supplying populations that did not have access to it before. Another type of real asset concerns land management. This management aims to use the land in a sustainable way such as forest management and sustainable agriculture (World Economic Forum, 2013; Matthews, Leary, Mudaliar, Pineiro, & Dithrich, 2017).

The number of financial instruments used for impact investing can be supported by the differences in financial projects, types of investors, and expected returns. The figure below illustrates the different uses of financial instruments by banks, depending on the type of company financed.

Figure 3: Impact financial instruments spectrum



Source: Gianoncelli, A., Gaggiotti, G., Boiardi, P. and Picón Martínez A. (2019). *15 Years of Impact – Taking Stock and Looking Ahead*. Belgium: EVPA. Retrieved from https://evpa.eu.com/uploads/publications/15_Years_of_Impact-Taking_Stock_and_Looking_ahead_2019.pdf

3 Investment performance and risk

After drawing the contours of impact investing, this section will be devoted to the analysis of the performance and risks of this approach. The existing literature on impact investing in listed equities is sparse, our research therefore focuses on how it is done in non-listed markets. This suggests that some aspects may be quite different for listed equities. This chapter will start by describing the characteristics of this type of investment in terms of financial performance and impact performance, focusing on what needs to be calculated to measure it. Next, the financial risks will be exposed and the risks specific to impact investing will be addressed.

3.1 Performance

When it comes to performance, most traditional investments focus solely on financial returns. With impact investing, the social or environmental impact dimension must be included. The rapid evolution of impact investing has led to numerous questions and studies regarding the feasibility of combining return and impact (Brest & Born, 2013).

3.1.1 Financial performance

Despite the rapid evolution of responsible investment, many people believe that responsible investment means lower returns. According to the Sustainable and Responsible Investment Forum (US SIF) (2018), most investors share this view. However, financial performance data on responsible investment returns shows that there is no financial trade-off. Sustainable funds can generate the same return as traditional funds and, in addition, responsible funds can reduce market risks (Morgan Stanley, 2019). The financial performance of sustainable funds even outperformed traditional funds during the crisis of covid-19 and once again showed its stability against risks. US equity funds had a median return of 4.3% higher and a median deviation of 3.9% lower than traditional funds. This is also true for debt funds, which outperformed traditional funds by 0.9% and had a median deviation lower by 0.4% (Morgan Stanley, 2021, para.2).

The comparison of impact investing funds with traditional venture capital funds still shows a lower return for the former. Impact investing funds generate on average a 4.7% lower IRR than traditional funds (Barber, Morse, & Yasuda, 2019, p.33). This is of limited importance to impact investors, as on average they are willing to reduce their IRR by 2.5% to 3.7% compared to other investments. In return, the investment must have a positive impact on society (Barber, Morse, & Yasuda, 2019, p.33). At the impact investing level, financial performance varies greatly depending on certain variables such as: the financial instruments used (equity, debt, or hybrid), the motivations of the investors (impact-first or financial first), the investors' relationship to risk, or the size of the investments (Ormiston, Charlton, Donald, & Seymour, 2015).

The choice of financial instrument directly influences the expected financial performance of an investment. On the one hand, there are donations that give no return. On the other hand, the most used instruments (private equity, public equity, and fixed income) tend to offer a market-level return. The projects and the type of investor explain the choice of instrument and the expected return. According to the GIIN report, 67% of investors are looking for risk-adjusted market rate returns, 18% are looking for a return below market rate but not far from it, and 15%

are looking for a return below market rate that is close to capital preservation (Hand et al., 2020, p.58). These targets are often based on the investor. 100% of pension funds and insurance companies target a market rate because it is their legal obligation (Hand et al., 2020, p.58). Then, most asset managers for profit and DFIs, target the market rate of return. Lastly, most family offices, foundations, and asset managers not for profit target a lower return than the market (Hand et al., 2020).

The figure below illustrates the spectrum of risk and return according to the asset classes used. It can be noted that most of the instruments used in listed equities target a return equal or superior to the market and seek a moderate risk. This information can provide a starting point for understanding how listed equities work in impact investing.

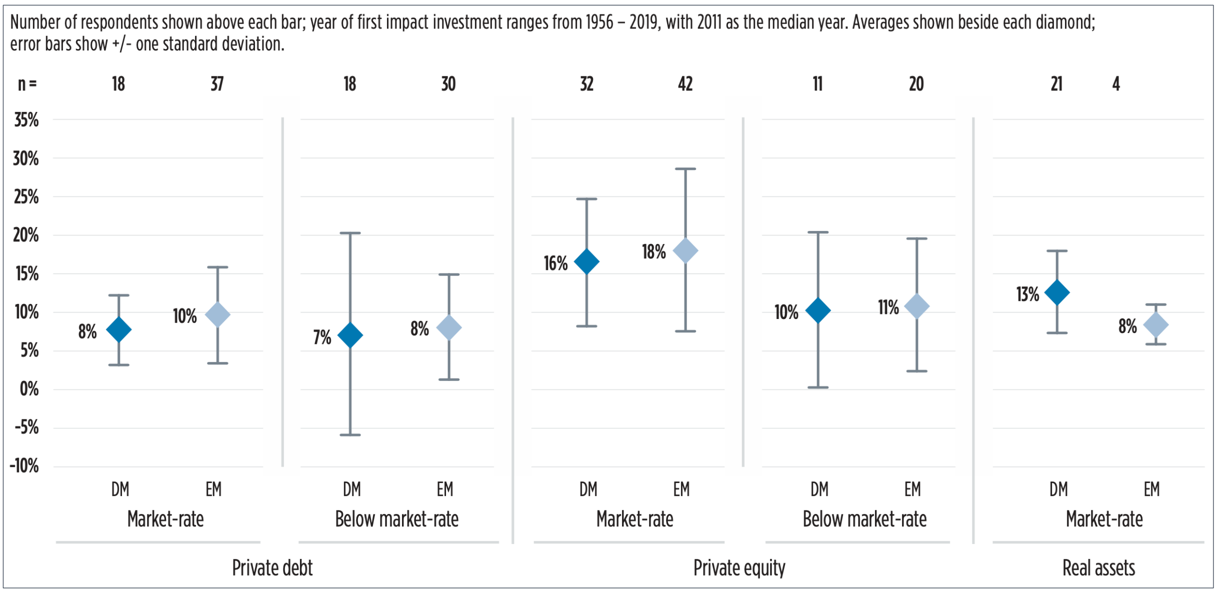
Figure 4: Impact investing asset class/return rate spectrum

	Debt/Credit Based Impact Solutions	Equity Based Impact Solutions	Alternative or Opportunistic Impact Solutions
Above	*Green Bonds*	*Resource Efficiency Equities* *Thematic Sector Equity Fund*	*Alternative Energy* *Small & Medium Enterprises (SME) Financing* *Impact Venture/Growth Equity*
Market	*Sustinable (ESG) Corporate Bonds* *Sustainable (ESG) Municipal Debt*	*Diversified Global/U.S. Sustainable Equity (ESG)*	*Sustainable Private Equity* *Sustainable Real Assets*
Below	*Community Loan/Development Funds*	*Negatively/Socially Screened Equities*	*Social Impact Partnerships Microfinance*
	Lower Risk ⟷		⟷ Higher Risk

Source: Snider, A. (2018). *Impact Investing: The Performance Realities.* United-States: Bank of America Corporation. Retrieved from https://www.inherentgroup.com/wp-content/uploads/2018/11/ml_Impact-Investing-the-Performance-Realities-Whitepaper.pdf

Existing data on the performance of impact investing financial instruments can support further analysis for three of them: private equity, private debt, and real assets.

Table 2: Average realized gross returns



Source: Hand, D., Dithrich, H., Sunderji, S. & Nova, N. (2020). *Annual impact investor survey 2020.* New York: GIIN. Retrieved from https://thegiin.org/assets/GIIN%20Annual%20Impact%20Investor%20Survey%202020.pdf

Private debt: According to the GIIN report, the analysis of private debt yields shows significant variation depending on certain factors. First, regarding the type of investors. We see that investors seeking a market rate of return have on average a higher return and lower volatility than investors seeking a lower return than the market. Secondly, depending on the type of market. Investments via debt, yield on average, more in emerging countries than in economically advanced countries (Hand et al., 2020).

Private equity: Private equity is the highest yielding financial instrument. Investors targeting the market rate tend to have a higher return than those targeting a lower return than the market rate. Investments in emerging countries also tend to outperform those in advanced economies. Financial performance varies enormously, for example in emerging markets the top 10% of funds have an average return of 29% while the bottom 10% achieve a return of less than 6% (Hand, Sunderji, Nova, & De, 2021, p.24). In addition, smaller funds tend to have higher returns. Funds under $100 million generate an average return of 8.60%, while funds over $100 million generate an average return of 6.03% (Hand et al., 2021, p.24).

Real assets: In contrast to the other two financial instruments, real assets generate a higher return in economically advanced countries than in emerging countries. In addition, this type of investment ensures lower volatility and therefore allows for portfolio diversification. There is however a strong variation within real assets depending on the type of asset: infrastructure, timber, or real estate. The role of the asset manager is therefore critical in these types of investments because the diversity of investment opportunities requires expertise and a good selection of the right assets to achieve a return (Hand et al., 2021).

3.1.2 Impact performance

Impact investing must also create social or environmental value. Even though the measurement of impact is central, there is currently little literature on its terms and concepts. Guidance input comes mainly from institutions, networks, or foundations (Reeder & Colantonio, 2013; O'Flynn & Barnett, 2017).

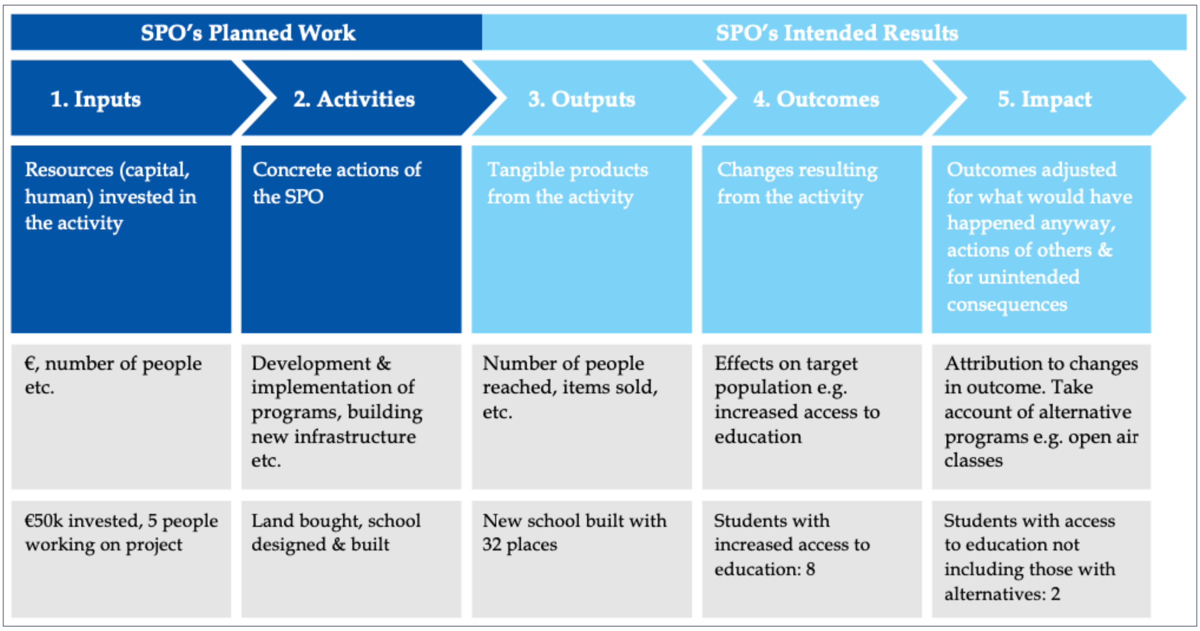
To measure the impact of an investment, it is first necessary to understand what is meant by impact. According to Vanclay (2003), impact is seen as anything that changes for the better: the way people live, cultures, communities, political systems, the environment, health and well-being, personal and property rights, and their fears and aspirations.

The assessment of the impact has changed significantly in recent years. Initially, the measurements were mainly done prior to the investment to know the social or environmental impact that will result from the investment. Once this analysis was done, little additional research was carried. However, recently, investors have begun to want to precisely analyze the impact they have had. To do this, the assessment now uses specific indicators. These indicators, which are usually proposed before the investment is made, make it possible to verify the positive or negative outcome that the investment has had on the ground. However, unintended outcomes are still difficult to measure (Reeder & Colantonio, 2013).

- Impact value chain

This development has led to the emergence of the impact value chain, which outlines the impact assessment process. This consists of two phases, the first covers all the activities that are done before the investment (pre-investment), and the second groups together what is controlled after the investment (post-investment) (Reeder & Colantonio, 2013). The first part consists of the input and the activities that companies put in place to ensure that there will be an impact. The second part is divided into three components: output, outcome, and impact. These three elements are the results of the investment. The output is the material impact of the investment (number of people affected, ...). The outcome is not quantifiable but represents the influence that the investment had in the long run. The impact describes the difference between what happened and what would have happened without the investment (Hehenberger, Harling, & Scholten, 2015).

Figure 5: Social purpose organization (SPO) impact value chain



Source: Hehenberger, L. Harling, A-M., & Scholten, P. (2015). *A practical guide to measuring and managing impact.* Brussels: EVPA. Retrieved from https://evpa.eu.com/uploads/publications/IM-Guide-English.pdf

Pre-investment: There are several steps to consider before investing. The first thing to do is to choose the objectives that the investor or company wants to achieve with its investments. It is necessary to define which social or environmental objective the company wants to focus on, what resources will be invested in the project, and through which activities the problem will be solved. There are often two types of investors, on the one hand those who only invest in companies with a specific outcome, and on the other hand, those who invest in companies that have a more general positive environmental or social contribution, without being focused on solving a specific problem. The second step consists of the evaluation of all stakeholders in the company or project, also called due diligence. It analyses the resources that will be made available, the employees, the benefits of the project, and analyses the potential outputs that will occur after the investment. This step enables us to see whether the company will manage to create a positive societal impact. It also helps to select the priority, or most relevant investment, when there are several investment choices (Reeder & Colantonio, 2013; Hehenberger et al., 2015).

Post-investment: After investing, it is important to ensure that there is evidence of the impact of the investment. Firstly, the output, outcome, and impact should be calculated, choosing indicators that are linked to the objectives set before the investment. This step is important to validate the necessity of the company's action. After having access to all the information, it is necessary to verify and validate it. To do this, the company will use a set of qualitative and quantitative methods, which will eventually allow the impact of the project to be compared with other similar projects. If the impact is greater than other projects, this strengthens the company in its actions. On the contrary, if the project creates less positive impact, then it will be necessary to analyze whether the financial and material means would not be more useful for other projects. The last step is to publish and report the results obtained by the company (Hehenberger et al., 2015).

In practice, for several reasons, proving the causal link between investment and impact is still complicated. These reasons include: the difficulty of assessing what would have happened without the investment, the difficulty of calculating some specific impacts, the difficulty of separating the impact from the investment in a context of global change, the difficulty of analyzing the impact over time, the fact that solving a problem in one place may result in moving it to another place, and the difficulty of defining impact in the presence of different opinions. Despite these difficulties, three approaches can be taken to calculate impact: statistical reasoning, logical chains of argument, and anecdotes. From the perspective of impact investing, these approaches are referred to as quantitative analysis, theory of change, and qualitative analysis (Reeder & Colantonio, 2013).

- Impact assessment tools

The evolution of impact investing has led to the creation of several tools to try to measure and standardize impact. Some of the best known are indicator sharing platforms (IRIS and Global value exchange), reporting standards (Social reporting standards, Global Reporting Initiative), specific tools (Sinzer, Pulse, Cerise, ...). To measure impact, we can use customer surveys, monetary approaches (Social Return On Investment (SROI), cost effectiveness analysis, cost benefit analysis, or social accounting), scorecards or indicators (GIRAFE, social ratings, ESG ratings), qualitative tools (qualitative impact protocol, success measures), or statistical tools (randomized control trials) (Hehenberger et al., 2015; O'Flynn & Barnett, 2017; Viviani & Maurel, 2019).

- What to measure?

As the GIIN report on the evolution of impact measures shows, outputs and outcomes remain the most commonly used measures, with 91% and 78% of impact investors tracking these data (Bass et al., 2020, p.41). However, some actors also decide to measure other axes of impact. These include breadth of impact (analysis of the type of person impacted), additionality (the fact that the investment had an impact that would not have occurred without its intervention), depth of impact (analysis of the importance of the impact to the people involved), attribution of the impact to the company/project, and longevity of the impact of the investment (Bass et al., 2020).

- Impact measurement reasons

The reasons for measuring impact are multiple as the GIIN annual survey tells us. For 86% of respondents, metrics are important to analyze whether they are making positive progress toward their goals, 77% consider metrics essential for communicating to stakeholders, 72% think metrics are very important for improving their impact performance, and 57% find it important to use data to analyze the value of a business (Bass et al., 2020, p.13). Other reasons include: to communicate and raise funds for investment, to inform customers who want it, and to comply with government regulations (Bass et al., 2020).

3.2 Risks

Like any other investment, impact investing is subject to risk. Risk can be seen as an undesired eventuality, which may occur either because of the uncertainty of the future or because of a set of choices made. It is important to identify them in order to be prepared. The first notion of risk can be analyzed in the trade-off between return and risk. The classical notion invokes that the more risk the investor takes, the higher the potential gain (Van Wynendaele, 2020). This reality for impact investing tends to differ as some investments are risky and aim to only achieve a market return. Impact investing faces the same risks as traditional investments, whether at the level of a fund with systematic and non-systematic risks, or at a more global level with, liquidity risks, market risks (spread risk, price risk, etc.), or credit risks. As a specific investment, impact investing also faces other financial and non-financial risks. Individual dimensions of the investors and type of financial instruments also varies the risks faced (Barby & Gan, 2014).

3.2.1 Financial risks

Financial risk refers to anything that could adversely affect the financial performance of an investment. Based on the Bridges Ventures and Bank of America Merrill Lynch report, and the ImpactAssets report, we have identified a list of the most significant financial risks for impact investing.

Capital risk: Capital risk refers to the possibility of not recovering at least the investors' initial investment. Although there are different approaches to impact investing and different expectations of return, the basis of this investment is to at least generate a return corresponding to the capital preservation. With sometimes risky projects, capital risk is one of the major factors to consider before investing (Barby & Gan, 2014).

Exit Risk/Liquidity risk: Exit risk or liquidity risk arises mainly from the way in which the investment in impact investing is made. As described above, a large proportion of impact investing investments are made via private equity. Yet it is very difficult to sell shares of impact companies. This is due to the relative newness of this type of investment and therefore the lack of potential buyers. If there are few buyers, this leads to a lack of liquidity and can reduce the value of the sale of shares. This risk may hinder the development of private equity into impact investing by some investors (mainly the larger ones) and favor the use of debt instruments (Milligan & Schöning, 2011).

Transaction cost risk: Transaction costs are important to consider when investing. In the case of impact investing, these costs can be very significant, especially when put in relation to the size of the investment and the potential return. If these costs are too high, investors will be less likely to invest (Barby & Gan, 2014).

Manager risk: In view of the recent evolution of impact investing, another risk to be considered is related to the qualifications of some fund managers. Lack of training or knowledge of this type of investment can lead to poor decision making, that will ultimately have a financial impact if the projects chosen are not profitable (Emerson, 2011).

3.2.2 Impact risks

The non-financial risks are numerous for impact investing and stem directly from the particularities of this type of investment, which is to create a positive environmental and/or social impact. The risks are mainly related to the potential obstruction to the generation of the expected outcomes (Barby & Gan, 2014; Emerson, 2011; Reeder, Colantonio, Loder, & Jones, 2015). To categorize these risks, we have selected the list drawn up by the Impact Management Project (IMP) (an organization of 2000 practitioners), as it is the most comprehensive and widely used among impact investors.

Evidence risk: This is the risk of not being able to collect enough good data to establish whether the investment has had a positive impact (IMP, n.d.).

External risk: In some cases, external factors may negatively impact on the delivery of the outcomes. It is therefore necessary to analyze the environment in which the project evolves to limit these risks (IMP, n.d.).

Stakeholder participation risk: One of the particularities of impact investing is that to achieve a positive impact you need to work with all the stakeholders on the field. Stakeholders are often more experienced and knowledgeable than investors, so there is a risk in not using their input. The outcome may be jeopardized if the perspectives of all parties involved are not considered (IMP, n.d.).

Drop-off risk: As impact investing is often subject to innovative and risky projects, it can sometimes have a limited impact over time. This refers to drop-off risk, which can be defined as the risk that, due to a change of environment, the targeted outcome no longer meets the demands of the field (IMP, n.d.).

Efficiency risk: In some cases, as the project responds to new needs, it is difficult to calculate and forecast the cost of the investment to solve the problem. There is consequently a risk of spending too much financial resources in proportion to the real needs. This brings a risk of inefficiency because if the money is not well managed, it may diminish the resources available for future projects (IMP, n.d.).

Execution risk: According to Hand et al. (2020), execution risk is the most encountered by impact investors. In some cases, even if the desired outcome is well understood, it is sometimes difficult to find the best way to solve it. There is therefore a risk of using the wrong approach, which will result in little, or no impact being achieved (IMP, n.d.).

4 Current challenges of Impact investing

The rapid evolution of impact investing has led to a still disparate industry. The importance of this type of investment in the financial world has also led to a growing interest, that today brings several challenges. This chapter selects the biggest challenges facing impact investing today.

4.1 Lack of theoretical unity and common concepts

One of the obstacles to the growth of impact investing is the lack of concepts and knowledge shared by all stakeholders. The relative youth of this investment leads to a continuous evolution of knowledge, which hinders the building of understanding and awareness of impact investing. This is mainly due to the general lack of scientific studies on the subject (Agrawal & Hockerts, 2019). Furthermore, it prevents the emergence of tools that would facilitate decision making. Yet the largest investors (pension funds, insurance companies, etc.) need this base to start investing (Brandstetter & Lehner, 2015).

This lack of understanding also allows the creation of false ideals of impact investing. For example, some investors believe that it is an investment only for certain asset classes, or that only certain people can enter this market. This lack of understanding leads many people to prefer to invest as they did before and not to learn about impact investing (Carnegie, 2019).

4.2 Limited sophistication of impact measurement

The lack of a shared approach among impact investors has led to an over-diversification of ways to measure impact. Despite frameworks that are beginning to gain momentum such as IRIS (standardized metrics), industry standardization still has a long way to go (Ormiston et al., 2015). It is partly due to the difficulty of measuring impact as it varies constantly with investment and that it is sometimes difficult to establish clear links to prove that the positive impact is linked to the investment or action of the company (Scheck & Spiess-Knafl, 2020).

These difficulties in establishing impact lead to other challenges such as the poor quality of the data collected and the lack of transparency on the part of investors and companies about the methods of data collection. At another level, the lack of standardized measures does not allow for impact to be measured at the level of investment funds today, given that all investments are different (Scheck & Spiess-Knafl, 2020).

To address these issues, it will be necessary to develop rating tools to allow for a better understanding of the impact of investment funds (Bouri, Mudaliar, Schiff, Bass & Dithrich, 2018).

4.3 Illiquidity of the market

Market liquidity remains a major constraint for some investors. The current market structure offers mostly small investments (between €200,000 and €5 million) and private equity investments, which are more difficult to sell. This illiquidity hinders mainstream investors' investments and leads to a complicated exit process (Scheck & Spiess-Knafl, 2020). According to the GIIN annual survey, liquidity is the third biggest challenge, with 84% of respondents saying that it is important to pay attention to it for the future of the market (Hand et al., 2020, p.9).

4.4 Lack of professional expertise

To develop impact investing, the knowledge of professionals needs to improve. According to Ormiston et al. (2015), the knowledge needed to manage the impact investing process from start to finish is not the same as what financial professionals have today. The particularity of impact investing is that it requires not only financial knowledge but also social and environmental knowledge, as well as discussion with a large number of stakeholders. Many investors (institutions, banks, etc.) already communicate with stakeholders. The real need is to change the subject matter of these discussions from financial to environmental and social issues. Companies and financial institutions need to invest in training and recruitment of specialized people to share knowledge within them. Intermediaries also need to become more professional in order to be able to respond to their clients' demands. Expertise is also essential to ensure that the values of impact investing do not change (Ormiston et al., 2015; Bouri et al., 2018).

4.5 Appropriate capital across risk/return spectrum

The GIIN annual survey highlights that the primary concern of impact investors is the lack of financial products across the full spectrum (Hand et al., 2020). There is a need to provide financial products for all investors, from retail to institutional. As each investor has a different risk/return profile, there is a need to create financial products that suit them (Bouri et al., 2018). The biggest room for improvement is at the level of institutional players and mainstream banks, which are not very present today. The number of structured funds is still low in this type of investment and therefore provides an important growth opportunity (Ormiston et al., 2015).

4.6 Impact washing

Impact washing will be the most important challenge of the next 5 years, 66% of respondents to the GIIN annual survey think so (Hand et al., 2020, p.10). With the importance that impact investing has gained in recent years, more and more people are looking to ride the wave. The problem is the re-labelling of some financial products to make clients believe they are impact investing products. Some funds claiming to be impact oriented have no strategy and do not seek to ensure their impact by measuring it. The challenge is to put in place controls and regulations to ensure the authenticity of impact products (Scheck & Spiess-Knafl, 2020).

Part 2: Exploring how to develop the use of listed equities within impact investing

1 Methodology

This thesis is based on an analysis of the current impact investing environment. This type of investment has been growing rapidly, reaching $715 billion in assets under management in 2019 (Hand et al., 2020, p.40). Yet, in 2020, just 17% of impact investors decided to use listed equities as a vehicle for impact investing (Hand et al., 2020, p.36). The objective of this paper is therefore to provide recommendations to facilitate the development of the use of listed equities in impact investing.

To address this challenge, we have designed the structure of the thesis in line with the theory of change. Two main reasons justify this approach. Firstly, this theory is regularly used in the process of creating impact investing funds and has shown its effectiveness in assessing the impact of investments in several other research studies (Brest, 2010; Verrinder, Zwane, Nixon, & Vaca, 2018; Jackson, 2013). Secondly, the theory of change is increasingly used in research aimed at defining reforms, strategies, or solutions to problems (Connell & Kubisch, 1998; Fullan, 2007; Randles, 2013; Feger & Mermet, 2020). The link between our thesis and this theory is therefore direct in view of the general theme of impact investing and the attempt to formulate guidelines of development for this field. The construction of the thesis has been chosen based on the theory of change proposed by the New Philanthropy Capital (Noble, 2019) and by the GIIN. This process can be found in the figure below, being built from right to left.

Table 3: Theory of change process

Activities	Mechanisms	Outcomes	Impact
Collection of existing data on the impact investing industry Collection of existing data on 6 asset managers 3 semi-structured interviews 3-month of participant observation Writing of a Master thesis	People need to read, understand, and feel concerned about my advice to make a change Different experts need to be involved My activities and advice need to inspire and motivate investors to act	**Increased knowledge of**: -Impact investing practices -Challenges face by the sector and ways of improvement **Changes in attitudes**: -Grow confidence of investors **Change in behaviors:** -Implementation of new impact processes -Change in asset management firm's culture	Increase likelihood of investors to use impact investing to address environmental and social issues

1.1 Collection of existing data

The collection of existing data was selected as the first method of analysis to understand how impact investing in listed equities works and to understand the challenges they face. This method was already used in other researches, demonstrating its effectiveness in identifying challenges and trends in impact investing (O'Flynn & Barnett, 2017; Acevedo & Wu, 2018). To evaluate the content of the documents, an analysis grid, composed of all the information needed, was drawn up (See Appendix 1: Document's analysis grid). This grid was designed in relation to the topics addressed in the literature review. The tool was tested on several documents, which allowed the search to be more precise.

This data collection is composed of internal and external documents mainly in the form of reports dealing with impact investing in listed equities from 6 asset management firms. The research started with investment funds to ultimately identify the assets management firms of these funds. To identify these actors, different criteria were chosen from the Morningstar database, which includes a large part of the investment funds in the world.

The first selection was made based on the keyword "Impact", which had to be present in the fund title. The word "impact" was selected as we only intended to study companies that have impact investing in their DNA. The second criterion was based on asset allocation. The selected funds had to be composed of at least 90% equities as the focus of the research is on listed equities. The third criterion applied is the length of existence of the fund. Only funds that have been in existence for more than two years were selected, to analyze firms that already had an expertise in impact investing. Finally, the last criterion was the location of the banks and asset management firms. Only firms based in Belgium, France, and the Netherlands were selected, as they are in markets with similar maturities and face similar regulations. After applying these filters, a list of funds was presented to us. As strategic decisions are not only made at the fund level but also at the bank or asset manager level, we decided to analyze the banks and asset management firms that distributes the funds selected by our criteria. The analysis of impact investing strategies was therefore done at the bank level and not at the fund level. The table below lists the selected companies and the type of documents analyzed.

Table 4: Selected companies for collection of existing data research

Company name	Country	Fund Name	Type of document
BNP Paribas Asset Management	France	BNP Paribas Funds Climate Impact	- Annual report 2020, Sustainability report 2019 (Input: Company strategy and impact) - BNP Paribas AM website (Input: Motivation and opinion on impact investing) - Global sustainability strategy report, ESG integration guidelines, Stewardship policy report, PRI transparency report, SFDR report, voting report year 2020, fund impact report, ESG scoring framework (Input: Impact investing strategy) **Total: 10 reports + website**

KBC Asset Management NV	Belgium	KBC Eco Fund - Impact Investing	- Annual report 2019, 2020 (Input: Company strategy), Sustainability report 2019, 2020 (Input: Motivation and company strategy), Report to society 2019, 2020 (Input: Impact and Challenges of the company) - KBC website (Input: methodology of impact investing) **Total: 6 reports + website**
Triodos Investment Management B.V.	Netherlands	Triodos Global Equities Impact Fund + Triodos Pioneer Impact Fund	- Impact reports 2020 (Input: Strategy, impact, performance) - Company Website (White papers, reports, interview...) (Input: Impact strategy, methodology, motivations, challenges) **Total: 6 reports + website**
Robeco Asset Management	Netherlands	RobecoSAM Global Gender Equality Impact Equities	- Sustainability report 2020, Stewardship report 2020 ((Input: Strategy, impact, performance) - Company Website (Insights, interview) (Input: Impact strategy, methodology, motivations, challenges) **Total: 2 reports + 5 documents**
NN Investment Partners	Netherlands	NN (L) Global Equity Impact Opportunities	- Responsible investing report 2020, SFDR report, impact equity report 2020 (Input: Strategy, impact, performance) - Company Website (Insights, Podcast, videos, Interview) (Input: Impact strategy, methodology, motivations, challenges) **Total: 3 reports + 10 documents**
La financière de l'échiquier (LFDE)	France	Echiquier Positive Impact Europe	- SFDR report, Climate strategy report, Engagement report, Impact report, SRI report (Input: Strategy, impact, performance) - Company website (Insights, interview) (Input: Impact strategy, methodology, motivations, challenges) **Total: 5 reports + 3 documents**

In addition to these documents, we attended 4 conferences, during which some questions were asked. Some of the documents shared in these conferences were also used for our analysis.

Table 5: Conferences attended

Subject	Speakers
Impact and return go hand in hand	Huub van der Riet, Marina Lodice, Ivo Luiten (NNIP-impact portfolio managers), Tom Greenwood (Helios), Adriaan van Tets (Alfen)
Impact investing in listed equities	Global Impact investing network (GIIN) members
Spatial finance	Prof. Dr. Ben Caldecott - Director of Oxford sustainable finance program

How transparency on value creation can support responsible investing	Prof. Dr. Nancy Kamp-Roelands – University of Groningen

The overall purpose of this research was to highlight the challenges and difficulties faced by banks and asset managers, with a view to proposing solutions and improvements. To do so, we wanted first to study the differences in motivation for investing in impact investing and the differences in the definitions used by the companies. Secondly, we wanted to observe the different stakeholders used by firms to implement their impact investing strategy (data providers, etc.). After that, we aimed to identify the investment criteria for pre-investment and post-investment. We sought to understand how banks and asset managers select companies to invest in, how they ensure the reliability of their analysis, and how they report the impact of their investments. Finally, we were looking at the difficulties that the firms encountered.

After reviewing all the documents linked to our selection of 6 actors using listed equities to invest with impact, the data collected were classified using the Gioia methodology (Gioia, Corley, & Hamilton, 2012). This method serves to classify and concentrate the information to bring out the main dimensions. We started by categorizing the data, grouping them into several sections. After that, we examined their differences and similarities to limit the number of sections. This led us to identify the key challenges. The third and final step consisted of a second level of data aggregation, this enabled us to determine the key components for developing and improving the use of listed equities as impact products (See Appendix 3: Data collection quotes) (Gioia et al., 2012).

1.2 Qualitative interview

The second data collection tool used is the qualitative interview. This choice is motivated by the need to collect nuanced and detailed information. As the aim is to understand how to improve and develop impact investing in listed equities, the input of people with different backgrounds and working environments is essential. Several other studies using qualitative interviews confirm the relevance of this method for impact investing (Roundy, Holzhauer, & Dai, 2017; Reeder et al., 2015; Ormiston et al., 2015; Bengo, Borrello, & Chiodo, 2021).

To collect these data, we decided to conduct semi-structured interviews based on an interview guide created by ourselves (See Appendix 2: Interview guide). The interview guide was tested on 3 people from the banking sector. The structure of the interview guide corresponds to the one used in our literature review. 4 themes are addressed: contextualization of impact investing, the impact investing ecosystem, investment performance, and challenges and opportunities.

The selection of interviewees used the same criteria as those applied to the selection of funds in the existing data collection. The interviewee must have been working in impact investing for at least 2 years, must be active in listed equities investing internationally, and must be based in Belgium, France, or the Netherlands. The interviewee can come from a bank or financial institution not selected in the existing data collection tool. 3 interviews of 20 to 35 minutes were conducted between June and August 2021. Below, you can find a table of the interviewees.

Table 6: List of interviewees

Company name	Interviewee	Position
KBC Asset Management NV	Kenneth De Bruycker	SRI coordinator
Triodos Investment Management	Dirk Hoozemans	Triodos Pioneer impact fund manager
KBC Asset Management NV	Carolien Bodewes	SRI coordinator

Like the analysis of existing data collection, the purpose of the interviews was to enable us to propose possible solutions and improvements. First, we wanted to study differences in motivation and definitions. Secondly, we wanted to observe the different stakeholders used by the firms. After that, we aimed to identify the investment criteria for pre-investment and post-investment. Finally, we wanted to observe the difficulties encountered by the firms. The only difference with the first analysis tool is that we were also looking for insights on opportunities for impact investing. The final information sought in the interviews was the respondents' views on their personal vision of how to develop impact investing.

After the interviews, the Gioia method was used to analyze the data (Gioia et al., 2012). As explained in more detail in the description of the existing data collection tool, the Gioia method was used to categorize the information in groups, and then aggregate it into ideas for improving and developing impact investing in listed equities (See appendix 3: Data collection quotes).

1.3 Participant observation

The third data collection instrument used is participant observation. This tool was chosen to complement the existing data collection and the qualitative interview. We used this technique as it enabled us to provide a different perspective from most impact investing studies. It gives us an inside view of how impact investing in listed equities works, and therefore enables us to understand the imperatives to which players are subject. This knowledge ensures that our managerial contribution is more relevant and more in line with the needs of the field. This method is also in line with the theory of change that we used for the construction of this thesis, as it offers a participatory analysis and not only a theoretical one. This method of analysis has already been used in other studies, proving its benefit in the understanding of complex situations (Feger & Mermet, 2020).

The observation took place during an internship at KBC asset management, over a period of 3 months between February and April 2021. To collect the data, a work diary was established throughout the observation period, to highlight the most important information. The behaviors observed mainly concern the daily management of impact investing in a mainstream bank, the pre-investment analysis, the post-investment management, and the management of the challenges encountered.

2 Findings

Given the recent emergence of impact investing in listed equities, we decided to collect our information using a variety of data collection methods, the aim being to gain insights from as many channels as possible. The main goal of this research was to propose ways to develop impact investing in listed equities. To do so, we determine the processes used in impact investing and the challenges to the development of this type of investment.

The first part of this chapter focuses on the findings that have been made regarding the functioning of impact investing in listed equities. It clarifies the motivations of investors to enter this market, the stakeholders involved in these investments, and the typical methodology used to select companies to invest in and to measure impact.

The second part presents the results of our research using the Gioia method. This methodology has allowed us to highlight 9 challenges that have to be taken into account for the evolution of impact investing in listed equities.

2.1 Current state of impact investing in listed equities

The data presented in this section are a compilation of observations made, using the data collection tools. We present an overview of the field practices and their current characteristics. This section aims to provide the necessary context to understand the challenges identified in this field, which will be discussed in the next point.

2.1.1 Definition, characteristics, and motivations

With regards to the definition of impact investing given by the companies analyzed, we noticed that most banks and asset managers share the view that impact investing is an investment that must have a positive environmental or social impact, as well as a financial return. All banks and asset managers share the view that the company in which they invest must be intentional in creating a positive impact. However, when we looked at these definitions in depth, we noticed differences between them. One point of divergence was the expected financial return, with some firms putting more emphasis on the financial aspect than others. Some firms focus more on the financial aspect, aiming for a higher return than the market, while others hardly touch on the financial aspect and concentrate on the impact of the investment. 2 poles of impact investors are confronted with each other in terms of definition.

When comparing impact investing done in listed equities with the characteristics of impact investing given by the GIIN, there are some key differences. Even if, as stated above, banks and asset managers share the idea that an investment should create an intentional positive impact, we noticed that none of the firms take into account the need to define impact objectives before investing. Indeed, when investing in a company, no investor sets impact targets, which is needed to consider whether or not the investment has contributed sufficiently to solving the identified challenge. Impact analysis is only performed in relation to past data. The sole requirement mentioned by investors is that the positive impact must be greater than the previous year.

The second difference concerns the use of impact data. The GIIN considers that the investor must select the indicators that will be used to assess the company's performance. However, in listed equities, most banks and asset management firms solely rely on metrics shared by the companies. Although some asset managers discuss with companies to try to implement new performance indicators, the final decision is still up to the company.

The third difference concerns the identification of risk factors that could compromise the achievement of outcomes. Few asset managers clearly outline the risks and the mechanisms for overcoming the perceived risks. The risks shared are often at the level of a portfolio of investments and not at the level of an individual investment, which makes them less precise.

The final difference from the GIIN characteristics arises from the contribution of asset managers to the development of impact investing. Whereas in private equity, there is a great deal of sharing of data, learning, or advice on how to do impact investing better. At the level of listed equities, the majority of asset management firms do not share data with each other that could contribute to the development of this type of investment.

The motivations for entering impact investing also vary. For some, the purpose of impact investing is part of their objective to limit global warming to 1.5°C or 2°C. They see this type of investment as an effective way to reach the goals they have set. They are more engaged investors and are almost exclusively active in responsible investments. For others, impact investing represents an additional range of investments whose main objective is to attract new investors and offer their clients a wider choice. This vision is mainly shared by asset managers who do not only offer SRI investments, who were originally mainly present in traditional finance, and who have gradually turned to responsible investments. Note that these motivations are strongly correlated with the financial return parameter. The actors coming from traditional finance are more inclined to pay more attention to the financial aspect.

2.1.2 Stakeholders involved

Comparing traditional impact investing with impact investing in listed equities, we notice that the stakeholders are different. On the supply side, there are more institutional and small investors who opt to invest in these funds. Foundations and NGOs are less present.

At the intermediary level, the actors are not identical. To start with, there are fewer networks specialized in impact investing. There is a large number of groups specializing in SRIs, but they are not yet inclined to focus on impact investing. The most present ones are mainly the ones that are already active in private equity. They are slowly starting to be present to guide impact investing players in listed equities. Regarding ratings and certification agencies, there is a shortage of these entities in listed equities. Impact investing funds in listed equities are mainly reviewed by labels that are focused on responsible investments. This implies that these funds get good ratings for the criteria associated with responsible investment. But this does not reveal the best impact investing performers as the rating criteria are not adapted. One of the major divergences between classic impact investing and listed equities is the use of data providers. If we look at private equity, we can see that most of the data is directly collected and processed by the investor or the company. This is less common in listed equities. In fact, most asset managers use external partners to have easier access to the data submitted by the companies in which they have invested. These data providers also produce estimated data for specific indicators that are not reported by the companies.

Looking now at the demand side, we also see a distinction. Indeed, impact investing in listed equities is composed almost exclusively of traditional companies. This difference is mainly attributable to the fact that a company must be listed on the stock exchange for an asset manager to invest in it. The companies selected by asset managers are mainly traditional companies that produce one or more products with an environmental or social impact in line with the SDGs. Unlike private equity funds, listed equity funds do not focus on a particular part of the world, do not focus on a particular type of target, and do not invest in a single sector.

2.1.3 Investment process

The investment processes of the examined asset managers are each produced in-house and apply different criteria. Despite these differences, a common pattern could be identified among the various processes.

The first step, present in all models, is the identification of the positive contribution of a company. Prior to identifying potential companies, asset managers select several investment themes. These issues are mainly related to the SDGs. Some focus on a limited number of investment themes or SDGs (BNP, Triodos, Robeco, and NN IP), while others do not limit themselves to certain topics (KBC and LFDE). Once these thematic have been determined, asset managers focus on companies that have one or more products linked to the environment or social issues. This step is followed directly by a negative screening, present in all the players analyzed, which aims to verify whether the company is involved in activities that have a significant negative impact. These screenings are mainly based on criteria shared through international agreements in the financial sector.

The second step is the identification of the company's ESG footprint. This phase is done in-house with the support of external data providers. Each asset management firm selects the criteria to be applied to the analysis. This step is present in the majority of asset managers (Triodos, Robeco, NN IP, and LFDE), and results in the creation of an ESG score to assist the decision making. In parallel to this assessment, a financial analysis is conducted to verify the economic health of the selected companies.

The third step occurs after the investment has been made. This is the monitoring stage, which quantifies the impact that the companies have had during the year. All the asset managers analyze this impact by assessing the output produced by the companies. None of them use an external impact assessment method and prefer to use specific parts of these methodologies. Most asset managers claim to calculate impact once a year by analyzing the data shared by the companies. The reporting of these data, however, depends on the actors. Several asset managers (BNP, Triodos, NN, and LFDE) share annual reports to present to investors the impact that the investment fund has achieved. This gives an overview of the impact at the fund level but not at the investment level. 2 asset managers do not share an annual report (KBC and Robeco).

The last step addresses the methods of engagement with companies. The reasons given for this step are multiple: better knowledge of the company, it helps to push companies to improve, and it helps to gather information necessary for decision making. This engagement can take many forms, from direct discussions with the company to proxy voting at general meetings. All asset managers use proxy voting to try to influence company decisions. It should be noted that five of the analyzed asset managers produce reports on their engagement (BNP, Triodos, Robeco, NN IP, and LFDE), with varying levels of precision.

An important point about the methodology used in impact investing in listed equities is that all asset managers consider that the process applied today is likely to evolve significantly, as this type of investment continues to mature. Indeed, as this sector is evolving, asset managers are continually working to improve their methodology to sharpen their assessment of companies.

2.2 Challenges for the development of impact investing in listed equities

The analysis of the 6 asset managers and the interviews highlighted several challenges to the development of impact investing in listed equities. To identify those challenges, the Gioia method was applied (Gioia et al., 2012). During the search for existing documentation from the 6 asset managers, quotes were taken from the documents shared by the asset management firms. These quotes reflect the firms' views on impact investing as well as the employees' opinions. In order to complete this study, the transcripts of the interviews revealed additional quotes that were incorporated into the method of analysis. The full set of quotes collected to determine the challenges can be consulted in Appendix 3 (See Appendix 3: Data collection quotes).

Having collected all the opinions and ideas perceived during the collection of quotes, the ideas were grouped into categories to highlight a common concept shared by various quotes, referred to as 1st order concepts in Gioia's methodology. These concepts were then collated into 2nd order themes, which led to the emergence of 9 distinct challenges. These issues provided an understanding of the difficulties faced in developing an impact investing strategy in listed equities. After analyzing these 2nd order themes, the data aggregation continued and identified 3 main dimensions. The data from this study is presented in the table below.

Figure 6: Data structure (Gioia methodology)

First Order concepts	Second Order themes	Aggregate dimensions
• More and more regulations are planned to be implemented, which may lead to a more complex decision making • Regulation, such as SFDR, are translated in different ways by assets managers • Labels are more and more present in the sustainable investment sector, almost every country creates one • Lack of common regulations across the world, regulations differ from region to region in the world	Inadequate regulation, shared on a local scale	Harmonization and development of a reliable impact management and measurement processes
• Lack of common ground on engagement motivations and techniques • Multiplication of in-house measurement processes and differences in impact measurement methodologies • Motivations to invest differ depending on assets managers, and there is no definition shared by all asset managers • Collaboration between stakeholders, and cross-industry works are not yet well developed	Lack of theoretical framework and process developed for impact investing in listed equities	
• Lack of impact benchmark to compare impact investments • Lack of tools and metrics for each issue identified. Tools only developed for well know issues such as climate • Lack of knowledge of impact investing by assets managers • Difficulties to implement SDGs in all the investment processes, and difficulties to have an impact on all SDG's	Lack of scientific studies on impact investing and lack of measurement tools for each SDG	
• Risk of mission drift, entering impact investing market to seek financial returns in place of environmental or social impact • Impact investing outperforms other sustainable strategies in terms of financial return	Risk of mission drift	Financial logic of asset managers difficult to combine with impact investing
• Potential focus on climate solutions at the expense of social solutions because climate might be more profitable	More interest in environmental projects than in social ones	

• Lack of a causal link between the purchase of shares and an increase in the positive impact of a company	No causal link between impact and investment in listed companies	
• Difficulties in data aggregation at the portfolio level due to lack of data for each company • Lack of data shared by companies and problem in the accuracy of data • Difficulties to calculate the net positive impact of an investment due to the impossibility to calculate the negative effects	Lack of data shared by companies	Transparency in the value chain
• Philosophical conflict on the selection or no selection of polluting companies for impact investing funds • Not enough companies meet the requirements of impact investing, in addition to a concentration of same companies in the funds, leading to an overvaluation of companies	Overvaluation of companies present in impact investing funds	
• Potential impact washing from assets managers to influence investors and make themselves look good • Potential impact washing from companies with data that can be inflated • Lack of transparency in the impact value chain • Lack of reliability in the data provided by external third parties	Impact washing	

2.2.1 Inadequate regulation and shared on a local scale

The first challenge identified is the legal framework for impact investing within listed equities. Indeed, the data gathered led us to understand that today the regulation for this type of investment is not adequate, and that if this regulation does exist, it is often applied at a local level (mainly at the country level). To support this argument, several issues were noted.

The literature review highlighted the possibility that increased regulation could lead to greater complexity in decision-making. In its impact equity report, NN investment partners states that even if European regulation is moving in the right direction, there is a risk that we are heading towards over-regulation which could complicate the investment process (NN investment partners, impact equity report, 2021). KBC Group, for its part, points out that the increase in regulations will have a global impact on the financial world and that this will affect the functioning of finance in the coming years (KBC Group NV, annual report, 2021).

Moreover, some players also mention that regulation is often perceived in different ways, depending on who is the asset manager. Triodos and Kenneth Robertson from Robeco remark that even though the classification of SFDR has been established 3 categories, given the existence of a large number of investment differences and the different levels of green in terms of the investment vehicles employed, it is not evident to be satisfied with only 3 categories (Triodos investment management, label article, 2021; Robertson, 2021). LFDE observes that during the first months of the implementation of the SFDR, the choices of classification of investments between the three categories varied considerably among asset management firms (LFDE, SFDR report, 2021).

Another point connected to the regulation is the large number of sustainability labels for investments. It is KBC Group who indicates that in view of this significant increase, Europe intends to examine the use of labels, they add that this could impact all SRI funds (KBC Group NV, report to society, 2021).

There is also little uniformity of regulation at European level and even less at global level (NN investment partners, responsible investing report, 2021). There is a need for a framework that will be shared by many actors. To enable this framework to be robust, it could possibly be inspired by practices that have been used for a long time in unlisted markets (LFDE, impact report, 2021). Or, others suggest that the framework could be inspired by the SDGs, which are increasingly used in the listed market (NN investment partners, impact equity report, 2021).

2.2.2 Lack of theoretical framework and processes developed for impact investing in listed equities

Another challenge raised by our research is the absence of a theoretical framework and a process shared by asset management firms in listed equities. While impact investing begins to develop shared methodologies and investment processes in unlisted markets, there is little or no harmonization at the listed equities level.

The first illustration of this gap can be seen in the definitions of impact investing presented by asset managers. We noted that they all share the idea that the investment must be intentional. However, some see impact investing as an extension of responsible investment, while others see it as a type of investment in its own terms (Lodice, 2021; Triodos investment management, knowledge center article, 2021). The financial aspect is also more important for some asset managers than for others. Investment motivations vary as well, some invest with impact as the core notion for all investments performed (Interview 1), while others invest in impact investing to broaden their client's choice (Interview 3).

Furthermore, by reviewing all 6 asset managers identified, we notice that the investment processes are not identical; each manager has developed its own system in line with the objectives they have set for impact investing. Robeco has created its own framework in line with the SDGs (which includes three steps), NN investment partners has developed its own framework (in line with private equity practices), Triodos has based its investment on a series of themes that are supported by their in-house process, BNP Paribas uses an external body to quantify impact, KBC has also developed its own investment process, and LFDE uses concepts derived from unlisted impact investing (Robeco, 2021; NN investment partners, impact equity report, 2021; Triodos investment management, 2018; BNP Paribas asset management, SFDR document, 2021; KBC asset management, 2021; LFDE, 2020).

The form of engagement with companies, which is carried out by all the asset managers reviewed, also varies. Proxy voting, which consists of voting at general meetings, is applied in all cases. But while some decide to use only this method, others emphasize the need for constant dialogue with the companies. A process which, in their view, increases the impact they have as stakeholders (NN investment partners, impact equity report, 2021).

The importance of networks and cross-industry initiatives to improve impact investing is mentioned by several asset management firms. To do so, some are beginning to collaborate with each other via regulators, NGO's, professional associations, and legislators (NN investment partners, responsible investing report, 2021; Triodos investment management, Triodos global equities impact report, 2021). A further aspect of collaboration is the establishment of mechanisms for cooperation between investors. The aim of these collaborations is to bring investors together to reach a strong position against companies during general meetings (Robeco, 2021; LFDE, impact report, 2021).

2.2.3 Lack of scientific studies on impact investing and lack of measurement tools

Another challenge that emerged in our research is the lack of scientific research conducted on impact investing (even more so on impact investing in listed equities), and the lack of research for the development of measurement tools to scientifically validate the impact of an investment.

The first point raised in relation to this matter was the lack of a benchmark that could be used to compare the impact of an investment. For some, this is not a concern as they have chosen to manage their funds without benchmarking (NN investment partners, Webinar, 2021). But for others a benchmark is useful and interesting to use, to get an idea of the performance of the companies they have invested in and to facilitate the decision-making process (Interview 3).

The availability of tools and measures also varies greatly depending on the issue being addressed. Climate-related issues tend to be more covered by research and measurement tools than social issues. Social issues are sometimes studied at the level of social impact investments but rarely at the level of stock market investments (BNP Paribas asset management, 2020).

A consequence of the lack of research on impact investing is the limited knowledge that professionals have on responsible investment and its characteristics. Skills such as conducting a carbon budget analysis, the appropriate reporting, or the inclusion of sustainable variables in an investment, are still to be developed among professionals (Verberk, 2021). With the development of these types of investments, asset management firms will have to provide training, both for their employees and for their clients (Robeco, 2021).

Some investors see a solution to this lack of tools for impact investing in the use of SDGs to verify real impact. However, there are many pitfalls associated with SDGs. The first is that they are very broad and therefore many investments can be included in on SDG, even if the purpose of the investment is for another SDG. In addition to this, some SDGs are difficult to achieve when investing in listed equities such as the "Life below water" SDG. Some goals must be done at the level of a country or region and it is therefore difficult for a private company to address them (Lodice, 2021; NN investment partners, impact equity report, 2021).

2.2.4 Lack of data shared by private companies

The availability of impact data shared by companies is also considered one of the most critical challenges for the development of impact investing in listed equities. Without these data, it is almost impossible for an investor to decide which company to invest in to maximize its environmental or social contribution. For Robeco, this challenge is seen as the cornerstone to further improve impact investing, as without these data, this type of investment will never fully attract investors (van Zanten, 2021).

As asset managers do not have the means to collect all the necessary KPI's for each company themselves, they rely mainly on information provided by the organizations. It is therefore a big problem that has several causes. Firstly, as the distribution of data is entirely optional, companies select the data themselves. This voluntary selection leads to a problem of relevance as companies might only share data that are in their favor and avoid talking about sensitive data showing that the firm has a significant negative outcome (BNP Paribas asset management, SFDR report, 2021). Secondly, some companies just cannot afford to spend large amounts of money on gathering information about their own business. While large companies can set up such systems, smaller companies prefer to spend their resources on developing and sustaining the company's business. Finally, some enterprises do not share non-financial information because they do not consider it important or relevant (van der Riet, Luiten, & Lodice, 2020; interview 3).

This lack of data has a particular impact on asset management firms, who must rely on less accurate estimates or peers' analysis to provide information to their clients (NN investment partners, responsible investing report, 2021). In addition to this, when data are published, there is also a failure to compare them with those of other companies, as in most cases the data reported are not the same, even if the enterprises operate in the same industry (NN investment partners, webinar, 2021).

This also makes it impossible to calculate the net impact of a company, i.e., the result of the positive impact minus the negative impact. Although this is an essential point of impact investing, as mentioned above, it is impossible today to fully calculate the negative impact of a company present in listed equities. But it is still difficult to calculate the positive impact because the data collected by the companies mainly represents the outputs. However, it is the outcomes (the effect of the outputs on a population) that attest a real positive impact (NN investment partners, impact equity report, 2021). For example, a company that sells products that have a positive impact on the environment could have a greater negative outcome than the impact of its products, considering the way they are produced (Zandbergen, 2021).

The final consequence of this lack of data arises when the impact of an investment fund has to be reported. The question is: how do we aggregate non-harmonized and missing data at the fund level? (NN investment partners, webinar, 2021).

2.2.5 Impact washing

Impact washing is seen as the next big challenge for impact investing, even more for listed equities. Impact washing can be present on the part of companies and on the part of asset management firms. With the development of non-financial data sharing by companies, the question of the trustworthiness of these data is likely to arise. In addition, the attractiveness of impact investing to investors may lead asset managers to offer investment funds with a misleading reported impact.

At the corporate level, we observe that greenwashing is becoming more and more important, especially when we look at the non-financial reports of large companies. The most polluting companies are often those that receive the best ESG ratings because they have the means to carry out a good reporting process (Interview 1). In addition, it is increasingly observed that companies share data on their manufacturing processes but not really on the impact they have on the society (Interview 3). Data accuracy can also be an issue. Companies may share inflated data about their outcomes to attract new investors (van Zanten, 2021). We are seeing the first lawsuits come in about companies that have falsified their non-financial data (Zandbergen, 2021).

At the level of asset management firms, there is a growing distinction between those who do some small activities related to impact investing and those who focus fully on it. On the one hand, there are the ones who only use external data providers and who choose their investments according to the link between the company's products and the SDGs. On the other hand, there are those who invest in improving their selection process and that create complex methodologies to determine which investments are the most suitable. They communicate a lot with companies to better understand their business and to help them improve their reporting or to increase the company's outcomes (NN investment partners, impact equity report, 2021; Interview 1). Looking at the impact investing market in listed equities, most of the offering can only be considered an adaptation of socially responsible investing (Gilbert, Murphy, & Zafiris, 2021). Caution must be taken to ensure that the offering is not made solely by individuals with the sole purpose of improving their image (Zandbergen, 2021).

The implementation of the SFDR has seen an increase in the greenwashing of financial products. Many funds have classified themselves as section 8 even though they have not changed the way they operate (Minnaar, 2021; Interview 1).

To limit this washing cycle, asset managers indicate that the challenge of transparency within the value chain must first be addressed. Indeed, for some, transparency must be improved on the company side. To do this, they must better explain how the data were collected, under what circumstances, and what data could not be collected and why. On the asset manager side, transparency must be increased in the selection process of companies and in the disclosure of the real outcomes (NN investment partners, impact equity report, 2021; BNP Paribas asset management, 2020).

2.2.6 Risk of mission drift

One challenge, observed through the analysis of the investment motivations and returns of the 6 asset management firms selected for our analysis, concerns the risk of mission drift. The challenge for impact investing asset managers is to always keep in mind that the objective of the investment is the outcomes for society. Even if the financial return is important, it should not be considered as the main objective over and above the outcomes.

Some asset managers note that, to attract more and more investors, it is necessary to produce high financial returns (Lodice, 2021). Others say that when looking for investment opportunities, they look at companies in which they can make the most money, and that investments should provide attractive returns (NN investment partners, Webinar, 2021).

If we look at the returns generated by impact investing funds in recent years, we can see that the returns are high and, in some cases, they beat their index, indicating that they have outperformed the market.

There are also other reasons why some asset management firms are entering the impact investing market in listed equities. One of the most cited is that investing in solutions that have a positive environmental or social impact can reduce the long-term risks of investment funds (Hoozemans, 2021).

2.2.7 More interest in environmental projects than in social ones.

Environmental projects are developing rapidly, and it seems that investors prefer to invest in climate-related solutions, as the data is more easily quantifiable, than in projects with social goals (Siermann, 2020). Moreover, if we look at the objectives that banks or asset managers set for themselves to direct their investments, climate and environmental issues are more often cited than social issues. KBC Group, for example, indicates that their first objective at bank level is to address climate issues (KBC Group NV, report to society, 2021). BNP Paribas, for its part, also puts the emphasis on the climate by focusing on energy transition and sustainability (BNP Paribas asset management, 2020).

The above examples suggest that a shift away from social investments might occur if asset managers focus almost exclusively on environmental investments.

2.2.8 Overvaluation of companies present in impact investing funds

The growing popularity of impact investing is leading to a greater interest in companies that have positive outcomes. However, few listed corporations meet the requirements of asset managers to invest with impact. This leads to a concentration of the same organizations in impact investing funds and could lead to an overvaluation of these firms.

The problem is that there is currently too much money ready to be invested, and too few investment opportunities. This is driving up the price of good stocks, it is therefore important that the supply widens to enable a broader range of stocks to be invested in. This rise in the number of companies brings back the problem of impact washing, identified above, which could reduce the development of impact investing. It is therefore important to follow a strong methodology for selecting investments (Interview 1). If the supply remains the same and the price of good stocks rises, this could also favor some "bad" companies as it would increase their expected return (Interview 1). We must therefore be careful not to create a green bubble which could have devastating impacts on the existence of impact investing in listed equities (LFDE, impact report, 2021).

This needs to increase the options available for investments leads to another reflection concerning the inclusion or not of polluting companies in impact investing. Indeed, some polluting companies have implemented environmental and social objectives to change their image as "bad" companies. Two views are opposed in this dilemma. On the one hand, some say that it is necessary to invest in these firms, because without them, it will be difficult to achieve the environmental objectives of 2050. These companies, which are often very large, have an international reach and potentially a global impact. Moreover, they not only have a direct impact through the sale of their products, but also an indirect impact through the large number of people employed, and their ability to put pressure on certain stakeholders (De Berranger, & Pavot, 2021). On the other hand, for some it is almost unthinkable to invest in such companies given the significant negative impact that some of these large groups can have. For those people who find it difficult to imagine polluting companies entering impact investing funds, the only way to justify this is to buy shares and then engage aggressively with the enterprise. The asset manager would need to be in constant communication with the businesses and have leverage over them (Interview 1).

2.2.9 No causal link between impact and investment in listed companies

The final issue identified concerns the causal link between investing in listed companies and the increase of the company's impact. It is currently impossible to define direct links between these two components. It is not possible to say whether the investment made results in additionality, i.e., whether the investment has created more positive impact than if no investment had been made (van Zanten, 2021).

To address this absence of evidence, some asset managers report that they engage with the companies in which they invest. This, they argue, would influence the management of companies to, for example, make their environmental targets more ambitious or implement long-term impact strategies (NN investment partners, responsible investing report, 2021; van Zanten, 2021). In addition to this, they argue that voting at shareholders' meetings is also a way to influence companies. However, current voting formats do not allow shareholders to approve or disapprove ESG strategies. Moreover, most of the time, shareholders only hold minority positions as shareholders, which greatly limits the impact of their votes (BNP Paribas asset management, SFDR report, 2021). It is therefore very difficult to quantify the impact that a minority shareholder can have on the increase of a company's outcomes (Gilbert, Murphy, & Zafiris, 2021).

3 Discussion

The objective of this thesis is to provide recommendations for the development of impact investing in listed equities. To do so, we have analyzed the way this type of investment works, and we have drawn up a list of challenges for its development. This section compares the theory described in the literature review with the field observed during our data collection process. The first half of this point highlights the differences and similarities observed between theory and practice. The second half of this point illustrates some recommendations for the development of impact investing in listed equities.

3.1 Differences and similarities observed between theory and practice

3.1.1 Definition and characteristics

In our theoretical analysis, we found that the definition of impact investing faces many variations due to the many different views held by academics and investors. These variations were confirmed in our analysis of the field, as the definition is different for each asset manager included in our analysis. As with the theory, the main variations were driven by the financial return expected from this type of investment, with some asset managers focusing more on the financial and others more on the impact.

Not all the characteristics found in the theory were identified in the field (cf. supra. p.37). The main differences are characterized by the non-selection of impact objectives prior to investment, the choice of indicators to be monitored defined by the companies and not by the investors, the limited inclusion of impact risks, and the non-sharing of data between the actors of impact investing in listed equities.

3.1.2 Stakeholders involved

The distinction between the impact first investor and the financial first investor identified in the theory was confirmed by our field analysis. Indeed, the investment motivations show that some investors focus more on impact and others more on the financial aspect. Our research revealed that most impact investors in listed equities are closer to the financial first investor profile, as their objective is to achieve or beat market returns.

While the investors present in listed equities are identical to those presented in the theory, our analysis highlighted that institutional investors and independent investors account for the majority of investors in listed equities. While other players such as foundations and NGOs are less active.

Regarding intermediaries, the majority of those present in listed equities were identified in the theory. However, there are some differences from what was described in the theory. Firstly, the presence of external financial intermediaries is not very prevalent as their activities are mainly handled by the asset management firms. Non-bank financial intermediaries, such as NGOs or DFIs, are not involved in listed equities funds. Theory has shown that many networks are present in the world of impact investing. In the practice of listed equities, this is not true. Indeed, few networks exist between impact investing actors in listed equities and few networks, from the private equity world develop solutions for listed equities. The rating and certification agencies for impact investing that the theory has revealed are not very widespread in the world of listed equities. Indeed, the main rating systems are represented by organizations mainly involved in responsible investments. The labels or ratings given to impact investing funds are based on SRI criteria and not on impact investing criteria. This makes these labels less relevant. A stakeholder that the theory has failed to identify and that is visible in our field observation is the data-provider. In listed equities, the data provider plays an important role for asset managers who do not have the means or the capacity to collect impact data from companies.

On the demand side, the theory indicated that two types of companies were involved in impact investing: social enterprises and traditional businesses. The theory stated that social enterprises represented the largest number of companies. Our field observation demonstrated a contradiction of this claim. In fact, in listed equities, traditional businesses represent the majority of companies. This is mainly due to the reduced presence of social enterprises in the stock market.

Finally, the theory pointed out that impact investors tend to invest in specific regions, in targeted groups, and in specific sectors. This situation is not consistent with impact investing in listed equities. In fact, our analysis suggested that asset managers invest globally, without distinction. They do not take into account targeted groups of individuals, and they do not invest in pre-defined sectors.

3.1.3 Investment process

The investment process outlined in the theory only covers unlisted investments. The investment process for impact investing in listed equities is hardly supported by theoretical research. Our research therefore partly fills this theoretical gap. The process in listed equities consists of 4 main steps. The first is the selection of companies and the due diligence carried out to analyze the overall impact of the companies. This step, which is also done in non-listed investments, is developed in the theory presented in the first part. The second step is the ESG analysis of companies. The theory does not cover the discussion of this step. After that, the third step includes the monitoring and the reporting of the holdings. The theory covers this step for non-listed investments. Compared to this existing theory, differences emerge regarding investments in listed equities. First, in the theory, it is stated that investors monitor the outputs, outcomes, and final impact of companies. In listed equities, only the output is monitored by the asset management firms. Furthermore, reporting is done at the level of the fund, as opposed to the private equity funds which report at the level of individual investments. The last step refers to the process of engagement with companies. The theory already analyses most of the engagement actions. The only point not presented in the theory concerns the analysis of proxy-voting at general meetings.

3.1.4 Challenges for the development of impact investing in listed equities

The aggregation of our data on the challenge's analysis, using the Gioia methodology (Gioia et al., 2012), led us to highlight 3 dimensions representing the most important challenges for the development of impact investing in listed equities. These are: harmonization and development of a reliable impact management and measurement process, financial logic of asset managers difficult to combine with impact investing, and transparency in the value chain. These 3 dimensions regroup 9 challenges explained in the previous section (cf. supra p.41). 5 challenges observed are convergent with what was analyzed in the theoretical part. The remaining 4 were not or hardly observed in the theory, our study therefore enriches the theory concerning the challenges faced by investments in listed equities.

- Harmonization and development of a reliable impact management and measurement process

Regarding the harmonization and development of the impact management and measurement process, the literature and our study converge. Indeed, the scientific literature extensively covers the need for impact investing to share a uniform basis in terms of definition, concepts, and methods of measurement. Our research has identified that this challenge is mainly caused by 4 variables: non-uniform regulation, a weak theoretical framework, the lack of scientific research on impact investing, and the lack of measurement tools. All these variables have already been identified in the literature, but our research supports the need to improve them.

- Financial logic of asset managers difficult to combine with impact investing

Our research has brought to light a challenge that is rarely found in the scientific literature. Indeed, following our research, an essential challenge for the development of impact investing has been identified: the financial logic of asset managers in listed equities. We noticed that the financial aspect is more present in the listed market than in the private market. 3 different challenges led us to identify this dimension: the risk of mission drift, the greater focus on environmental projects than on social projects, and the overvaluation of companies in impact investing funds.

First, we have noticed that financial performance is essential in listed markets. Also, we see that more and more impact investing funds in listed equities are outperforming their indexes, implying a higher return than the market. If impact investing continues in this direction, this type of investment could lose sight of one of its main objectives, which is the drive to create a positive environmental and social impact. It is questionable whether investments that provide above-market returns are still considered impact investing. This notion brings us back to the problem of the absence of a theoretical framework for impact investing in the stock market. It is therefore essential to develop a theoretical framework before impact investing loses its defining values.

Second, a further element that is not mentioned in the literature, is that there is more enthusiasm for environmental projects than for social projects. One element that may explain this statement is that environmental projects tend to offer greater financial gain due to the current context that emphasizes the importance of climate change.

Lately, we have identified another challenge that is not present in the current literature: the risk of overvaluation of companies in impact investing funds. Indeed, during our interviews, we have highlighted the fact that today, the supply of companies that meet the criteria of impact investing is too limited. This limited supply, if not filled, could lead to an overvaluation. Many investors will want to invest in these companies, leading to an increase of the share price. This overvaluation could give the idea to less conscientious investors to invest in these organizations to take advantage of the possible birth of an impact bubble. In the end, if a bubble emerges, it could be very profitable financially for some individuals.

The financial vision shared by the stock market world could negatively impact the development of impact investing. It is therefore essential that these financial visions evolve and take more and more into account the notions of impact and outcome. It is also crucial to ensure that new investors in this market want to have a positive impact before thinking about financial returns.

- Transparency in the value chain

As identified in the literature, our research has highlighted problems concerning the value chain transparency of impact investing. This dimension is based on 3 challenges that we observed: the lack of data shared by companies, the growing presence of impact washing, and the lack of causal link between the purchase of shares and the increase in impact generated by the company. The literature pointed to significant gaps in the data needed to calculate impact. Regarding impact washing, in its 2020 report, the GIIN highlighted that this will be the most important challenge in the next five years. Apart from these elements already mentioned in the theory, our research has led us to identify a new challenge specific to listed equities. If impact investing is to develop in listed companies, empirical research showing a strong causal link will have to be uncovered, as many investors question whether this type of investment really does have an impact on listed companies (see supra p.48).

3.2 Recommendations for the development of impact investing in listed equities

To meet the operational objective of this thesis and in the continuity of our will to make an engaging study, in connection with the theory of change, we have elaborated 8 recommendations. These are spread over 3 time periods, short term (1 year), medium term (2-4 years), and long term (5 years). They are based on our personal knowledge of impact investing as well as on our overall research framework used in the development of this work. As these recommendations share our personal view of impact investing, others may not agree or challenge us with these guidelines.

3.2.1 Short-term objectives

- Development of a theoretical framework for impact investing in listed equities

Our first recommendation highlights the need to create a framework to standardize impact investing in listed equities. This framework should be used by all asset managers to ensure its success. The framework should define impact investing, its key concepts, how the company selection process should be carried out, how impact should be monitored, how the reporting should be done, and how the engagement process should be conducted.

For the implementation of a framework to be effective and relevant, it must be built with the help of stakeholders in the sector. We have identified two actors who could build this framework. Firstly, the GIIN could focus on impact investing in listed equities and build it, in the same way as they have done for other financial vehicles used in impact investing. Secondly, collaboration could be established between asset management firms holding impact investing funds. Even if less easy to implement, we believe this is the best solution given the deep knowledge of the stock market. Nevertheless, care should be taken to ensure that guidelines developed by asset managers do not focus too much on the financial aspect, as identified in one of the challenges.

This recommendation would address the challenges identified in our research in relation to the need to harmonize the sector. We believe it would increase investor confidence and provide a more scientific approach to a method of investment that can appear lacking in transparency. We also argue that without a strict theoretical framework, it will be difficult for impact investing to gain a foothold in listed equities. Indeed, without such a structure, we expect that the investor will not be able to distinguish this type of investment from classic responsible investments.

- Focus on engagement and the pre-investment process

Given the current lack of data on a company's environmental and social impact, we argue that in the short term, asset managers should focus on the engagement and pre-investment process. In our research, we observed that all asset managers were primarily fixated on the need to find data and KPIs. However, since the data comes from the companies themselves, asset management firms currently have little influence on solving the data gap. As the need to quantify impact is one of the characteristics of impact investing, it is necessary to compensate for this shortage.

To overcome this, we believe that the implementation of a rigorous pre-investment process could replace the usefulness of impact data in the short term. Indeed, if the asset management firms take all the precautions and analyze in depth the company in which they intend to invest, we believe that this is sufficient to consider an investment as impact investing, again in a short-term vision. This process should ensure that the company shares social and environmental ideals, does not engage in high negative impact activities (negative screening), set ambitious environmental and social outcome goals, and is managed with a long-term vision. Once this procedure has been completed, the asset manager will complement it with engagement strategies. These may vary, but they should have the objective of assisting the company in its development and in increasing its outcomes.

We believe that this recommendation is necessary in the short term, to give companies time to develop complete and transparent reporting processes. Asset managers should assist companies in implementing this reporting effort.

We see several potential benefits to this recommendation. We consider, that at the moment, the search for impact data by asset managers is a waste of time and money. In light of this view, we expect that our recommendation would free up financial capacity and time. The financial capacity saved could be redirected to new investments and the time saved could be used to be more active in networks aiming at setting up a common framework for all asset managers involved in impact investing in listed equities.

- Change in the purist vision of impact investing

We feel that it is necessary to change the view that impact investing should be limited to only companies that are considered to have the highest social or environmental outcomes. During our research we observed that only this kind of company was present in impact investing funds. However, if we want to reach goals like the SDGs, impact investing funds must take into account more companies. Moreover, we have identified in our research that a lack of companies fulfilling the criteria of impact investing could lead to an investment bubble, which would result in an overvaluation of these businesses. We therefore believe that impact investing should also invest in companies that do not yet have many social and environmental outcomes, but that have ambitious goals. These ambitious goals must be linked to the resolution of the SDGs or to the limitation of global warming to 1.5°C.

During our research we also observed the existence of many thematic funds that claimed to be different from impact investing as they did not collect impact data, but they were focused on themes like water, climate, ... We consider that when the theme of a fund concerns social or environmental issues, this fund can be classified as impact investing. Yet, to complete this picture, it is necessary that the investment made by the asset manager is done with an explicit intention to have a positive impact on the environment or on social issues. We think that an investment fund can be regarded as impact investing even if the companies in the fund do not share all the criteria necessary for impact investing. The only necessary variable is the intentionality of the asset manager.

3.2.2 Mid-term objectives

- Need to increase the portion of shares that impact investing funds hold in companies

Today, most impact investing funds own only small stakes in companies. Because of these low percentages of shares held, they are considered minority shareholders at most general meetings. But minority shareholder means that they have limited influence on the decisions made by the organizations. To overcome this, we believe that an investment made with a vision of impact investing, must be linked to the acquisition of a sufficient portion of shares (minimum 5 %), in order to influence the management of companies. In addition to that, a collaboration between impact investors must be carried out during the votes of the general assemblies. The cooperation of these actors could lead to a situation where these shareholders are no more qualified as minority shareholders, which would provide an even greater influence on the companies' strategies.

This would enable asset management firms to play a more active role as investors. This would allow for example to block proposals from companies if targets are not ambitious enough, or if negative environmental and social strategies are planned.

This recommendation would improve the consideration of shareholders by companies and positively influence their decision-making process. It would also solve the challenge we identified in our research, which was the lack of causality between an investment and its impact on the company.

- Development of measurement tools and scientific studies on impact investing

An other recommendation for the medium term is to develop measurement tools for each SDG and to increase scientific research related to impact investing. After our recommendations for the short term, we consider that in the medium term, it will be necessary to focus on impact data and its interpretation. We assume that companies will have had the time to develop a transparent reporting.

For our advice to be feasible, the academic world must focus more on impact investing and involve researchers in the study of impact investing issues. In addition, we believe that collaboration is essential between companies, asset managers, and governments, to provide financial resources for researchers and for the development of reliable measurement tools.

If we develop metrics for each of the SDGs, it will allow us to ascertain whether companies are truly aligned with the SDGs and whether they are truly contributing to the resolution of the SDGs.

One approach that could be further developed is the spatial finance approach. This considers the use of space technologies in the calculation of the impact of companies. Even if these technologies would allow mainly to receive data on the environment and less on the social, it could help the decision-making process of asset managers. For example, we can expect that some satellites would calculate the environmental impact of a project by comparing the data collected before the implementation of the project and those after the implementation of the program (Caldecott, 2021).

This recommendation would increase investor confidence, and impact investing would be based on science-based, credible data.

- Implementation of an impact based financial reward scheme

After developing reliable measurement tools and improving corporate reporting, we believe it will be necessary to implement an impact based financial reward system. Indeed, during our research, we observed that financial attractiveness was threatening impact investing, and could lead to a mission drift on the part of asset managers. To ensure the integrity of impact investing, it is therefore necessary to ensure that asset managers take into account the importance of the outcomes of an investment. The system would therefore link the variable pay of asset managers to the impact performance of the investment fund. If the impact has not been sufficient, then the asset manager's variable pay will decrease.

Our recommendation will ensure that the primary objective of asset managers is to contribute to the greatest possible positive environmental and social outcome. And it would assure the investors that their money is invested in line with the ideals of impact investing.

3.2.3 Long-term objectives

- Development of a simple regulation shared at the global level

Once the measurement tools are developed and all the necessary impact data are available, impact investing should be framed with a simple regulation that is shared worldwide. The regulation should be based on the theoretical framework developed in our first short-term recommendation. The regulation will draw the borders of impact investing to ensure that all actors involved in this type of investment share its characteristics. For the regulation to be effective, it must be constraining. This implies that to be present in impact investing in listed equities, the asset management firms will have to comply with pre-established rules, and that if they fail to do so, they will be excluded. The first level of development should be at the European level, and then it should be extended to the global level, with the help of international summits such as the G7 or the G20.

This regulation would bring to light the real impact managers and would prevent the appearance of impact washing observed during our research.

- Independent audit procedure to monitor impact investing practices

To ensure that the regulations are enforced and easily monitored, asset management firms involved in impact investing will be required to conduct an independent audit of their investment practices. Since most banks and asset managers are already required to have an auditor for their financial data, the goal is to extend this to the non-financial data reported. The auditor will first review the process of impact investing and then verify that the data reported by the asset management firms are consistent with those reported by the companies.

This last point will further increase investor confidence and limit the impact washing that is becoming more prevalent nowadays.

3.2.4 Limitations of our recommendations

The success of our recommendations depends on specific conditions. A consideration of constraints and risks is therefore essential.

- Constraints

As most of our recommendations are linked to factors beyond our control, many constraints could emerge and limit their impact.

First, some of our proposals rely on collaboration between competing asset managers. This competition could make it difficult for them to work together, mainly because of their different interests and views. We recommend that asset managers get together to develop a theoretical framework. However, we found in our research that some were more focused on the financial side than others. This difference could lead to deep disagreements and limit the impact of a possible theoretical framework less related to impact. Moreover, we propose collaboration between shareholders at general meetings. Such a collaboration implies that they share the same vision, but as they often represent different clients, this vision may be divergent. If some views are not compatible, this would make our recommendations difficult to implement. We believe, however, that the actors involved in impact investing share a relatively common vision, with differences that can be overcome. Even if this constraint is inherent, we believe that the risk of this happening is low.

Furthermore, some of our recommendations are based on collaboration between different countries. Differences in culture, mentality, interests, and development of impact investing between regions, could lead to major variations in the approach to impact investing. This would result in a significant slowdown in the development of this type of investment. Besides, as impact investing is mainly based in developed countries, some emerging regions might refuse to collaborate, fearing that they will be led by developed countries. In view of these divergences, we believe that it is first important to implement regulation in Europe before we move to global standards.

After that, one of our suggestions is based on the interest of the academic world in this subject. It may be that this topic is not considered a priority by researchers and that other topics are studied instead. It is also possible that the financial means of the academic world do not allow for a sufficiently in-depth study. If the academic world does not address this issue, a problem of reliability of the tools and processes developed by asset management firms may arise. We believe, however, that this constraint represents a low risk given the current growth in the number of studies on the subject.

Last, our recommendations are also founded on a change in the attitude of asset management firms towards impact investing. Asset management firms may be convinced of their own vision and will disregard our proposals. Asset managers may also be attracted by other types of investments and may not allocate sufficient resources to the implementation of our recommendations. We consider this constraint to have a high probability risk given the development of investments such as ESG investing or thematic investing.

- Risks

We have also identified several risks that could limit the final impact of our recommendations. To select these risks, we based ourselves on those identified in the literature presented in the first part of our work.

The first risk is the drop-off risk. As the impact investing environment is constantly evolving, the data we have gathered in our research may no longer be valid in the future. All our recommendations are based on the current state of impact investing and the expectations of the field today. If the impact investing environment were to change substantially, some of our proposals may no longer meet the needs of the field.

The second risk is external risk. As explained in our constraints, many of our suggestions are based on collaboration between stakeholders and on the greater involvement of stakeholders. These external risks could negatively impact the implementation of our recommendations by delaying their implementation.

After that, the execution risk is also to be considered. Even if the final impact we want to have is well understood, it is not always easy to directly find the best approach to achieve it. Some of our proposals, even if relevant, may not have the desired final impact. It is only after we have tried to implement them that we will be able to draw conclusions about their effectiveness.

- Timeframe

The timeframe we use for our recommendations is based on the achievement of the SDGs by 2030. We know that it is demanding as we believe that the recommendations should be implemented within a maximum of 5 years. However, we are aware that the constraints and risks identified could negatively impact this schedule and extend it by several years.

3.2.5 Expected measurable effects

As a result of our recommendations, we expect to see several measurable effects.

The first effect is an increase in the number of impact investing funds in listed equities and an increase in the capital invested in impact investing. To achieve this, we expect the impact investing market to reach $4 trillion within 5 years and that every bank and asset manager will manage at least 1 impact investing fund in listed equities.

The second effect is the increase in the number of shares held in each invested company. We hope that in 5 years, asset managers will own on average at least 3% of the shares in each company in which they have invested.

The third measurable effect is the tools developed for impact investing. We expect that there will be at least 1 measurement tool for each SDG within 5 years.

The fourth effect concerns the salary policy of asset managers. We expect every impact investing fund in listed equities to have an impact based financial reward scheme in place.

Our last effect concerns regulation. We hope that within 5 years, a regulation will have emerged, at least at the European level,

Conclusion

1. Summary

As impact investing in listed equities is recent and not very developed, the objective of this thesis is to analyze the sector in order to make recommendations for its development. The research focuses on the functioning of impact investing in listed equities and the challenges faced by this investment. To do so, we used a rigorous methodology.

3 data collection methods were implemented to collect data from different sources, ensuring greater accuracy in our research methodology. First, we used existing data collection. We started by identifying all the investment funds that could be considered as impact investing. We established strict criteria regarding the keywords used to name the fund, the asset allocation, the minimum number of years the fund had been managed, and the location of the asset managers in charge of the fund. As the impact investing strategy is taken at the level of the global organization and not at the level of a particular fund, we decided to analyze the 6 asset management firms, respecting our criteria, offering impact investing funds in listed equities. In addition, 4 conferences were attended to gather more insights from the industry and the academic world. To ensure the quality of the research, we established an analysis grid for the selection of the documents to be reviewed. Second, based on an interview guide, interviews were conducted with stakeholders in impact investing in listed equities. Finally, a participatory observation was undertaken during 3 months at KBC asset management. All the information observed was documented in a journal. The information collected was compared to each other in order to define the functioning of this type of investment. The identification of challenges was done using the Gioia methodology. Once gathered, these data enabled us to establish a list of recommendations to accelerate the development of impact investing in listed equities.

With regard to the analysis of how impact investing works in listed markets, our findings shed light on certain differences with the theory and summarized the specific characteristics of impact investing in listed equities compared to other asset classes used for impact investing. First, as identified in the theory, no two asset managers have the same definition of impact investing, mainly due to the divergence between academics and investors. Second, several characteristics of impact investing shared by the GIIN are not present in listed equities, such as the lack of consideration of impact risks, the failure to define impact objectives prior to investment, and the failure to share information among asset managers.

As for the stakeholders involved in this type of investment, our analysis identified a stakeholder that is not often cited in theory: the data provider. This stakeholder is essential for many asset managers to receive impact data from the companies in which they have invested. All the other stakeholders observed in our analysis had been previously identified in the literature. However, our analysis has shown that their role and proportions are not identical to those presented in the literature. On the supply side, we observe more institutional investors and independent investors, and fewer foundations and NGOs. At the intermediary level, the presence of financial intermediaries has not been observed, as this aspect is managed by the asset managers themselves. The presence of networks between asset managers in listed equities was less observed than in other asset classes such as private equity or bonds, and rating agencies were less present. On the demand side, a higher proportion of traditional companies than social companies was noted, which is in contrast to the theory.

Our analysis has revealed that the investment process outlined in the theory is not entirely the same as the one applied in practice. The process of impact investing in listed equities consists of 4 major steps. The first step concerns the selection of companies and the due-diligence process. The second step is based on an ESG analysis of the selected companies to only choose the best. The third step is related to monitoring and reporting. In listed equities, only the output is presented on an annual basis, and solely at fund level. The fourth step involves the engagement process. Proxy-voting, which allows voting at general meetings, is a particular feature of listed equities.

The Gioia method applied to the analysis of the sector's challenges led us to identify 3 dimensions that aggregate all of them: harmonization and development of a reliable impact management and measurement process, transparency in the value chain, and the financial logic of asset managers that is difficult to combine with impact investing.

The first dimension brings together 3 challenges already identified in the literature, namely: unsuitable and only locally shared regulation, lack of a theoretical framework and shared process in impact investing in listed stocks, and lack of scientific studies on impact investing and a shortage of measurement tools for each SDG.

The second dimension also includes 3 challenges. While the lack of data shared by companies and impact washing are already presented in the literature, our analysis highlighted a topic that is underdeveloped in the literature: the lack of a link between investing in a company and increasing the impact of that firm. Indeed, we observed that it is nowadays almost impossible to ascertain whether or not impact investing in listed equities actually leads to a final impact.

Our third dimension highlights the difficulty of introducing impact investing in listed equities because of the financial aspect that is too prevalent in the minds of asset managers. In fact, we have observed that there is a risk of mission drift, which implies that some asset managers might start focusing only on financial performance and forget about impact performance. In addition, we have noticed that some asset management firms are more focused to invest in environmental projects. This focus is sometimes present because of a higher financial performance than on investments related to social issues. We have also noted that the companies in impact investing funds in listed equities are often the same. This can be explained by a lack of organizations that meet the criteria of impact investing. This concentration of the same firms could lead to an overvaluation of these businesses and create an impact bubble.

The analysis of the sector's characteristics and the identification of its challenges enabled us to propose recommendations for impact investing in listed equities, thus answering our research objective.

8 recommendations spread over 3 time periods have been established. In the short term, we recommend that (1) the development of a specialized theoretical framework for listed equities be established. This should be done in collaboration with existing networks (GIIN...) and asset managers present in listed equities. After that, we are convinced that it is currently impossible

to collect sufficiently complete or relevant data to establish the impact of an investment made using impact investing in listed markets. Therefore, (2) we recommend that asset managers first focus on the pre-investment process and engagement. These 2 processes ensure, that the company respects the principles of impact investing. In the short term, the focus of asset managers on KPIs and impact measurement is in our view a waste of time and money. Finally, (3) we think that the purist vision of impact investing must evolve. Indeed, to avoid an overvaluation of companies and to reach the SDGs by 2030, we argue that it is not only necessary to integrate companies that already correspond to impact investing. It is also needed to consider companies that have not yet good outcomes but have defined ambitious targets.

In the medium term, (4) there is a need for asset managers to increase the percentage of shares purchased in each company. This will enable asset management firms to play a more engaged role as investors and to have a greater influence on businesses. In addition, (5) scientific researches need to be conducted to develop impact measurement tools. Without this, the investment process conducted by companies will not be supported by scientific facts. On top, (6) to ensure that impact performance is taken into account by asset managers, we recommend that every impact investing fund should have an impact based financial reward scheme.

In the long term, (7) a restrictive regulation shared at the global level is necessary to ensure that each impact investing fund meets the specific characteristics of impact investing. Finally, (8) we suggest that as impact data is shared by companies, an audit of non-financial information should be implemented to avoid impact washing.

2. Theoretical and managerial contribution

At the theoretical level, our thesis provides several insights. First, our thesis has shed light on the mechanisms of impact investing in listed equities. Most of the literature focuses on impact investing in private markets or bonds. Our thesis broadens this literature by conducting research focused on listed equities. The characteristics, stakeholders involved, and investment process are now described with the help of our research. Furthermore, we have identified challenges that were not present in the existing literature. Moreover, most of the existing studies on the challenges of impact investing do not take into account listed equities. Our thesis therefore helps to confirm that the challenges found in the literature for non-listed markets also apply to listed markets. After that, this work enables us to highlight the need to modify the current definition of impact investing and to adapt it to the stock markets, by focusing not only on companies that have already had a positive impact but also on companies that have ambitious outcome targets. Finally, for the structuring of our thesis, we applied the theory of change. This theory, already well established in the world of impact investing, is mainly used for the selection of investments and the selection of means to achieve the defined impact. By applying this theory to the construction of a scientific work, we participate in the development of a methodology more committed and focused on the implementation of change towards a better world. As there are few studies using this methodology, there is no clearly defined process for using this theory in scientific research. It would therefore be interesting to develop a procedure to implement this methodology.

At the managerial level, our thesis allows those who want to enter this market and those who are already present, to improve their understanding of the sector. For those who would like to start investing in impact investing in listed equities, our thesis provides them with an understanding of how it works, prepares them for the challenges they will face, and provides them with recommendations to avoid repeating the mistakes made in the past. For players already present in this market, our study enables them to better understand the challenges they have already identified and to consider new challenges they may not have thought about. Further, our list of recommendations helps them better understand what elements they need to focus on and work on, to develop the market and improve their current processes.

This thesis therefore contributes to the development of impact investing and the improvement of its investment process, with the aim of making this type of investment more effective in creating positive environmental and social impact.

3. Critical perspective

Several limitations to our research approach have been identified.

First, theoretical differences concerning impact investing may have affected some of the information presented in the first part. Indeed, since most of the information presenting the size of the market is established by organizations that do not share the same point of view on impact investing, all the figures reported in the first part must be taken with caution. Also, the 6 asset management firms selected for our research have varying opinions on how impact investing works, which may have impacted the nature of the challenges they face and their views on the process used to invest.

Second, the selection of the asset management firms studied may have been limited by the strict criteria established. The word "impact" used to distinguish the investment funds present in impact investing may have affected our results. Indeed, it is possible that many asset managers present in impact investing do not name their funds using the word "impact". This may have influenced the number of asset managers meeting our criteria. Not using the word "impact" could have led to the detection of more than 6 impact investing asset management firms in listed equities and would have enabled us to focus our analysis on a larger sample. Our choice to analyze only funds from asset managers in Belgium, France, and the Netherlands may have limited our research. As these countries are at the same level of development of impact investing and face the same regulations, our results may only be applicable to this specific region. Taking into account countries facing other regulations, more or less advanced in impact investing, and coming from other regions of the world could have refined our research and shown important distinctions on the functioning of impact investing. Furthermore, the set of asset management firms analyzed did not include more than 50 positions in their funds. This may have limited our study by not taking into account funds with more positions. In fact, it is possible that for these funds, the functioning and the challenges observed in our analysis are not applicable to them. Therefore, not all our recommendations could be applicable to these funds. Our limited sample of 6 asset management firms does not allow us to generalize our conclusions to all players in impact investing.

Third, the limited number of people we interviewed may limit the scope of our findings. A larger sample of interviewees could have provided us with more insights and therefore increased the specificity of our recommendations.

Fourth, because the participatory observation was conducted in a single organization, it may have impacted our view of how impact investing works. Ultimately, this may have affected the recommendations we have proposed by mirroring the approach we were confronted with for 3 months.

Finally, access to information from companies may have been limited. Despite the implementation of the SFDR, which requires asset management firms to share information about their investment process, some information may have been intentionally not shared on the asset management firms' websites. This may have had a negative impact on the identification of challenges encountered. Greater access to this information could help identify new issues.

These identified limitations all impact the results and recommendations of our research. The information presented in this research must therefore be considered in the context in which it was collected. Despite this, our research provides important information for the development of this type of investment and improves its representation in the scientific literature.

4. Further research

As a result of our research, several directions for future study have been identified.

Firstly, as our study to make development recommendations focused only on Western Europe, it would be interesting to consider a global study to highlight possible differences between regions of the world.

Secondly, a quantitative study would be necessary to demonstrate whether or not there is a link between the purchase of shares in a listed company and the increase in the impact of that same company.

Third, since the data shared by companies is critical to the implementation of transparent impact investing, it would be necessary to study ways to get companies to share their non-financial data.

Finally, as our research has uncovered a possible overvaluation of listed assets in impact investing, a quantitative study is needed to analyze whether an impact investing bubble is being created.

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