

## **Green Bucks: Does Sustainability Pay Off for Corporations and Investors?**

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### **ABSTRACT**

*Sustainability efforts, which can be represented using an ESG score, are emerging as one of the most important trends across the world. The importance of understanding the impact of these sustainability efforts can't be emphasised enough as the number of global assets allocated to sustainability surpassed the trillion dollar mark. This paper will first provide an introduction to the overall concept of ESG and the aim of the paper. This paper will then analyse the trends of the financial health of corporations coinciding with improved sustainability practices through the analysis of several published empirical research papers as well as articles and journals published to determine whether a more sustainable environment is beneficial for investors and corporations. This paper concludes by analysing the beliefs of renowned economist Milton Friedman in relation to corporate responsibility and mapping out a timeline to mark the key events in sustainability and display the growth of sustainability to its modern-day equivalent. The paper will dwell on the impact on ROA, the impact on consumers, innovation and perception and question the accuracy and the process behind sustainable investments and ratings.*

### **Introduction:**

But why is this topic relevant in modern times? The reason this topic is relevant is because of the trillions of dollars that have been poured into sustainable funds and sustainable investments. It is very important to understand the effects of ESG both on the financial health of a firm and the firm's stock price because these factors can influence both the perception and rate of adoption of ESG. Studying the impacts of sustainable investments as a whole is also important in terms of consumer preferences and loyalty which is one of the most essential factors in the business world. Sustainable investments play a role in many crucial areas for firms and it is crucial that both the advantages and disadvantages of these investments are thoroughly understood and studied.

What is this paper going to discuss exactly? This paper will focus on the improvements on the financial health of companies that are focused on making sustainable investments. These benefits include the improved return on assets, brand loyalty and the reduced risk associated with the company. The paper will then discuss the negatives of sustainability where it will focus on a potential decline in innovation but more importantly the ineligibility of ESG ratings that are used by large sustainable funds to make decisions on their investments. The paper will explain this by showcasing a divergence in ratings due to three main reasons. The negative section will then further be expanded on by mentioning statistics regarding the compliance and performance of sustainable funds relative to funds less sustainable than them.

Finally, this paper will discuss what were the opinions of a renowned economist before building a timeline to show the growth of focus on sustainability over the last 50 or so years.

### **Theory Development:**

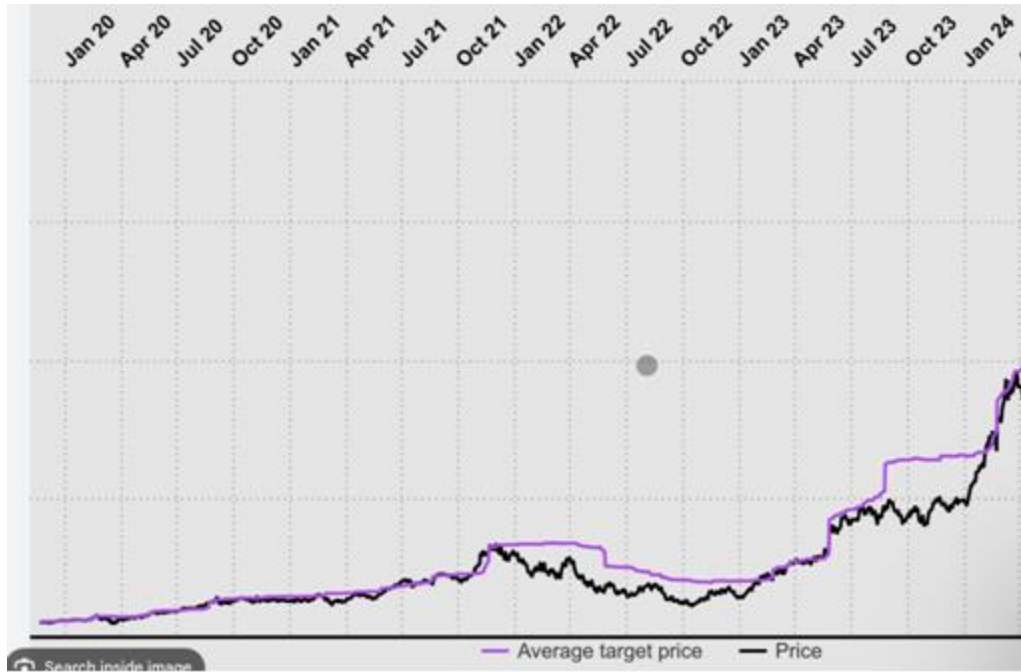
#### **ESG and its key constructs with its financial implications:**

This paper aims to answer how coverage, perception and money flow into ESG changed over time. The research question can be broken down into three parts. The link between coverage, perception and money flow as one part, the use of time in the overall structure of the paper as the second part and the overall concept of ESG as the third part.

#### ***Coverage and Perception of ESG:***

Coverage and perception are concepts that fluctuate wildly over time. It is dependent on the research and the common beliefs of the time period. Perception and coverage tend to follow a similar path because coverage in general tends to increase when there is a more positive perception. An example of this correlation can be seen within other areas such as with sports players or politicians. When the overall sentiment around ESG is more positive, it can be derived that there was a greater awareness and interest in ESG around the time period. The use of perception in this case is used to convey the overall sentiment of analysts to understand the opinions surrounding ESG. The importance of perception and coverage is very relevant when it comes to money flow within an asset. As the interest and opinion around an asset changes, the money flow surrounding the asset tends to follow the new trend in perception. An example of these shifts is prevalent in the stock market. As the price of a listed company increases, the coverage around tends to follow the stock price as well as the sentiment from analysts which can be seen through price targets. An example of this is Nvidia. As for the price of Nvidia rose, the average analyst price target rose with the price as perception of the company and coverage of the company shifted towards favoring Nvidia. Figure 1 below shows the average target price for Nvidia and it is clearly visible that the target follows the price for the most part.

Figure 1 from Market screener



Time:

The second key construct of this is time. This paper will go deeper into two main segments of time.

1. The first segment is the larger focus of the paper. This segment will focus on the present and look at the positives and negatives of ESG based on modern day available research.
2. The second segment will focus on the development of ESG over time and will analyze the beliefs of popular economist Milton Friedman and will establish a trend in relation to the growth of ESG and sustainability.

The final main construct of this paper is ESG. ESG is one of the key metrics for sustainability and is used as a global metric for the sustainable health of a company.

**Key constructs of ESG:**

The term ESG is broken down into 3 key components : Environmental, Social and Governance. The main purpose of ESG is to attempt to have a positive impact on society and the planet in addition to improving the company’s own governance structure. Each component can have several various data points that aid in tracking these components. Examples include : waste

management, carbon footprint, data protection and privacy, anti-corruption and bribery and fair pay to employees. But how are these ratings determined? One of the biggest financial institutes that rates ESG scores for thousands of companies is MSCI. According to an MSCI released document, MSCI uses 33 key measures for their ESG ratings. The document reveals the sources of these reports to be corporate documents, government data, popular trade and academic journals, news media and regulatory sources and stock exchanges. Different rating agencies use different methods and information for their data. This data is usually released as a numerical score for companies or as a letter grade format. Another important aspect of ESG is the United Nations sustainable development goals. These are 17 goals that aim to provide a guideline and a framework for organisations to improve their sustainability efforts. These focus on various different key areas that overlap with ESG as well such as pollution, water and sewage treatment and fair pay. In fact, these Sustainable development goals is also one of the biggest reasons that data is available for publicly listed companies and is available and released for analysts to use. These sustainable development goals that were released by the United Nations play a crucial role in making it easier for companies to report their ESG related metrics by providing them with a guide of the key areas of focus.

To go deeper into the overall trends of ESG over the long term and answer the question, this article will focus on using publicly available academic research as well as research released by credible sources such as journals.

One of the key parts of this paper is understanding both the positive and negative factors that should be a part of the decision making process of corporations while they decide on sustainability initiatives. The paper looks at the positives first.

### **POSITIVE TRENDS OF ESG**

Over the last decade, there has been a consistent increase in inflows into ESG related investments. In fact the Institute for Energy Economics and Financial Analysis ( June,2024) claims that ESG funds continue to thrive and outperform traditional funds across equity and fixed income classes. In 2023, sustainable funds generated better returns than traditional funds with a 12.6% median return in comparison to 8.6% for traditional funds according to the same institute.

Additionally,it is becoming clear that firms and consumers have both started responding to sustainable practices in a positive and rapid way .This can be shown through a statistical news release by Lisam News in January of 2023 shows just how far ESG adoption has progressed and the potential impact on firms.

#### **1. Key Statistics for Adoption :**

- As of 2020, 88% of publicly traded companies had ESG initiatives in place.
- More than 200 companies signed The Climate Pledge which was a pact to reach a the Paris agreement net zero carbon goal 10 years early.
- Nearly a fifth of small caps and mid cap companies are using ESG standards such as the UN SDGs , GRI and SASB

These stats show that firms of all sizes have started the process of actively integrating ESG considerations into their operations although adoption is slower in small cap firms.

2. Key Operation Stats in relation to ESG:

- 76% of consumers say they will stop buying from companies that treat the environment, employees or the community in which they operate poorly.
- 53% of revenues from the largest 500 companies come from business activities that support SDGs.
- 88% of consumers will be more loyal to a company that supports social or environmental issues.

These stats show that the consumer is shifting towards companies with ethical practices which could be a reason for 53% of all revenues from the largest 500 companies having some form of ESG integration. A similar trend in investors can be seen as shown in Bauer et al.(2021)

which found that the majority of participants are in favor of increasing pension funds' exposure to sustainable investments.

**EMPIRICAL ANALYSIS:**

The first piece of Empirical analysis that is a mostly positive piece on ESG is a piece of empirical analysis from Chinese companies which monitors several key financial metrics. The name of the paper is :

How does ESG performance affect stock returns? Empirical evidence from listed companies in China. (Yin, X et al., 2023)

The overall basis of the paper is that better ESG metrics tend to gain a premium in valuation in comparison to the same financials in two different companies. An example cited by this paper is the relation between Tesla and General Motors. Both of these companies are examples of companies that derive the majority of their revenues from the sale of automobiles with Tesla, as

an EV, being the more environmentally friendly. For fiscal year 2024, Tesla is expected to generate approximately \$100 Billion in revenue while General Motors outclasses them with \$181 Billion in forecasted revenue. Tesla currently trades at a market capitalization of close to \$800 Billion while General Motors currently trades at a market capitalization north of \$50 Billion at the time of the writing. Although there are several other factors that differ between these companies, there is evidently also a premium for being the better sustainable company. Tesla like all other EVs receives subsidies and credits for selling EVs which helps Tesla because it is once again a more sustainable company.

Another example includes Chevron ,an oil company, operating with a price to sales of less than 2 while Enphase, a solar company, operating at a price to sales of close to 8 while Chevron as a business is seemingly outperforming Enphase. This is because of a stigma associated with firms that harm the environment or community in some sort of way relative to ones that are net positive for the environment.

The research paper focused more specifically on Chinese companies for its empirical analysis. The research used ESG scores from Bloomberg for its research in order to maintain a common source for consistency between the readings. Bloomberg has done research on over 11000 companies and published ESG scores for these companies from a scale of 1-100.

The paper itself uses 9656 companies for which the paper measures several different metrics such as mean score and return on assets.

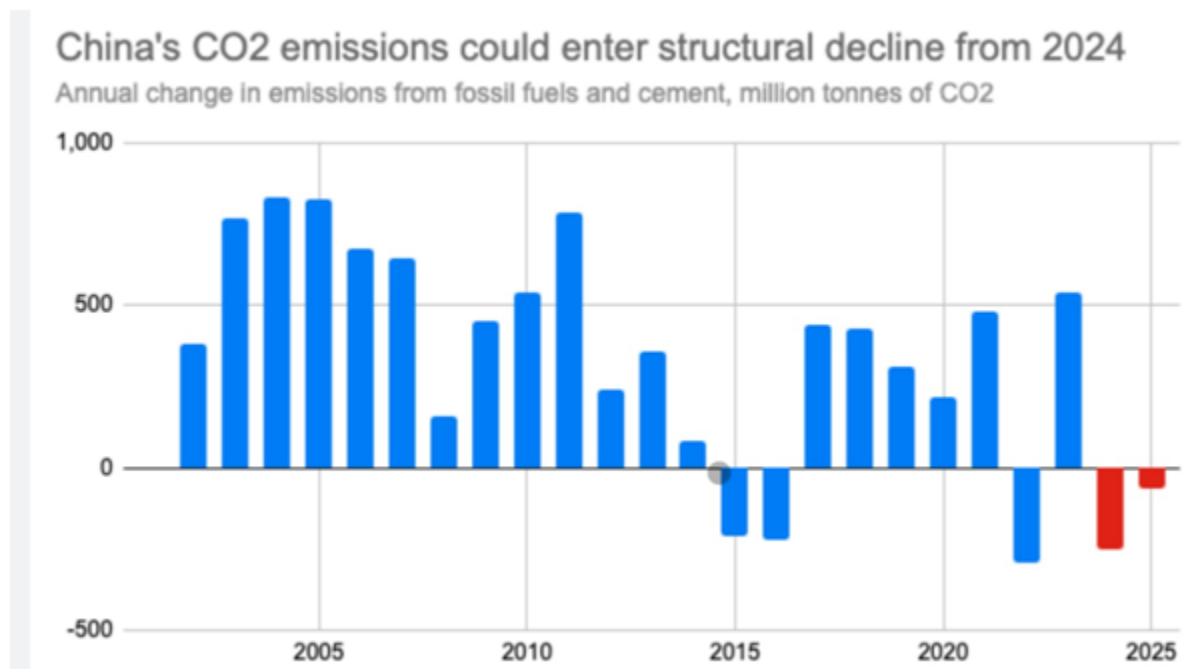
Before the results of the research are displayed regarding money flow and financials for firms operating in China, it is essential to provide some context on the shift in perception of the economy of China as a whole.

- China has made it mandatory for all listed firms to disclose specific information about ESG practice.
- China is now in a transition phase where they are shifting to a more high quality, sustainable development growth phase.

A clear shift towards operating in a better and more sustainable environment can be derived from the statements above which is indicative of increased global adoption and improving sentiment towards ESG.

Analysis: China's emissions set to fall in 2024 after record growth in clean energy from suggests that Chinese CO2 emissions are set to decline in 2024 and 2025 from the previous years acting as proof for a sustainable future for China moving forward.

Figure 2:



The results of the paper was as following :

- The average ESG score for the companies recorded in China is 20.70 which suggests there is massive room for improvement in the coming years.
- There is a significant positive correlation between the sustainability of firms and the return on assets of firms.

While a good Return on Assets doesn't require a company to be operating within proper ESG guidelines, operating sustainably requires a greater level of organisation and control over assets which is a potential reason for the positive correlation between return on assets and sustainability.

- There is a positive trend between the company's sustainability practices and its public perception which may make it easier for firms to finance.

This trend is pretty much self explanatory. As mentioned before, 88% of consumers will be more loyal to a company that supports social or environmental issues. This makes it easier for firms to raise money through loans or public financing options like bonds or dilution.

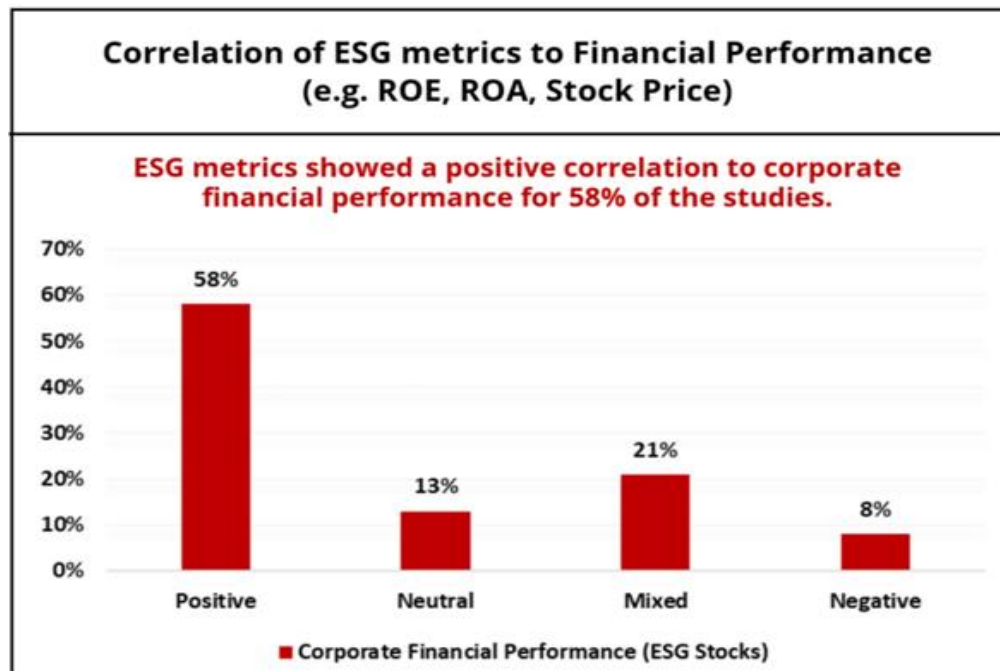


This is due to an increase in investor confidence for firms with better sustainability practices which is also backed by a higher Return on Assets.

The trend this paper establishes for ESG performance in China between sectors is quite interesting. The paper finds that ESG performance is more important to the value of private companies in China than public companies. The paper finds that state owned companies so companies which are partially or fully owned by the government tend to outperform the private sector companies on an overall mean basis. However, the paper notices this trend reverses when private sector companies start focusing on sustainable practices. Private sector companies that improve their sustainable practices are more likely to flip the tables and outperform companies in the public sector. This intriguing fact when matched with the shift in perception of the overall economy suggests that companies with better or improving sustainable practices do in fact receive a premium to similar companies with worse sustainable practices.

Figure 3 from the article ESG Investing : Why do high ESG ratings correlate with better returns ( June 2021) shows that 58% of all companies have better ROAs with improving sustainability.

**Figure 3**



Another paper that supports the claims made above is from Sustainable Business: Practices, Trends, Benefits, Challenges, and Innovative Strategies from the journal of Sustainable Development; (Vol. 17, No. 2; 2024). The paper claims that incorporating principles of



Sustainable Business Practices (SBPs) can improve a company's image and brand, attracts and retains qualified employees, attracts more customers and clients and positively impacts the companies' performance.

***Assessment of Risk :***

The second essential factor to measure is risk. All investments have some form of risk associated with them whether it is an equity on the stock market or a bond issued by a firm. The safest investment is considered to be U.S treasury bonds which is used as a benchmark for a risk free return. Understanding risk it's important because different portfolios have different purposes and have different tolerances to risk. For example, a retirement portfolio such as a pension fund will operate with a lot less risk because of the extra importance of the portfolio while a hedge fund is willing to absorb more risk for outsized gains.

The research that this paper will review is from (Dunn, J., et al.,2018) called Assessing Risk through Environmental, Social and Governance Exposures and will be using the MSCI database mentioned earlier.

The research paper breaks down the stocks that it uses into 5 quintiles. Quintile 1 contains the stocks with the worst ESG scores while quintile 5 contains the stocks with the best ESG scores.

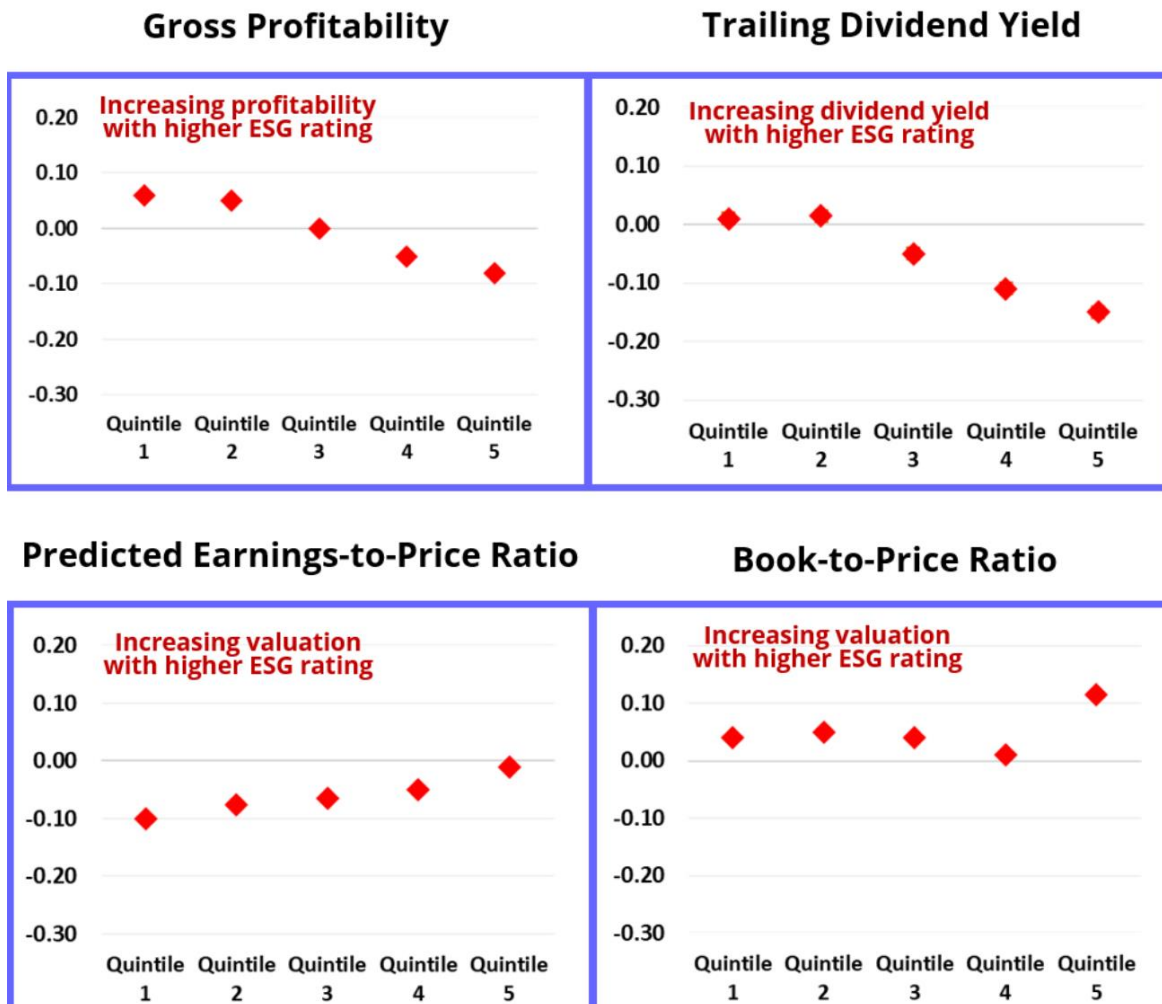
From the results, it was clear that the overall trend in risk was negative as ESG scores improved suggesting that improved sustainability practices reduces the risk associated with an investment overall across the 5 quartiles. Some other characteristics measured that are a positive for companies with more sustainable practices are :

- **Market Capitalization :** The market capitalization was much higher for quintile 5 in comparison to quintile 1 suggesting that improved ESG was more common in larger companies suggesting improving the importance of sustainability.
- **Book to Price :** The Book to Price was overall lower for companies in quintile 5 which is evidence suggesting that companies with better sustainability scores were given overall premiums to other firms regardless of the industry.
- **Profitability :** The profitability scores are the best for companies in the fifth quintile although that can be explained as a factor to the overall higher return on assets mentioned before.

These stats are also backed by (Patari et al.(2012); Skare et al.(2012)) in their respective papers.

Another chart published in the recently mentioned article shows the improvements in valuation for companies with better sustainability scores.

**(1<sup>st</sup> Quintile has highest ESG rating, 5<sup>th</sup> Quintile has lowest rating)**



Moving back to risk, the lower risk and larger sizes of the company make them safe and consistent investments for large, low risk funds such as black rock, national pensions and everyday investors. Having lower risk is also the reason companies with better sustainability scores get a premium in the markets.

The lower risk links back to the financial health discussed in the first empirical analysis. As the company improves its sustainability practices, it has a better return on assets, better public

perception and easier financing. This when coupled with the statistics about brand loyalty allows the company to navigate through worse economic times and challenges easier hence lowering the risk. Another reason is because a key component of ESG is governance which involves the structure of an organisation and effective leadership. Having effective leadership provides investors with more confidence in the company's ability to execute their plans hence reducing the risk associated with the company. A potential tangent to explore is more potential government funding such as subsidies and credits for companies with better environmental and social practices which would as a by-product reduce the risk associated with the company but this wouldn't have as big of an impact as the other factors because government funding is more variable and different for various industries.

Now that we have looked at the positive factors surrounding sustainability practices, it's time to study the negative impacts ESG can have in relation to a business.

### **NEGATIVES OF ESG :**

While there are plenty of benefits of ESG for firms and investors, there are a few major problems with using ESG as a metric.

The paper that will be first reviewed is : (Berg, F., Koelbel, J.,et al., 2018) Aggregate Confusion : The divergence of ESG ratings.

The first of these problems is the divergence in ESG ratings reported by analysts. One of the biggest pieces of data in sustainable funds used in a sustainable fund is an ESG score. Just to reiterate what the paper previously mentioned. This causes a divergence in ratings between different analysts resulting in inconsistent and skewed data.

The problem that is caused by a divergence in data is a misrepresentation of a company with exceptional sustainable practices. Why? Different methods to rate a firm would result in different results which will inevitably result in an incorrect representation from the mean ESG score. ESG is a subjective phrase which means the data surrounding ESG has to be interpreted by decision makers in these funds. Divergent data could result in a misrepresentation of firms within the fund.

There are three types of divergence :

#### **1. Scope Divergence :**

Scope divergence occurs whenever analysts use different metrics for their research. Clearly, this makes it impossible for the company to be rated similarly by both analysts which creates the divergence in data.

The solution presented by the paper was a grouping process. Divide the groups of different attributes into larger, vague groups then refine these groups to be more specific to an attribute. Analysts or decision makers can use this refined set to fully evaluate firms.

## 2. Measurement Divergence

Caused when analysts use different indicators to measure the same metric. 56% of all divergence is caused by this. The rater effect which means a positive result makes analysts more likely to gauge the other metrics more positively has a part in this accounting for 15% of all variance.

Outside of using a universal method of measuring, a solution that integrates AI to compile the data collected and create a rating out of those might provide the most consistent results down the line once AI models and large language models are more sophisticated.

Third party auditors can also be used to analyze results and set them to a universal standard.

## 3. Weight Divergence

This type of divergence is caused when analysts use the same or similar metrics but provide different weightage/importance to the metrics. This can once again be prevented by using a universal standard for measuring data. Another solution would be to increase the transparency of the rationale behind the ratings which could allow anyone using the data to come to their own conclusions about the data.

### **Result of the Empirical Analysis performed :**

The paper concluded that the divergence in the sample was 0.55. A measure of 0.80 is considered favourable suggesting less variance while the minimum value mentioned by the paper was 0.667. The empirical analysis also found divergence between the ratings for companies across the board.

The data clearly suggests inadmissible results are used to influence trillions of dollars of investments. This creates a misallocation of resources within the funds as well as with investor money who were hoping for a potential better company sustainability wise.

The next review this paper will conduct will be “An inconvenient truth about ESG investing” by Sanjay Bhagat in March 2022. This is an article written for the Harvard business review. This article is essential because it provides a contrary opinion on ESG investing and displays a trend in relation to the distribution of assets in regards to ESG.

### ***Distribution and Coverage of ESG :***

The article states that as of December 2021, there were 2.7 Trillion USD in sustainable ETFs. 81% of these were in European based funds while 13% were in US based funds. This establishes a clear trend that the coverage and importance of ESG has evolved and grown much faster in the European region than elsewhere in the world. The reason for this is the extensive importance given to the environment by the European Union in the form of policy and initiatives.

The article then cites a finance journal in which was published by researchers of the University of Chicago. The researchers analysed the MorningStar sustainability ratings of more than 20,000 mutual funds. There were 2 conclusions drawn from this research.

1. The funds with the best sustainability ratings attracted the most funds.
2. The sustainability funds with lower ratings clearly outperformed the highest rated funds.

This result shows that it is more profitable for investors to invest in funds with lower sustainability ratings than funds with higher sustainability ratings. There can be several explanations for this.

1. It has been established that sustainable firms get a premium to non sustainable firms but that premium could come before these funds invest in the company resulting in
2. A second explanation can be the risk aligned with companies with lower sustainability scores. As mentioned previously in this paper, companies with better ESG scores tend to have lower risk because of financing ease and better Return on Assets suggesting that the lower return is a trade off to lower risk.
3. An alternative yet simpler explanation can be that investors are willing to sacrifice some financial gain in exchange for better ESG performance.

However, the journal's results further mention that ESG related funds tended to own companies that had worse compliance records for both labour and environmental rules in comparison to companies with poorer sustainability scores. The journal also revealed that the majority of the companies in the exchange traded funds made little to no effort to improve their compliance on either environmental or labour rules. This can be used as a real life example of the divergence in ratings this paper discussed earlier. This brings up the question as to whether these massive sustainability funds truly track assets that can be classed as sustainable and are investors in those funds investing in companies that align with their values?

Some of the more obvious negatives is the risk of corporate greenwashing and the financial burden on firms as stated in :

1. 5 DISADVANTAGES OF CORPORATE SOCIAL RESPONSIBILITY YOU DIDN'T KNOW ABOUT (July 2020)
2. Exploring CSR: Advantages and Disadvantages ( Oct,2023)

There is also a risk of a controversy surrounding the firm because of a few sustainable actions done wrong which can cause a lot of harm to firms as described in the paper :

Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices (Niccolo Nirino et al.(Jan 2021)

The final negative to sustainability that will be discussed is a potential decline in innovation within companies with better sustainability practices. This is a part of an academic research this paper previously discussed. The basic idea behind this is that as the companies start shifting attention to sustainability practices, they devote more and more important intellectual resources such as leaders and executives in the company that would otherwise be focused on innovation and product growth. However, it is important to mention that there could be several factors influencing a company's product and service innovation. An example would be the stage the company is in. A mature company might not have plans to further increase their product or service offerings and instead may choose to devote resources to sustainability. Because the impact on innovation is hard to prove without a shadow of doubt, it is just a correlation and not a causation yet. However, this doesn't have a major impact because mostly mature companies that don't need to maintain the extremely high level of innovation focus on sustainability.

While this specific reason might not be a major negative because mostly mature companies tend to chase sustainability improvements.

However, it is not possible to draw a conclusion from the Harvard Business Review article because of a potential chain of mistakes that took place.

1. The divergence in ESG scores caused Funds to invest in companies they otherwise would have avoided.
2. This gave the illusion to investors in those funds that the fund was sustainable while it in fact covered companies with worse sustainability compliance and metrics.
3. This caused inflows into those funds but underperformance relative to other funds.

If this specific case took place, then it would be impossible to truly judge whether ESG related investments underperform other investments from the data provided from the studies. In any case

though, it is very serious that there is potentially a misallocation of resources across the sustainable finance world.

This segment of the paper suggests that it is a net positive for firms to invest in sustainability practices but there is a potential disconnect between these firms receiving the same premium as a firm worse than them in the same sustainability metrics questioning the credibility of sustainability funds.

The next segment of this paper will focus on the evolution of ESG as well as the opinion of Milton Friedman on corporate responsibility.

### ***ESG over Time***

This section of the paper will aim to provide a brief overview of how ESG beliefs have changed over time.

This section will look at 3 segments :

1. Milton Friedman's 1970 New York Times article.
2. The history of ESG

### ***Milton Friedman :***

Milton Friedman is one of the most popular economists in modern history. In 1970, he wrote an article for the New York Times detailing his opinions on corporate responsibility. Friedman believes that corporations unlike individuals are artificial bodies which may have artificial responsibilities but business as a whole can't have responsibilities.

Friedman argues that the individuals responsible for the business such as individual proprietors or corporate executives. Friedman emphasises the point that corporate executives are employees of business owners in most cases. This means that corporate executives have the responsibility to conduct business operations as the owners of the business feel fit while adhering to basic laws and basic moral values. Friedman believes that each individual within the corporation is liable to perform the tasks expected of them in a way that fits the business agenda which is usually to make profits. Friedman states that there are corporations that are established for a more noble purpose such as schools or hospitals. However, this situation also creates different objectives for the executives within the corporation which is not to make money but to provide a beneficial social service.



Throughout these examples, the executive still is at the whims of the corporate. Although, the executives of corporations are also humans with values and other responsibilities or beliefs. Friedman argues that in those situations, individuals have the right to devote part of their income or resources to charity or a church. Individual executives also have the right to determine whether they would like to sign on with a company completely voluntarily.

As for the executives business responsibility, taking a socially responsible stance must not come against the interest of his employers. The example provided is refraining from raising prices to contribute to the social objective of preventing inflation even if a price increase would be in the best interest of the corporation and profits for the employers.

This would be against the executives responsibility because they would be spending their employers money and losing out potential returns to shareholders for a general social interest. This theory is in complete contrast with a more recent theory called the stakeholder theory which argues that corporations are liable to the damages and harm they cause to the environment, communities such as pollution or water contamination.

Back to Friedman, he claims that when an executive or employee of a private enterprise who were selected by the stockholders spends corporate assets on social purposes, then essentially become civil servants and not private enterprise employees.

Another problem Friedman mentions is that corporate executives are not trained in making decisions that are meant to benefit social issues and the methods to employ to help improve them. Let's carry forward the example of keeping prices low to try to reduce inflation. The problems created by this is that there is no way to predict whether this will reduce inflation because consumers are just as likely to purchase a different product with the money they saved from the flat prices. Another problem of keeping prices lower is potential shortages that will eventually result in forced price increases due to the supply and demand mechanism.

To summarise Milton Friedman's perspective on corporate responsibility, Friedman doesn't believe in corporations acting as

While I personally believe that there Milton Friedman presents a logical case in the point of profit maximisation and executive responsibility, I believe it is essential to take into account the shift in consumer loyalties towards companies with better sustainability practices as discussed earlier in this paper so it may sometimes be more profitable for the company to focus on social issues to maintain or grow its market share.

***The history of ESG:***

This section of the paper will provide an overview of the evolution of ESG over time to the formation of modern concepts as well as highlight the growing importance and coverage of ESG over the time period.

The paper will use an article from IBM published on 8th February 2024.

1. In the 1970s, Socially Responsible Investing (SRI) emerged as a method for investors to align their portfolios with their values. This was the first major step for the emergence of social investing and can be marked as one of the key factors to the development of modern sustainable investing.
2. Over time, SRI evolved to become CSR which was primarily focused on social issues such as human rights and supply chain ethics. An increase in the broadness of sustainability goals can be seen here within 10 years of the initial goals being published. This was a sign of the progress that was being made suggesting increasing coverage and importance.
3. 1995 - The U.S social investment forum (SIF) foundation took inventory of all the sustainable investments in the North America region. The total USD value was 639 billion.

This also can be used to show the growth of sustainable investments from the late 1990s to mid 2020s.

1. 1997 - The Global Reporting Initiative (GRI) was founded with the aim of addressing environmental concerns. This initiative helped develop ESG further and made it easier for analysts and individuals alike to gain access to key operating data from the firms directly.
2. 1998 - A sustainability framework was introduced by John Ellington known as the three p's: people, planet and profit. This showed another step to the expansion of attention from just profit to non-financial metrics like society.

This was very crucial to the development of ESG and raised awareness about the social and environmental aspects of ESG by incorporating them into an investment strategy.

1. 2000 = The UN hosted world leaders in New York at the millenium summit.

Guiding principles on topics such as human rights, working conditions, the environment and anti-corruption were created. The Millenium Development Goals (MDGs) were created as targets to be achieved by 2015. These represented a global rise in importance to factors that

make up the components of ESG and is the first official sign of global collaboration towards those goals.

2. The CDP was founded in 2020 as well which is the Carbon Disclosure Project.

This was another key part of global improvements in disclosure methods and measuring.

1. 2004 - The term ESG became mainstream after its appearance in a report titled "Who Cares Wins".
2. By 2015, the UN SDGs replaced the MDGs.

The SDGs marked a shift in the socio-political mindset by becoming something that can be measured.

As time moves on, there is a clear trend that there will be numerous new strategies and boards that will be created that will help companies and organisations further improve their sustainability objectives and goals.

### **CONCERNS AND LIMITATIONS :**

This segment of the paper acts as warning to some factors that could affect the conclusions made from the paper.

1. Influence of External Events on ESG

The first risk associated with the data is the impact of external events. The events referenced are more larger scale events involving large global geopolitical bodies such as the United Nations or the European Union. Factors that could affect the sustainability metrics or the impact of the sustainability practices on the companies financial health include regulation and benefits/subsidies.

Subsidies : It is not easy to gauge the impact of subsidies and benefits provided to companies especially in the European Union which holds over 80% of all sustainable assets. The growing adoption of sustainability in the European Union has made it easier for corporations to shift to ESG practices but it is not guaranteed that these subsidies/benefits will last indefinitely. In the event of these benefits being repealed, it could cause a substantial slowdown in the overall growth of sustainable practices in the European Region or might cause a reversal in the trend. If a situation such as this occurs, then the fast growing trend established in the region is in danger. Examples of these could be EV tax credits which are available throughout the world or the renewable energy credits like the ones provided for solar and wind energy producers.

Regulation : Currently, there are countless regulations that favour companies that have more sustainable practices. Examples of these regulations include proper waste disposal, the carbon credit which creates a limit for the total carbon that a corporation is allowed to release into the environment during operations and the ones provided for society such as fair pay, health and safety and anti-discriminatory practices. Similar to the benefits, if there is a phase of deregulation to make it easier for businesses to operate, it could result in businesses favouring the cheaper option and weakening their sustainability practices resulting in the trend being broken. This paper can't account for any changes occurred through external events and is purely an analysis of past data that has been accumulated.

1. Lack of evidence for direct financial outcomes :

This paper would like to establish that most of the data it has reported are correlations and not causations. This means that there is no guarantee in the trend that improving sustainability practices has certain impacts on the finances or financial health of a corporation and these are just patterns that are visible from the data.

I believe for the trends in the EU region to expand more globally and more accuracy on what drives sustainability, I believe it is important to study the potential impacts of almost every individual policy that was enacted by the European Region. The entire European Region can be used sort of like a guinea pig to gauge what the best combination of policies are for global expansion. I understand that it is very hard to determine the effect of individual policies because of the various factors affecting the decision process from corporations at all times so my belief is the best way to get through this is to try to gauge the impact from the corporations that were impacted directly instead of using an empirical analysis method.

1. Varying Reporting Standards :

Different countries have different laws and methods of reporting. This can result in a situation where similar data between countries is being reported but the data would be skewed because the reporting techniques are different. For example, a company in country A and a company in country B both have a water sustainability score of 45. An example of different reporting methods would be company A requiring companies to measure the amount of waste being dumped into water bodies while country B requires a company to measure water wastage relative to what is being used. This situation will result in the data being incomparable to some level resulting in invalid metrics.

2. Corporate Greenwashing :

This is when firms exaggerate their sustainability/ESG performance to try to create investor enthusiasm for the firm. This is an example of a form of corporate fraud but can cause firms to be rated higher than they should be resulting in data skew. This can potentially be overstating environmental positives such as red plantation or understating negatives like carbon emissions. This results in incorrect data and hence encourages money flow into the wrong assets.

### 3. Frequent Change in Regulation :

This can cause instability and heavy cost for a business if reporting regulations or frameworks are updated very frequently. This might skew the governance aspect of the ESG reporting or may cause incorrect results to be published.

## **CONCLUSION**

This segment of the paper will provide a summary of the findings and then give my perspective based on the findings. From the positive side of ESG, it has been made clear that it helps improve the financial health of the company through increasing the return on assets and the improved governance within the company. Better sustainability practices also have a correlation with improved brand loyalty and lower risk for investments which is favoured by larger funds such as pension funds.

The negative side of ESG focuses mostly on the divergence between ratings and how inadmissible the results should have been. The Harvard Business Review was cited to show that firms within the sustainability funds tend to actually have worse compliance practices and tend to underperform funds with companies that are worse for sustainability. A potential negative trend for innovation was mentioned which however should not have much of an impact because mostly mature companies devote more resources to sustainability practices than young companies.

The question this paper wanted to answer was whether coverage, perception and money flow into ESG changed over time. The paper has made it clear that the trends in all three aspects of the question has been favouring ESG. Increases in coverage and perception have been clearly displayed through the trends in brand loyalty and the timeline showing the evolution of sustainability metrics. The money flow is undeniably focused more towards ESG as trillions of dollars of assets are now directed towards sustainable investments.

Overall, this paper believes that improving sustainability practices has a very positive impact on firms in general. It provides corporations with a more loyal consumer base as well as better organisation and management for the company. It is also a benefit to the share price of the firm as they get a premium to less sustainable companies.

However, the paper also believes that the quality of investments made by sustainable investments is questionable due to the previously mentioned divergence in ratings and the lack of compliance from the firms within these funds.

Just to summarise, This paper believes that focusing on sustainability is a net positive for corporations but this paper also believes that it is much harder to identify firms with the best sustainability traits making sustainable funds not as effective.

As far as the future of ESG is concerned, I would bet that it will only continue to expand at a moderate pace. There is still a lot of improvement to be done in the field as the importance given to especially the social and environmental side only continues to improve in the long term. I believe there will always be room for sustainability in the financial world and hope it continues to gain traction. Personally, I would like to see ESG integrated into the supply chains of companies because I believe it could have the biggest impact in that field in the future both on the quality of the lives of the workers and the help to the environment. Potential examples would be improving the quality of life of workers in lower income countries or controlling carbon emissions in large scale production or using carbon neutral energy sources. In my opinion, most of the coming ESG shifts should be focused on the developed nations because it won't be fair to hold developing nations to the same standards as developed economics without potentially causing crippling harm to their rapid economic growth in the short and long run. Developed economies are much better suited to handling the requirements of sustainable development relative to developing economies so the standards they are held to should be different. I believe there is also a requirement to improve ESG reporting by firms and ratings by analysts which over the long run should improve the quality of sustainable funds and help reward the actions of firms who are deserving. As for the future of ESG research, I would like to be expanded to understand the extent to which goals such as net-zero carbon emissions and other such environmental goals can be justified in relation to the cost required to achieve these goals versus the benefits associated to the firm in the long run. I think it is also important to do further research to gauge the most beneficial locations for firms to operate sustainably throughout the world. The research should try to determine the best locations in terms of government provided benefits such as subsidies and the best locations in terms of importance to consumers. This research could allow firms to determine where they would like to expand sustainably in the future and also discover areas where a greater investment in ESG is required.

***Future Directions for the paper:***

The paper believes that while the environmental and social aspects of ESG receive a lot of attention, the governance aspect of it is usually forgotten. While there is attention to the governance factors, these are usually confined to ensuring that the firm is operating legally and

not about how leadership in the firm develop the culture and allocate resources within the firm. This results in the governance aspect being overshadowed by the environmental and social factors. In the future, this paper would like to continue research by trying to gauge the impact of the quality of leadership within a firm on investor perception and interest in a firm as well as the benefits of having higher quality leadership and the drawbacks of having poorer quality leadership.

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