Does ESG Controversy Matters for Firm Value? Evidence from African data 2002-2022

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Abstract

This paper examines the relationship between Environmental, social and corporate governance (ESG) controversies as a measure of CSR concerns and firms' financial performance and valuation. The study used an extensive International dataset from Thomson Reuters Environmental, social and corporate governance (ESG) scores, the Thomson Reuters controversies score and the Environmental, social and governance pillars score of 6420 firm year observations from 626 companies from five (5) of the 10 Africa countries with the highest GDP in 2022 (South Africa, Nigeria, Morocco, Kenya and Ghana), across 25 industrial sectors for 21 years from 2002 to 2022. Primary analysis shows that ESG controversies from corporate scandals and negative media attentions have negative effects on accounting performance of firms a year after the scandal, but no direct effect on firm valuation. Corporate social performance (CSP measured by ESG scores) have positive impact on financial performance of firms. To check the sensitivity of the primary results, we further unbundle ESG ratings into the three separate Environmental pillar, social pillar and governance pillar ratings and explore the impact each of the three Environmental, social and governance ratings on firm performance and valuation. The results show that Environmental pillar scores have negative impact on financial performance, while social pillar have positive effects on firms accounting performance in Africa.

Building on this evidence, we unpack the data and conduct sample split analysis by year from 2004 to 2022. The findings hold for several robustness checks such as splitting the dataset across time.

Keywords: ESG controversies, ESG scores, Environmental pillar, financial performance, firm value

1. Introduction

In this empirical study, we analyze the relationship between Environmental, social and corporate governance (ESG) controversies and firms' financial performance and valuation.

Institutions that provide information intermediation are required for proper resource allocation in any economy (Healy and Palepu, 2001). Increasing amount of resources are now being deployed to producing performance evaluations such as analyst forecasts,

recommendation ratings, credit ratings and more recently environment, social and governance (ESG) ratings and ESG controversies ratings. Performance evaluations can guide financial services industries and investment managers and investors in making informed business and investment decisions. Recently, investors and financial services industries and investment managers with trillions of dollars in assets management have started to include environment, social and governance (ESG) considerations in their portfolio construction, trading, investment and business decisions.

ESG analytics provide rating from measures of companies' performance in environmental, social and governance variables, which enables investors to make portfolio constructions and understand the unsystematic and idiosyncratic risks that are related to environmental (resource use, emissions, innovation), governance (management, shareholders, CSR strategy) and social (workforce, human rights, community, product responsibility). The ESG controversies (ESGC) rating on the other hand provides a measure of specific well identified weaknesses of a company that can potentially have a significant impact on its business. Controversies are negative events about a firm that is reflected in global media and may also have short- or long-term consequences in terms of reputational damage, legal risks or loss of business opportunities and impact on firm value (Cai et al 2012, Carroll 1979, Aouadi and Marsat, 2016, Dorfleitner et al, 2020).

Notwithstanding, the fact that the relationship between Corporate social performance (CSP) and corporate financial performance (CFP) has been analyzed by researchers since the 1970 and there has been heterogenous findings with a preponderance of nonnegative relationships attributed to different measures of Corporate social performance (CSP), Corporate financial performance (CFP) and methods of stock selection. Although research on Corporate social performance (CSP) measured by ESG ratings has been on the increase, studies on ESG controversies and impact of bad social performance and negative public opinion on financial performance are very scanty. This paper is the first to examine the impact of ESG controversies and bad social performance and negative public reactions to corporate scandals on financial performance and the valuation effects using African dataset.

The overall purpose of the study is to measure the effect of social irresponsibility using firms ESG controversies as a measure of CSR concerns on financial performance and the associated valuation effects, after controlling for other firms' attributes such as size, growth, leverage and industry and country of origin and year effects. We find that ESG controversies and negative public scandals have negative effects on accounting performance of firms a year after the scandal, but no direct effect on firm valuation. Corporate social performance (ESG ratings) has positive impact on financial performance of firms. To check the sensitivity of the primary results, we further unbundle ESG ratings into the three separate Environmental pillar, social pillar and governance pillar ratings and explore the impact each of the three Environmental, social and governance ratings on firm value and performance. The results show that Environmental pillar scores have negative impact on financial performance, while social pillar scores have positive effects on firms accounting performance in Africa. For robustness check, we unpack the data and conduct sample split analysis by year and growth value from 2002 to 2022. The findings hold for several robustness checks such as splitting the dataset across time and growth value.

The remainder of the paper is organized in five parts. The next section presents the literature review, followed by the data and methodology section. The penultimate section presents the

results and the robustness checks, and the final section is the conclusion and policy implications.

2. Literature Review

There are three schools of thought about the relationship between ESG and Corporate Financial Performance (CFP). The doing good while doing well perspective found a positive relationship between the ESG scores of firms and their financial performances (Kempf and Osthoff, 2007; Statman and Glushkov, 2009; Auer, 2016; Pintekova and Kukacka 2019). Some studies have linked the managerial myopia theory with doing good while doing well hypothesis (Stein, 1988, Derwall et al, 2005, Edmans 2011, Dorfleitner et al, 2018, Pintekova and Kukacka, 2019). This hypothesis holds that the costs of socially responsible actions are either overestimated or the benefits exceed the expectations of the managers and investors. The managerial myopia theory hinge on managers prefering decisions that maximise short term profits rather than those that maximize shareholders wealth in the long term, while short term focused investors also undervalue long term benefits. though the cost of socially responsible actions are incurred immediately, their benefits are futuristic and harder to predict and as a result unattractive to investors that are focused on short term. Dorfleitner et al, 2018 found that the benefits of socially responsible activities are produced by additional cashflows which are earned in mid to long term period. Pintekova and Kukacka, 2019 results support the doing good while doing well hypothesis if the ESG activity is closely related to the core business or the primary sector of the respective company.

The second perspective is the doing good but not well view. Socially responsible activities in form of lavish expenditures by managers driven by personal benefits will result in a significant decrease in shareholders' value and lower corporate financial performance as a result of agency problem(Barnea and Rubin, 2010; Reeneboog et al, 2008, Kruger, 2015). furthermore, socially responsible institutional investors such as pension funds, universities and religious organisations are subject to social norms and they exclude 'sin stocks' from their investment decisions, resulting in a lower demand and price respectively, and higher return compared with stocks which have a high ESG rating (Heinkel et al, 2001, Hong and Kacperszyk, 2009). The trade-off theory also supports the doing good but not well view because of the high opportunity cost of the fund that is used for socially responsible activities. As a result, the companies with low level of CSR expenditure, which are usually smaller firms with tight budget, achieve a competitive advantage of channeling their fund to the most productive use in the long run. Investment by smaller firms in GSR can be value decreasing and perceived as a waste of precious financial resources. (Aupperle et al, 1985, Aouadi and Marsat, 2018). Aouadi and Marsat, 2018 found that ESG rating are important for high-attention firms, that are larger, more observed by analysts and attracted to the media.

The third view suggests that there is no clear positive or negative relationship Corporate social performance (CSP) and financial performance (Halbritter and Dorfleitner, 2015 and Auer and Schuhmacher, 2016). This view suggests that the market has already priced Corporate social performance (CSP) which is reflected in the absence of risk-adjusted returns, and this does not imply that there is no relationship between Corporate social performance (CSP) and Corporate financial performance (CFP). Dorfleitner et al, 2018 examined corporate social responsibility and long-term stock returns and found that future financial benefits of socially responsible investments are not immediately perceivable. Furthermore, drawbacks of ESG based activities such as their costs and occurrence of agency problems may offset the benefits of ESG based activities.

However, the question of informational efficient market arises in the measuring the relationship between CSP and CFP. In an efficient market, the stock market is expected to reflect all publicly available in formation in share prices, as a result publicly available information is not expected to yield abnormal returns (Fama, 1965, 1970). In this case, ESG based ratings are publicly available information and selection of portfolio of stock and investment strategies are often based on ESG ratings, as a result of market efficiency, investors that are financially motivated cannot generate a risk-adjusted excess returns over and above conventional or non-ESG based investments. On the other hand, there is a school of thought that perfect information efficient market does not exist because investors incentives for gathering information or actively manage portfolio is to generate excess returns (Grossman 1976, Grossman and Stiglitz, 1980). Mynhardt et al. (2017) examine the efficiency of socially responsible indices by calculating a Hurst coefficient and found that most socially responsible indices are less efficient than conventional ones.

However, while there are discussions on ESG ratings and information efficiency, studies on ESG controversy otherwise ESG based scandals is scanty (Aouadi and Marsat, 2016, Dorfleitner et al, 2020, Giese et al, 2020, Spears 2021) . The occurrence of ESG scandals attracts media attention and public opinions and is immediately reflected in stock prices, the absence of these scandals are often overlooked and firms with little or no scandal 'fly under the radar'. Aouadi and Marsat, 2016 investigated the relationship between ESG controversies and firm valuation and found that ESG controversies are associated with higher firm valuation, but when interacted with corporate social performance (CSP) score, ESG have no direct effect on firm value. After sample split, higher CSP scores has an impact on market value of high-attention firms which are large firms that are better performer, located in countries with greater press freedom, followed more by analysts, more searched on internet and improved corporate social reputations. Dorfleitner et al, 2020 analyze the relationship between Corporate social performance (CSP) and Corporate financial performance (CFP) with data from 58 countries from 2002 to 2011 using the ESG controversies scores to examine the mid-to-long term effects of scandals on CFP and conclude that a value-weighted strategy does not show any significant abnormal returns, however rank weighting portfolios is a useful tool for investors profiting from ESG ratings through investment in high-ranked firms or low-ranked firms. Their study conclude that high controversies score do not necessarily have a high ESG score. Spears 2021 examined the impact of controversies and negative public opinion on valuation and found that when firms have controversies that attract negative media publicity, the public revenue statements and valuation decline over the same period as a negative news cycle.

Notwithstanding the growing literature on Corporate sustainability and social performance, measured by Environmental, social and governance (ESG) scores which evaluates firms performance in their environmental, social and governance pillars, studies on causes of corporate scandals and impact of bad social performance and negative public opinion on corporate firms are very scanty and based on internationalization, firm value and reputation, aspirations and prominence, future of fraud given COVID-19 pandemic (Park 2018, Vasilescu and Wisniewski 2019, Dorfleitner et al, 2020, Aouadi and Marsat, 2018, Mishina et al, 2010, Karpoff, 2021, Amiram et al, 2018).

Corporate scandals are widely publicized illegal, illegitimate, unethical actions or wrongful or criminal deception and misconducts meant to benefit a firm by potentially reducing their liabilities or cost and increasing their earnings (McKendall & Wagner, 1997). Corporate scandals includes financial reporting misconduct (in form of fraud, irregularities, misreporting and misrepresentation, manipulation of firms accounting policies, violation of the books and records and or internal controls provisions of the securities and exchange act),

violation of environmental regulations through inappropriate disposal of hazardous waste, top management team engaging in illegal actions or creating an avenue for others in the firm to do so (Mishina et al, 2010, Karpoff, 2021, Amiram et al, 2018). The number of corporate scandals has been on the increase. For example, in the US, the number of lawsuits filings that allege corporate financial misconduct has increased overtime to 428 new class action securities case in 2019 which almost doubled the 1997-2018 average in 2019. This number excludes corporate misconducts or unobserved misconducts that occur but did not attract public attention or lawsuit or escape regulatory enforcement actions (Karpoff 2021).

Theoretical and empirical literature have suggested that good performance are strong disincentive for firms to engage in illegal, illegitimate and unethical activities that can cause corporate scandals, because of the negative consequences of scandals which include loss of financial and nonfinancial resources, losses from regulators fines and private lawsuits, social stigma, disutility, loss of self-esteem, increase in cognitive dissonance for violating ethical principles, loss of reputation capital, reputational damage to the firm and the management team (Davidson & Worrell, 1988, Karpoff et al, 2009, Karpoff 2021, Weisenfeld et al, 2008, Mishina et al, 2010). Firms' reputational losses manifest in form of higher costs of capital, lower operating profit, fall in global rating, lawsuits and associated costs and possibility of winding down operations and threat to 'going concern'.

In theory, The Trust Triangle by Dupont and Karpoff, 1990 explains that at the core of most economic transactions, there are forces that promote trust building and discipline misconducts. The trust triangle include the effectiveness of the third-party enforcement of misconducts (laws, institutions, regulations and regulators), the related party enforcement (market forces and reputation capital) and first party enforcement (personal ethics, integrity and cultural norms).

The scanty studies on ESG controversies are inconclusive with dataset ending in 2011 and there has not been any study using dataset of African firms. This study examines the relationship between ESG controversies and ESG rating and firm financial performance and valuation effect. The study provides answer to the question on how do markets punish corporate bad behaviour and what are the associated firm performance and valuation effects? The study examines the effects of ESG controversies and scandals on firm performances and valuation using African dataset. We consider 1,572 ESG controversies relating to 626 firms covering 6420 firm year observations from five (5) countries ((South Africa, Nigeria, Morocco, Kenya and Ghana that jointly account for about 42% of aggregate output in Africa in 2022) and 25 industrial sectors during 2002 to 2022.

3. Methodology

In this section, we describe our methodology and empirical tests. The first question we investigate is the relationship between ESG controversies and ESG rating and firm financial performance and valuation effect once we control for other firms' attributes such as size, growth, leverage and industry and country of origin and year effects in our baseline model. To check the sensitivity of the primary results, we further unbundle ESG ratings into the three separate Environmental pillar, social pillar and governance pillar ratings and explore the impact each of the three Environmental, social and governance ratings on corporate performance and valuation.

All variables are defined in Table 1.

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Our dataset is an unbalanced panel of African data set from Thomson Reuters Eikon database for 626 firms from 2002 to 2022 for Environmental, social and corporate governance (ESG) rating and ESG Controversies Scores. The initial sample was a total of 24,581 firm year study. After dropping duplicate and missing variables and sorting the data according to complete ESG scores, we are left with 626 firms and 6,420 firm year observations from 2002 to 2022.

The general form for the regression is:

$$FP_{it} = a + b(ESGC_{it}) + c(CSP_{it}) + d(F_{it}) + e(Ind_{it}) + f(Y_{it}) + g(Coi_{it}) + \varepsilon_{it} \quad (1)$$

where: Dependent variable FP are measures of firm performance and firm valuation; Tobin's Q, Net profit margin and Return on Assets (ROA). Corporate financial performance (FP) includes accounting based performance measures of Return on assets (ROA) and Net income (NPM) and stock market based measure or risk adjusted performance and valuation measure of Tobin´s Q. ROA measures the efficiency of capital used in the business and is calculated as earnings before interest and taxes divided by total assets, and NPM measures how well business is organized to generate operating profit from turnover without any focus on invested capital. and is calculated as operating profit as a percentage of sales. Tobin's Q (Tobin's Q) is a measure of the market valuation of a firm's assets, defined as the market value of common equity plus book value of total assets minus the book value of common equity divided by the book value of total assets.

Independent variables include Environmental, Social and corporate governance Controversies (ESGC) Scores, Corporate Social Performance measured as Environmental, social and corporate governance (ESG) Scores; which are overall ESG scores, Environmental pillar score (EnvPillar), Governance pillar score (GovPillar) and Social pillar score (SocPillar). ESG Controversy are news that negatively impact a company with respect to Environmental, Social and Governance standards. The ESG Controversy Scores (ESGC) from Thomson Reuters (TR) data source are calculated from ESG Controversy News collected daily and categorized into any of the 57 controversies topics, but only 23 of controversies topics are finally used to calculate the Thomas Reuter's ESG Controversies Score.
ESG Controversy (ESGC) Score covers or overlays the ESG Score with ESG controversies to provide a comprehensive evaluation on the sustainability impact and conduct of firms. The ESG Controversy Category Score measures a company's exposure to environmental, social and governance controversies and negative events reflected in global media. During the year, if a scandal occurs, the company involved is penalized and this affects their overall ESGC scores and grading. The impact of the event may still be seen in the following year if there are new developments related to the negative event. The ESG Controversy (ESGC) Scores are calculated as the weighted average of the two component scores per year, while recent controversies are reflected in the latest complete period. ESGC score ranges from 0 to 100. If

The ESG Scores from Thomson Reuters data source measures a company's performance in Environmental, social and governance variables based on annual reported data by companies. The 3 ESG pillars have 10 categories namely; Environmental (resource use, emissions, innovation), governance (management, shareholders, CSR strategy) and social (workforce, human rights, community, product responsibility). The final ESG score is calculated from the 10 categories. ESG score ranges from 0 (most negative) to 100 (most positive and is calculated yearly for each firm.

Firm specific control group (F) are Standard variables used to control for firm specific characteristics including Firm Size measured as the logarithm of Total assets (ln(Size), Sales growth, Cash and Short-Term Investments, Capital Expenditures and Leverage.

Industry control (Ind) capture industry fixed effects, Year controls (Y) are the dummy variables that capture year fixed effects and Area or country of incorporation control (country) capture countries fixed effects. The independent variables are lagged values at t-2. We winsorized the values of each variable at 1 percent to adjust for outliers without losing any observation by carefully analyzing the extreme values to avoid their influence on our key results.

Firm specific control group (F) are Standard variables used to control for firm specific characteristics   including Firm Size measured as the logarithm of Total assets (ln(Size), Turnover or sales revenue is the logarithm of sales (ln(Sales)) which served as a proxy for demand for the companies product, leverage is defined as total book value of debt divided by book value of common shareholders equity, sales growth is increase in one year sales (GROWTH), investment intensity is capital expenditure divided by total assets (CAPEX) and cashflow (Cash) is measured as cash and cash equivalent, leverage is debt/equity ratio. Industry control (Ind) capture industry fixed effects, Year controls (Y) are the dummy variables that capture year fixed effects and Area or country of incorporation control (Coi) capture countries fixed effects. The independent variables are lagged values at t-1. We winsorized the values of each variable to adjust for outliers without losing any observation by carefully analyzing the extreme values to avoid their influence on our key results.

The regression models below are estimated:

$$Tobin's\ Q = a + b(ESGC_{it}) + c(CSP_{it}) + d(F_{it}) + e(Ind_{it}) + f(Y_{it}) + g(Coi_{it}) + \varepsilon_{it}\ (2)$$

$$NPM = a + b(ESGC_{it}) + c(CSP_{it}) + d(F_{it}) + e(Ind_{it}) + f(Y_{it}) + g(Coi_{it}) + \varepsilon_{it}\ (3)$$

$$ROA = a + b(ESGC_{it}) + c(CSP_{it}) + d(F_{it}) + e(Ind_{it}) + f(Y_{it}) + g(Coi_{it}) + \varepsilon_{it}\ (4)$$

The data is analysed using ordinary least square method.

Descriptive Statistics

The final sample is made up of firms from 25 industrial sectors and 626 firms from five(5) countries in Africa. The dependent variables are Tobin's Q, Net profit margin and ROA. The independent variables are ESGControversiesScore (ESGC) dummy D(ESGC) defined as D(ESGC) = 1 if ESGControversiesScore is less than 100 and D(ESGC) = 0 if ESGControversiesScore=100. ESG scores, Environmental Pillars Score, Social Pillars Score and Governance Pillars Scores are at one years lag. Appendix 1 Table 8 presents Distribution of controversies by years, country and industry. The number of controversies and ESG scandals has increased since 2013 to 2022. and the mineral resources industry have the highest number of ESG scandal.

Table 2 presents the descriptive statistics of all the variables used in the regression analysis. The mean of ESG controversies score is 87 with a standard deviation of approximately 27, while the mean of ESG Score is about 52 with a standard deviation of approximately 18. The mean of Environmental pillar score is about 47 which is lower than the mean value of Governance Pillar Score (53) and Social Pillar Score (approximately 55). Average Tobin's Q is 1.44, average NPM is 5%, while average ROA is 5.22%. The firms in the sample have an average size of about 173 billion US dollars. Annual sales growth is 1.89%, Capital intensity (CAPEX) measured by Capital expenditure as a proportion of total assets 0.07% and leverage is 86.52%. The descriptive values of firms with CSR Concerns measured by ESG controversies and others without ESG scandals were compared, t-statistics indicate that firms that engage in high-profile corporate ESG scandals are prominent and better valued by the market, but slightly less profitable, have lower leverage and make more investments with lower growth prospects. This is consistent with findings in Mishina et al (2011) that prominent high performing firms engagement in illegality increase because of performance above internal aspiration and external expectations.

INSERT TABLE 2

Table 3 presents the correlation coefficients. The correlation between ESG controversies score and ESG score is negative (-0.4327). This implies that a firm with high ESG score is likely to have a low controversies score. Firms that have high ESG scores are greatly impacted by controversies because the damage from a fall from a great height is greater than falling from a lower height. The correlation between ESG controversies score and Tobin's Q is negative (-0.0691). The correlation between the three (3) pillar scores; environmental pillar score, social pillar score and governance pillar scores, are positive.

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4. Empirical Results

The first question we investigate is whether markets spares the rod and allow corporate social irresponsibility or disciplines corporate firms by punishing firms for social irresponsibility and misconducts and what are the associated firm performance and valuation effects? We control for other firms' attributes such as size, growth, CAPEX, cashflow, leverage and industry and country of origin and year effects in our baseline model. To check the sensitivity of the primary results, we further unbundle ESG ratings into the three separate Environmental pillar, social pillar and governance pillar ratings and explore the impact each of the three Environmental, social and governance ratings on firm performance and valuation. We also unpack the data to re-estimate our baseline model across industries and countries of origin. We did robustness checks splitting the dataset across time and growth value. Data was analyzed using ordinary least square regression. Table 4 presents the regression results with Tobin's Q, Net profit margin and Return on Assets (ROA) as the dependent variable and the dummy of ESG controversies scores D(ESGC), ESG scores and the three Pillar Scores; the Environmental Pillar Scores, Social Pillar Scores and the Governance Pillar Scores and size measured by total assets (Ln(Total assets) and other firm control variables including growth, CAPEX, cashflow, leverage as independent variables. The data was analyzed using ordinary least square regression. The ESG controversies scores, ESG scores and the Environmental Pillar Scores, Social Pillar Scores and the Governance Pillar Scores are lagged by one year.

In table 4, model 1, the dependent variable is Tobin's Q, the coefficients ESG controversies is positive but not statistically significant. In model 2 of table 4, the dependent variable is net profit margin, the parameter estimate of ESG controversies is negative and statistically significant. In model 3 of Table 4, ROA is the dependent variable and the coefficient of ESG controversies is negative and statistically significant. The results of the primary analysis show that ESG controversies from corporate scandals and negative media attentions have negative effects on accounting performance of firms a year after the scandal, but no direct effect on firm valuation. Corporate social performance (CSP) measured by ESG scores have positive statistically significant coefficients in model 2 and 3 of table 4 with Net profit margin and ROA as dependent variables, which implies that CSP impact positively on financial performance of firms.

INSERT TABLE 4

We unbundle the Corporate Social Performance (ESG Scores) and use the 3 pillars scores namely Environmental pillar score, Social Pillar score and Governance pillar score as independent variables. Table 5 presents the regression results with Tobin's Q, Net Profit Margin and ROA as dependent variables. The parameter estimate of ESG controversies is negative and statistically significant in model 2 and 3. The coefficients of the Environmental pillar score is also negative and statistically significant in model 2 and 3 of Table 5. This implies that ESG scandals and controversies and Environmental concerns have negative effects on accounting performance of firms. The coefficients of Social Pillar Score is positive and statistically significant in model 2 and 3 as well. This result indicate that Social ratings

have positive impact on firm performance.

INSERT TABLE 5

In table 6 below, we analyze the effect of Environmental, Social and Governance Pillar Scores on firms' financial performance and valuation effect. In Table 6 model 2 and 3 with Tobin's Q as the dependent variable, and Social and Governance Pillar Scores as the independent variables in models 2 and 3 respectively, the parameter estimates of ESG controversy dummy is positive and statistically significant. In table 6 models 4,5 and 6, the dependent variable is net profit margin and ESG controversies dummy and each of the Environmental, Social and Governance Pillar Scores are independent variables. The parameter estimates of ESG controversies are negative and statistically significant. This implies that the market punish corporate socially irresponsible behaviour. The coefficient of Environmental Pillar is also negative although not significant. The parameter estimates of Social and Governance Pillars are positive and statistically significant.

Table 6 models 7, 8 and 9 present the regression results with ROA as dependent variable and ESG controversies dummy and each of the Environmental, Social and Governance Pillar Scores are independent variables. The parameter estimates of ESG controversies are negative and statistically significant for models 7,8 and 9. This implies that corporate socially irresponsible behaviour have negative effect on accounting performance of firms. The coefficient of Environmental Pillar is also negative although not significant. The parameter estimates of Social Pillar is positive and statistically significant.

INSERT TABLE 6

We unpack the data by year for robustness checks by splitting the dataset across time into data from 2004-2008; 2009-2013; 2014-2017 and 2018-2022 respectively and reestimate the baseline model with ordinary least square regression model.
Table 7 presents the regression results. The dependent variables are Tobin's Q, Net profit margin and ROA, while the independent variables are the ESG controversies and the ESG scores and the firm specific control variables, industry, year and country of origin effects. In panel A of Table 7, the coefficients of ESG controversies are negative and statistically in the models with Net profit margin and ROA as dependent variables for all firms with the data from 2004 to 2008 and 2009 to 2013.

In Table 7 Panel B, models 1 to 3 presents the regression results for the data for years 2014 to 2017. The coefficients of ESG concerns measured by ESG controversies are negative and statistically significant in the models with Profit Margin and ROA as dependent variables. This reinforce our findings that ESG controversies and negative public scandals have negative effects on accounting performance of firms a year after the scandal, but no direct effect on firm valuation. In table 7 Panel B models 4 to 6 we present the results for the data from 2018 to 2022. The parameter estimates of ESG controversies are still negative but not significant in the models with net profit margin and ROA as dependent variables. Surprisingly, the coefficient of ESG controversies in model 4 with Tobin´s Q as the dependent variable is positive and statistically significant. This implies that firms experience

increased valuation a year after they had a major scandal from 2018 to 2022. This could be explained that corporate firms after major scandals may increase Corporate social activities and exercise discipline to regain reputational capital.

INSERT TABLE 7

5. Summary, Conclusions and Policy implications

In this study, we examine the relationship between Environmental, social and corporate governance (ESG) controversies from bad social performance and negative public reactions and firm performance and valuation effects using an extensive International dataset from Thomson Reuters Environmental, social and corporate governance (ESG) scores, the Thomson Reuters controversies score and the Environmental, social and governance pillars score for 626 companies from five (5) African countries across 25 industrial sectors for 21 years from 2002 to 2022.

Primary analysis shows that ESG controversies from corporate scandals and negative media attentions have negative effects on accounting performance of firms a year after the scandal, but no direct effect on firm valuation. Corporate social performance (CSP measured by ESG scores) have positive impact on financial performance of firms. To check the sensitivity of the primary results, we further unbundle ESG ratings into the three separate Environmental pillar, social pillar and governance pillar ratings and explore the impact each of the three Environmental, social and governance ratings on firm performance and valuation. The results show that Environmental pillar scores have negative impact on financial performance, while social pillar have positive effects on firms accounting performance in Africa.

Building on this evidence, we unpack the data and conduct sample split analysis by year from 2004 to 2022. The findings hold for several robustness checks such as splitting the dataset across time.

Overall, the regression results reveal that ESG controversies negatively impact firms accounting performance one years after the controversies. As a future research question, it will be interesting to examine the effects of growth and firm reputation on ESG controversies and the associated valuation effects.

This study provides an evidence-based results to support the need for responsible production by corporate firms in Africa. Sustainable development goal (SDG) 12 emphasis responsible production and consumption, which requires that corporate firms adopt climate smart industrialization. For Africa to achieve SDG by 2030, corporate firms need to embrace green industrial policies and production technologies that minimize pollution while maximizing productivity. This is particularly important, corporate socially irresponsible behaviour are punished through reduction in financial performance in the year after corporate scandals and ESG concerns, the realization of these will make corporate firms to embrace production technologies that minimize pollution.

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INSERT APPENDIX 1 TABLE 8