

Effects of ESG Investing on Returns

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### **Abstract**

Countless researchers have sought to find out if there is a positive correlation between Environmental, Societal, and Governance (ESG) investing and returns that beat the market over the past few decades. To analyze what ESG investing is, the history of the practice, and if there can be any conclusion drawn between ESG investing and returns. A deeper understanding of what goes into returns, including modern portfolio theory, will uncover that ESG securities cannot be efficiently placed on the efficient frontier. Risk associated with ESG stocks cannot only be tied directly to beta, but also to external qualitative forces that make an impact on the risk return equation. The result is an ESG risk premium that needs further research and development to conclude if there can be abnormal returns associated with the investment of ESG securities.

## Effects of ESG Investing on Returns

### Introduction

Over the past few decades, investors have become more socially aware of where their money is going and how their investments impact the society-at-large (Townsend, 2020).

Economic, Societal and Governance (ESG), “specifically relates to the impact of the company on the environment, a social dimension, and governance” (Van Duuren et al., 2016, para. 1). This is a wide encompassing statement that challenges both businesses and investors to consider the societal impact of their financial decisions. The idea of ‘voting with your money’ came about in the late 1960s in the form of Socially Responsible Investing or SRI for short (Townsend, 2020).

It grew in prominence due to the civil rights movement, women’s rights, and multiple faith-based organizations (Townsend, 2020). Investing is a two-sided coin. The corporation that issues stocks does so for the sake of raising capital for the firm. The investors that purchase those stocks do so for the sake of getting a return (Ganor, 2011). The SRI movement came about because investors came to the realization that not only could their investments lead to financial gain, but these investments also fund what the issuing corporation is doing (Barzuza et al., 2019). If someone is adamantly against the oil industry, it would seem hypocritical for them to invest in the industry itself. The dissonance felt by investors between their morals and their investments is what ultimately led to the SRI movement (Townsend, 2020).

ESG was developed in the 90’s as a related form of investing to SRI (Crifo, 2019). Although these terms are typically interchangeable in the business world, there are slight differences between the two. Socially responsible is the incorporation of personal and ethical considerations into one’s investment decisions (Statman, 2006). ESG investing considers environmental, societal and governance factors as drivers for bottom line performance (Giese et

al., 2019). The primary difference between the two is that socially responsible investing allows for ample subjectivity thus deeming it difficult to find consistent results among studies (Losse, 2021). Although there is still some subjectivity with ESG investing, the terms for which it stands are clearer and more distinct. An analysis on the definition of ESG, its historic growth, and the distinction between ESG and other screening methods will be used as the backbone to assess whether ESG screening fits within modern portfolio theory and its implications for returns.

Defining an ESG practice can mitigate risk and, in some cases, return a positive financial gain while supporting specific ethical guidelines (Giese et al., 2019). For one to do this, it is important to distinguish the differences between ESG and other screening investment strategies; further, one must understand the relationship between risk and return and how an ESG strategy fits within that framework.

### **ESG Defined**

A crucial first step in understanding ESG investing is understanding what the three factors entail. Analyzing environmental, societal, and governance each independently will help gain a deeper knowledge for how these are drivers for stock returns. In the twentieth century, increased research and data began going into human's long-term impact on sustainability of natural resources on Earth (Tucker III et al., 2020). There are multiple facets of environmental awareness. Protection of the air, water, land, and biodiversity are the overarching objectives of environmentalists (Aguila, 2019). Further, global sustainability includes addressing atmospheric issues such as acid rain, water pollution, global warming, and several other items (Ferrell et al., 2017). These environmental measures can be measured and disclosed in a variety of ways. As this practice has become more popular, a handful of metrics have emerged as reliable to track a company's environmental score. One can look at the climate risk, carbon emissions, energy

consumption, water usage, and pollution metrics (Ogletree, 2021). All these measurements help bring quantifiable meaning to the broad idea of environmental impact. One recognizable stamp of approval for investors that are environmentally conscious is ISO 14000 certification (Sebastianelli et al., 2015). This certification implies, “organizational commitment to improving the quality of environmental management” (Tamimi, 2017, para. 18). This certification has begun being one of the drivers of a firm’s environmental score (Sebastianelli et al., 2015). The use of quantifiable measurements and certifications allows for less subjectivity when providing a score related to a firm’s environmental impact. This is not the case when looking at the societal impression a firm makes on both its human capital and society at large.

Societal impact involves the social behaviors of a company (Du et al., 2010). Societal factors can be broken into two broad categories: internal and external. Internal components include labor standards, human rights, diversity policies and development of human capital (Inderst et al., 2018). External factors can include items such as animal welfare, social opportunities, and product liability (Diolosa, 2021). It should be noted that relationships are what is at the core of societal factors of a company (Inderst et al., 2018). The prioritization and focus on improving societal impact can have a wider impact than the qualitative aspects it tackles head on. A focus on societal impact can also result in an improvement on the financial statements (Inderst et al., 2018). Nourishing current employees can help reduce turnover and increase profitability (Torres et al., 2006). Measuring these factors can be more difficult due to them not being specifically quantifiable in nature; however, one can look at the total information or transparency a company provides to measure its societal impact (Cohen et al., 2020). It is more a matter of checking certain boxes such as wage requirements, specific working conditions, animal testing, and other areas (Inderst et al., 2018). The more boxes ‘checked’ will result in a higher

societal score when weighing total ESG performance (Inderst et al., 2018). Lack of firm quantitative measurements regarding societal factors is one of the difficulties with creating a strong correlation between societal factors and returns (Cohen et al., 2020). However, the categorization of societal factors into binary requirements that need to be satisfied allows for more objective measurement when constructing an ESG score.

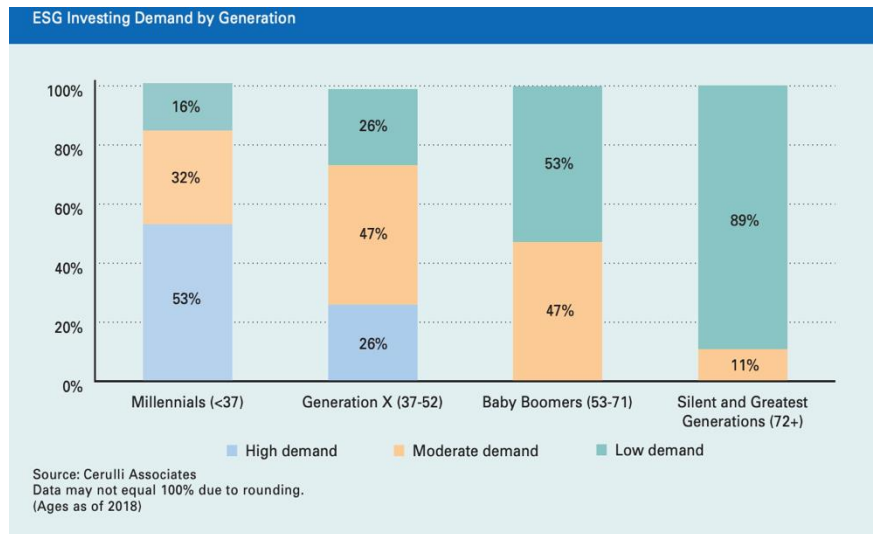
Governance relates to a company's principles concerning the governing of companies and how these principles are externally communicated (Parum, 2006). Governance is often overlooked when considering ESG factors due to the press coverage that environmental and social issues tend to receive, but governance is also equally important (Duggan, 2021). Multiple corporate scandals have come about due to poor governance such as the Volkswagen emissions scandal and the Facebook data misuse case (Poier, 2020). These missteps led to massive financial damage to the company regarding both poor stock performance thereafter and issues with profitability (Poier, 2020). The two primary measures of governance performance are the G-index and the E-index (Becker-Blease, 2011). The G-index was developed in 1993 by Gompers, Ishii, and Metrick (Sotolyk, 2007) and encompasses 24 various governance rules to analyze shareholder rights (Gompers et al., 2003). The E-index is another measure used to evaluate governance. It does so by looking at six poor provisions associated with weak governance (Krebbbers, 2020). Both measurement tools use a negative scoring approach (Krebbbers, 2020). A more recent approach that has been developed is the Economic Dimension Score (EDS) (Tang, 2019). The EDS score specifically looks at governance as it relates to ESG practices as well as how efficiently a company evaluates both risks and opportunities (Tang, 2019). The use of these three tools has helped investors better quantify the decisions made by management as well as the impact that company practices have on company performance

(Krebbbers, 2020). Environmental, societal, and governance factors all play a crucial role when looking at evaluating a company and deciding whether to invest in them based on the merit of ESG scores.

### **Growth of ESG Investing**

The past decade has shown immense growth in the category of socially responsible funds that incorporate ESG standards (Martini, 2021). The Global Sustainable Investment Alliance (GSIA) performed a study on the growth of funds within the category of sustainable investing and found that as of, “2016, . . . \$22.89 trillion of assets were professionally managed under responsible investment strategies globally, representing 26% of all professionally managed assets, with an increase of 25% since 2014” (Martini, 2021, para. 3). These numbers are attributable to investors’ desires to invest with a goal of having a positive impact on the ESG factors of companies (Martini, 2021). A common misconception is that only women and millennials are attracted to ESG investing; however, with a compound annual growth rate (CAGR) of 13% from 1998 to 2018, this view is brought into question (Tucker III et al., 2020). The following chart shows the demographic breakdown of interest in ESG investing:



**Table 1***ESG Investing Demand by Generation**Graph From Shifting Demographics of Private Wealth*

Although Millennials show the highest demand for ESG investing, other generations also exhibit high to moderate demand (Cerulli Associates, 2018). Based on this information, it can be inferred that with each following generation, higher demand for ESG investing follows. One must look at what is driving this continued interest in ESG-related issues. Investors have put continuous pressure on corporations and regulators to provide greater transparency in corporate ESG-related disclosure (Tucker III et al., 2020). Three of the primary reasons for this mass growth appear to be the financial crisis of 2007-2008, the increased press coverage of climate change, and the accessibility of investing for the retail investor.

The financial crisis exposed weak corporate governance among some of the largest firms on Wall Street. According to Tarraff (2011), “the Shareholder Bill of Rights Act of 2009, introduced by the U.S. Senate, found that failure of corporate governance was among the central causes of the financial and economic crises that hit the United States” (para. 2). In 2002, the

Sarbanes-Oxley act was enacted to help regulate corporate governance after multiple scandals such as Enron and WorldCom (Sarbanes, 2002). The purpose of this act was to deter unethical business practice through the requirement that corporations develop a code of ethics and through the rotation of outside auditors on a regular basis (Orin, 2008). With this government regulation, investors, and the public profile, presumed that corporate governance was being monitored more closely (Romano, 2005). Even though this was the case, the financial crisis of 2008 still occurred wavering the previous assumption. The reason for this was because the Sarbanes-Oxley act did not provide the legislative implications to improve audit quality (Romano, 2005). After the 2008 financial crisis, investors began to further realize that government regulation was not enough to monitor corporate governance and that the individual must have some way of monitoring companies through their own standards (Tarraf, 2011).

Climate change has been a heavily debated and politicized topic over the past few years. With a shift in presidential preferences, a larger focus has been put on helping aid the issue of climate change over President Biden's tenure (South et al., 2021). The major concern expressed revolves around the accelerated increase in atmospheric CO<sub>2</sub> concentration levels (Jinga, 2021). According to Jinga, this is caused by both natural factors and human factors. Human factors contributing to this issue are increase in population which results in faster rates of deforestation and continuation of the burning of fossil fuels (Jinga, 2021, para. 1). Because of these adverse effects, multiple countries have decided to push to reduce these emissions which directly impacts both businesses and investors. In 2015, the Paris Agreement went into effect which was a legally binding global document signed by 197 countries to pledge in the fight against climate change (Kuang et al., 2021). With this agreement attracting such global attention, it can be presumed that these efforts will only increase in the upcoming years. It was noted that, "Climate change

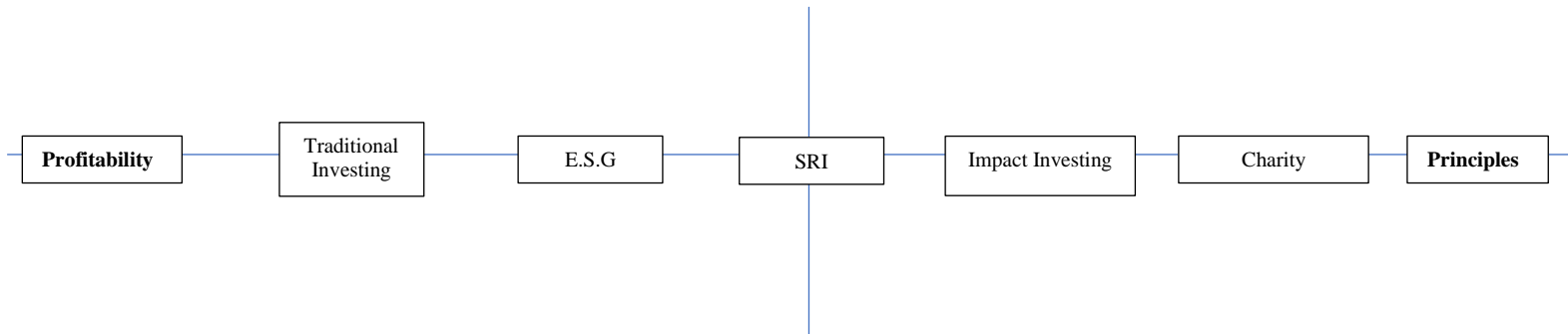
agreements and policies have been shown to positively affect environmentally friendly firms” (Kuang et al., 2021, para. 6). If the sentiment of the market remains the same regarding its view on climate preservation, investments into firms with strong environmental procedures will continue to grow.

The environment of the stock market has changed tremendously over the past few decades. From individuals being able to only invest through a broker, to now anyone with a smart phone being able to execute trades, the dynamic and priorities of the market have shifted. The purchasing power of U.S. households and nonprofits increased their holding of stocks to 43% of total financial assets as of April 2021 (Federal reserve, 2021). This is the highest level recorded since 1952. Further, retail investors generated, “as much equity trading volume as mutual funds and hedge funds combined” (Srinivas et al., 2021, para. 1). One must then look at the priorities and goals of the retail investor to see how their vision impacts the overall markets. An academic study done by Dominique Diouf and his research team found that ESG issues are a primary focus of the retail investor. Diouf et al. (2016) states that “more than 85.2% would choose to SRI with a yield of 1% lower than that of the classical investment. We notice that 17% of investors would choose SRI even with a yield of 10% lower than that of the classical investment” (para. 70). He was able to conclude that retail investors not only care about risk and return, but also look at the non-pecuniary benefits of investing. Diouf’s conclusion is backed with a qualitative and quantitative data that used online surveys, bivariate and multivariate analyses, and multiple semi-structured interviews. The continued growth of the retail investor will continue to have an impact on ESG investing as the demographic has proven to value the criteria that ESG stocks and funds possess.

The growth of ESG related stocks and funds is inevitable to look past. The generational shift that looks at recent events, climate issues, and embraces technological innovation all drives the demand for these products. As the demand for ESG investing increases, returns for investors in the segment will follow. Common stock market knowledge reveals that as more people want to buy a stock or category (demand) than sell it (supply) then the price will go up.

### Screening and the ESG Spectrum

Before evaluating returns of ESG stocks, it is important to look at the subjects of ESG investing and evaluate their performance as individual entities. With socially responsible investing being more subjective in nature than ESG investing, it naturally removes certain equities due to not meeting the qualifications. Below is a visual constructed to see where various investments stand in relation to both profitability and principles.



To better understand this chart, it is crucial that one knows how each type of investment strategy values different items. ESG investing is closer to traditional investing because the underlying idea is still financial performance (Van Duuren et al., 2016). Many ESG funds use fundamental analysis to measure the strength of a company, but then use ESG ratings and factors to further narrow down decisions regarding certain stock picks (Van Duuren et al., 2016).

SRI is focused more on integrating personal values and societal concerns with investment decisions (Statman, 2006). SRI investors use a process called screening to help filter seek out

and filter out potential investments (Berry et al., 2012). There are two types of screens: positive screens and negative screens (Esmeralda et al., 2010). Positive screens usually work in degrees and is the system for seeking out potential investments (Esmeralda et al., 2010). Negative screens, on the other hand, remove companies based certain lines of business or stances they may hold (Esmeralda et al., 2010). For example, a firearm company may meet all ESG requirements; however, it might go against one's values so they would choose not to invest in the company. Other negative screens may be alcohol or gambling related companies.

Biblically responsible investing (BRI) is a subset of SRI that derives its core values from Biblical principles (Suber, 2017, p. 2). SRI funds and faith-based funds typically both negatively screen out tobacco, alcohol, and weapon-oriented companies (Suber, 2017). Christian funds then also negatively screen out companies that support abortion, pornography, and other items that are against biblical teaching (Cheung, 2012). Just like any other rating system, there is a level of subjectivity that occurs with faith-based investing. Not all Christians interpret Biblical principles the same way, which is why it is important that if this is the investing style one hopes to achieve, that they evaluate the portfolio themselves as well to ensure their visions are aligned. Examples of positive screens would be companies that value transparency, have ethical supply chain practices, and have good employee benefits and welfare programs (Brune, 2019). In the context of the Bible, God wants His people to invest with His kingdom in mind and He will bless those who do. Proverbs 13:11 states that "Dishonest money dwindles away, but he who gathers money little by little makes it grow" (*New International Version*). Dishonest money can be viewed as investing in stocks that do not further God's kingdom – such as the negative screens mentioned prior. A Bible verse that directly relates to the 'S' in ESG is Proverbs 22:16, "He who oppresses the poor to make more for himself or who gives to the rich, will only come to poverty" (*New*

*International Version*). Companies that do not treat their employees well or oppress those in the environments they operate will not be blessed by the Lord. Even though faith-based investing is a form of socially responsible investing, there are a multitude of differences when it comes to values. Regardless, the similarities between SRI and faith-based funds lie in the screening processes they utilize and how they pick out stocks.

With impact investing, the main goal is to achieve a certain positive outcome with the investment. An example of this would be investing in the research and development of a non-profit (Townsend, 2020). The key item to note is the intention of the investor. Impact investing can be viewed as the marriage between financial investment and philanthropy (Clarkin et al., 2016). The difference between SRI and Impact Investing is that SRI holds the mantra of avoiding harm whereas impact investing has the intent of doing good.

Another way to look at this diagram is by seeing strategies furthest to the left as strategies that have no “screens” on them – all companies are free game. As one moves further to the right, additional screens are put on to filter out companies that don’t align with the investment strategy. The more screens implemented; the more restrictive stock selection becomes.

### ***Modern Portfolio Theory***

To fully understand the potential returns from ESG stocks, one must look at what goes into the risk return equation and how ESG fits into that. MPT was developed in the 1950s which allowed investors to analyze risk in relation to return (Omisore et al., 2012). It pushes the idea that investors must be compensated for assuming risk. MPT differs from traditional investing practice because it seeks to look at a bundle of securities in relation to each other, not at the fundamentals of an individual security (Elton et al., 1997). MPT is based on the assumptions that diversification provides benefit, that the market is efficient, and that there is correlation between

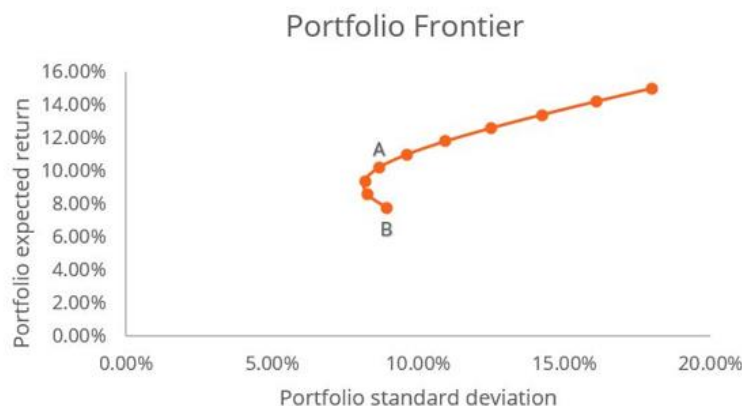
risk and return (Lydenberg, 2016). Because MPT is built on two parts, risk and return, it is important to see how these are interpreted. Return is straight forward – it is the motivating force within the investment process. It can be defined as the gain or loss of an investment overtime, typically as a percentage of gain compared to the initial investment (Corporate Finance Institute, 2022). Risk on the other hand, consists of two parts: diversifiable (idiosyncratic) risk, and undiversifiable (systematic) risk. Systematic risk is the “risks inherent in the market or in an asset class as whole” (Lydenberg, 2016, p. 56). Whereas idiosyncratic risk and rewards are based on the contributions of the portfolio manager. The equation for Risk can be seen as:

$$\text{Total Risk} = \text{Idiosyncratic Risk} + \text{Systematic Risk}$$

The relationship between risk and return would be presumed as a straight line – the higher the risk, the higher the return. But this is not the case. The essence of MPT is that diversification lessens risk and can help maximize return. The result is what is known as the efficient frontier. The portfolio standard deviation (X-axis) is the representative for risk.

### Image 1

*Example of the Efficient Frontier*



*Image from CFI's Efficient Frontier and CAL Template*

The resulting conclusion of Modern Portfolio Theory is that a diversified set of assets can mitigate risk while increasing returns. If it is assumed that MPT is completely accurate, then the natural assumption would be that ESG stocks would yield a lower return because they are fundamentally less risky investments. But higher returns for ESG stocks could be supported by the idea that ESG stocks are naturally less diversified because they draw from a smaller pool of investments. The resulting cause would be increased risk due to lack of diversification. Regardless, ESG and qualitative factors are not assessed under MPT which leads to the assumption that ESG stocks cannot simply just be on a spectrum of risk and return, but other items need to be accounted for.

MPT has come under scrutiny in recent years due to the limitations it holds. MPT assumes that “markets operate without transaction costs, have unconstrained liquidity, have a risk-free investment option always available, and are composed of rational actors who consistently act in their own best interest” (Lydenberg, 2016, p. 57). The last point Lydenberg makes – that the market is composed of rational actors – is especially true when discussing the topic of ESG. The very premise of ESG, SRI, and impact investing is that people make investment choices that involve decisions that are outside of their own interest. Regardless, analyzing the historical returns of ESG can help illuminate the potential correlation between ESG scores and returns.

### **Returns**

One of the difficulties with measuring ESG returns is that there are numerous variables that go into both an ESG rating and the return of a security. To better understand the relationship between ESG scores and returns, it is best to understand how ESG scores are developed and then look at each category of ESG individually to see if they contribute to the equation of returns.



### ***ESG Ratings***

A substantial ambiguity goes along with ESG ratings. The reason for this is because there are several firms that provide these ratings and each one of them weighs and values criteria differently (Doyle, 2018). Lack of standardization within rating a company can cause differences in scores and sometimes may alter the conclusion of whether the security is ESG favorable or not (Doyle, 2018). Each firm uses a set number of criteria and weighs them each differently. They then create a composite score using all the criteria based on their weights (Abhayawansa et al., 2021). Naturally, there is significant subjectivity with the practice. Certain companies value different criteria more than others, thus causing a difference in scores. Moreover, they may all be obtaining their information from different sources (Abhayawansa et al., 2021). One example of how there can be a large difference in scores is when looking at a company like Tesla. A rating agency that puts strong value on environmental compliance may view Tesla as a company with a strong ESG rating (low risk rating) because of their pledge to move away from fossil fuels (Richard, 2021). However, the issue Tesla primarily faces is their labor practices. Over the last few years, information has come out revealing that Tesla repeatedly violated labor laws and that they do not give their workers healthy working conditions (Sonnemaker, 2021). Based on this information, Tesla would score low regarding societal factors. If an ESG rating agency valued societal factors higher than environmental factors, then Tesla would receive a significantly lower score than compared to a rating agency that puts heavier emphasis on environmental practices. Although variances in scores could be deemed an issue, the conclusion companies arrive to tend to be similar. A study done on various rating agencies found that on a scale from 1 to 7 “The mean absolute error (MAE) of the ESG ratings is on average 1.32 and range from 1.11 to 1.59” (Billio, 2021, para. 35). With most rating agencies concluding either low, medium, or high risk,

the conclusion remains somewhat similar across the board. Yes, the weightings of different criteria differ; however, ESG issues are all being valued and the conclusion amongst each category remains similar as the data and disclosures reveal similar information.

### ***Environmental***

Maximizing shareholder value is the primary goal for any for-profit firm. This can be done through generating as much income as possible and having a high level of profitability (Kokemuller, 2016). Although this is the main objective for a for-profit firm, they must balance all the interests of the shareholder. With the mass increase in interest within sustainability, many firms need to incorporate business practices that support corporate social responsibility especially around the scope of environmentalism. Neoclassical economic theory supports that the implementation of CSR practices involves significant costs that minimize shareholder profitability (García-de-Madariaga et al., 2010). Further, it is often viewed that a consideration of environment is typically associated with a cost increase for companies due to extra efforts associated with a secondary objective – sustainability rather than profitability. This paradigm has been challenged over the past decade with a new theory that environmentally friendly firms will notice a reduction in costs and/or and increase in revenue due to their green practices. Sebastianelli et al. (2015) found that ISO 14000 stocks outperformed the S&P500 index during the study period of October 1996 through April 2011. Over this study period, Sebastianelli observed that the ISO 14000 certified stocks noted a .81% average monthly return compared to the S&P's .16% average monthly return. Although these drastic differences in numbers can be partially attributed to S&P stocks being hit harder due to the tech bubble and financial crisis, the study period is still wide enough to gather substantive results (p. 67). Further, these stocks also outperformed other non-certified company stocks focused on green and environmental impact.

Ambec and Lanoie (2008) identified three drivers of revenue for environmentally friendly firms and four opportunities for cost reduction. The drivers of revenue are better access to certain markets, differentiating products, and selling pollution control technology. The four opportunities for cost reduction are risk management, cost of material and energy, cost of capital and cost of labor. Understanding and validating these ideas help better understand how corporate environmental performance can lead to corporate financial performance (Ambec et al., 2008). Although both theories may hold precedence, it is important to look at the time frame of profitability. Having good environmental performance may mean additional costs in the short term but result in higher returns in the long term (Horváthová, 2012).

To test this hypothesis, Manrique et al. performed an empirical study looking at large firms between 2008-2015. The study looked at data regarding environmental scores, return on assets, Tobin's Q, and other financial metrics in order to attempt to find a correlation between corporate environmental performance and financial performance. The study found that, "prior corporate environmental performance has a significant and positive effect on return on assets in model 1 ( $\beta_1 = 0.013$ , p-value < 0.01), . . . and Tobin's Q in model 3 ( $\beta_1 = 0.001$ , p-value < 0.10)" (Manrique et al., 2017, para. 46). The conclusion of these results was that there are benefits of adopting environmental practices that exceed the cost of implementation. One of the largest reasons for this is because shareholder perception of the firm increases. In doing so, the cost of capital is reduced as the security now has access to the markets of SRI or green mutual funds, banks are more likely to provide funding, and shareholder reaction in the stock market may increase (Ambec et al., 2008). Additionally, these firms can reduce the risk of regulation and litigation costs that may occur if environmental practices were neglected.

### *Social*

One of the largest and most quantifiable factors that goes into the social branch of ESG is employee satisfaction. Similar to environmental practices, traditional theory suggests that an increase in employee satisfaction brings down firm value from a point of cost efficiency (Taylor, 1911). The rationale behind this cost efficiency is that management's goal is to extract maximum output from these workers while minimizing cost. In order to increase satisfaction, either less hours need to be worked, or higher pay needs to be given (Edmans, 2011). Although brash in nature, this cost efficiency management style views labor as merely an input to production – no different than raw materials. Modern thought contradicts this viewpoint and states that quality and innovation are driven by human capital. Further, employee satisfaction improves retention and motivation thus adding value for the firm in that regard (Zingales, 2000). Alex Edmans, an esteemed professor who taught at Wharton School of Business, performed an empirical analysis with the goal of valuing a firm's intangibles – such as employee satisfaction.

The argument Edmans makes on employee satisfaction relies on the point that employee satisfaction is beneficial to the firm's value but is not immediately capitalized by the market. This is based on the assumption that the Efficient Market Hypothesis prices in tangible benefactors – not intangible (Edmans, 2011). The results of the study found that, “firms with high levels of employee satisfaction generate superior long-horizon returns, even when controlling for industries, factor risk, or a broad set of observable characteristics” Further, he was able to provide the statistical backing that the “‘100 Best Companies to Work For in America’ earned an annual four-factor alpha of 3.5% from 1984 to 2009, and 2.1% above industry benchmarks” (Edmans, 2011, para. 1). These findings are due to intangibles only making an impact on stock price once they manifest into tangibles through events such as

earnings announcements. Further, the potential returns may decrease over time as the market begins to incorporate the positive correlation between employee satisfaction and stock returns. Another consideration is that employee satisfaction is not the only contributor to a firm's 'social' standing.

### ***Governance***

The balance of power within an organization typically lies with how much control the shareholder has within decision making. A corporation that operates as a democracy may give shareholders substantial power that allow them to easily replace directors as they see fit. The opposite of this is where a corporation decides what management is in place and has ample control over the board of directors. The balancing act of how much power get distributed between the shareholders and management is typically the backbone of how governance is measured (Bebchuk, 2004). In order to measure how governance effects potential returns, one approach would be to look at firms that exhibit large amounts of shareholder power against firms that restrict shareholder power. From here, one may be able to draw a distinction between the distribution of power and returns.

Paul Gompers, Joy Ishii and Andrew Metrick analyzed 24 distinct corporate-governance provisions for approximately 1,500 companies over a 13-year time horizon in order to find a link between governance and portfolio returns. A specific focus was placed on "democratic" companies returns compared to "dictatorship" companies. With this portfolio, and investment strategy was created where firms with strong shareholder rights were purchased, and firms with weak shareholder rights were sold. The results showed that this investment strategy proved to outperform normal returns by 8.5% per year throughout the 1990s (Gompers et al., 2003).

A more recent study on ESG performance found that governance performance has the strongest impact on financial performance compared to environmental and social factors (Velte, 2001). This study found positive correlation between Return on Assets and ESG factors, found that ESG factors made no impact on Tobin's Q – a common ratio to measure the relationship between a firm's market valuation and intrinsic valuation. This ratio is an indicator for future firm performance (Fu et al., 2016).

### ***One Combined Metric***

Although all these research studies found some sort of positive correlation between returns and environmental, social, and governance factors, they are all based on individual factors that have imposed correlation after the data set is analyzed. The risk that occurs here is known as correlation mining (Harvey et al., 2016). Thousands of research reports have scoured through data sets in order to find correlation between ESG characteristics and financial performance, and the results are inconclusive. Existing literature has found positive, negative, and nonexistent correlation between ESG scores and financial performance (Giese et al., 2019).

### **Pitfalls**

There are a handful of analysts who believe that ESG stocks do not pose positive returns and there are downfalls to the category (Porter et al., 2019). The issue that arises is that with the vast amount of data and information, there is a lack of conclusiveness and because of this, one is not able to make a tie between ESG ratings and financial performance (Porter et al., 2019). Some even state that there can be a negative correlation between ESG scores and stock performance due to over disclosure, pricing premiums, and limitation of options.

The first potential inhibitor of ESG stock performance is over disclosure. When a company that shares ESG practices, it opens the door for over analyzation from outside sources

(Garvey, 2016). Fewer policies and disclosures lead to few controversies; however, this exposes the company to potential unexpected news that may inhibit stock performance (Garvey, 2016). There is also a built-in cost to ESG stocks as well (Auer, 2020). With the growing popularity of ESG, investors have begun pricing in high ESG ratings into stock price (Auer, 2020). This can be especially seen in Western Europe where the practice of ESG investing is prominent (Auer, 2020). The result is higher Price/Earnings ratios due to more non-financial data being considered rather than just strict financials of a company. This is one of the areas in which ESG investing strays away from a value investing strategy. Another downside to ESG investing is that it limits the options for possible investments. This comes naturally with any screen; however, it may be leaving investments on the table that could provide a great return. It is crucial for one to measure the weight they put on ethics versus returns.

When looking at just pure results of an ESG fund versus a non-ESG fund, the results can be directly compared. A study done by Morgan Stanley in 2020 found that, “in a year of extreme volatility and recession, funds focused on “on environmental, social and governance (ESG) factors, across both stocks and bonds, weathered the year better than non-ESG portfolios” (Well, 2021, para. 1). This observation by Morgan Stanley shows that ESG stocks tend to be safer investments in high volatile environments. Further, the conclusions of MPT may assume that this safer investment will result in lower returns in the long run. Expanding on this point, these results also do not solve the question of what drives these returns. And the largest reason for this inconclusiveness is due to the lack of differentiation between correlation and causation (Krüger, 2015). Guido Giese (2019) built off the point that Krüger made:

The direction of causality between positive correlations for ESG rating and corporate valuation is not clear: Higher ESG ratings can—through lower systematic risk and lower

cost of capital—lead to higher valuations. Alternatively, higher valuations can indicate successful companies that have more money to invest in sustainability-related areas, leading to a higher ESG rating. (para. 35)

Giese (2019) attempted to prove causation through three transmission channels from ESG to financial performance; however, the concluding thought was that the primary effects that ESG had on valuation and performance of company had to do primarily with idiosyncratic risk and systematic risk. This thought leads into the question of the role risk plays in returns and if ESG risk needs to be calculated in when calculating expected return.

### ***ESG Risk Premium***

ESG and qualitative factors are not assessed under MPT which leads to the assumption that ESG stocks cannot simply just be on a spectrum of risk and return, but other items need to be accounted for.

One theory for why ESG stocks do not fit into the standard MPT equation is because there is a risk factor that is not coincided with beta, but with the qualitative aspect of potential future events (Cornell, 2020). This can have both a negative and a positive effect on the returns of ESG stocks. The negative assumption is that when ESG stocks perform within the efficient market, investors calculate in the natural idea of potential lessened risk of an ESG security thus diminishing the return seen (Cornell, 2020). An example of this would be when looking at the fossil fuel industry. Instead of avoiding the fossil fuel industry to benefit from the reduction of pollution, arguments were made that avoiding the fossil fuel industry is better from a monetary standpoint because one avoids the risk of regulation and litigation (Schanzenbach, 2020). This viewpoint essentially proposes that ESG investing incorporates a safety that lessens risk. This falls in line with the claim that “sin stocks” perform better than ESG stocks because they are



riskier securities. From 1926-2206, it can be seen that, “US sin stocks outperformed by 3%–4% per year” (Dimson, 2020, p. 9). This is due to sin stocks being more exposed to regulatory risk, thus being noted as “riskier”. This brings up one key question: If ESG stocks are prone to lower returns, than why have multiple reports shown a positive correlation between ESG score and return? Cornell (2020) addresses that thought directly:

As the market adjusts to incorporate ESG information, and assuming that the information is material to investors, the discount rate for highly rated ESG companies will fall and the discount rate for low-rated ESG companies will rise. . . . Consequently, during the adjustment period highly rated ESG stocks will outperform the low ESG stocks, but that is a one-time adjustment effect. (para. 11)

That being stated, there are various theories that claim that risk is not priced in until something of material occurs. This fact shows that investors are more willingly including non-financial data into consideration regarding stock selection (Calvo, 2016). Building off this point, the intangibles of ESG related companies is what allows individuals to reap returns; however, these returns will not be realized until these points become material (Edmans, 2011). Materiality typically comes in the form of press releases, shareholder meetings, or financial statements.

One of these non-financial attributes is the press coverage a company gets. Typically, negative press leads to a decrease in share price whereas good news result in an appreciation of stock price (Pyo et al., 2021). It can then be claimed that if a company that is transparent and “clean” in their ESG practices, that will mitigate the amount of negative press coverage that could occur on the firm (Pyo et al., 2021). There are numerous scenarios of low-ESG rated companies encountering disaster after ESG warnings were expressed. One of the most prominent and influential stories involves the BP Deepwater Horizon oil spill of 2010. Prior to the oil spill,

MSCI ESG rating agency downgraded BP for smaller accidents that resulted in death (Potter, 2018). These accidents raised red flags and lowered BP's ESG ratings and ultimately led to their exclusion of MSCI's ESG index. Months later, the oil spill occurred and the intangibles that occurred earlier regarding safety quickly became tangible information that negatively impacted not only the firm's stock price, but their reputation (Potter, 2018). Similar scenarios occurred with Volkswagen's regulatory and labor management issues as well as with Facebook and Equifax's data privacy issues (Potter, 2018).

The last reason ESG stocks may get higher returns is because there may be more risk than what is accounted for. This could be supported by the idea that ESG stocks are naturally less diversified because they draw from a smaller pool of investments (Schanzenbach, 2020). The result would be an increase in risk due to lack of diversification.

If it were assumed that Modern Portfolio Theory were completely accurate, then the natural assumption would be that ESG stocks would yield a lower return because they are fundamentally less risky investments; however, there are multiple factors that have gone into the pricing of ESG stocks that cannot be integrated into modern portfolio theory. This presumption is the reason for why there has been a lack of conclusiveness when it comes to what drives the returns of ESG stocks.

### **Looking Forward**

The growth of ESG and 'responsible' funds have grown substantially over the past few decades. As of year-end 2019, about one out of every three dollars invested was managed with sustainable measures (Well, 2021). Further, the total sustainable assets under management grew around 42% from 2017 to 2019 (Nason, 2020). The COVID pandemic also furthered the amount invested in these practices. The year of 2020 saw turbulence across the political sphere,

economic sphere, and social sphere. It became a catalyst for investors to vote with their dollars and stand up for what they believe in (Johnson, 2020). As the prominence of retail investors grow due to mass accessibility to affordable investing, there will be a stronger push away from traditional, fundamental investments, and a move towards qualitative measures that are noticed easily by the public (Selmi, 2021). Further, retail investors will continue to purchase equity in the companies that they enjoy and support. According to a recent research study, 81% of millennials want companies to be good corporate citizens (Bolden-Barrett, 2017). This push is not projected to halt or slow down any time soon. The continuation of CSR programs and retail investors demanding social responsibility will lead to more funds being poured into both ESG and SRI related portfolios (Martini, 2021). Lastly, this continued push will also effect government policy and regulation. As ESG issues become more publicized and politicized, it will lead to increased action by government officials to restrict and monitor certain business activity (South et al., 2021). All these factors will continue driving the flow of cash into ESG and SRI related stocks until there is a normalization of ESG holdings within portfolios.

## **Conclusion**

Environmental, societal, and governance related issues are three factors that are constantly being measured and evaluated. They have been able to be utilized as a tool for people to use to look at ethics when investing. Combining the quantitative and qualitative factors can create a more wholistic approach to investing. The returns of ESG portfolios have been tough to measure because the data collection has been sparse due to ESG being a more recent trend in the equities market. ESG scores cannot be used as predictors of future financial performance because the data does not support that; however, the analysis of ESG can be used to help one mitigate their risk better. Standard analyses through MPT are not entirely effective when regarding ESG

related stocks due to the lack of qualitative indicators used in the calculation of MPT risk and return. The verdict is still out on whether higher rated ESG companies perform better. But the fact is that the market for ESG funds is growing rapidly, and if there is a constant pour into this market associated with increased consumer demand, the basic laws of economics reveal that the price of these assets will go up as well if supply does not match the speed of increased demand (King et al., 2022, para. 18). Once the market becomes more accustomed to companies that possess ESG characteristics and funds that purchase them, the returns will most likely be lower than what is currently seen due to having a lower risk profile. The qualitative data that is not being incorporated into MPT will begin to be accounted for in stock prices as investors begin to give higher value to them. This is a sign that current outperformance of ESG stocks is related to a “stock bubble”, not necessarily firm out-performance (King et al., 2022). Previous data has revealed that there are certain positive correlations with individual categories of ESG such as employee satisfaction or amount of shareholder decision making, but these correlations are sought after and “mined” after a data series occurs – there is a difference between correlation and causation (Giese et al., 2019). Regardless of this, one has the potential to obtain a higher alpha (beat market returns) while investing in values they believe in, whether its environmentalism or Christian beliefs and do so with less risk.

### References

- Abhayawansa, S., & Tyagi, S. (2021). Sustainable investing: the black box of environmental, social, and governance (ESG) ratings. *The Journal of Wealth Management*, 24(1), 49-54.
- Aguila, Y., & Viñuales, J. E. (2019). A Global Pact for the Environment-Legal Foundations. *Cambridge: C-EENRG*.
- Auer, B. R., & Schuhmacher, F. (2016). Do socially (ir)responsible investments pay? new evidence from international ESG data. *The Quarterly Review of Economics and Finance*, 59(C), 51-62.
- Badía, G., Ferruz, L., & Cortez, M. C. (2020). The Performance of Socially Responsible Investing from a Retail Investors' Perspective: International evidence. *International Journal of Finance & Economics*, 26, 6074-6088. doi:10.1002/ijfe.2109
- Barzuza, M., Curtis, Q., & Webber, D. H. (2019). Shareholder value (s): Index fund ESG activism and the new millennial corporate governance. *S. Cal. L. Rev.*, 93, 1243.
- Bebchuk, L. A. (2004). The case for increasing shareholder power. *Harv. L. Rev.*, 118, 833.
- Becker-Blease, J. R. (2011). Governance and innovation. *Journal of Corporate Finance*, 17(4), 947-958.
- Berg, F., Koelbel, J. F., & Rigobon, R. (2019). *Aggregate confusion: The divergence of ESG ratings* (pp. 1-42). MIT Sloan School of Management.
- Berry, T. C., & Junkus, J. C. (2013). Socially responsible investing: An investor perspective. *Journal of Business Ethics*, 112(4), 707-720.
- Bolden-Barrett, V. (2017, March 2). *Study: 81% of millennials want companies to be good corporate citizens*. HR Dive.

- Cerulli Associates. (2018). U.S. High-Net-Worth and Ultra-High-Net-Worth Markets 2018: Shifting Demographics of Private Wealth. In *U.S. High-Net-Worth and Ultra-High-Net-Worth Markets 2018: Shifting Demographics of Private Wealth* (pp. 1–1).
- Cheung, A. (2012). Biblically responsible investing: An evaluation report. *The Evangelical Review of Society and Politics*, 6, 37-60.
- Clarkin, J. E., & Cangioni, C. L. (2016). Impact investing: A primer and review of the literature. *Entrepreneurship Research Journal*, 6(2), 135-173.
- Cohen, R., & Serafeim, G. (2020, September 3). How to measure a company's real impact. *Harvard Business Review*.
- Cornell, B. (2021). ESG preferences, risk and return. *European Financial Management*, 27(1), 12-19. doi:10.1111/eufm.12295
- Crifo, P., Durand, R., & Gond, J. P. (2019). Encouraging investors to enable corporate sustainability transitions: The case of responsible investment in France. *Organization & Environment*, 32(2), 125-144.
- Dimson, E., Marsh, P., & Staunton, M. (2020). Global Investment Returns Yearbook 2020, ESG Investing (pp. 48–64). Credit Suisse Research Institute.
- Diolosa, J. (2021, June 2). Spotlight on the 's' of ESG: The Rise of Social Factors. Sharesight. Retrieved December 18, 2021.
- Diouf, D., Hebb, T., & Touré, E. (2016). Exploring factors that influence social retail investors' decisions: Evidence from Desjardins fund. *Journal of Business Ethics*, 134(1), 45–67. <https://doi.org/10.1007/s10551-014-2307-4>
- Doyle, T. M. (2018). Ratings that don't rate: The subjective world of ESG ratings agencies. *American Council for Capital Formation*.

- Du, S., Bhattacharya, C. B., & Sen, S. (2010). Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication. *International Journal of Management Reviews*, 12(1), 8-19.
- Duggan, E. (2022, January 5). ESG: Why g(overnance) is overlooked and what you can do about it. *Purposeful*.
- Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, 101(3), 621-640.
- Elton, E. J., & Gruber, M. J. (1997). Modern portfolio theory, 1950 to date. *Journal of Banking & Finance*, 21(11-12), 1743-1759.
- Ferrell, O. C., Fraedrich, J., & Ferrell, L. (2017). *Business ethics: Ethical decision making and cases* (11th ed.). Boston, MA: Cengage Learning. Print.
- Ganor, M. (2011). The power to issue stock. *Wake Forest Law Review*, 46(4), 701-744.
- García-de-Madariaga, J., & Rodríguez-de-Rivera-Cremades, F. (2010). Corporate social responsibility and the classical theory of the firm: Are both theories irreconcilable? *Innovar*, 20(37), 5-19.
- Garvey, G. T., Kazdin, J., LaFond, R., Nash, J., & Safa, H. (2017). A pitfall in ethical investing: ESG disclosures reflect vulnerabilities, not virtues. *Journal of Investment Management*, 15(2), 51-64.
- Giese, G., Lee, L. E., Melas, D., Nagy, Z., & Nishikawa, L. (2019). Foundations of ESG investing: How ESG affects equity valuation, risk, and performance. *The Journal of Portfolio Management*, 45(5), 69-83.
- Giovanna, D. (2020). The impact of ESG news on stock performance: When bad news outweighs good ones. *Bocconi Students for Sustainable Finance*.

- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), 107-156.
- Harvey, C. R., Liu, Y., & Zhu, H. (2016). ... and the cross-section of expected returns. *The Review of Financial Studies*, 29(1), 5-68.
- Holy Bible: New International Version*. (2011). Bible Gateway.
- Horváthová, E. (2012). The impact of environmental performance on firm performance: Short-term costs and long-term benefits? *Ecological Economics*, 84, 91-97.
- Hundal, S., Eskola, A., & Tuan, D. (2019). Risk–return relationship in the Finnish stock market in the light of Capital Asset Pricing Model (CAPM). *Journal of Transnational Management*, 24(4), 305-322.
- Inderst, G., & Stewart, F. (2018). Incorporating environmental, social and governance (ESG) factors into fixed income investment. *World Bank Group Publication*, April 2018.
- Johnson Jr., E. C., Stout, J. H., & Walter, A. C. (2020). Profound change: The evolution of ESG. *Business Lawyer*, 75(4), 2567-2607.
- Kokemuller, N. (2016, October 26). What is the main goal of a publicly-owned company? Small Business - Chron.com.
- Krebbbers, A. (2020, November 12). There's no successful "E" or "S" without a functioning "G" in ESG. *NatWest Corporates and Institutions*.
- Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of Financial Economics*, 115(2), 304-329.
- Kuang, J., Zhou, R., Shi, D., & Cai, Z. (2021, December). The Effects of the Paris Agreement on Stock Markets: Evidence from Clean Energy Stocks. In 2021 3rd International



- Conference on Economic Management and Cultural Industry (ICEMCI 2021) (pp. 1507-1513). *Atlantis Press*.
- Kwon, T. (2021). *Unleashing the potential of faith-based investors for positive impact and sustainable development*. Initiative for Blended Finance at the University of Zurich.
- Losse, M., & Geissdoerfer, M. (2021). Mapping socially responsible investing: A bibliometric and citation network analysis. *Journal of Cleaner Production*, 296, 126376.
- Lydenberg, S. (2016). Integrating systemic risk into modern portfolio theory and practice. *Journal of Applied Corporate Finance*, 28(2), 56-61.
- Lyn, E. O., & Zychowicz, E. J. (2010). The impact of faith-based screens on investment performance. *Journal of Investing*, 19(3), 136-143, 8.
- Martini, A. (2021). Socially responsible investing: from the ethical origins to the sustainable development framework of the European Union. *Environment, Development and Sustainability*, 23(11), 16874-16890.
- Nason, D. (2020, December 21). 'Sustainable investing' is surging, accounting for 33% of total U.S. assets under management. *CNBC*.
- Ogletree, C. (2021, April 29). Five environmental metrics worth tracking. *Goby*.
- Omisore, I., Yusuf, M., & Christopher, N. (2011). The modern portfolio theory as an investment decision tool. *Journal of Accounting and Taxation*, 4(2), 19-28.
- Orin, R. M. (2008). Ethical guidance and constraint under the Sarbanes-Oxley Act of 2002. *Journal of Accounting, Auditing & Finance*, 23(1), 141–171.  
<https://doi.org/10.1177/0148558X0802300108>
- Parum, E. (2006). Corporate governance and Corporate Identity. *Corporate Governance: An International Review*, 14(6), 558–567. <https://doi.org/10.1111/j.1467-8683.2006.00530>

- Poier, S. (2020). Clean and Green—The Volkswagen emissions scandal: Failure of corporate governance? *Problemy Ekorozwoju*, 15(2).
- Potter, B. (2018, October 31). Low ESG scores foretold trouble for investors at BP, VW, bhp, Facebook. *Australian Financial Review*.
- Pyo, D. J., & Kim, J. (2021). News media sentiment and asset prices in Korea: text-mining approach. *Asia-Pacific Journal of Accounting & Economics*, 28(2), 183-205.
- Richard, I. (2021, April 28). Tesla Superchargers: 100% renewable energy for 2021, as pledge to Earth Day. *Tech Times*.
- Romano, R. (2005). The Sarbanes-Oxley Act and the making of quack corporate governance. *Yale Law Journal*, 114(7), 1521-1612.
- Sarbanes, P. (2002, July). Sarbanes-Oxley act of 2002. In *The Public Company Accounting Reform and Investor Protection Act*, 107(1), 204
- Sebastianelli, Rose & Tamimi, Nabil & Iacocca, Kathleen. (2015). Improving the quality of environmental management: Impact on shareholder value. *International Journal of Quality & Reliability Management*. 32, 53-80, 10.1108/IJQRM-03-2013-0056.
- Sokolyk, T. V. (2007). *The effects of governance provisions on takeover vulnerability and managerial entrenchment*. The Pennsylvania State University.
- Sonnemaker, T. (2021, March 25). Elon Musk illegally 'threatened' to retaliate against workers and Tesla repeatedly violated Labor Laws, NLRB says. *Business Insider*.
- South, D., Vangala, S., & Hung, K. (2021). The Biden Administration's Approach to Addressing Climate Change. *Climate and Energy*, 37(9), 8-18.
- Srinivas, V., Gregorie, J. (2021, February 22). The rise of newly empowered retail investors. *Deloitte*.

- Statman, M. (2006). Socially responsible indexes. *Journal of Portfolio Management*, 32(3), 100–109.
- Suber, K. (2017). *Identification of the SRI and BRI Mutual Funds Which are Winners in the Long Run* (Doctoral dissertation, Northcentral University).
- Tang, K. (2019, March 22). Exploring the G in ESG: Governance in greater detail – Part I. *S&P Global*.
- Tarraf, H. (2011). The role of corporate governance in the events leading up to the global financial crisis: Analysis of aggressive risk-taking. *Global Journal of Business Research*, 5(4), 93-105.
- Taylor, F. W. (1911). *Shop management*. Harper, 1919 [c1911].
- Torres, E. N., & Kline, S. (2006). From satisfaction to delight: A model for the hotel industry. *International Journal of Contemporary Hospitality Management*, 18(4), 290-301.
- Townsend, B. (2020). From SRI to ESG: The origins of socially responsible and sustainable investing. *The Journal of Impact and ESG Investing*, 1(1), 10-25.
- Van Duuren, E., Plantinga, A., & Scholtens, B. (2016). ESG integration and the investment management process: Fundamental investing reinvented. *Journal of Business Ethics*, 138(3), 525-533. doi:10.1007/s10551-015-2610-8
- Well, L. (2021). Financial Performance with Sustainable Investing. *The Forum for Sustainable and Responsible Investment*.
- Zingales, L. (2000). In search of new foundations. *The Journal of Finance*, 55(4), 1623-1653.