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ESG Investments and their  
Evolution during the  
COVID-19 Pandemic

Comparison of ESG Indexes and the  
Global Stock Market

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## ABSTRACT

The process of including ESG criteria when managing an investment portfolio is gradually increasing in importance, especially during times of crises. In times of economic and social distress, individuals try to improve the results of their operations. As a result, investors' preferred strategy for mitigating negative externalities, is involving in ESG investing. ESG stands for Environmental, Social and Governance and this type of investments comprise those companies rated as sustainable. The companies included in the ESG group are characterized by their commitment to the reduction of externalities that negatively affect the environment and society. The inclusion of ESG factors produce higher returns in the long-term not only for companies but also for stakeholders.

The following paper has the main aim of analyzing the evolution of ESG investments across the COVID-19 pandemic. The tools used for a better understanding of the movements of these investments are ESG indexes. This paper analyzes the main fluctuations of those ESG indexes during the pandemic. Additionally, it establishes the relation between those movements and the most relevant COVID-19 events. To conclude, it is carried out a comparison between the fluctuations of ESG investments and the ones of the stock market. Since the start of the COVID-19 pandemic, ESG indexes have apparently fluctuated similarly to the global stock market. However, the differences between those fluctuations showed that ESG investments have been less affected by the movements within the markets. The results of the analysis conclude that ESG investments are less volatile and more secure during times of crisis than other types of investments.

**Key words:** *ESG, investments, sustainability, indexes, COVID-19 and global stock markets.*

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## **Glossary of acronyms and abbreviations**

|          |  |
|----------|--|
| ACWI     | All Country World Index                                      |
| COVID-19 | Coronavirus Disease 2019                                     |
| CSA      | Corporate Sustainability Assessment                          |
| CSR      | Corporate Social Responsibility                              |
| DJSI     | Dow Jones Sustainability Indices                             |
| EBA      | European Banking Authority                                   |
| EIRIS    | Ethical Investment Research Service                          |
| EPs      | Equator Principles   |
| ESG      | Environmental, Social and Governance                         |
| EU       | European Union   |
| FTSE     | Financial Times Stock Exchange                               |
| GIMI     | Global Investable Market Index                               |
| GRI      | Global Reporting Initiative                                  |
| GSSB     | Global Sustainability Standards Board                        |
| IMF      | International Monetary Fund                                  |
| IOSCO    | International Organization of Securities Commissions         |
| ISS      | Institutional Shareholder Services                           |
| MSCI     | Morgan Stanley Capital Investment                            |
| NGO      | Non-Governmental Organization                                |
| OECD     | Organization for Economic Cooperation and Development        |
| S&P      | Standard & Poor  |
| SDGs     | Sustainable Development Goals                                |
| SRI      | Socially Responsible Investment                              |
| UN       | United Nations   |
| UNDP     | United Nations Development Programme                         |
| UNEP FI  | United Nations Environment Programme Finance Initiative      |
| UNICEF   | United Nations International Children's Emergency Fund       |
| UNPRI    | United Nations Principles for Responsible Investment         |
| USA      | United States of America                                     |
| USD      | United States Dollar   |
| WHO/OMS  | World Health Organization (Organización Mundial de la Salud) |

## **1. Introduction**

The COVID-19 pandemic has had a significant effect on sustainable investing among the international stock market. Within the financial markets, the emergence and evolution of social corporate responsibility has been a topic of growing interest during the last decades. Therefore, including corporate responsibility and its implications for investors in investment analyses during times of crisis, is currently of great importance.

In fact, establishing a direct relationship between events that increase social and environmental awareness, for instance economic and social crises, with the behavior of investors, may facilitate financial forecasting. Moreover, the impact social and environmental international events have in stock markets provides a very complete idea of the effects that those occurrences have among investors. The establishment of this relation requires an interdisciplinary approach, where the viewpoint of international relations is combined with that of financial markets.

Society as a whole is becoming more aware about the negative consequences of individual decisions. As a result, when taking part in certain economic and financial activities, individual's behavior changes. In addition, companies are also more concerned about the potential damages that their activity could produce. Thus, they are trying to be more responsible of their actions and conscious of the impacts they could have on society, economy and the environment.

The urgency of establishing and implementing policies about sustainability has increased over the past years. Companies are in the need of finding ways for becoming more ecologic and sustainable by changing some features of their activities and their relations with stakeholders. By clarifying the values and culture inside the company, it can have a distinct pathway for establishing changes in its economic activities and assume its responsibilities. Therefore, it is advisable for companies to develop an adequate corporate policy describing their ethics, values and culture when carrying out their economic activity.

On the other hand, investing methods have changed in the last decades. Currently, investors not only give importance to obtaining profit from their operations, but also to other aspects. Those investors are more aware about the implications that their actions might have on

society, in areas such as environmental and natural damage, governance and social equality. Hence, their investing behavior has shifted into a more responsible one where potential negative externalities are often taken into account before making any financial decision.

Additionally, the emergence of the COVID-19 pandemic has also contributed to this shift into a more responsible view. The pandemic has changed our lives in many different ways and, as it can be seen in every situation of crisis, people tend to act better and to improve the results produced by their actions. This can be observed specially in the business sphere, in which most decisions made are aimed at reducing the negative externalities produced on an economy that is already in a critical situation. In this situation of crisis, applying ESG criteria in investment choices becomes more important, and social, environmental or governance implications over society are highly analyzed.

The analysis of the evolution of ESG investing over time, along with how the COVID-19 pandemic has influenced investor behavior inside global financial markets, provides a useful overview on the evolution of ESG investments during the pandemic. One can observe the long-term growth of this type of investments caused by the increase in investor's awareness across time, particularly in the context of major global crises.

Global financial markets include the stock market, the bond market and derivatives market among others, and are the marketplace where securities are traded. These financial markets foster cooperation between economies by generating liquidity and resources for businesses and investors (Hayes, 2021). The main role of financial markets is to help direct the flows of investments and savings in the economy, in order to facilitate the capital accumulation and the production of goods and services. Therefore, if there are no savings in the economy, this flow of capital is not adequately produced. The most important role of financial markets is their involvement in the economic growth of countries. Those markets help investors and companies to raise money and expand their activities.

Usually, the economic situation of a country determines the evolution of its financial markets, as the individuals taking part in trading are affected by that nation's economy. For instance, if a population is experiencing a financial and economic crisis, the movements and trading inside that financial market will change as the level of savings and investments is reduced.

The negative consequences experienced by the economies during the pandemic have had an important impact on global financial markets, as the aversion to risk of investors has increased in ways that were not seen since the global financial crisis, according to the OECD (OECD, 2020).

Hence, in order to interpret how ESG investing is evolving during the pandemic, it is important first to understand what their main characteristics are, the historical background of this relatively new concept and the different indexes used to measure it. ESG indexes can show the behavior of investors during times of crisis; hence, they are useful to understand where investors focus their operations. The conclusions made based on those indexes will depend on how they are built, how ESG factors are measured and their availability.

The following research has the main objective of understanding how ESG investing evolves during times of crisis, precisely during the COVID-19 pandemic, by analyzing how ESG indexes fluctuate according to the changing economic environment. For a better understanding of the research, the analysis herein will not only be practical but also theoretical, as a deep analysis of the indexes will be made in order for readers to better understand what the different indexes represent and how they are applied.

In order to achieve the objective, it will be necessary to:

- Define what ESG investing is by describing the Environmental, Social and Governance factors and other features that characterize this type of investments.
- Differentiate ESG investing from other types of sustainable investing: Socially Responsible Investing and Impact Investing. It is important to state the differences between the three types of responsible investment to better specify how the analysis is made.
- Establish the international efforts made to regulate and facilitate the classification of investments according to their degree of adjustment to the ESG criteria. This helps to understand how ESG investments are regulated at a global level.

- Define what ESG indexes are, how they are constructed, when did they emerge and what indexes are mostly used. This contextualization of ESG indexes might help to comprehend how ESG investing evolves across time and how is it applied.
- Analyze the evolution of ESG indexes during the COVID-19 pandemic from December 2019 to the present. Two of the most important ESG indexes will be chosen as representative of the movements of ESG investments as a whole.
- Position the main fluctuations of the two indexes and link them with important events during the COVID-19 pandemic that have had an effect on the evolution of ESG investments.
- Conclude by establishing the relationship between the evolution of ESG indexes and the movements within the global stock market during the COVID-19 pandemic. For a better interpretation, the differences between the values of the ESG and the stock market index will be also analyzed.

Therefore, as the objective is centered on carrying out an analysis of the evolution of ESG indexes, it is necessary to use information about statistical data. The comparison will be made using the information of the different movements of ESG investments and the stock market. In order to complete this objective, the following steps are carried out:

1. First, the literature available in relation to ESG investments and their evolution across time will be reviewed in a general way, with a subsequent emphasis on ESG indexes. Additionally, the international institutions that have tried to regulate this type of investments will be presented.
2. Second, the construction of the main ESG indexes will be explained and statistical tools will be used to analyze the behavior of the data from the indexes at key moments of the COVID-19 pandemic.
3. Third, this ESG investments' evolution will be compared to the one of global markets in order to understand how ESG indexes evolved in comparison to stock markets.
4. Fourth, with the information obtained from various sources, a brief critical analysis will be made to establish the relationship between the evolution of the ESG indexes and the pandemic, in order to establish general conclusions about their variation.

## **2. Theoretical Framework**

### **2.1. ESG investing: Definition**

Investors are usually guided by a concrete strategy when managing and creating a portfolio. This investment strategy depends on the type of investor and it is usually established after performing an analysis about predictions and price movements. Precisely, numerous factors can influence the selected strategy, such as long-term or short-term results, national or international features, the type of underlying asset, among others. The strategy chosen varies between investors and there could be as many strategies as investors in the market.

ESG investing results from investors applying non-financial factors such as the analysis of the material risks and growth opportunities, when choosing their investment strategy. Currently, a great deal of investors includes qualitative issues in their analyses when identifying and evaluating the potential return of their financial operations (Jones, 2021). ESG stands for Environmental, Social and Governance, therefore, those are the three main factors measured when classifying investments in the ESG category. By engaging in ESG investing, economic actors attempt to positively influence changes in society, the environment and corporate governance with the main aim of trying to be a responsible and a better investor.

The core idea of the ESG concept is that investment choices are based on the intrinsic factors inside the company's policies that have a positive impact on society. The introduction of those factors in investment decisions resulted from the development of a more holistic view of companies. Hence, analyzing the companies' commitment to ESG factors makes it easier for investors to identify opportunities and to try to mitigate risks (Napoletano & Curry, 2021).

Furthermore, interest among investors over the negative impacts on society and the environment, resulted in companies starting to give more importance to the inclusion of ESG factors in their policies. Although the use of ESG metrics is not mandatory when making financial reports, companies are starting to include sustainability annexes and complete reports in their official annual documents (CFA Institute, n.d.). The strategy followed by companies to act according to ESG criteria, has the main aim of making the world a better place by improving the externalities of their activities.

As social trends, including climate change and social consciousness, increase in importance during times of crisis, ESG investing accelerates in demand. For instance, during the financial crisis of 2008, ESG principles were pushed to the front. As a result, a new era started where the environment, social issues and the companies' governance system became important features when making investing decisions. Although responsible investments existed before the crisis, the main aspects taken into account when making investment decisions were returns or alphas and only NGOs promoted ESG factors' inclusion. After the financial crisis, the situation changed. Most investors and individuals blamed the banks for the crisis and criticize their lack of governance and excessive greed. Governments started to increase their demands for changing policies inside banks and companies in order to give more importance to social and environmental problems and improved their governance systems (Sampei, 2018).

When analyzing the performance of general investments during the last financial crisis, responsible investments seemed to outperform the market as a whole (Herrera-Cano & Gonzalez-Perez, 2016). As a result, ESG policies started to emerge and corporations increased the amount of complementary information such as sustainability annexes in their reports. Investors also discovered that ESG inclusion, in the long term, generated higher returns, and that companies including ESG factors performed better and had superior outcomes than the ones that did not. Thus,, ESG rising implied new a hope after the 2008 crisis for devastated financial markets. After this crisis, investors also realize that ESG investment and rentability were not incompatible concepts inside financial markets (Sampei, 2018). This phenomenon occurred because the population's awareness about Environmental, Social and Governance issues became higher during that time of economic, social and environmental distress (Geels, 2013).

Additionally, other issues such as climate change and poverty have become important problems in the international scene during the last decades. This increase in the awareness of climate and social issues has led to a sustainability crisis, which evidences that there is a lot of work left to do in order to improve the global situation. In response, individuals have become more accountable of the externalities produced by their actions, so they are trying to include the sustainability criteria in their operations.

The concept of ESG investing not only includes the three factors of the acronym but also other responsibilities regarding the stakeholders. Sustainability cannot be achieved until positive externalities for all the individuals affected by the business are assured. This includes working conditions, salaries and consumer experiences, among others.

Therefore, when talking about ESG investments a lot of different factors are included in the concept. As a result, clearly defining the concept and establishing boundaries in its definition can be difficult. ESG conception should not be limited to the awareness a company has about issues related to Environment, Social and Governance.

Additionally, factors inside the three criteria are difficult to classify as they are highly correlated between each other. Moreover, generating an accurate measure for such factors can be quite difficult. To resume, those companies aiming to act according to ESG criteria should find a balance between the interests of their stakeholders and these three factors.

Furthermore, ESG investing is not incompatible with profit-making as it not only provides investors with responsible operations but can also generate higher returns. Moreover, the sustainable sector has increased in importance mainly because of its long-term benefits. Companies that are responsible and whose business becomes more sustainable over time, are better positioned to thrive and prosper in the future. This also results in the company achieving higher returns in the short-term.

In addition, the emergence of a wide variety of environmental, social and governance funds has led to new opportunities of investment. Investors, in order to act according to their ideals when investing, try to align their financial choices with their personal principles and values. The aim of getting involved in companies with matching values, is what impulses them to enroll in this type of funds, added to their expectations on higher returns.

## **2.2. Three factors: Environmental, Social and Governance**

As stated before, ESG stands for Environmental, Social and Governance (Macbeth, et al., 2020). For a better understanding of ESG investing, these three factors are defined as follows:

- The Environmental factor is closely related to the companies' actions towards the mitigation of negative externalities that have an impact on climate change. This

includes all companies that try to reduce damages to the environment by using natural alternatives and ecologic resources. Examples are renewable energy, raw materials with biodiverse origins and the effective managing of waste (CFI Institute, n.d.-a).

- Social considerations include a high variety of issues but are mainly focus in the process of eradicating inequalities and violations of human rights. Social issues require the company to be aware of the key relations and interactions existing all over the production chain and with its stakeholders (CFI Institute, n.d.-a).
- Governance refers to how the top management of the company practices its business activities; it also includes the way managers satisfy the demands coming from stakeholders. This is important both in public and private institutions and ensures that those considerations are taken into account when making decisions inside the company.

The three factors form the acronym define the concept, but as stated before, it is widely considered that ESG investing is a broader concept and other features that interest stakeholders such as workers, clients and other communities are also included (Napoletano & Curry, 2021). Hence, only considering those three factors is not a sufficient condition for obtaining the social recognition of being a responsible company.

### **2.3. Differences between ESG, SRI and Impact investing**

Efforts have been made in order to change the world of investing and currently, returns are not the only thing taken into account when making decisions about investment portfolios. Investors increasingly try to positively impact society by directing their funds into companies that follow certain environmental and social principles. The type of responsible investment chosen by the investor depends on its values and beliefs desired for the portfolio. Therefore, the decision of choosing one specific type of sustainable investment depends on the personal preferences and values of the investor.

Responsible investing can be a very broad concept, and investments can be classified in a different way depending on the criteria used. Three main categories are broadly used to classify the different types of responsible investing; Socially Responsible Investing (SRI),

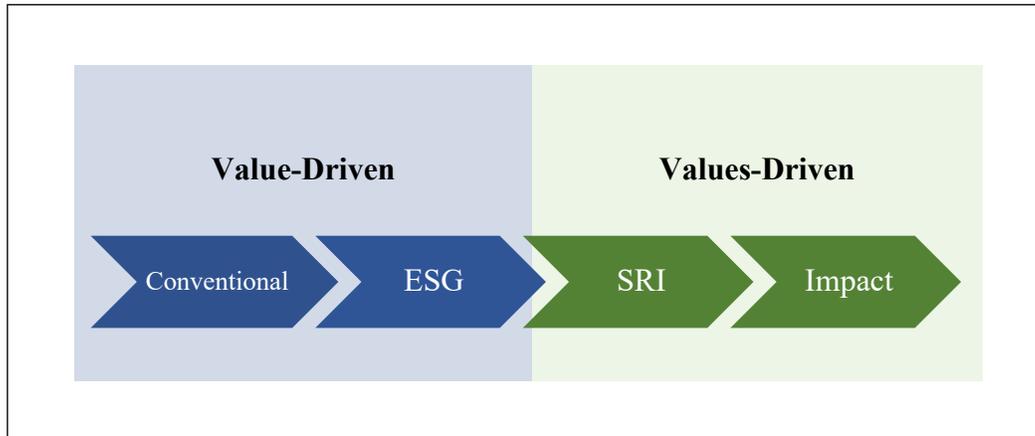
Impact Investing, and Environmental, Social and Governance (ESG) Investing (Caplan, Griswold, & Jarvis, 2013).

Socially Responsible Investing (SRI), is a type of investment where social responsibility is deducted from the risk premium required by the investor (Formankova, Trenz, Faldik, Kolomaznik, & Vanek, 2018). SRI is, then, the process by which funds are directed to companies that follow defined ethical guidelines and avoid practices which are contrarious to the investor's values. Companies are considered to be socially responsible when the nature of the business has a positive impact in society. Decisions made with this type of investments are value-based. The peculiarity of SRI is that it can vary from person to person depending on its values (O'Shea & Benson, 2021). They are not broadly accepted as sustainable by everybody, rather they are accepted by a certain type of investor who has a particular attitude towards a company.

Impact Investing involves engaging in companies that have the main aim of implementing social or environmental changes through specific projects. The financial decision is made according to the positive impact of the company's activity and profitability is a secondary objective. Impact investors try to give part of the money to funds aimed at problems not often addressed by the public financial markets (Maguire, 2020). The aim of Impact Investing also depends on the investor who tries to obtain specific outcomes that can widely vary.

Therefore, according to Vert Asset Management (Vert Asset Management, 2020) the main difference for ESG investing is that it is Value-Driven, as opposed to SRI and Impact Investment, which are Values-Driven. This can be observed in the following graph.

**Figure 1:** *Classification of investments depending on the objective sought<sup>1</sup>*



In particular, conventional and ESG investments have the goal of maximizing profits overall and are, thus, Value-Driven. On the other hand, while it is true that ESG investments focus on companies that try to compromise with ESG factors, the main objective is financial. Therefore, similar to conventional investing, the primary aim of ESG investing is to obtain financial return, whereas favoring sustainable practices is a secondary goal.

On the contrary, the Values-Driven category has the principal focus on the alignment of the company's values with the ones of the investor. In SRI a balance between both classifications is attempted, for which it is sometimes difficult to classify a certain company in value or values driven. On the other hand, it is clear that impact investing gives more importance to social returns but still provides a secondary role to financial returns. The main difference between the three types of investments is that SRI and Impact Investing have the main purpose of expressing institutional values and the advancement of sustainable projects.

SRI used to be the main method for responsible investing, but since the emergence of ESG investing, the situation has changed. Although SRI can prove useful by promoting institutions with religious, moral or ethical values, it can also be considered highly restrictive. Alternatively, ESG investing includes the analysis of how social, environmental and governance problems could impact a company's performance and the investment portfolio.

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<sup>1</sup> Figure 1 represents a classification in Value-Driven and Values-Driven of the different types of sustainable investments depending on their nature. Personal elaboration using information from Vert Asset Management (2020).

In summary, ESG investing attempts to maximize returns by investing in companies with responsible actions and activities, SRI attempts to balance social outcomes and returns; while Impact investing focuses mainly on social outcomes with financial returns becoming a secondary goal (Vert Asset Management, 2020).

### **3. Institutions supervising ESG**

In order to understand when ESG investing is taking place, it is important to first know what institutions are responsible for regulating and supervising these investments. In fact, there is a big deal of organizations that have made efforts to regulate and help investors and companies in the aim of improving their responsibility.

The European Banking Authority (EBA) recently posted the *Discussion paper focused on management and supervision of ESG risks for credit institutions* (EBA, 2020). The research includes the main definitions of concepts such as: ESG factors and risks, methods to assess ESG risks and management and supervision of risks by institutions.

According to their discussion, other important institutions have made efforts to define ESG factors by creating international frameworks and defining required standards (EBA, 2020). Some of the main initiatives made are the following:

- *The United Nations Principles for Responsible Investment (UNPRI)*, which includes six investment principles recommended by and for investors that aim to incorporate ESG factors into their investment decisions (PRI, n.d.). By implementing these principles, companies and investors contribute to the transition of the current global financial system into a more sustainable one.
- *The United Nations Environment Programme Finance Initiative (UNEP FI)*. This is a partnership between the UNEP and the financial sector which has more than 350 members and is supported by 100 institutions. The UNEP FI was created to introduce sustainable development in the private sector financial markets, while helping in the improvement of the impact generated on the society (UNEP FI, n.d.).

- *The Global Reporting Initiative's from The Global Sustainability Standards Board (GRI-GSSB)*. The Global Sustainability Standards Board has the main aim of setting the GRI standards, generally accepted for sustainability reporting. The entity is established as an independent organism and the members are representatives of expertise and multi-stakeholder perspectives (GRI, 2021).
- *The Equator Principles (EPs)*. Financial institutions adopt these principles as a risk management framework for measuring, predicting and managing social and environmental risks in their projects. The main objective of the EPs is to facilitate responsible risk decision making and to provide a standard for due diligence (Equator Principles, 2020).
- *The Natural Capital Protocol in the Finance Sector*. The Natural Capital Protocol created a standardized framework for globally recognized businesses. The aim of the supplement is to create a connected system between finance and natural capital. This framework is used to assess the impact and dependencies that portfolios have on natural capital (UNEP FI, 2021). Techniques and tools designed by financial, investment and risk managers for measuring the impact are included in the Finance Sector Supplement.

In fact, Europe is the global leader in ESG investing as more than half of the sustainable investments come from the European Union (Macbeth, et al., 2020). As a result, the EU has tried to be involved in sustainable investing activities; for instance, the European Commission has fostered sustainable finance by supporting the *European Green Deal* (European Commission, 2021a). This document establishes a roadmap for sustainable economic growth inside the European Union. For meeting the objectives of the report, the European Union has created the EU Taxonomy Regulation, a system where sustainable economic activities can be classified (European Commission, 2021b). The EU Taxonomy creates a list of activities that are environmentally friendly and sustainable, with the main aim of identifying the companies whose activities include ESG factors. Therefore, the new regulations implemented by the EU have fostered the standardization for ESG reporting, in order to make the task of identifying ESG companies easier (Ravlo, 2020).

The International Organization of Securities Commissions (IOSCO) has also made efforts to help addressing issues regarding sustainability and climate change. For instance, IOSCO published in 2020 a report called *Sustainable Finance and the Role of Securities Regulators and IOSCO* (The Board of the IOSCO, 2020). Regulatory regimes vary across borders. Specifically, in the international sphere there are a lot of different regulatory systems and they vary frequently between countries. The IOSCO report has the main objective of helping investors in the task of adequately identifying the risks and opportunities when investing in what are considered as sustainable companies.

Finally, more efforts made by institutions to coordinate ESG investing include trying to classify companies depending on the sustainability of their economic activities. Those private companies are attempting to rank and elaborate indexes about ESG investing that will be explained as follows.

## **4. ESG Indexes**

### **4.1. Definition of ESG Indexes**

The rapid growth in the interest for sustainable investing has led to a need for regulating ESG investing that has been overcome by the institutional efforts mentioned above. This increase in the regulation of ESG investing also involves a demand for the structuration and standardization of this type of investments.

One transparent tool usually used for an effective integration of ESG criteria inside investment portfolios is called ESG index. ESG indexes and ratings have resulted from the process of standardization made by different private institutions. An index is an indicator of the performance of a group of assets in a standardized way. Indexes are used as a benchmark to assess the performance of a stock, bond or investing instrument compared to the market performance (Chen, 2020). ESG Indexes allow institutional investors to measure the performance of a company according to ESG criteria by using a benchmark of companies exhibiting good social corporate practices.

Companies focused on the research of different types of investments have made efforts to create scores in order to facilitate the analysis and comparison of different investments.

Ratings are assigned to companies by evaluating each of the three ESG factors according to different criteria (Napoletano & Curry, 2021). ESG indexes contribute not only to analyze the performance of investments but also to evaluate the impact ESG factors have on stock prices. As ESG factors have a qualitative nature, it is difficult to accurately measure them. In addition, it is frequent that indexes made by different companies differ in the resulting rating due to the divergence in the evaluation and parameters used to measure the factors (La Torre, Mango, Cafaro, & Leo, 2020). In conclusion, ESG indexes can reduce information asymmetries but the use of different parameters can influence their valuation. Therefore, in order to obtain a broad and complete view of the evolution of ESG investing, it is important to compare some of the most important indexes and their evolution, instead of analyzing a single index.

#### **4.2. History of ESG Indexes**

Organizations tracking and collecting data for ranking ESG investing were born with the increase of sustainability considerations inside capital markets. This mainly included social and environmental organizations devoted to informing investors about moral and ethical issues in certain companies and sectors (Eccles & Strohle, 2018).

ESG Indexes were born with the initiative made by MSCI inc., a company focused on developing indexes with high diversification at a global level. The MSCI indexes are widely used for analyzing and studying financial markets. In 1990, MSCI launched the MSCI KLD 400 Social Index, which is considered the first attempt to help responsible investors in the task of weighting environmental and social factors (MSCI, 2021a). The main purpose of this index is to show what US companies have a high MSCI ESG classification while excluding those whose products that could have a negative environmental or social impact.

The next attempt made for elevating sustainable indexes at a global level was made in 1999 with the Dow Jones Sustainability Index. This index is considered the first ESG global index. Currently, it is formed by a family of indexes that measure economic, environmental and social factors across the performance of important worldwide companies (SAM, 2021). Also, in 2013, the Barclays MSCI ESG Fixed Income Index was created, and it was considered the first global series of ESG fixed income indexes. This index addresses the changing needs of

institutional investors, who have gradually increased ESG factors in the asset's allocation (MSCI, 2021b). Furthermore, to measure the performance of companies according to ESG factors, the Financial Times Stock Exchange elaborated the FTSE4Good Index Series in 2001.

Additionally, and in relation to the efficient use of energy, WilderShares created the WilderHill Clean Energy Index in 2004. This index is used to measure capital appreciation by selecting companies focused on the use of clean energy by exploiting renewable energies and implementing green technologies (ETF, 2021).

Moreover, since 2016, a lot of new indexes have been created related to ESG factors, besides those already mentioned, and have gradually introduced changes according to the economic environment. These include those indexes constructed by the FTSE, the MSCI, Solactive and RebecoSAM.

Overall, all of these indexes have been used as tools by market participants when trying to assess sustainable investment instruments. They have four main uses: to track financial products, to research environmental and socially responsible companies, to increase the presence of ESG responsibility, and to track performance by using it as a benchmark (FTSE Russell, 2021).

#### **4.3. Construction of ESG Indexes**

The main aim of building indexes is to anticipate and satisfy the needs in the strategies of investors when investing in a concrete portfolio. As there is a trend for trying to decrease negative impacts, indexes and benchmarks are built with the main purpose of helping investors in the task of establishing sustainable strategies. The inputs used for developing ESG ratings and indexes are mainly obtained from corporate divulgences and other data from different institutions and organizations (Doole, 2020). Furthermore, depending on the geographical area and the factors measured, the rating and scoring can be made in a wide variety of ways. Surveys, personal interviews or data analytics can be used in order to obtain structured and accurate information and data.

The world of ESG investing is considered very complex as there is a broad variety of rating scores, indexes, ranking and specific scores (Eccles & Strohle, 2018). As stated before, the lack of a consolidated international infrastructure for the regulation of ESG investing in addition to the divergence in the creation of indexes, makes it difficult to define a concrete way for the construction of ESG indexes.

In terms of the short-term impact, the most important ESG factor in the investment decision is governance whereas long-term impacts relate more importantly to social and environmental factors. However, this situation can change across time as it has been observed with the global financial crisis, during which social indicators have increased in importance (Doole, 2020).

#### **4.4. Most relevant ESG indexes**

Around more than 1,000 ESG indexes currently exist, and the number is increasing, which constitutes evidence of the growing interest among investors (Kjellberg, Pradhan, & Kuh). As preferences change and sustainable concerns emerge, the potential risks and opportunities for investors become more important and tools for measuring ESG factors increase in usage.

ESG indexes are increasingly becoming more specialized and personalized in order to satisfy the preferences of individual investors. Bloomberg, a platform that provides business and markets data, news, and analysis, has the option of making complete personalized and customized ESG indexes depending on the investor's portfolio needs (Bloomberg Finance, 2021). Bloomberg indexes are available with no additional cost, which increases their accessibility by investors.

The most widely used ESG indexes are those that originally emerged decades ago. Those initial indexes have evolved since their creation and have adapted to changing trends in the market. They have been able to evolve with the market and with the preference of investors. It is important to note that the use of ESG indexes depends on the type of investor and its expectations for the portfolio.

Large rating companies are focused on calculating which investments are the best in terms of the inclusion of ESG factors in their policies. Usually, companies try to enter these indexes

because the accessibility to financing is higher in companies that are widely considered sustainable (Muelas, 2019). The main indexes used and considered are those included in the following series:

- DJSI Indexes
- EcoVadis Indexes
- FTSE4Good Indexes
- ISS ESG Indexes
- MSCI Indexes

Those indexes provide a useful metric for comparing investments by rating companies according to an assigned ESG score. The assigned rating depends on the criteria used by the institutions that produce the indexes to evaluate ESG components. While scores may vary between ESG rating companies as different metrics are used in their production, all indexes are similar. They are all based in the company's annual reports, its global management, its board structure, its sustainability measures and its relation with controversial issues (Napoletano & Curry, 2021).

In order to better understand the differences between the previous indexes, the main characteristics and building methodologies of each ESG family of indexes will be explained as follow.

#### **4.4.1. DJSI Indexes**

The Dow Jones Sustainability Indexes are a family of indexes that track the performance made by the stock of the most important companies worldwide according to economic, environmental and social criteria. This group of indexes include global, regional and country benchmarks: DJSI World, DJSI North America, DJSI Europe, etc. As the main objective is to make an analysis of ESG indexes at the global level, this paper will be focused on the DJSI World Index. Additionally, there are sub-indexes that exclude those companies that are related to controversial activities such as tobacco, alcohol and firearms (Dow Jones Sustainability Indexes, 2008).

The family of indexes was created in 1999 by S&P Global and is considered the first global sustainability benchmark (S&P Global, n.d.). The main aim of these indexes is to recognize the best practices in terms of sustainability of companies listed on the stock exchange (Mapfre, 2020). The S&P Global analysts are the main providers of indexes in the world and, as a result, the company has a great prestige in their development. Additionally, the DJSI Indexes were created by S&P Dow Jones jointly with a prestigious company specialized in sustainable investing called RobecoSAM (Marichalar de Corral, 2014).

The methodology used to develop the DJSI World Index is focused on a selection process that chooses the best companies according to their Total Sustainability Scores. This score is made using the S&P Global Corporate Sustainability Assessment (CSA). The process of selecting the companies that will be inside the indexes, starts with RobecoSAM evaluating the most sustainable companies according to the established criteria in the annual CSA. This evaluation is based on a questionnaire of 100 questions with nearly 600 indicators that measure different corporate governance's criteria, conduct code of ethics, risk management, business and suppliers. Each question receives a different punctuation according to the weight previously established of the criteria used.

Other aspects related to the environmental dimension are also included, such as the development of products and programs to take care of the planet and promote eco-efficiency, as well as all those initiatives aimed at defending human rights, promoting talent retention and financial inclusion, and improving the health and well-being of employees (Mapfre, 2020). Additionally, companies have to submit supplementary documentation, reports and other data for supporting what they answered in the questionnaire. Media's articles and contacts of different companies are also reviewed. The main aspects taken into account when evaluating this additional data provided are the following (Marichalar de Corral, 2014):

- Social dimension: analyzed from two points of view; an internal one related to human development and the promotion of talent, and an external one that refers to the general contribution to society.
- Economic dimension: including anti-crime policies, brand management, codes of conduct, corporate governance, innovation, consumer relations, crisis and risk management, etc.

- Environmental dimension: based on business risks, environmental policies, environmental reports or eco-efficiency.

This data is also reviewed by independent experts and external auditors in order to ensure quality and objectivity in the evaluation.

After RobecoSAM establishes the most sustainable companies, the S&P Dow Jones makes a ranking and selects the top 10%. After that, the top sustainable companies in the world are included in the indexes (S&P Global, n.d.).

This index is a float-adjusted market capitalization index that measures the performance of the most sustainable companies. The weighting of the components is based on the free-float portion of the total number of shares outstanding (Dow Jones Sustainability Indexes, 2008). As the index is float-adjusted, its value shows the available value for investors at public markets (S&P Dow Jones Indices, 2021a). Companies may have different classes of common stock listed, but only the one having the largest float-adjusted market cap is considered in the selection. On a quarterly basis, the maximum weight of any index constituent is capped at 10% of the index (S&P Dow Jones Indices, 2021a)

Last year, S&P Global decided to introduce some changes in their methodology in order to capture the emerging trends and remove the questions that were no longer material. This led to a more clarified approach and a methodology more aligned with the international reporting standards. (S&P Global, 2020)

#### **4.4.2. EcoVadis Indexes**

EcoVadis is an important organization at the international level, as it is considered the only universal provider of sustainability ratings among companies. This agency provides company ratings built according to non-financial management systems, for instance, Ethics and Sustainable Procurement, Labor and Human Rights and Environmental impacts (The EcoVadis Team, 2021).

EcoVadis created the Sustainability Index and Impact, which is focused on the evolution of sustainability performance of companies. This index exposes the sustainability performance

of 40,000 companies previously rated between 2015 and 2019. The company makes a report called *The Business Sustainability Risk and Performance Index 2020* (EcoVadis, 2020a), that differentiates the industries and establishes which ones have more sustainable practices. It also analyzes and compares sustainability by regions. EcoVadis states that the rich variety of industries, company sizes and locations included in the index, provide the widest coverage of sustainability evidences among companies.

The index is built using the company's rating methodology called Corporate Social Responsibility (CSR) that produces scores which range from 0 to 100. Those rating scores are based on 21 sustainability criteria which are focused on the environment, ethics and sustainability, and labor and human rights. The rating methodology used by EcoVadis for valuing a company's sustainability management systems, is based on seven management indicators: Policies and Objectives, Endorsements of external CSR principles, Measures and Actions implemented, Certifications and third-party Audits, Coverage-Deployment of Actions, Reporting available and 360° Watch Findings (EcoVadis, 2020a). The punctuation of each performance management indicator is established by a group of analysts and depends on the previously mentioned sustainability criteria.

The scores are classified by ranges:

- Companies with scores between 0 and 25 represent high-risk organizations. There are no tangible sustainable elements identified inside the management system of the company.
- Scores from 25 to 44 are considered medium-risk companies. The main sustainability criteria are not sufficiently addressed.
- Companies between 45 and 64 are classified as good as the main criteria are achieved.
- Over 65 score-organizations are represented as advanced and outstanding. These companies have external recognition because of their innovative practices.

The main peculiarity of this index is the diversity among the sources of data used: documentation provided by customers, third party endorsements and 360° evolution of external stakeholder. This index monitors the sustainability performance of the companies and their continued improved actions (EcoVadis, 2020b). Precisely, the company's report

concludes that global sustainability performance is, in general, improving and that human and labor rights are now the main focus of companies.

#### **4.4.3. FTSE4good Index Series**

FTSE4good Index Series was created in 2001 and includes stock listed companies that fulfill the requirements established by the FTSE ratings (faircompanies, 2007). This index is considered a market-leading tool for knowing which companies are leaders in including sustainability in their practices.

FTSE4good Index Series is designed by FTSE Russell with the main aim of measuring the performance of companies that have strong ESG practices. The FTSE4good Index Series includes more than 15 benchmarks which are based on around 3,000 securities from 46 different markets. The indexes that form the series are used when market participants try to create or involve in sustainable investments. Market participants can use these indexes in different ways (FTSE Russell, 2021):

- As financial products focused on sustainable investments.
- For making research about the most sustainable companies.
- As a reference of companies that want to track their progress according to ESG standards.
- As a benchmark to track sustainable portfolios.

The FTSE4Good Series, as the DJSI family, is formed by indexes created based on regional criteria such as countries or continents. This paper will be focused on the FTSE4Good Global Index which includes companies from all over the world. The criteria analyzed when creating the index are directly aligned with the United Nations Sustainable Development Goals (SDGs) from the 2030 Agenda (BME, n.d.). The different ESG topics that companies have to assess in order to enter the FTSE4good indexes include all the 17 SDGs of the United Nations (UN) (FTSE Russell, 2020).

This index is made using ESG ratings made by FTSE Russell and built from publicly available data. It differs from the DJSI methodology in that the information obtained for

building the index comes only from data, no surveys or questionnaires are made. The rating is conducted using more than 300 individual indicators of assessment, which are established according to three pillars and 14 themes, each pillar containing different themes (FTSE Russell, 2020):

- Environment: biodiversity, climate change, pollution and resources, environmental supply chain, water security.
- Social: customer responsibility, health and safety, human rights and community, labor standards, social supply chain.
- Governance: anti-corruption, corporate governance, risk management and tax transparency.

The process of this index's construction starts with the market capitalization weighted underlying reference index (FTSE Russell, 2020). The index used as a reference is market-cap weighted and float-adjusted, which means that the index's components are weighted according to the total market value of their available outstanding shares (FTSE Russell, n.d.). Then, there is a selection of those companies that have demonstrated strong management of ESG risk, which are those that have obtained a score of over 3.1 out of 5 in the ESG rating made by FTSE4 Russell (FTSE Russell, 2020). The rating is based on a weighted average score for each of the 14 themes which is calculated from the conversion of the percentage of the total ESG indicators fulfilled by the companies (Johnstone, 2020).

In addition, companies exposed to controversies are excluded, for instance those whose activities are related to tobacco and weapons. To conclude, the companies that assessed the criteria are included and the index is reviewed in order to warn those companies that are at risk of getting out the index.

The FTSE4Good Index Series is overseen by an independent external committee called the ESG Advisory Committee, which includes experts in investments, business, NGOs and other unions (FTSE Russell, 2016). Additionally, the FTSE4Good index is elaborated with the support of UNICEF and Ethical Investment Research Services (EIRIS) in order to give response to the increasing interest of investors in ESG investments. These alliances show the

real commitment FTSE has in the creation of a responsible and sustainable market environment (unicef, n.d.).

#### **4.4.4. ISS ESG Indexes**

The ISS ESG Index family was created in 2019 by Institutional Shareholder Services with the main objective of allowing investors to know which companies have successfully included environmental, social and governance preoccupations in their activities. The peculiarity of these indexes is that they are made in collaboration with other global index providers.

It is formed by indexes classified depending on four main criteria: governance, screening and controversies, climate and best-in-class and the SDGs. This classification allows market participants to choose different indexes depending on the ESG factors they consider more important. As this paper is focused at an international level, the index chosen as a reference is one from the last category which is called the Solactive ISS Prime Rated ESG Global Markets Large & Mid Cap Index. This index includes companies that have assessed the performance requirements established by the ISS ESG Corporate Rating (ISS ESG, 2021).

The Solactive ISS Prime Rated ESG Index Series is made from a partnership between ISS ESG and Solactive. Solactive is a German company whose main activity is to provide indexes at a fast pace and at a global level (Solactive AG, n.d.).

This index tracks the main companies across the globe that fulfill ESG performance criteria with large and mid-capitalization and that are categorized as “Prime” by ISS ESG. This “Prime” categorization made by ISS, means that the firm has reached a high level of performance requirements based on ESG risk exposure (Lord, 2019).

In order to create the index, first, Solactive evaluates the companies according to different themes and topics related to environment, governance and controversial aspects. Those standards are built based on the existing norms in the UN Global Compact. The data provider of the information needed for the evaluation of the companies is ISS ESG. Then, from the evaluated companies, only those labeled as ‘Prime’ are selected, as they are considered the leaders inside the industry. This double selection assures impartiality in the determination

of the index's components. Finally, every constituent receives a weight according to free float market capitalization (Solactive AG, 2020). The index is created from the weight of the components and their stock prices.

There is an oversight committee that is responsible for establishing and modifying the rules in the methodology of the index, in order to achieve impartiality. This committee is called the Oversight Committee and is composed by the staff from Solactive and the ISS (Solactive AG, 2020).

#### **4.4.5. MSCI Indexes**

MSCI Indexes are considered nowadays one of the main references in the financial industry. These indexes are relevant for analysts as they allow the monitorization of the markets' evolution. They are also important for funds managers because they provide them with a good starting point to know if their portfolio management has been adequate or not (Knight, 2020). As stated before, responsible investing emerged in 1990 thanks to the launching of the MSCI KLD 400 Social Index by this company.

MSCI Developed Markets Indexes are built according to the MSCI's Global Investable Market Index (GIMI) methodology, which takes into account the variations produced by the conditions across regions, the market capitalization sectors, segments and styles. This family of indexes show the performance of securities and is divided in sectors: global, regional and country sector, industry sector.

The specific index used in the analysis will be from the group of MSCI ESG Leaders Indexes as it targets the global companies with a higher environmental, social and governance performance rating. Precisely, the MSCI World ESG Leaders Index will be explained. This index uses an underlying MSCI parent index as a reference, in this case the parent index is the MSCI World Index which includes large and mid-capitalization companies from 23 different markets (MSCI, 2021c).

The ESG Ratings made by MSCI start with the analysis of the company's data about ESG policies, programs and performance. Then, metrics are made about how the company is exposed to relevant issues from the industry and how it is managing those issues. After that,

key issues depending on the industry are established and weighted between different countries. Finally, the ESG rating is made and scores are established according to overall analysis (MSCI, 2020). Companies can be rated as follows (MSCI, n.d.):

- AAA and AA: Leaders as they are adequately managing the most relevant ESG opportunities and risks.
- A, BBB and BB: Average because these companies manage significant risks and opportunities in an acceptable manner.
- B and CCC: Laggard yet they have failed in managing risks.

This index is created from an aggregation of the following regional ESG Indexes: MSCI Pacific ESG Leaders Index, MSCI Europe & Middle East ESG Index, MSCI Canada ESG Leaders Index and MSCI USA ESG Leaders Index. In addition, it includes large and mid-cap companies in 23 different markets from developed countries.

The methodology used is based on the selection of the companies with the highest ESG rating inside the regional indexes mentioned before. The main objective is to include those companies with high ESG performance, that represent the 50% of the market cap of each sector and industry. In order to be included in the index, companies need to have a MSCI ESG score of BB or above and a rating of controversies of ESG of 3 or higher. This index is also float-adjusted market capitalization weighted.

This index also excludes the companies that are involved in controversial businesses such as alcohol, gambling, tobacco or weapons (MSCI, 2021c). Additionally, there is an Annual Index Review that assures that the index includes relevant and accurate information of the components. As this series is the most recognized worldwide for being the pioneer in including ESG criteria in its indexes, it will be the MSCI World ESG Leaders Index on which the following analysis will be focused.

## **5. Evolution of ESG Indexes during the COVID-19 pandemic.**

### **5.1. Global financial markets and the COVID-19 pandemic**

The COVID-19 pandemic is a health crisis that started in 2019 in Asia and then expanded throughout the world. The United Nations Development Programme (UNDP) classifies it as the greatest global challenge society has faced since World War II (UNDP, 2021). More than three million people dead and around 140 million have been infected with the COVID-19 disease until April, 2021 (BBC News Mundo, 2021). The World Health Organization (WHO) defines COVID-19 as an infectious disease resulted from a new type of coronavirus (OMS, 2021). The main issues of this disease are, first, how easily it can be transmitted, mainly through the air, and second, the high mortality among the elderly and people at health risk.

The consequences of COVID-19 have not only been devastating at the health level but also for the economies of almost all countries. Governments have established measures such as lockdowns, with the main aim of reducing the spread, which also resulted in the slowdown of economic activities as businesses had to close. In addition, states implemented other restrictions such as international, national and regional mobility limitations, which were also devastating for almost all economic sectors.

Understanding the different movements of prices inside global financial markets during the pandemic could give a general idea of how the market was reacting to the events, and what were the expectations of investors (Bradley, 2021). At first, the start of the COVID-19 pandemic produced a freefall on stock prices but since that, share prices have experienced a lot of ups and downs. Important events during the pandemic have had a lot to do with those movements of share prices. Precisely, stock markets declined more than 30% as a result of higher volatility of equities and oil reaching crisis levels. This situation has resulted in businesses becoming highly indebted, what produced the worsening of economic and market conditions (OECD, 2020).

It is important to note that although the pandemic is somewhat controlled, it has not ended yet. Additionally, in the short and medium-term the economy seems to be highly dependent on epidemiological developments, which implies a high degree of uncertainty. Therefore, the future situation is difficult to forecast and the possible scenarios forecasted by institutions

such as the Bank of Spain are progressively being more pessimistic as they predict a slower recovery (Maqueda, 2020). This paper will be focused on the evolution of financial markets, particularly on the fluctuations of ESG investing, during the COVID-19 pandemic from its start in December 2019 until April 2021.

## **5.2. Evolution of ESG indexes during the COVID-19 pandemic**

Investors consider the COVID-19 crisis the first sustainability crisis produced in the 21<sup>st</sup> century, as it has shifted the focus to climate change, calling for decision makers to choose a more sustainable approach to investments. Jean-Xavier Hecker and Hugo Dubourg (2020) state: “We believe that pandemics and environmental risks are viewed as similar in terms of impact, representing an important wake-up call for decision makers. The impacts of the COVID-19 crisis on the real economy and the financial system highlight the limits of most forecasting models.”

Similarly to the financial crisis of 2008, The COVID-19 crisis has accelerated the need for a new approach inside financial markets as climate change risks have been related to the unforeseen risks of a pandemic. If companies pay more attention to the negative externalities of their activities, the negative consequences of major unexpected crises can be lower. In other words, the fact that ESG factors reduce negative impacts in the long term, could make the future consequences of the current COVID-19 crisis to be lessened (Hecker & Dubourg, 2020).

In order to understand how ESG investments have fluctuated during the COVID-19 crisis, a comparison between the evolution of two main ESG indexes and the global stock market's evolution will be made. First, the fluctuations of DJSI World Index and the MSCI World ESG Leaders between the 24<sup>th</sup> of December 2019 and the 23<sup>rd</sup> of April 2021 will be analyzed. Only those two indexes are going to be analyzed as they can be considered representative of the whole ESG indexes' evolution, because they both are the most broadly used. The focus will be mainly in the MSCI Index, but the DJSI Index will be also taken into account in order to give a more representative image of ESG investments' fluctuations. In addition, the comparison will be complemented with the main events during the COVID-19 pandemic that have had an impact on the capital markets. After performing a superficial analysis of the

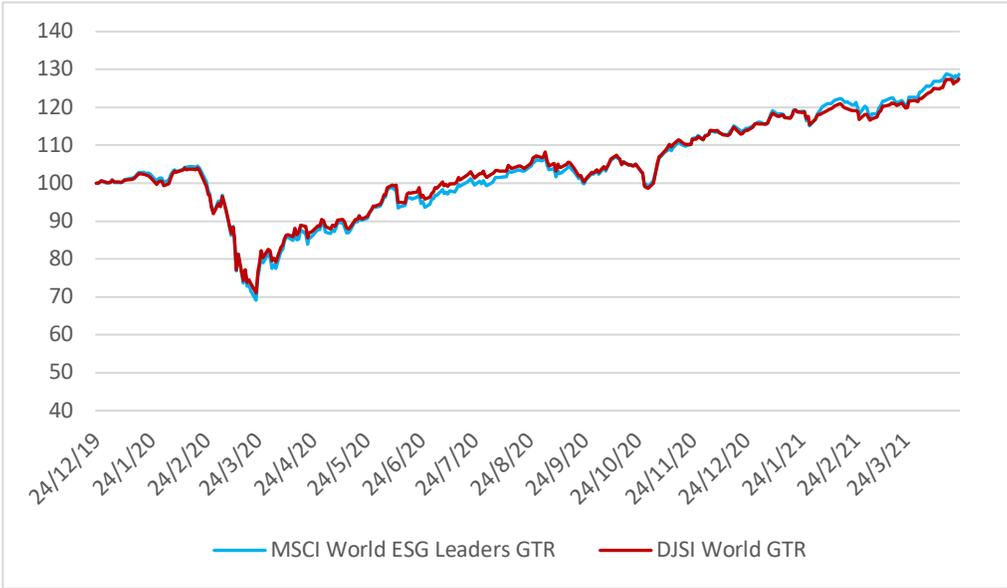
evolution of those two indexes, the fluctuations inside the capital markets will be analyzed using an index from the MSCI family, the MSCI ACWI Index.

For a better understanding of the indexes' evolution, the DJSI World and the MSCI World ESG Leaders indexes will be focused on the Gross Total Return figure, which is based on the reinvestment of regular cash dividends at the close on the ex-date without considering withholding taxes. This version could be considered the most representative as it eliminates the effects that dividends and taxes can have on the indexes.

**5.2.1. The DJSI World and the MSCI World ESG Leaders indexes**

In order to better understand the general evolution of ESG indexes, the following figure includes the fluctuations of the MSCI World ESG Leaders Index and the DJSI World Index from December the 24<sup>th</sup>, 2019 to April the 23<sup>rd</sup>, 2021.

**Figure 2:** *Evolution of the MSCI World ESG Leaders and the DJSI World indexes during the COVID-19 pandemic<sup>2</sup>*



<sup>2</sup> The figure above shows the evolution of the MSCI World ESG Leaders and the DJSI World indexes spanned from December 24<sup>th</sup>, 2019 to April 23<sup>rd</sup>, 2021. In order to compare the variation, the indexes are adapted to the same scale by locating the starting point of both indexes in 100. Depicted in blue is the MSCI index elaborated with the values of the Gross Total Return index version obtained from MSCI Inc. (2021a). Depicted in red it is the DJSI index evolution built from the daily data obtained from S&P Dow Jones Indices (2021b) about the Gross Total Return values of the index.

The version of the DJSI World Index used as a reference, the DJSI World Index based on Gross Total Return, has increased around 27.49% since December 2019, which means that overall, the index has risen significantly during the COVID-19 pandemic. Similarly, the MSCI index has increased around 28,75% across the sample. The growth in percentage is very similar to the one of the DJSI index, which means that they have change almost in the same amount during the last year and a half.

Furthermore, as it is shown by the figure, the general evolution of both indexes is almost the same. It can be seen that the movements are similar differing only in the amount of change during some periods. This is produced by the differences in the resulting ratings of the companies, as they diverge in the components included and in the methods of evaluating ESG factors and the varying weights.

The trend in both indexes is stable until the end of February and the beginning of March 2020, where it begins to fall dramatically until reaching the lowest point on March 23<sup>rd</sup>. The evolution of the indexes plummeted during that date. After this, a progressive growth begins with slight upward and downward movements, until the end of October, when there is a slightly more pronounced decrease. Followingly, the growth is close to stable.

Therefore, the main dates when both ESG indexes experienced important movements are:

- Around February 25<sup>th</sup>, 2020. The graph shows how at this moment the indexes start to decline and plummeted on March 9<sup>th</sup>, reaching the lowest point in March 23<sup>rd</sup> with a total decrease since December 24<sup>th</sup> of approximately a 30.9%. This was produced because at the end of February, the main European countries started to experience high rates of infections and the panic appeared. The market plummeted when the COVID-19 disease was classified as a pandemic by the WHO (Canibe, 2020). After that, at mid-March, Europe was considered the epicenter of the pandemic. Governments started to limit the mobility, especially in countries from Europe, and Italy declare the closure of non-essential activities. Italy was the first European country who implemented a national quarantine the on March 9<sup>th</sup>, 2020. Five days later, Spain followed. Later, France, Norway, Switzerland, Belgium and other Latin America countries also implemented quarantines.

The collapse of stock prices was produced because of the measures established by governments which lowered the stream of expected cashflows and resulted in investors losing confidence on the markets (Mazur, Dang, & Vega, 2020). Additionally, in March 23<sup>rd</sup> the WHO officially rated the risk of the pandemic ‘as very high’, which negatively affected future expectations (DW, 2020).

- On March 24<sup>th</sup>, 2020 the indexes begin to recover from the previous fall and start to gradually increase. In this date, the EU included more flexibility in its fiscal framework so that countries could avoid the deficit measures in order to improve the support for civil protection and health aid systems. Additionally, the governors and finance ministers from the Central Bank established very negative perspectives for global growth but they also expected higher recovery for 2021. The International Monetary Fund (IMF) also supported the extraordinary fiscal measures implemented by some countries (DSN, 2020a). As a result of the fiscal stimulus, the expectations for future economic growth gradually increased and the markets began to slowly recover from the shock.
- The period between April 15<sup>th</sup>, 2020 and August 1<sup>st</sup>, 2020 is characterized by a time of slight fluctuations. During this period, different measures were established depending on the region and, at a global level, G-20 members had continuous talks about how to manage these situations. Additionally, the IMF and the World Bank negotiated economic measures for rescuing the economies. The main steps were focused on launching economic plans with other development banks, amounting to more than USD 160 million for the following 15 months (DSN, 2020b).

To sum up, most of these fluctuations were produced because of changes in the measures adopted by governments and other international institutions. In addition, the de-escalation started and gradually the economy began to slowly recover. Therefore, the figure shows a growing tendency during that period produced by more optimistic future expectations of investors. For instance, the MSCI ESG index shows a total increase of 13.89%, reaching at the start of August very similar levels as the ones existing before the pandemic. That meant that in August the market almost had recovered from the shock.

- During the end of August and the start of September, the index levels even surpassed the data prior to the pandemic, reaching an increase of 7.6% in September 2<sup>nd</sup>. Although the cases during this period started to increase again, investors were not focused on it, but rather in the economic recovery that was going to take place, as central banks and governments seemed to be highly committed to it. For instance, a lot of institutions such as the US Fed increased their tolerance towards inflation as a tool for supporting the economy. Additionally, global institutions had faith on having the vaccine available in the short-term (Bankia Estudios, 2020).
- On October 30<sup>th</sup>, the increasing trend changes as there is a shift in the growing tendency previously experienced by ESG indexes. As the cases grew significantly, lockdowns started to be implemented again in Europe and several countries declared the state of emergency. Additionally, the United States reached the highest level of infections of all the pandemic. Finally, this increase of cases and concerns about the spread of COVID-19 resulted in driving down stock prices as economic expectations started to worsen (Deloitte Economics, 2020). Additionally, the uncertainty regarding the upcoming US elections in November produced a fall in prices (Gandel, 2020).
- Since then, the trend has been a growing one as both indexes increased until the end of the sample, due to events of different nature. On December, the first vaccines for the disease were authorized, but their approval for use depended on the internal governments of the countries.

In the US, the first vaccine launched was the Moderna one and a few days later, the Pfizer vaccine was also approved for use (FDA, n.d.). The third vaccine, the one developed by Johnson & Johnson was authorized in February 2021. Additionally, the vaccines developed by AstraZeneca and Oxford were listed as vaccines for emergency use by the WHO (News Release WHO, 2021). Therefore, the perspectives for future economic growth were positive and the stock market reflected this confidence in the future financial recovery of the countries.

### **5.3. Evolution of capital markets during the COVID-19 pandemic**

In order to better understand how expectations have changed across time since the start of the pandemic inside the global stock market, only one representative index will be analyzed. For a better understanding, the index chosen is closely related to the MSCI ESG index analyzed before, as it is part of its family of indexes and made by the same rating agencies.

The index analyzed from the MSCI family is called the MSCI ACWI Index and is one of the most widely used global equity indexes. It is focused on large and mid-cap companies in both developed and developing countries. The performance of the index will be illustrated in a graph as the one above, focusing on the version of index based on Total Gross Return.

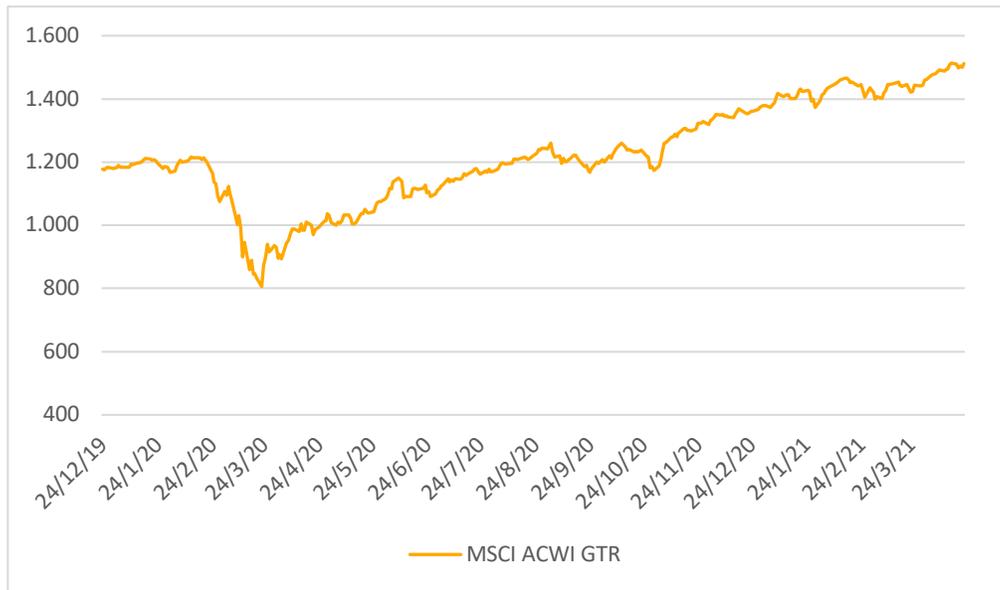
#### **5.3.1. The MSCI ACWI Index**

The MSCI All Country World Index is the global equity index most known inside this family of indexes and is created to represent the performance of mid-cap and large-cap publicly listed companies across the world. The index is created taking into account variations that reflect the different conditions across regions, market capitalization, sectors and segments.

This index is built using the same methodology of the MSCI World ESG Index, the GIMI. It is also a market capitalization-weighted index, and both mainly differ in that the ESG index chooses the components according to ESG ratings and related criteria. However, the MSCI Global ACWI Index is mainly focused on giving a general view of the global equity market as a whole (CFI Institute, n.d.-b).

The performance of this index is shown in the following figure and includes the sample between December 24<sup>th</sup>, 2019 and April 23<sup>rd</sup>, 2021. It gives a general image of the evolution of stock markets during the pandemic.

**Figure 3:** Evolution of the MSCI ACWI Index during the COVID-19 pandemic<sup>3</sup>



This figure shows a very similar tendency to the ESG indexes analyzed before. At first, there is a fall of stock prices in February 2020. After this decrease, that lasted until the end of March, the market starts to recover around April.

The index's growth is slower and the fluctuations higher during the first months after the recovery, precisely from the end of April until August. After that, the markets maintained a stable growth, with a small decline in the first days of November 2020. Then, the index reaches even higher levels than the ones before the pandemic, precisely since the end of 2020.

The overall variation of the MSCI ACWI Index during the pandemic has led to a final increase of approximately 28.45% since December 24<sup>th</sup>, 2019. One can see that it is lower than the total variation of the MSCI ESG Index, which accounted for 28.75%. This small difference between both total variations evidences the fact that overall, ESG investments have reached a higher value than the one of the stock markets.

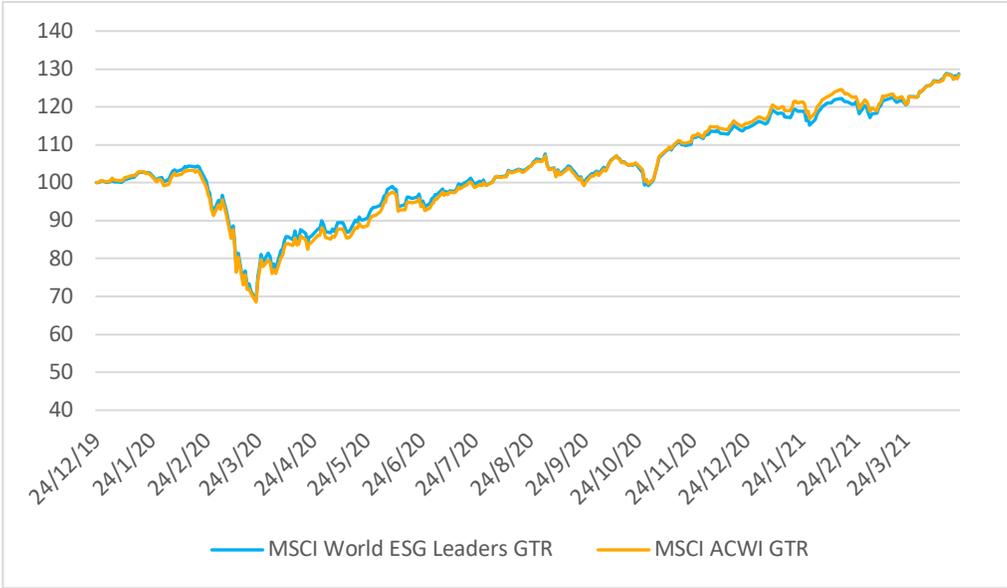
<sup>3</sup> The figure above shows the evolution of the MSCI ACWI Index spanned from December 24<sup>th</sup>, 2019 to April 23<sup>rd</sup>, 2021. Personal elaboration based on Gross Total Return data obtained from MSCI Inc. (2021b).

In order to better understand how the movements of global stock markets are related to the ones of ESG investment, the MSCI ESG and the MSCI ACWI indexes will be compared, mainly focusing on the differences between the values of their fluctuations.

**5.4. Comparison of the MSCI ESG index and the MSCI stock market index**

Figure 4 shows the evolution of both indexes, where it can be seen that the fluctuations of the ESG index are less sharpened.

**Figure 4:** Joint evolution of the MSCI World ESG Leaders and the MSCI ACWI indexes<sup>4</sup>



For a better understanding, the differences between those fluctuations are expressed in the following graph, where one can observe the point percentage difference between both indexes. In the following figure, positive values express that ESG investments are outperforming the market as a whole, and negative values imply that ESG investments are underperforming with respect to the global market.

<sup>4</sup> The figure above shows the evolution of the MSCI ACWI, in orange, and the MSCI ESG World Leaders, in blue, indexes spanned from December 24<sup>th</sup>, 2019 to April 23<sup>rd</sup>, 2021. Personal elaboration based on the data used obtained from Gross Total Return index versions of the ESG index obtained from MSCI Inc. (2021a) and the global index, MSCI Inc. (2021b).

**Figure 5:** *Difference between the values of the MSCI ACWI and the MSCI ESG indexes during the COVID-19 pandemic*<sup>5</sup>



As it can be seen, during the first part of the pandemic, the ESG index has a higher increase than global stock market investments. On the other hand, during the second period of the pandemic, this difference turned to be negative, meaning that the values of the MSCI ACWI Index have been higher than the ones of the ESG index.

When the market plummeted in March, the decrease of the MSCI ESG index was about 30.87%, whereas the one of the MSCI ACWI Index was higher, around a 31.5%. This higher percentage means that the fall experienced by the values of the MSCI ACWI Index was sharper. This fact is supported by the previous figure, which shows that the values of the ESG index were higher than the ACWI index.

Regarding the period between mid-April and August, which is characterized by the gradual growth of prices within the stock market, the difference between the percentage of change of the two indexes are higher. The MSCI ACWI Index increases in 16.36% from April 15<sup>th</sup> until August 1<sup>st</sup>, while the ESG index changes in approximately 13.9%. One can see that in this

<sup>5</sup> The figure above shows the differences in the values of the MSCI ACWI and the MSCI ESG World Leaders indexes from December 24<sup>th</sup>, 2019 to April 23<sup>rd</sup>, 2021. Data obtained from the subtraction of the ACWI index values from those of the ESG index.

case, the difference between both percentages is higher than the one in the previous paragraph. As it is a period of market increase, this means that the MSCI ACWI is recovering quicker than the ESG index. As a result, the difference between the values of both indexes starts to be lower, even reaching levels close to zero across August.

Since the start of September, both indexes grew at a different pace, what led to an increase of the distance between both values. According to the previous trend, the values of the ACWI index rose significantly and their recovery from the shock of prices produced in March was faster than the one of ESG investments.

In March 2021, the difference starts to become smaller and the tendency changes, the values of the ESG index are now higher than the ones of the ACWI, which means that they are increasing more. As it occurs in a period where the stock market is growing, ESG investments are reaching higher values than the ones of stock markets. Therefore, currently ESG indexes are reaching higher levels than global stock markets indexes, which means that during the COVID-19 crisis the interest among this type of investments increased and the market evidenced that with a final increase of their market prices.

After the analysis of this relation, it can be concluded that during the hardest time of the COVID-19 crisis, ESG investments reached higher values than the ones of the general global markets. In other words, when both indexes decrease, there is higher inversion in ESG investments. On the contrary, when the stock markets recovered and the stock index reached similar levels as the ones before the pandemic, the ESG index had a lower increase in its value compared to the stock market. Hence, companies that are not classified inside the ESG group, experience a faster recovery than ESG companies. On the other hand, as ESG indexes did not fall as sharply as the ACWI index, the recovery they needed was slighter.

This means that ESG investments have lower volatility and have been less affected by the events during the pandemic. ESG indexes tend to be more stable as their values experienced a slighter change during times of growth or recession than normal investments in the stock markets. Therefore, the risk inside those type of investment is lower. Although the movements of both indexes could seem to be very similar when comparing their evolution, they both have different behavior during the COVID-19 pandemic as the last figure shows.

During times of crisis, securing future returns and applying long-term views is the option preferred by investors, consequently, ESG investments are the master option. ESG investments, not only are less affected by the impacts of crises but also give a higher and more secure return in the long term.

Additionally, it can be seen in the previous graphs that ESG investments are now recovering faster and increasing in value compared to the stock markets. If this trend continues, not only investing in ESG companies will be more secure, but also it could give better returns as nowadays their value is higher than the one of normal companies. However, it could be necessary to analyze the following movements of ESG indexes in order to make conclusions.

## **6. Conclusions**

Investors are starting to give more importance to factors that are not focused on alpha or financial returns. This phenomenon usually increases in importance during times of crisis, when they are more aware about the negative externalities of business activities. As it was seen during the financial crisis of 2008, market participants try to be involved in sustainable investment by creating a portfolio that reflects their values and preferences. Specially during the COVID-19 pandemic, the focus has shifted into factors such as sustainability and good governance, as the main general objective has been to reduce the negative long-term consequences of this crisis.

As stock markets change according to the future expectations of participants, the growth of those financial markets depends mainly on the opinion about the prospect, investors and businesses have of the pandemic. The performance of the stock market during the COVID-19 pandemic has shown the impact of accelerating trends, increasing gaps between the winners and the rest, and a flow of value to big players. With the pandemic, the world has changed, our lives have been transformed as well as the economy and businesses. As a result, all those changes have been reflected in stock markets with the fluctuations of share prices.

The analysis of the main movements of ESG indexes has shown that ESG investment is moving in the same direction as global financial markets. However, ESG investments are less volatile than global stock markets as they are less influenced by the movements occurred

in the global economy. This lower volatility means lower risk and higher security in the long term. As the main objective of the global economy after the COVID-19 pandemic is to completely recover in the long term, ESG investments are the future succeeding strategy when managing portfolios. It can be concluded that the most secure option for making profitable investments during times of crisis, is to include ESG companies in the investment portfolio.

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