The Real Effects of Institutional Investor Engagement

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Abstract

We study the effectiveness of institutional investor engagement on the ESG performance of a sample of UK firms listed in the FTSE 350 Index. To measure the quality of engagement, we exploit the introduction of the tiering classification system by the Financial Reporting Council (FRC) in 2016 for signatories' reporting under the UK Stewardship Code. Using a propensity score matched difference-in-differences research design, we show that the introduction of the tiering system was associated with increases in ESG performances in investee companies. Further, our results are consistent with high quality engagement investors (Tier 1) being more effective than lower quality engagement investors (no-tier) in improving ESG performance overall. Our results contribute to the growing literatures on the effectiveness of institutional investor monitoring investees' ESG behavior, as well as the role stewardship codes play in this arena. Our findings have policy implications - from a regulatory perspective, we validate the assumption of a strong correlation between the quality of stewardship-related disclosures and the quality of engagement. Our results also suggest that disclosure-based reputational incentives are effective in influencing institutional investors preferences.

Keywords*:* Voice, Engagement, Stewardship Code, Tiering, ESG, institutional investors.

JEL: G23, K22, Q50

"Shareholder engagement is a hallmark of our public capital markets"
Jay Clayton, SEC Chairman (2017)

1. INTRODUCTION

In this paper, we examine if institutional investor engagement quality is effective in increasing the environmental, social, and governance (ESG) performances of investee companies. Public interest on ESG issues has risen dramatically over the past several years, with institutional owners responding to their investors' heightened concerns by establishing "green" investing funds (Curtis, Fisch, and Robertson 2021), and by advocating for greater corporate responsibility in, for example, curtailing carbon emissions or establishing board nominating slates with greater gender and racial equity (Hunnicutt 2017; Mooney 2020; Naaraayanan, Sachdeva, and Sharma 2020; Azar, Duro, Kadach, and Ormazabal 2021). However, the desirability of institutional investors to influence firms' ESG policies is not without its skeptics (Bebchuk and Tallarita 2020; Bhagat and Hubbard 2020), and many institutional investors may choose to remain on the sidelines.

Most papers on ESG engagement by institutional investors follow the activist campaigns of a single institution only. Dimson, Karakaş, and Li (2015), Becht, Franks, and Wagner (2019) and Hoepner, Oikonomou, Sautner, Starks, and Zhou (2018) use propriety data from one activist institution, respectively; they present evidence in favor of their investor's engagement activities improving their investees' ESG practices. Naaraayanan et al. (2020) obtain a large NYC pension fund's data on activist campaigns relating to carbon emissions; they report improvements in environmental practices for the targeted firms. More broadly, Azar et al. (2021) provide results consistent with the "Big Three" (i.e., BlackRock, Vanguard and State Street Global Advisors) successfully engaging large firms around the world on carbon emissions. Our paper adds to these studies by examining whether a fuller range of institutions, including passive index funds investors, actively monitor their investee firms, and if this stewardship improves the firms' ESG practices.[1]

The role of institutional investors as active monitors, in general, is unclear (Appel, Gormley, and Keim 2016; Bebchuk, Cohen, and Hirst 2017; Dasgupta, Fos, and Sautner 2020) On the one hand, financial institutions have little incentive to engage with investee companies

[1] The question of whether an improvement in a firm's ESG results in an increase in its long-term profitability or a mitigation of long-term risks is not the focus of this paper. Bebchuk and Tallarita (2020) and Masulis and Reza (2015) argue that ESG activities are costly to the firm and fraught with potential agency issues, thus harming shareholder value. Edmans (2020) and (Gordon 2021) take an opposite view, arguing that good ESG policies increase firm profits or mitigate systematic risks such as climate change risk, financial stability risk and social stability risk. See also (Hoepner et al. 2018)

due to their highly diversified portfolios, costs of engagement and collective action problems (Bebchuk et al. 2017; Bebchuk and Hirst 2019). These problems are particularly acute for passive index funds, who must hold certain stocks in their portfolios. In contrast, activist hedge funds overcome these issues by holding large stakes in their target firms (Brav, Jiang, Partnoy, and Thomas 2008; Klein and Zur 2009), and by showing a willingness to take the lead in activist campaigns, relying on the implicit voting support of other institutional investors (Gilson and Gordon 2013; Wong 2020).

Most hedge fund activism involves operational or corporate decisions (Brav et al. 2008; Klein and Zur 2009). However, a small group of hedge funds have begun to place ESG stewardship in the forefront of their investment decisions (for example, see Pershing Square Capital[2] and Engine No. 1's successful campaign against ExxonMobil). For non-hedge fund investors, BlackRock and State Street are major advocates of board gender diversity and climate change disclosures, engaging investee firms through voting and private meetings. But, it is not clear how widespread these actions are. A 2021 survey by Bfinance reveals that hedge funds lag behind other institutional investors in considering ESG as investment factors, with only 7% of all hedge funds and 13% of large hedge funds (defined as having more than $25 billion in assets under management) reporting they offer "high integration" of ESG principles in their investment processes.[3] Further, whereas BlackRock and State Street have signed onto the Climate Action 100+ initiative, other large universal owners such as Vanguard and Fidelity have not.

It is difficult to measure the quality of institutional investors engagement. Some papers overcome this challenge by focusing solely on voting records, which are visible and easy to obtain (e.g., see Appel et al. 2016; Heath, Macciocchi, Michaely, and Ringgenberg 2021). However, voting is but one method that institutional investors may use to influence firm policy. Other papers use observable measures, for example, the number of "contentious" management or shareholder proposals (Heath et al. 2021) as proxies for direct engagement. These measures, however, only indirectly correspond to institutional engagements and may not be representative of the quality or the intensity of the actual engagements. Although more direct, papers which examine investee firms' responses to one fund only may not be representative of the entire institutional investors' community.

[2] In 2021, Pershing Square Capital stated they "would consider ESG issue in our investment selection process, and as part of our ongoing stewardship once we have made an investment" (Pershing Square Holdings 2020).
[3] https://www.bfinance.com/insights/from-laggards-to-leaders-hedge-funds-slowly-embrace-esg/

We overcome the difficulties surrounding the identification and quantification of institutional engagement quality by exploiting a unique setting in the United Kingdom (UK), the introduction of a classification (Tiering) system by the Financial Reporting Council (FRC) for Stewardship Reports filed under the UK. Stewardship Code. In 2010, the UK became the first nation to introduce a stewardship code for all institutions investing in UK firms, irrespective of where they are domiciled. Beginning in 2012, signatories were allowed to submit a Stewardship Report to the FRC explaining how they applied the Code's Principles to their investees' engagement activities over the previous 12 months (FRC website). The reports contained a "comply or explain" format, in which investors showed how they complied with each principle, or conversely, explained why they chose not to comply. The FRC compiled the reports, offering no comments or judgements on their contents.

In 2016, the FRC introduced a classification of the Code's signatories based on the quality of their Code reports. The classification system distinguishes among signatories who report well and display their commitment to stewardship (Tier 1), and others who do not report well or show a high level of stewardship (Tiers 2 and 3, and No Tier). Notably, while 35 other jurisdictions on 6 continents adopted similar stewardship codes subsequent to the UK standard, no country outside of the UK applied a classification system on the quality of the submitted report.

We use the 2016 tiering classification as our proxy for engagement quality. Specifically, we deem Tier 1 financial institutions to be those with the greatest commitment to stewardship, and those in lower or no tiers to have lower engagement quality. We base this delineation on two things. First, using the FRC classification system, Tier 1 institutions are those whose reports have high quality disclosures and who indicate their commitment to stewardship.[4] Other tiers or the no-tier delineation are considered lower in quality by the FRC.[5] Second, the tiering system used by the FRC introduces a credibility mechanism into the disclosures made by the institutional investors by validating, in part, their claims of engagement with their investee firms. This mechanism is akin to the credibility model derived from Kim and Verrecchia (1991) or to the alleviation of a "cheap talk" communication as articulated by (Crawford and Sobel 1982). It also is related to Gipper, Leuz, and Maffett (2020) findings that

[4] As the 2015 FRC Annual Report explains: "Tier 1 signatories will be those that meet our reporting expectations and provide evidence of the implementation of their approach to stewardship. We will pay particular attention to information on conflicts of interest disclosures, evidence of engagement, and the approach to resourcing and integration of stewardship." (FRC 2015, 12).

[5] For example, from the 2015 FRC Annual Report: tier 2 signatories will be those where improvements are needed.

the introduction of the PCAOB audit inspection, a regulatory validation mechanism, introduced a newly-created credibility into the public audit process.

Further, we consider the 2016 classification system to be a semi-exogenous shock to the attention paid to and by institutional investors with respect to their claims on advocating for better ESG practices by their investment firms. As such, we expect to see an overall bump up in investee firms' ESG ratings after 2016, with most of the increase being concentrated in firms with large Tier 1 institutions. Christensen, Floyd, Liu, and Maffett (2017) examine the real effects on mining safety around the implementation of newly-required disclosures on mine-safety performance in the financial reports for SEC-registered firms. They find an increase in mine safety subsequent to the new regulation, and attribute this finding to an increase in the public's awareness of a mining firm's safety records, which spurs the mining firm's concerns about the political and reputational costs of having poor mining safety. Their findings are in line with Leuz (2018), who proposes that mandated, transparent disclosures may reap real effects through changed behavior by the disclosing party. In our scenario, the validation of a high stewardship quality of an institution by the FRC is expected to spur the Tier 1 institution to maintain its reputation as a high quality steward through increased or more focused engagements with its investee firms. Anecdotally, in a private conversation with Michelle Edkins, the managing director of BlackRock Investment Stewardship, she spoke to how the institution of the 2016 classification system spurred BlackRock to reevaluate and focus more on its future ESG initiatives.

Our empirical tests encompass all 245 companies listed continuously on the FTSE 350 from 2009 through 2018. Thus, our analyses are done over a large sample of institutional investors. We gather institutional ownership from ORBIS Bureau Van Dijk as well as ESG scores from EIKON Thomson Reuters for each investee firm over that time period. Institutional ownership is used to overcome the free-rider problem of institutions with smaller investments having little incentive to engage in activism. That is, we make the assumption that the percentage of institutional ownership in the investee's equity is associated with the motivation for the asset manage to engage the firm (Azar et al. 2021).

Using a difference-in-differences methodology around the introduction of the FRC classification system in the summer of 2016, we find that treated firms (firms with Tier 1 institutional ownership) experience significantly greater increases in ESG ratings vis-a-vis the control group (firms with no-Tier institutional investing only) after the 2016 shock, respectively. We also show that the increases gather across all three measures of ESG –

environmental, social and governance. All regression analyses include control variables and fixed firm effects. Thus, our findings are consistent with quality engagement by institutional investors being related to increases in investees' ESG. They also are consistent with the introduction of the tiering classification code instilling a reputational incentive system into investors as it relates to their engagements with investee firms on issues related to ESG.

To account for differences in firm characteristics between treated and control group firms, we do several things. First, we present both unmatched samples and propensity-score-matched samples regression results, thus alleviating concerns that our results are driven by correlated omitted firm variables. Our findings and interpretations are similar across both specifications. Second, we propensity-score match our FTSE350 firms with firms listed on the German Frankfurt Stock Exchange and re-run our analysis in which treatment firms are the percentages of Tier 1 institutional investors in FTSE350 firms and the control group consists of the percentages of Tier 1 institutional investors in firms listed on the Frankfurt Stock Exchange. We choose the Frankfurt Stock Exchange for two reasons: (1) like the London Stock Exchange, it is a liquid, deeply-traded market and (2) there is no Stewardship Code in Germany. Thus, a major difference between firms listed on the two stock exchanges is the existence or absence of a stewardship code. Our findings and interpretations are similar to those found with our Tier1/No Tier dichotomy; however, we now test directly the effect of the Stewardship Code on companies that are similarly invested by Tier 1 institutional investors.

We complement our analysis by examining voting patterns of the same institutional investors on ISS contested management proposals. Investors can engage with investee firms either through private engagements, which we do not see, or through voting, which is observable. We employ a similar difference-in-differences methodology around the introduction of the 2016 Tiering classification system for voting patterns and for ESG outcomes. We find that the percentage of votes against the ISS contested ballots increased substantively for Tier 1 investors vis-à-vis No-tier investors after the introduction of the FRC classification system. This provides additional evidence consistent with the tiering system being indicative of investor engagement quality, and with the proposition that the introduction of the tiering system increased quality investor engagement. We also provide evidence consistent with this increased voting engagement influencing investee firms' ESG, as evidenced by an increase in ESG after 2016 (and its separate components) for Tier 1 firms voting in contested ballots.

Taken together our findings point to the effectiveness of investors' high-quality stewardship in promoting ESG outcomes in investee firms. Accordingly, our paper makes several contributions to the literature on the monitoring role of institutional investors over their investee companies. First our paper is related to studies that examine the agency problem of institutional investors as it relates to investor engagement (Gilson and Gordon 2013; Appel et al. 2016; Bebchuk et al. 2017; Broccardo, Hart, and Zingales 2020; Heath et al. 2021).

Second, we add to a growing literature documenting the effectiveness of quality investor engagement in promoting better ESG outcomes in investee companies. However, unlike prior studies that use data from one activist investor (Becht, Franks, Mayer, and Rossi 2009; Dimson et al. 2015; Hoepner et al. 2018; Becht et al. 2019) or the "Big Three" (Azar et al. 2021), we use a fuller set of institutional investors comprised mainly of non-activist-type institutions. Thus, we are able to generalize the results found in previous papers to a wider sample of investors.

Third, we provide evidence consistent with the notion that providing credible voluntary disclosures produces real effects from the disclosing entity. This finding is consistent with Christensen et al. (2017) and Leuz (2018), and it responds to Leuz and Wysocki (2016) encouragement to "examine nontraditional disclosure and reporting settings, especially to learn about the real effects of disclosure mandates" (p. 530).

Fourth, our paper contributes to the literature on stewardship codes in general (Shiraishi, Ikeda, Arikawa, and Inoue 2019) and to the UK Stewardship Code in particular (Cheffins 2010; Arsalidou 2012; Reisberg 2015; Davies 2020). To the best of our knowledge, our paper is the first that empirically examines the usefulness of the UK Stewardship Code tiering classification to assess the quality of engagement. Specifically, we provide empirical evidence of the effectiveness of the introduction of the Stewardship Code in promoting better ESG performances. As such, our paper carries policy implications on how regulators and institutional investors can implement stewardship codes. These findings, for example, are in contrast to Liang, Sun, and Teo (2020), who find evidence of "greenwashing" for a "non-trivial" number of hedge funds that endorse the United Nations Principles for Responsible Investment (PRI). Unlike the UK Stewardship Code, PRI, while requiring an annual report from its signatories and classifying its signatories by the quality of their annual report, keeps such reports confidential and, unlike the FRC, does not make the signatories' comparative assessment public.

2. INSTITUTIONAL BACKGROUND: THE UK STEWARDSHIP CODE AND THE TIERING CLASSIFICATION SYSTEM

The UK stewardship framework represents a unique setting to investigate whether stewardship codes are an effective tool to enhance institutional investors' engagement on investee companies. First, the UK was the first country to adopt a stewardship code, publishing its original version in 2010, thus introducing a new wrinkle to how institutions may govern themselves. Second, the UK is the first, and still the only, country to have an independent party classify the quality of its Code's signatories. Thus, beginning in 2016, the UK Stewardship Code moved beyond being a purely voluntary disclosure in the sense that the contents of the disclosures would now be scrutinized and rated by the FRC.

2.1. The UK Stewardship Code's developments: 2010 - 2012

The first version of the UK Stewardship Code was adopted in 2010 by the FRC, a quasi-governmental agency.[6] The FRC is responsible for regulating auditors, accountants and actuaries, but it also was tasked with creating the UK's Corporate Governance and Stewardship Codes for institutional investors. The genesis of the Code was taken from a recommendation included in the Walker Review relating to engagement by institutional investors and fund managers with all firms, not just banks and financial institutions.[7] Specifically, The Walker Review asked the FRC to adopt a Stewardship Code to encourage institutional investors to adhere to best practice principles. In response to a number of significant issues raised by the consultation on 2010 Code, a revised version of the Code was published in September 2012.[8] The 2012 Code, without altering the previous structure articulated in seven principles, included

[6] The FRC was created in the 1980's as a company limited by guarantee, which it remains today. It is now classified by the Government and the Office for National Statistics as a public (central government) body in view of the various statutory functions it fulfils and powers delegated to it by the Secretary of State. See Kingman, Independent Review of the Financial Reporting Council (2018).

[7] The Walker Review, published in 2009, concerned corporate governance practices of banks and other financial institutions only. It was set up as a consequence of the 2005-2008 financial crisis. However, its final report noted that a number of its recommendations could be applied generally to all types of listed companies.

[8] Following the Walker Review recommendations and the positive response from institutional investors to a public consultation promoted by the FRC, the first version of the Stewardship Code was largely based –with only limited amendments– on the 2009 Code on Responsibilities of Institutional Investors prepared by the Institutional Shareholders' Committee (ISC) that traces its origins to 'The Responsibilities of Institutional Shareholders and Agents: Statement of Principles' which was first published in 2005 by the ISC. In addition, the FRC was invited from the then Government to take over responsibility for oversight and future development of the Code. See Cheffins (2010); Reisberg (2015), and FRC, Developments in Corporate Governance 2011. The impact and implementation of the UK Corporate Governance and Stewardship Codes (2011).

some limited revisions and a new introductory section aimed at clarifying the definition and aim of stewardship.[9]

The Code is based on the premise that responsibility for overseeing publicly listed companies is shared between the board, which oversees its management, and investors, who hold the board accountable for its responsibilities (FRC, paragraph 2). The primary aim of the Code is to promote "more effective engagement by major investors designed to improve the performance of their companies and to encourage a wider group of fund managers to see engagement initiative, in particular if well-executed on a collaborative basis, as a responsible and appropriate means of discharging their obligations to their clients as an alternative to selling stock" (Walker 2009). As stated by the first sentence of the 2012 Code: "Stewardship aims to promote the long term success of companies in such a way that the ultimate providers of capital also prosper. Effective stewardship benefits companies, investors and the economy as a whole" (FRC 2012).

The 2012 Code also makes it clear that, for investors, "stewardship is more than just voting" and includes "monitoring and engaging with companies on matters such as strategy, performance, risk, capital structure, and corporate governance, including culture and remuneration. Therefore, engagement, as a crucial component of stewardship, means "purposeful dialogue with companies on these matters as well as on issues that are the immediate subject of votes at general meetings" (FRC 2012).

In addition, the Code embraces an activist style of engagement. Principle 4 specifies that "institutional investors should establish clear guidelines on when and how they will escalate their stewardship activities." Principle 5 states that when companies are not responsive to collaborative engagement, institutional investors should escalate their actions, for example, by holding additional private meetings with management, the chairman or other board members to discuss concerns, or making a public statement in advance of General Meetings or submitting resolutions and speaking at General Meetings. As far as voting is concerned, Principle 6 and related Guidance state that institutional investors should seek to vote all shares held and not automatically support the board. In particular, institutional investors are recommended to abstain or vote against management when "they have been unable to reach a satisfactory outcome through active dialogue." In conclusion, it is fair to say that the 2012 version of the

[9] FRC, Revisions to the UK Stewardship Code. Consultation Document (2012).

Code "could as well have been called an Engagement Code as a Stewardship Code" (Davies 2020).

Finally, although this development lies beyond the timeframe of our empirical analysis, it is worth mentioning that, as a result of the criticisms raised by the Kingman Review of the FRC regarding the practical effectiveness of the Code,[10] a substantially revised version of the Code was published in October 2019 and came into effect on January 1, 2020. The 2020 version significantly deviates from the previous one, in that it places heavier emphasis on environmental social and governance (ESG) factors and aims to integrate them into stewardship (Katelouzou and Klettner 2020). Thus, in line with such ESG-oriented approach, the 2020 Code "contains a much broader concept of stewardship and of the techniques to be deployed to further it than does the first (two) version(s)"(Davies 2020).

2.2. The Tiering Classification system

Another feature that makes the UK Stewardship framework unique is that the UK was and still is the only country to incorporate a classification system for its signatories. Beginning in 2016, the FRC began classifying signatories to the Code based on the seven principles of the Code and the supporting guidance.[11] Asset managers are categorized in three tiers and other signatories (i.e. asset owners and service providers) in two tiers. We focus on asset managers and asset owners since both are in a position to influence companies' long-term performance through stewardship activities.

Tiering distinguishes between signatories who report well, and those who do not. As specified by the FRC, Tier 1 signatories provide a good quality and transparent description of their approach to stewardship and explanations of an alternative approach where necessary. Tier 2 signatories meet many of the reporting expectations, but report less transparently on their approach to stewardship, or do not provide explanations where they depart from provisions of the Code. Tier 3 signatories provide no, or poor, explanations of how they depart from provisions of the Code, thus their reports lack an adequate level of transparency.

[10] FRC, Independent Review of the Financial Reporting Council (2018). On December 18, 2018, Sir John Kingman published an independent review of the FRC recommending 83 changes. Most of the recommendations relate to the regulator's role in overseeing the audit process of financial reporting.

[11] FRC, FRC, Tiering of signatories to the Stewardship Code, PN 66/16 (2016).

The tiering classification was, according to the FRC, successful since there had been some improvement in the quality of Code statements as a result of the introduction of the tier reporting system in 2016.[12] The FRC found that many signatories chose to include more information on their environmental and social activities in their Code statements after tiering began.[13] Tiering also led to a decrease in the number of signatories; in 2017, the FRC removed those 2016 Tier 3 signatories that did not did not improve their disclosure quality.[14] According to the FRC, this was not a cause for concern as it explained that being withdrawn from the list is appropriate if stewardship is not relevant for an organization's business model, as it should not be using the Code as a reporting framework.[15] Moreover, as Tier 3 investors tended to withdraw because being a non-signatory sounds better than being classified in the third tier, the elimination of the Tier 3 allowed a better separation between signatories and non-signatories.[16] In the light of the above, it can be said that the tiering classification 'indicates that the FRC has shifted its attention from the quantity to the quality of signatories' (Katelouzou 2019).

3. LITERATURE REVIEW

Our paper relates to three strands of literature: stewardship codes, institutional investors as activists, and institutional investors and ESG.

Stewardship Codes

The conventional wisdom among legal scholars and practitioners is that the UK Stewardship Code has proven ineffective in practice (Cheffins 2010; Arsalidou 2012; Reisberg 2015; Davies 2020). To our knowledge, only one empirical study on the effectiveness of the UK exists; Lu, Christensen, Hollindale, and Routledge (2018) find that compliance by institutional investors with the UK Stewardship Code is not related to the earnings quality of their investee companies.

[12] FRC, Developments in Corporate Governance and Stewardship 2016 (2017), 24.

[13] FRC, Developments in Corporate Governance and Stewardship 2016 (2017), 25.

[14] FRC, Developments in Corporate Governance and Stewardship 2016 (2017), 26. Katelouzou (2019) reporting that in 2019, however, there has been an increase in the number of stewardship signatories which amounted to 291.

[15] FRC, Developments in Corporate Governance and Stewardship 2016 (2017), 26.

[16] Rust, FRC scraps lowest category of Stewardship Code reporting ranking (2017), https://www.ipe.com/frc-scraps-lowest-category-of-stewardship-code-reporting-ranking/10020107.article.

Several studies, instead, focus on non-UK countries or provide cross-country analyses surrounding the introduction of stewardship codes. Generally, these studies support the view that the introduction of stewardship codes improves the institutional investor monitoring activity over their investee companies. Shiraishi et al. (2019) show that the introduction of stewardship codes in 13 countries increases the value of firms with high institutional ownership and mitigates the free cash flow problem of the portfolio firms with low investment opportunities. Similarly, for Japanese companies, Routledge (2020) finds that the level of institutional investor code-compliant shareholdings is positively related to the earnings quality of their investee companies. These findings are consistent with the view that the introduction of stewardship codes contributes to encouraging institutional investors to monitor their portfolio firms and to mitigate institutional investors' free-rider problem.

Miller, Naranjo, and Yu (2019) find that the introduction of stewardship codes across countries led to an increase in number of public demands made by investors, with firms being more likely to implement these public demands. They also find that institutional investors are more inclined to vote for shareholder proposals after the introduction of a stewardship code. Nguyen and Wang (2019) and Tsukioka (2020) report similar voting pattern evidence, with Nguyen and Wang (2019) documenting an economically and statistically significant shift in the voting behavior of shareholders in stewardship code adopting-country with little U.S. investor presence and Tsukioka (2020) finding that some investors in Japanese companies were more inclined to vote against management in specific circumstances especially, in firms with lower profitability.

Institutional Investors as Activists

Institutional investors can exercise their "voice" either by exiting their positions or they can engage directly with the firm (Hirschman 1970; McCahery, Sautner, and Starks 2016).[17] Engagement, in turn, involves both voting and direct interactions with management, for example, meeting the chair or other board members, holding meetings with management, writing letters to the company, and raising key issues through a company's advisers.[18]

[17] Broccardo et al. (2020) study the relative effectiveness of exit vs. engagement in promoting socially desirable outcomes in companies; they conclude that exit is less effective than engagement in pushing firms to act in a socially responsible manner. In addition, passive index funds cannot exercise their voice through exit as they are obligated to hold shares of all stocks (usually value-weighted) in their respective indexes.

[18] BlackRock states clearly: "BlackRock believes we have a responsibility in relation to monitoring and providing feedback to companies, sometimes known as stewardship. These ownership responsibilities include engaging with management or board members on corporate governance matters, voting proxies in the best long-term economic

In general, institutional investors have few incentives to engage with investee companies due to their highly diversified portfolios, cost issues and collective action problems (Bebchuk et al. 2017; Bebchuk and Hirst 2019). Kahan and Rock (2021) and Fisch, Hamdani, and Solomon (2019), on the other hand, contend that higher returns and new fund inflows increase the institutions' assets under management (AUM), which consequently increase fees earned by the investing firms. These papers refer primarily to passive investment funds, for example index funds.

In contrast, hedge fund activist investors have been shown to be effective in obtaining board seats, influencing merger and acquisition activities, and changing the operations of their target firms (e.g., Briggs 2006; Brav et al. 2008; Klein and Zur 2009; Bebchuk, Brav, Jiang, and Keusch 2020). These activists often use confrontational tactics, for example, the filing of a 13D schedule or the threat of a proxy fight (Klein and Zur 2009) to obtain their goals. Further, they tend to focus on changes in specific aspects of the target company's business or management, rather than in ESG-related issues, although recently Bill Ackman's Pershing Square Capital Management hedge fund has moved into the ESG arena (Pershing Square Holdings 2020 Annual Report).

Several papers on institutional investor engagement examine the engagement activities of a single activist investor, for example, Smith (1996) and Carleton, Nelson, and Weisbach (1998) use data from CalPERS and TIAA-CREF, respectively. More recently, Becht et al. (2009) find that the Hermes UK Focus Fund executes shareholder activism predominantly through private interventions and that such engagement leads to increases in investee companies' value. Along the same lines Becht et al. (2019) use proprietary data from a large UK active asset manager with a long-standing commitment to stewardship and find that more intensive engagement and negative votes against are associated with internal analyst downgrades and with exit by fund managers. As Dasgupta et al. (2020) note, however, while they are able to identify the exact channels through which engagement affects firm values, studies pointing at single investors have potential limitations insofar as using data from only one investor makes it hard to draw general conclusions about the engagements' effect.

Our study speaks more to the literature on institutional investor stewardship by institutions that are not hedge funds. Fisch and Sepe (2019) note that in contrast to hedge fund activists, non-activist institutional investors tend focus on collaborative dialogue. McCahery

interests of shareholders, and engaging with regulatory bodies to ensure a sound policy framework consistent with promoting long-term shareholder value creation." See: Statement on compliance. UK Stewardship Code.

et al. (2016), using survey-based data find that the use of private discussions with management or members of the board of directors is widespread, supporting the view that "investors try to engage firms behind the scenes through direct negotiations, and take public measures (e.g., shareholder proposals, public criticism) only if these private interventions fail." Other papers examine voting patterns of institutional investors who are not activist investors, for example passive index funds (Appel et al. 2016; Heath, Macciocchi, Michaely, and Ringgenberg 2019; Corum, Malenko, and Malenko 2020; Griffin 2020). These papers, however, provide mixed evidence on the effects of voting on firm outcomes.

Institutional Investing and ESG

Gordon (2021), Webber, Barzuza, and Curtis (2020) and Kahan and Rock (2021) discuss institutional engagement on ESG issues. Gordon (2021) views ESG as systematic risk factors and contends that institutional investors would like to reduce their systematic risk while keeping their expected return constant. Thus, it would be in their self-interest to advocate on behalf of reducing their portfolio firms' ESG risks. Webber et al. (2020) contend that institutional investors promote good ESG practices among their investee firms to attract or maintain a clientele (particularly younger clients) who are interested in investing in better ESG-performing firms. In contrast, Kahan and Rock (2021) claim that for political reasons, specifically to avoid being further regulated, the "Big 3" adopt pro-ESG stances to lend the appearance of being "responsible stewards." Thus, while Gordon (2021) and Webber et al. (2020) would predict a positive association between institutional engagement and ESG, Kahan and Rock's (2021) view may produce few tangible results.

The literature on institutional investing and ESG can be divided into two strands: funds that invest in ESG and institutional activism with respect to ESG. Several papers examine whether ESG funds deliver on their promise to be investors in firms with good ESG practices. Curtis et al. (2021) present evidence consistent with ESG funds generally offering their investors investments consistent with their labeling. They also show that ESG funds perform as well as their non-ESG counterparts. In contrast, Liang et al. (2020) find that a "non-trivial" number of hedge funds that endorse the PRI invest in firms with poor ESG practices, and that these funds, on average, underperform both genuinely green and non-green funds. The latter finding is important to our study because unlike the UK Stewardship Code, the PRI, while requiring an annual report from its signatories and classifying its signatories by the quality of their annual report, keeps such reports confidential and, unlike the FRC, does not make the signatories' comparative assessments public. Finally, Dimson et al. (2015), Becht et al. (2019)

and Hoepner et al. (2018) [Azar et al. 2021] find positive links between ESG activism and ESG outcomes for one [three] institutions, respectively.

3. DATA AND SAMPLE

We use the Orbis Bureau Van Dijk database (Orbis) as our primary data source. Orbis collects financial and ownership data for private and publicly-listed firms worldwide, including the United Kingdom. We begin by selecting all companies listed on the FTSE-350 Index between 2009 and 2018. These are the largest publicly-traded companies in the UK and thus are widely owned by institutional investors. We choose 2009 as our beginning year since it precedes the initiation of the UK Stewardship Code by one year.

For each firm we obtain detailed ownership information from Orbis, including the list of shareholders and related annual percentages of ownership. Market data, such as market capitalization and the book value of shareholders' equity, are from Eikon Thomson Reuters database. In order to maintain balanced samples across our two diff-in-diff estimations, we impose the requirement that firms be in the FTSE-350 Index for the full 10-year period. Thus, the final sample is composed of 245 distinct firms, giving us a total of 2,450 firm-years observations.

We obtain the list of asset managers and asset owners classified in the three different tiers directly from the Financial Reporting Council, and we manually code each Tier 1, 2, 3 institutional investors. We also turn to the UN Principles of Responsible Investment (PRI) website (https://www.unpri.org/signatories) to see which of our institutional investors signed onto this initiative. The PRI, launched in 2006, has headquarters in London, and is an organization "dedicated to promoting environmental and social responsibility among the world's investors." Given the overlap of our research question, i.e., the engagement of institutions towards improving their portfolio firm's ESG, and the stated goal of the signatories to the PRI, we match their list of signatures with the dataset of all the institutional investors coded under the tiering process to ascertain if there are overlaps.

As Table 1, Panel A shows, we begin with 2,407 unique institutional investors. Of these investors, 396 are classified as Tier 1, 2, or 3 and also have signed onto the PRI; 1,741 are signatories of the PRI but have not submitted a report to FRC; and 270 are not signatories to either the PRI or the FRC tiering system. We designate the latter 270 institutions as being "No Tier," due to them having no indication of being active engagers in ESG. We note too that

only 16.5% (396/2,407) of the universe of institutional investors actual submitted reports to the FRC over our timeframe.

Table 1, Panel B has annual summary statistics for the institutional investors. In terms of ownership, Tier 1 institutions own, on average, 34.6% of the equity of their portfolio firms, a percentage very similar to the No-Tier institutions, which own, on average, 32.82% of their portfolio firms' equity. We also find that the percentage of ownership for Tier 2 and Tier 3 institutions are very small, 2.41% and 0.90%, respectively. Table 1, Panel C shows the correlation matrix.

We gather our ESG scores from the Thomson Reuters' Asset database. The aggregate ESG rating is defined as the equally weighted average of the following three underlying dimensions: environmental (E), social (S) and governance (G). Appendix A contains descriptions of what type of activities and dimensions go into each individual E, S, and G component. Score values range from 0 to 100, with 100 as the highest score for the composite and for each of the individual E, S, G measures, respectively. Table 1, Panel B shows that the average annual ESG score among sample firms is 49.89, with a quartile range of 37.41 to 67.32. Environmental scores, on average, are lowest (45.74), followed by Social (50.61) and Governance (51.54).

Finally, we obtain the voting data from ISS Voting Analytics (i.e., its Company Vote Results Global database) for all the UK listed firms covering the period 2014-2018 around the exogenous shock linked to the Tiering Stewardship Code adoption in 2016. This database covers global corporate elections from 2013 onward, and provides the identity of the companies holding elections, description of each ballot measure, the number of shares voted "For," "Against," or "Abstain," and ISS's recommendation for each ballot item

From this database, we examine the agenda of the meetings in our sample to find potential conflicts between management and shareholders in the form of a contested ballot provision that may attract broad support. Table II panel A shows that our baseline sample (i.e. all UK listed firms) includes a total of 84,875 meeting agenda, of which 5,436 are labeled "*contested ballots*" i.e., where the management is "*for*" and the ISS recommendation is "*against.*" Of these contested ballots, 5,155 "*passed,*" and 53 "*failed.*" In terms of percentages, 4.40**%** is the average percentage of votes "*against*" in contested ballot. In Table II panel B, we focus our attention on the sample of 245 companies included in FTSE 350 that have TIER1 institutional investors. we observe 32,341 meeting agenda, of which 1,199 are "contested ballot;" 1,150 of these contested ballots "passed" and 14 "failed." We also report that an average of 9.66% of the votes were cast as "*against*" in these contested ballots. In summary,

although the percentage of disputed ballots is lower than that observed for the full sample of UK firms, the average percentage of "against" votes is significantly higher than that observed for the full sample of UK firms.

5. RESEARCH DESIGN

5.1 Overall association between ESG scores and institutional investor type

We begin our analysis by separately estimating ordinary least-squares (OLS) regressions, where the dependent variable is either the composite *ESG* score or one of the *ESG* component scores (Environmental, Social and Governance), and the independent variables are different levels of institutional investors ownership. In these first analyses, we do not consider the timing of the introduction of the UK Stewardship Code, nor the introduction of the Tiering process. Instead, we examine if institutional investor engagement quality is associated with ESG output over time. A key assumption to this analysis is that the quality of the institution's engagement remains fairly constant over time.

We measure the impact on ESG performance of four type of institutional investors' ownership: (1) the percentage of ownership of the institutional investors in *TIER1* (***%TIER1_Own***); (2) the percentage of ownership of the institutional investors in both *PRI* and *TIER1* (***%PRI_ALL_Own***); (3) the percentage of ownership of the institutional investors that signed the *PRI* but are not *TIER1* (***%PRI_NoTIER_Own***); and (4) the percentage of ownership of the institutional investors that are not classified in *TIER1* nor in *PRI* (***%NoTIER_NoPRI_Own***). Specifically, we estimate the following regressions:

$$ESG_{i,t}=\beta_0 + \beta_1 \%Inst\_Own_{i,t} + Controls_{i,t} + Year\_FE + Firm\_FE + \varepsilon_{i,t} \quad (1)$$

where, *ESG* is the composite or single component score for firm *i* in year *t* and *%Inst_Own* is the percentage of total institutional investor by the investor-type (*%TIER1_Own*, *%PRI_ALL_Own, %PRI_NoTIER_Own, %NoTIER_NoPRI_Own*) in firm *i* in year *t*. The choice of the control variables (*Controls*) are based on Dyck, Lins, Roth, and Wagner (2019), and they are *Mktcap*, the logarithm of the market capitalization, *ROA,* the ratio between operating income before depreciation and lagged total assets, *Leverage*, the ratio between the asset minus equity over total assets, and *BTM*, book value of shareholders' equity divided by market capitalization of equity. We further control for year (*Year FE*) and firm (*Firm FE*) fixed effects to mitigate any confounding factors and to absorb any omitted variables. All the standard errors are clustered two-ways at firm and year level.

We expect portfolio companies with high quality engagement institutional investors (*%TIER1_Own)* to be associated with a better ESG performance, and as we expect the size of the investment in the portfolio company to be positively related to ESG performance. In contrast, we expect companies with low quality engagement institutional investors (*%NoTIER_NoPRI_Own*) to be associated with lower ESG performance despite the size of their investment. A further empirical question is whether institutions that are not part of the FRC reporting regime but are signatories to the PRI are high or low quality ESG engagers (*%PRI_NoTIER_Own*). Kim and Yoon (2020) find evidence that institutions that sign onto the PRI do not improve fund-level ESG performance or increase engagement with their portfolio companies. However, they look at ESG performance from a fund-level perspective, whereas our analysis is on a firm-by-firm level. Therefore, we place different expectations on the sign or significance level of equation (1) when using *%PRI_ALL_Own* instead of *%PRI_NoTIER_Own* as the main independent variable.

5.2 Differences-in-difference analyses around the introduction of the tiering classification system in the UK Stewardship Code

We use a differences-in-difference (DiD) research design to analyze the average treatment effect of the tiering classification in 2016 for the institutional investors on ESG performances of UK listed firms. In this estimation the treatment group is composed of FTSE 350 companies with at least one Tier1 investor, and the control group is a matched sample of UK firms that do not have a Tier1 investor (see Figure 1 panel A). In a later section, our control sample are firms listed on the Frankfurt Stock Exchange with similar Tier 1 investor ownership. Specifically, we estimate:

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1\_Own_{i,t} + \beta_2 Post\ x\ TIER1\_Own_{i,t} + \beta_3\ Post_t + Control_{i,t} + Firm\_FE + \varepsilon_{i,t} \quad (2)$$

where *ESG, TIER1_Own,* the control variables and the fixed effects are the same as in equation (1). Equation (2) is estimated around the introduction of the tiering classifications in 2016 (see Figure 1 panel B). Using a two-year window surrounding the year 2016, observations in 2014-2015 are included in the pre-period and those in 2017-2018 are part of the post-period. Thus, *Post* is one for the observations in 2017-2018 and zero for those in 2014-2015. All the standard errors are clustered at firm-level.

A critical empirical issue in estimating equation (2) is identifying an appropriate control group, that is, a group of unaffected firms that allow for clean identification of the regulation's effects (Leuz and Wysocki 2016). Consistent with the activism literature, we use a propensity score matching (PSM) approach (Brav, Jiang, and Kim 2015; Brav, Jiang, Ma, and Tian 2018). Specifically, we estimate a logit model for balancing the two groups under specific firm characteristics. Because all FTSE-350 firms have at least one Tier1 investor, we expand the population of portfolio firms to include all firms listed in the London Stock Exchange. However, firms not in the FTSE-350, almost by definition, are different than those in the FTSE-350. Therefore, to gain a better matched firm, we employ the following logit regression:

$$TIER1_i = \beta_0 + \beta_1\, Mktcap_i \; + \beta_2\, ROA_i \; + \beta_3\, Leverage_i \; + \beta_4\, BTM_{i,} \; + \varepsilon_i \qquad (3)$$

We use a caliper-based nearest-neighbor match (matching 1:1 without replacement with a caliper of 0.25). In detail, in the year 2014, we find a control firm that has a shareholder classified in *NoTIER* and *PRI_NoTIER1 (*i.e., did not receive the TIER1 treatment*)* with the closest propensity score. The dependent variable *TIER1* is a dummy variable to identify the target firms, 0 otherwise. The independent variables are *Mktcap*, *ROA*, *Leverage*, and *BTM*.

We also create a second control sample for our sample of Tier1 UK firms. Specifically, we replace the control sample of UK listed firms with a sample of German firms listed on the Frankfurt Stock Exchange that also have an institutional investor in TIER1. Thus, we keep the identity of the investor the same, but change the setting of the investee to include those in a country that does not have a stewardship code, e.g., Germany.

We maintain the same research design approach as reported above, but now we introduce a country variable *UK*, equal to 1 for the matched panel sample of UK firms with shareholders in TIER1 listed in the FTSE350 continually during the years 2009-2018, zero otherwise. Specifically, we estimate:

$$ESG_{i,t} = \beta_0 + \beta_1 UK_{i,t} + \beta_2 (Post_t \; x \; UK_{i,t}) + \beta_3\, Post_t + Controls_{i,t} + FirmFE + \varepsilon_{i,t} \qquad (4)$$

The main variable of interest in the regression models is the interaction term, *Post x UK,* which captures the difference-in-difference effect. Equation (4) includes the controls (*Market cap,*

ROA, Leverage and BTM), firm fixed effects (*Firm_FE*), and have two-way cluster-robust standard errors at firm and year level.

As before, we use we use a propensity score matching (PSM) approach. Specifically, we estimate a logit model for balancing the two groups under specific firm characteristics. The dependent variable *TIER1_UK* is a dummy variable to identify UK firm with at least one Tier 1 investor, 0 otherwise. We add *%TIER1_Own, i.e.* the percentage of ownership in TIER1, as an independent variable to ensure that the treatment and control firm have similar Tier1 ownership. Specifically, for the year 2014, we estimate:

$$TIER1\_UK_i = \beta_0 + \beta_1 Mktcap_i + \beta_2 ROA_i + \beta_3 Leverage_i + \beta_4 BTM_i + \beta_5 \%TIER1\_Own_i + \varepsilon_i \quad (5)$$

6. RESULTS

6.1 Tier 1 Ownership and ESG Scores

We start our empirical analysis by verifying the salience of Tier 1 investors. Table III presents the results of equation (1), which examines the role of Tier1 investors on firm level ESG performance. The dependent variable is the aggregate ESG score, and also its decomposition in E (environmental), S (social) and G (governance). As Table III illustrates, the percentage of the firm's equity owned by Tier1 institutional investors *(%Tier1_Own*) is associated with higher ESG performance. When we separate ESG scores in environmental, social and governance scores, we find similar results, with all three regressions showing significant coefficients.

So far, we have documented that signatories that are assigned by the FRC to Tier1 are associated with overall higher ESG performances. But a question remains as to whether other institutional investors adhering to a different set of ESG Guidelines are associated with the quality of ESG performance. To test this, we change the variable of interest by looking at both *NoTier* signatories to the UK Code, and to signatories of the *PRI* that are not in Tier1. As row 2 shows, all signatories to the PRI are associated with greater ESG scores. These results are consistent with Dyck et al. (2019). However, when we use the intersection of *NoTier* firms with those signing on to the PRI, we find that with the exception of the environmental score, there is no significant correlation between the percentage of ownership by these institutional investors and ESG scores (row 3). These findings suggest that only investees by Tier1 institutional investors exhibit a positive and significant associations with ESG performance.

6.2 Difference-in-difference tests on the effect of the UK stewardship code on ESG: Control Sample are NoTier Firms

To test if the ESG performance of investee companies respond to a change in the institutional investors' engagement regulatory framework, we adopt a diff-in-diff research design around the introduction of the tiering classification by the FRC in 2016. Our treatment firms are UK listed firms owned by institutional investors in Tier 1. Our control group are UK listed firms with no Tier 1 ownership. Because these groups of firms are fundamentally different from each other, we apply a propensity scoring matching (PMS) procedure to find comparable treatment/control papers. Panel A of Table IV reports the propensity-score estimation results based on a pool of 1,887 observations. The match is made in 2014 once the match is formed, it is retained in subsequent years to ensure that the panel structure remains intact. Panel B of Table IV reports descriptive statistics of the treatment and control firms with respect to matching variables. Reported statistics suggest that the matching procedure produces a control group of firms that resembles to the treatment group in all important respects (i.e., market capitalization, book-to- market, ROA, leverage).

Table V panel A presents summary statistics for equation (3), the diff-on-diff regression around 2016 for the matched samples. We present regression on *ESG*, *E*, *S,* and *G* together and separately. Consistent with Table III, the coefficient on *Tier1_Own* is significantly positive, suggesting a positive correlation between ESG scores and Tier 1 ownership in general. More germane, however, the coefficients on the interactive term, *Post x Tier1_Own,* are significantly positive for all four specifications. Thus, we present evidence that the introduction of the tiering classification in 2016 resulted in an increase in ESG scores for institutional investors that are deemed by the FRC to have high quality stewardship. In panel B, we-do the regression analysis with all *NoTier* firms as the control sample (that is we do not employ PMS matching), but instead control for the covariates between *Tier 1* and *NoTier* firms. The findings with this specification produce similar findings and interpretations.

6.2 Difference-in-difference test on the effect of UK Stewardship Code on ESG: Control sample are firms on the Frankfurt Stock Exchange held by Tier 1 investors

Our results are consistent with our hypothesis that high quality institutional stewards move investee firms towards higher levels of ESG. However, despite the use of the propensity scoring matching and the controls for covariates, years, and firm fixed effects, our findings

may be driven by omitted variables related to whether the firm is on or off the FTSE 350. We therefore re-do our analyses using a different set of control firms – firms listed on the Frankfurt Stock Exchange that are held by at least one Tier 1 firm. Thus, for these analyses, we keep the investors the same, but vary by whether the country has a Stewardship Code (the UK) or does not have a Stewardship Code (Germany).

We employ the same propensity scoring matching algorithm as before. As Panel A of Table VI shows, the German and UK listed firms differ across market capitalization, ROA, leverage, book-to-market, and the percentage of Tier 1 ownership. The latter is consistent with Katelouzou and Puchniak (2021), who show that U. firms have more foreign institutional ownership when compared with other EU countries, for example, Germany. As Panel B shows, the Tier 1 ownership for the unmatched samples are 23.94% for the UK firms and 16.79% for the German firms. Panel B also shows that after propensity scoring, the firms' differences in variables are reduced to insignificant differences.

Table VII contains summary statistics on the diff-in-diff regressions in which we compare Tier 1 firms in the UK to those in Germany. As the panel illustrates, we find significantly positive coefficients on *Post x UK*, the coefficient for UK listed firms after 2016 for all four specifications. These findings are consistent with those reported in the previous table and lend further support to the view that quality stewardship leads to higher values of ESG.

6.3 VOTING RESULTS

To study whether the introduction of the tiering system affects the voting behavior of institutional investors, we adopt a diff-in-diff research design around the introduction of the tiering classification by the FRC in 2016. In particular we use the same matched sample as in table IV (i.e. our treatment firms are UK listed firms owned by institutional investors in Tier 1; our control group are UK listed firms with no Tier 1 ownership).

We begin by examining whether institutional investors are more likely to vote against management in contested ballots after 2016. Specifically, we estimate:

$$\%\ Against i_{,t} = \beta_0 + \beta_1 TIER1\_Own_{i,t} + \beta_2 Post\ x\ TIER1\_Own_{i,t} + \beta_3\ Post\ t + Controls_{\ i,t} + Firm\_FE + \varepsilon_{i,t} \quad (6)$$

where the dependent variable is *% Against*, the average of the percentage of votes "against", i.e., where the management is "for" but the ISS' recommendation is a vote is "against." The

main variable of interest in the regression models is the interaction term *Post x TIER1_Own,* which captures the difference-in-difference effect. As Table VIII panel A shows, institutional investors in Tier1 increase their vote against in contested ballot after 2016, as evidenced by the significantly coefficients on the interactive term, *Post x Tier1_Own*.

This result suggests that the introduction of a tiering system had an influence on voting behavior. However, we do not know whether this voting behavior has real effects on ESG performance. For this reason, we estimate the following equation:

$$ESG_{i,t} = \beta_0 + \beta_1\, TIER1\_Own_{i,t} + \beta_2\, \%\ Against_{i,t} + \beta_3\ TIER1\_Own_{i,t}\ x\ \%\ Against_{i,t} \quad (7)$$
$$+\beta_4\, Post_t + \beta_5\, Post_t\ x\ TIER1\_Own_{i,t} + \beta_6\ Post\ x\ TIER1\_Own_{i,t}\ x\ \%\ Against_{i,t}$$
$$+ Control_{i,t} + FirmFE_i + \varepsilon_{i,t}$$

where the dependent variable is *ESG*, (also split into *E*, *S* and G). *%Against* is the average of the percentage of votes "against", where the management recommendation is "*for*" and the ISS recommendation is "*against.*" The main variable of interest is the interaction term *Post x TIER1_Own x %Against*, which captures the difference-in-differences effect after the adoption of the tiering classification in 2016. We also include controls (*Mktcap, ROA, Leverage and BTM*) and firm (*Firm_FE*), fixed effects, and use two-way cluster-robust standard errors at firm and year level.

As Table VIII panel B shows, we find a significantly positive coefficients on *Post x TIER1_Own x % Against* across all specifications. This result is consistent with Tier 1 institutions of voting against having an impact on the ESG performances of investee companies. These findings are consistent with those reported in the previous tables and lend further support to the view that after the introduction of the Tiering classification, Tier 1 institutional investor improved the quality of their "voice," and that this improvement led to a real effect on ESG performance.

7. CONCLUSION

This paper documents how institutional investors who implement high quality engagement practice can positively affect firm ESG performance. We use the introduction of the tiering system in the UK stewardship code to assess stewardship quality. Our findings can be broadly summarized as follows:

First, we find that high quality engagement investors (Tier 1) are more effective than No-tier investors in improving ESG performance of the companies listed in the FTSE-350. Second, we show that the tiering system may be a better proxy of ESG engagement quality than being a signatory to the United Nations Principles for Responsible Investment (PRI). Third, using a propensity score matched difference-in-differences empirical strategy that compares FTSE 350 firms to a similar match control sample of UK firms, we show that the introduction of the tiering system had a real effect on ESG performance. Fourth, we find that the introduction of the 2016 tiering system is associated with an increase in the percentage of Tier 1 institutional investors voting against management during these contests. In addition, we find that the increase in institutional investors voting against by Tier 1 investors to be related to an increase in ESG performance in the post-2016 years. Overall, our findings support the view that institutional investors that show quality stewardship have real effects on ESG performance.

Whether stewardship code in general and engagement activities, in particular, is effective has been the subject of much debate among legal scholars and practitioners. To the best of our knowledge, our paper is the first that empirically tests the efficacy of the UK Stewardship Tiering classification to assess the quality of the engagement. We believe that our results have policy implications because they suggest that asset managers and asset owner need to clearly communicate their engagement strategies and execution. Moreover, evidence on the impact of Tiering system suggests that regulators should implement disclosure-based enforcement systems, like the UK Tiering classification, with the goal of more scrutiny on institutional investors' compliance with stewardship codes. Overall, our paper shows that disclosure is the best incentive to make institutional investor accountable to their shareholders. This is crucial because tremendous amount of wealth and resources are managed by institutional investors.

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APPENDIX A
Variable Definitions

Variable	Definition	Source
Institutional investors	Shareholders are categorized as institutional investor if: 1) the investors listed in Tier and/or in PIR and/or classified by Bushee as institutional investor; 2) We manually code the other institutional investor by looking at the activity description in ORBIS and assign the institutional investor classification to those shareholders that are professional money managers, including mutual fund companies, pension funds, bank trusts, and insurance companies	UK Stewardship Code UK FRC; PRI Code; Bushee institutional investor classification data; ORBIS Bureau Van Dijk
%TIER1_Own; *%TIER2_Own;* *%TIER3_Own*	The percentage of ownership of the institutional investors classified in TIER1; TIER2, TIER3.	UK Stewardship Code UK FRC & ORBIS Bureau Van Dijk
%BIG3_Own	The percentage of ownership of the institutional investors classified as the biggest three passive institutional investors, i.e., BlackRock, Vanguard, State Street.	ORBIS Bureau Van Dijk
%PRI_Own	The percentage of ownership of the institutional investors joining the Principles for Responsible Investment not classified in Tiering.	PRI Code
%PRI_NoTIER_Own	The percentage of ownership of the institutional investors joining the Principles for Responsible Investment not classified in Tiering.	
%NoTIER_Own	The percentage of ownership of the institutional investors not classified in PRI and TIER1, TIER2, TIER3.	ORBIS Bureau Van Dijk
TIER1_UK	Dummy variable to identify the target firms (UK listed firms in Tiering) when we match them with a sample of German firms.	
ESG	ESG scores. Values range from 0 to 100, with 100 as the highest score.	
E	Environmental Score: this component covers a firm's business actions in terms of environmental responsibility. For this dimension, 57 indicators were evaluated. Among them there are the implementation of actions for pollution control, emissions reduction policies, use of renewable energy, eco-sustainable product development, environmental investment making and environmental standard establishment. This standard reflects the extent to which a company uses best management practices to avoid environmental risks and is capitalised from environmental opportunities. This composite index is generated from a weighted score of a company's strengths and weaknesses on indicators related to: (a) emissions reduction, (b) product innovation and (c) resource consumption reduction.	EIKON Thomson Reuters
S	Social Score: this component reflects a firm's commitment to the community, not only the community in which it operates but also beyond. The dimension contains 60 indicators that include information on the policies and the programmes implemented by the firms related to health, safety, workplace diversity, training and labour rights, employee and customer satisfaction, percentage of women employed, whether a firm has received distinctions or prizes for its CSR and other social issues relevant to interested internal and external parties. It reflects a company's reputation, which is a key factor in	

	determining its ability to generate long-term value. The composite index is generated from a weighted score of a company's strengths and weakness on indicators related to: (a) product responsibility, (b) community, (c) human rights and (d) workforce.	
G	Governance Score: this component measures the degree to which a firm's systems and processes guarantee that its members and board executives act in the best interest of its shareholders in envisioning long-term operations. This dimension contains 48 indicators on levels of leadership team transparency with stakeholders; the completion of sustainability reports; minority shareholders' rights; and the remuneration of executives, independent board members and audit committees. It reflects a company's capacity (through its use of best management practices) to direct and control its rights and responsibilities through creation of incentives. The composite index is generated from a weighted score of a company's strengths and weaknesses on indicators related to: (a) management (board functions and structures) and (b) CSR strategies.	
No. Meeting Agenda	The number of proposals for each year for all the UK listed firms.	
No. Contested Ballot	The number of those proposals where the management is "*for*" and the ISS recommendation is "*against*".	
No.Pass	The number of the contested ballot proposals that are passed.	
No. Fail	The number of the contested ballot that are failed.	ISS Voting Analytics (Company Vote Results Global database)
% Contested Ballot	The percentage of number of contested ballots over the number of meeting agenda.	
% Passed	The percentage of the number of passed proposals over the number of contested ballots.	
% Failed	The percentage of the number of failed proposals over the number of contested ballots.	
% Against	The average of the percentage of votes "against" in contested ballot.	
Control variables		
Mktcap	The logarithm of the market capitalization (Eikon Thomson Reuters)	ORBIS Bureau Van Dijk & EIKON Thomson Reuters
ROA	The ratio between operating income before depreciation and lagged total assets (ORBIS Bureau Van Dijk).	
Leverage	The ratio between the asset minus equity over total assets (ORBIS Bureau Van Dijk).	
Book-to-Market	Book value of shareholders' equity divided by market capitalization of equity (Eikon Thomson Reuters).	

Figure 1 – Difference in Difference Research Design and Fixed Effects Structure

Panel A. The table presents the identification strategy for the diff-in-diff research design. The sample of ***treated firms*** corresponds to our panel sample of FTSE350 continually part of the index during the years 2009-2018 with shareholders in (***TIER1***). The sample of ***control firms*** is composed by all the UK listed firms with shareholders not covered by the Tiering classification (***PRI_NoTIER*** + ***NoTIER***). The time period for the diff-in-diff analyses covers the years 2014-2018.

Tiering Classification		Sample period between 2014-2018	
	No	**CONTROL FIRMS (1)** Control firms participated by institutional investors not covered by Tiering (***PRI_NoTIER*** + ***NoTIER***)	
	Yes	**TREATED FIRMS** With shareholder in *TIER1*	***Post X TIER1*** *TIER1* firms after 2016

Panel B. The figure illustrates the general timeline and the different periods (***pre*** and ***post***) with respect of the Tiering regulatory change from 2014 to 2018. The ***event shock*** in the year 2016 is represented by the Tiering classification organised by the Financial Reporting Council on the Stewardship Code signatories. The firm fixed effects (*Firm FE*) absorb the baseline level of the consequence's variables for each firm.

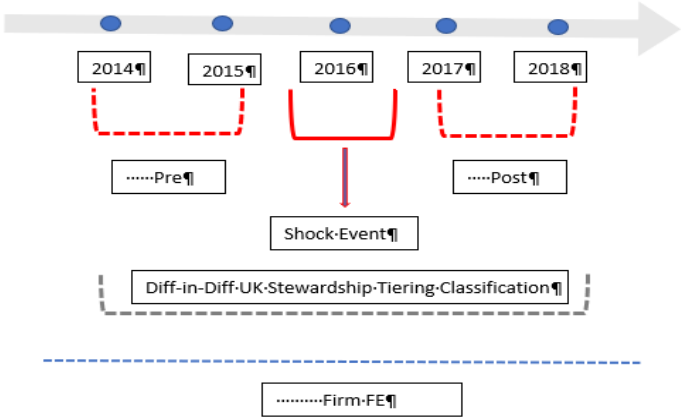

Figure 2 –ESG Trend Analysis around the Tiering Classification Shock

The figure illustrates the ESG trend analysis around the Tiering regulatory change in the year 2016 for both groups of treated firms (FTSE350 continually part of the index during the years 2009-2018) and control firms (other UK listed companies). The Tiering regulatory change is identified in the year 2016 and the pre shock covers the years 2014-2015, while the post shock covers the years 2017-2018.

	Treated Firms	*Control Firms*	*Treated - Controls*	
N.	167	167	334	
	ESG		Difference	p-value
After (2017-2018)	55.247	38.628	16.619	0.000
Before (2014-2015)	53.657	41.484	12.173	0.000
Difference	1.590	-2.856	1.267	0.000
p-value	0.000	0.000	0.000	

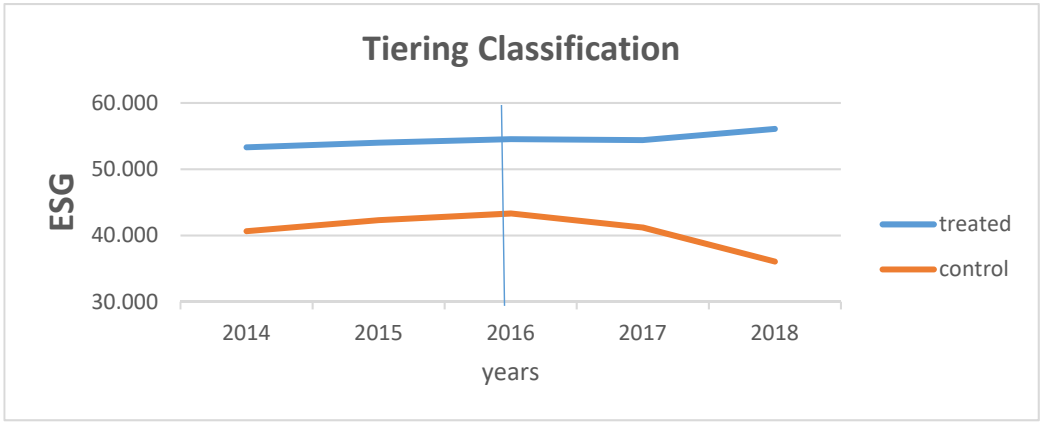

Table I
Sample Composition and Summary Statistics

Panel A. The panel sample is composed by the companies included in the FTSE350 in all the years from 2009 to 2018**.** Shareholders are categorized as institutional investors if: 1) the investor is listed in Tier and/or in PRI and/or classified by Bushee as an institutional investor; 2) is a professional money manager, which includes mutual fund companies, pension funds, bank trusts, and insurance companies (as classified by Orbis Bureau van Dijk database). The institutional investors we manually code are asset managers and asset owners that are classified as ***TIER1***, ***TIER2*** and ***TIER3*** by the Financial Reporting Council, and the institutional investors signing the Principles for Responsible Investment (***PRI***).

Sample composition	
# of Unique Firms	245
# of Firm-Year Obs.	2,450
# of Unique Institutional Investors	2,407
# of Unique Institutional Investors classified in TIER1, TIER2, TIER3	396
# of Unique Institutional Investors classified in PRI, but not TIER1, TIER2, TIER3 (***PRI_NoTIER_Own***)	1,741
# of Unique Institutional Investors **not** classified in PRI or TIER1, TIER2, TIER3 (***NoTIER_NoPRI_Own***)	270

Panel B. The table presents summary statistics of the number and the ownership of the institutional investors and the ESG scores (mean, median, max, min, standard deviation, 1° and 4° quartiles) for the 245 companies continually part of the FTSE350 during the years **2009-2018.** ***TIER1_Own, TIER2_Own*** and ***TIER3_Own*** are the institutional investors classified in TIER1; TIER2 and TIER3 according to the UK Stewardship Code Tiering classification; ***PRI_NoTIER_Own*** are the institutional investors joining the Principles for Responsible Investment not classified in Tiering. ***NoTIER_Own*** are the institutional investors not classified in PRI or TIER1, TIER2, TIER3; ***Ownership*** is the percentage of the ownership for each category of the institutional investors as defined above (sources: ORBIS Bureau van Dijk, UK Stewardship Code Tiering classification and PRI databases). ***ESG Scores*** are the ***Total Score***, ***E*** (environmental pillar), ***S*** (social pillar) and ***G*** (governance pillar) retrieved from the Eikon Thomson Reuters database.

FTSE 350 Firms	***% Ownership of Institutional Investors***					***ESG Scores***			
	TIER1 _Own	***TIER2 _Own***	***TIER3 _Own***	***PRI_ NoTIER _Own***	***NoTIER _Own***	***Total Score***	***E***	***S***	***G***
Mean	34.46	2.41	0.90	27.55	32.82	49.89	45.74	50.61	51.54
p25	28.52	1.21	0.36	17.10	33.65	37.41	23.33	33.95	33.97
Median	29.67	1.69	0.39	26.65	28.20	40.93	28.07	41.45	44.33
p75	33.30	1.91	0.71	27.40	34.38	67.32	69.41	70.31	71.90
Max	35.01	2.01	0.90	28.01	34.07	93.96	97.11	97.95	97.20
Min	0	0	0	0	0	0	0	0	0
S.D.	16.61	2.31	2.07	8.71	14.50	23.95	28.49	26.09	26.51

Panel C. Pearson correlation matrix.

	%TIER1_Own	*%PRI_ALL_Own*	*%PRI_NoTIER_Own*	*%NoTIER_Own*	*ESG*	*E*	*S*	*G*	*Mktcap*	*ROA*	*Leverage*	*BTM*
%TIER1_Own	1											
%PRI_Own	0.819***	1										
%PRI_NoTIER_Own	0.545***	0.959***	1									
%NoTIER_Own	0.799***	0.998***	0.959***	1								
ESG	0.398***	0.542***	0.479***	0.523***	1							
E	0.349***	0.433***	0.365***	0.409***	0.943***	1						
S	0.375***	0.451***	0.380***	0.428***	0.978***	0.914***	1					
G	0.409***	0.477***	0.398***	0.455***	0.950***	0.837***	0.887***	1				
Mktcap	0.403***	0.495***	0.426***	0.472***	0.729***	0.684***	0.722***	0.687***	1			
ROA	0.197***	0.034***	0.0323***	0.034***	0.024***	0.066***	0.072***	0.074***	0.212***	1		
Leverage	-0.001	0.016*	0.0117	0.013	0.142***	0.175***	0.157***	0.167***	0.175***	0.002	1	
BTM	-0.014	-0.002	0.00462	-0.003	-0.009	-0.011	-0.008	-0.011	-0.024*	0.001	-0.001	1
Number of Obs.	2450											

Table II
ISS voting – UK Firms' Descriptive Statistics

Panel A. These tables present the summary statistics of the ISS voting proposals for all the UK listed firms covering the time period 2014-2018. ***No. Meeting Agenda*** is the number of proposals for each year for all the UK listed firms; ***No. Contested Ballot*** is the number of those proposals where the management is "*for*" and the ISS recommendation is "*against*"; ***No. Passed*** is the number of the contested ballot proposals that are passed; ***No. Failed*** is the number of the contested ballot that are failed (the difference between Nr. Contested ballot and the sum of Nr. of Pass + Nr. Fail are the withdrawn, pending and not disclosed proposals, not tabulated); ***% Contested Ballot*** is the percentage of number of contested ballots over the number of meeting agenda; ***% Passed*** is the percentage of the number of passed proposals over the number of contested ballots; ***% Failed*** is the percentage of the number of failed proposals over the number of contested ballots; ***% Against*** is the average of the percentage of votes "against" in contested ballot.

All UK listed firms

Year	No. Firms-Years	No. Meeting Agenda	No. Contested Ballot	No. Passed	No. Failed	% Contested Ballot	% Passed	% Failed	% Against
2014	1,330	16,508	953	912	7	5.77%	95.70%	0.73%	4.69%
2015	1,372	16,466	972	916	3	5.90%	94.24%	0.31%	3.87%
2016	1,266	15,897	865	824	11	5.44%	95.26%	1.27%	4.54%
2017	1,372	17,791	1,285	1,205	15	7.22%	93.77%	1.17%	4.16%
2018	1,478	18,213	1,361	1,298	17	7.47%	95.37%	1.25%	4.75%
Tot.	6,818	84,875	5,436	5,155	53	6.40%	94.83%	0.97%	4.40%

Panel B. The tables present the summary statistics of the ISS voting proposals for the FTSE350 companies with ownership in TIER1 institutional investors covering the time period 2014-2018.

UK firms with Tier1 Tiering Classification

Year	No. Firms-Years	No. Meeting Agenda	No. Contested Ballot	No. Passed	No. Failed	% Contested Ballot	% Passed	% Failed	% Against
2014	195	6,188	231	222	2	3.73%	96.10%	0.87%	9.28%
2015	192	6,058	205	203	1	3.38%	99.02%	0.49%	8.87%
2016	200	6,380	214	207	3	3.35%	96.73%	1.40%	9.03%
2017	217	7,090	289	271	4	4.08%	93.77%	1.38%	8.86%
2018	210	6,625	260	247	4	3.92%	95.00%	1.54%	12.26%
Tot.	1,014	32,341	1,199	1,150	14	3.71%	95.91%	1.17%	9.66%

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Table III
TIER1, PRI and NoTIER Institutional Investors and ESG Performance

This table presents, for the 245 companies continually part of the FTSE350 in the years 2009-2018, OLS estimates of the relation between different type of institutional investors ownership (***Institutional_%)*** and the following dependent variables: ***ESG*** scores, *Environmental r* (***E***), *Social* (***S***) and *Governance* (***G***). Institutional investors ownership is defined alternatively as: TIER1 asset owner and asset managers (***%TIER1_Own***); institutional investor that signed the PRI (***%PRI_ALL_Own***); institutional investor that signed the PRI but are not TIER1, TIER2, or TIER3 (***%PRI_NoTIER_Own***); Institutional Investors not classified in TIER1, TIER2, TIER3 or PRI (***%NoTIER_NoPRI_Own***)**.** All the regressions include controls (***Market cap***, ***ROA***, ***Leverage*** and ***BTM***), year (***Year FE***) and firm (***Firm FE***) fixed effects, and have two-way cluster-robust standard errors at firm and year level. Reported values: coefficient (p-value) **(***) (**) (*)** indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses. See Appendix A for variable definitions. The regressions are based on the following model:

$$ESG_{i,t} = \beta_0 + \beta_1 \%Inst\_Own_{i,t} + Controls_{i,t} + Year\_FE + Firm\_FE + \varepsilon_{i,t}$$

	(1) ESG	(2) E	(3) S	(4) G	(1) ESG	(2) E	(3) S	(4) G	(1) ESG	(2) E	(3) S	(4) G	(1) ESG	(2) E	(3) S	(4) G
%TIER1_Own	**0.121*****	**0.141*****	**0.114*****	**0.121*****												
	[3.99]	[4.50]	[3.16]	[2.58]												
%PRI_ALL_Own					**0.020****	**0.021****	0.019	0.016								
					[2.02]	[2.12]	[1.60]	[1.05]								
%PRI_NoTIER_Own									0.011	**0.024****	0.005	0.003				
									[0.90]	[2.01]	[0.36]	[0.14]				
%NoTIER_NoPRI_Own													0.017	0.018	0.013	0.016
													[1.50]	[1.18]	[1.05]	[1.03]
Market cap	0.459**	1.008***	0.481*	0.161	0.664***	1.253***	0.674**	0.375	0.682***	1.245***	0.701***	0.401	0.681***	1.269***	0.694***	0.385
	[2.22]	[4.80]	[1.83]	[0.47]	[3.16]	[5.84]	[2.52]	[1.10]	[3.23]	[5.77]	[2.62]	[1.18]	[3.24]	[5.92]	[2.61]	[1.14]
ROA	0.002	-0.010	0.011	-0.012	-0.004	-0.018	0.005	-0.018	-0.004	-0.017	0.006	-0.017	-0.005	-0.018	0.005	-0.018
	[0.03]	[-0.31]	[0.16]	[-0.15]	[-0.08]	[-0.55]	[0.08]	[-0.24]	[-0.07]	[-0.53]	[0.08]	[-0.24]	[-0.08]	[-0.56]	[0.08]	[-0.25]
Leverage	0.036	-0.060	0.130	-0.023	0.033	-0.063	0.127	-0.026	0.035	-0.062	0.130	-0.023	0.033	-0.063	0.128	-0.026
	[0.49]	[-0.82]	[1.39]	[-0.16]	[0.45]	[-0.85]	[1.36]	[-0.17]	[0.47]	[-0.83]	[1.38]	[-0.16]	[0.45]	[-0.85]	[1.36]	[-0.18]
BTM	0.006***	0.002***	0.007***	0.007***	0.005***	0.002**	0.007***	0.007***	0.006***	0.002***	0.007***	0.007***	0.006***	0.002***	0.007***	0.007***
	[3.82]	[2.70]	[3.78]	[3.53]	[4.05]	[2.36]	[3.94]	[3.50]	[3.89]	[2.72]	[3.79]	[3.46]	[4.04]	[2.63]	[3.89]	[3.54]
_cons	17.675***	11.872***	18.213***	20.527***	17.994***	12.360***	18.522***	21.022***	18.560***	12.678***	19.148***	21.584***	18.097***	12.450***	18.750***	21.017***
	[14.10]	[9.37]	[11.50]	[10.26]	[14.45]	[9.78]	[11.97]	[10.69]	[15.68]	[10.52]	[12.76]	[11.24]	[14.56]	[9.86]	[12.17]	[10.72]
Observations	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450
Adj. R^2	0.946	0.946	0.925	0.875	0.945	0.945	0.924	0.874	0.945	0.945	0.924	0.874	0.973	0.875	0.811	0.771
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IV
Propensity-Score Matching Procedure for Tier1 UK Firms and No-Tier UK Listed Firms as Control Group

Panel A. The table reports the results of a logit regression to identify in the year 2014 a matching firm to each FTSE350 continually part of the index during the years 2009-2018**,** with institutional investors in TIER1. We use a caliper-based nearest-neighbor match (matching 1:1 without replacement with a caliper of 0.25). In the year 2014 we find a control firm with the shareholder *classified in NoTIER and PRI_NoTIER1 (*i.e., did not receive the TIER1 treatment*)* with the closest propensity score. The dependent variable ***TIER1*** is a dummy variable to identify the target firms, 0 otherwise. ***Mktcap*** is natural logarithm of lag market capitalization. ***ROA*** is the the ratio between operating income before depreciation and lagged total assets. ***Leverage*** is the ratio between the total book value of debt and lagged total assets. ***BTM*** is the book value of shareholders' equity divided by market capitalization of equity. All the variables are for each firm *i* at the end of year *t*. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$\boldsymbol{TIER1}_{i,t} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\, \boldsymbol{Market\ cap}_{i,t} + \boldsymbol{\beta_2}\, \boldsymbol{ROA}_{i,t} + \boldsymbol{\beta_3}\, \boldsymbol{Leverage}_{i,t} + \boldsymbol{\beta_4}\, \boldsymbol{BTM}_{i,t} + \boldsymbol{\varepsilon_{i,t}}$$

	TIER1
Market cap	3.016***
	[7.11]
ROA	0.588
	[0.79]
Leverage	0.093
	[0.18]
BTM	-0.155
	[-0.88]
_cons	-20354***
	[-7.04]
Nr. Firm obs.	1,887
Adj. R^2	0.766

Panel B. The table reports the covariate balance between the matched pairs. The values of the mean difference for each variable between the treated firms and the control firms are the output of the *pstest* for the null hypothesis that a parametric model for the propensity score is correctly specified.

	Unmatched Matched	Mean Treated	 Control	t-test t	 p>t
		#nr.firms	#nr.firms		
	Unmatched	245	1642		
Variable	**Matched**	**167**	**167**		
Market cap	U	8.323	4.408	22.85	0.000
	M	6.719	6.839	-0.97	0.336
ROA	U	0.021	0.005	0.22	0.823
	M	0.071	0.041	0.29	0.771
Leverage	U	0.043	0. 023	0.91	0.366
	M	0.010	0.009	0.01	0.784
BTM	U	0.471	0.531	-0.36	0.719
	M	0.647	0.626	0.05	0.964

Table V
Propensity-Score Matched Difference-in-Differences Regressions for Tier1 vs. No-tier Firms

Panel A. The table reports the results of the Diff-in-Diff regression model using a matched sample. The shock event corresponds to the adoption of Tiering classification proposed by the Financial Reporting Council of the UK Stewardship Code in the year 2016. The dependent variable is ***ESG*** scores, split in ***E***, ***S*** and **G -** source: Eikon Thomson Reuters**.** The independent variables are: ***TIER1_Own***, percentage of the ownership in TIER1 institutional investors for the FTSE350 continually part of the index during the years 2009-2018, ***Post*** identifies the years **2017-2018** after the shock. The main variable of interest in the regression models is the interaction term ***Post x TIER1_Own*** capturing the difference-in-differences effect. All the regressions include controls (***Mktcap, ROA, Leverage and BTM***), firm (***Firm_FE***) fixed effects, and have two-way cluster-robust standard errors at firm and year level. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$ESG\ i,t = \beta_0 + \beta_1 TIER1\_Own\ i,t + \beta_2 Post\ x\ TIER1\_Own\ i,t + \beta_3\ Post\ t\ + Controls\ i,t + Firm\_FE + \varepsilon_{i,t}$$

	(1) ***ESG***	*(2)* ***E***	*(3)* ***S***	*(4)* ***G***
TIER1_Own	0.093***	0.073***	0.100***	0.094***
	[4.08]	[3.63]	[4.08]	[2.81]
Post x TIER1_Own	**1.122*****	**0.460****	**1.383*****	**1.289*****
	[5.86]	[2.44]	[6.23]	[4.18]
Post	-1.087***	-0.989***	-0.877**	-1.374***
	[-3.89]	[-3.39]	[-2.52]	[-2.77]
Market cap	0.814**	0.806***	1.171***	0.317
	[2.49]	[2.60]	[2.93]	[0.72]
ROA	-0.002	0.002	0.001	-0.005
	[-0.78]	[0.50]	[0.10]	[-0.90]
Leverage	0.001**	0.001	0.001	0.001
	[2.02]	[0.71]	[1.40]	[0.80]
BTM	0.186	0.117*	0.204	0.232
	[1.52]	[1.93]	[1.63]	[1.13]
_cons	-3.540***	-2.297***	-4.128***	-3.688***
	[-7.03]	[-4.98]	[-7.04]	[-4.91]
N	1,336	1,336	1,336	1,336
Adj. R^2	0.959	0.958	0.948	0.907

Panel B. The table reports the results of the Diff-in-Diff **using the full sample** between the treated and the control firms for the time period covering the years from 2014 until 2018. The shock event corresponds to the adoption of Tiering classification proposed by the Financial Reporting Council on the UK Stewardship Code in the year **2016**. The dependent variable is ***ESG*** scores, split in ***E)***, ***S***, and **G -** source: Eikon Thomson Reuters. The independent variables are: ***TIER1_Own***, percentage of the ownership by TIER1 institutional investors for the FTSE350 continually part of the index during the years 2009-2018, ***Post*** identifies the years **2017-2018** after the shock. The main variable of interest in the regression models is the interaction term ***Post x TIER1_Own*** capturing the difference-in-difference effect, which becomes 1 for treated firms in the post-treatment period of 2017-2018 and 0 otherwise. All the regressions include controls (***Mktcap, ROA, Leverage*** and ***BTM)***, firm (***Firm_FE***) fixed effects, and have two-way cluster-robust standard errors at firm and year level. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1\_Own_{i,t} + \beta_2 Post \times TIER1\_Own_{i,t} + \beta_3 Post_t + Controls_{i,t} + Firm\_FE + \varepsilon_{i,t}$$

	(1) ***ESG***	*(2)* ***E***	*(3)* ***S***	*(4)* ***G***
TIER1_Own	0.158***	0.149***	0.130**	0.167**
	[3.03]	[2.94]	[2.23]	[2.06]
Post x TIER1_Own	**1.710*****	0.664	**2.180*****	**1.905****
	[4.18]	[1.42]	[4.41]	[2.56]
Post	-0.803***	-0.732***	-0.630**	-1.033***
	[-3.55]	[-3.13]	[-2.16]	[-2.65]
Market cap	4.138***	4.430***	6.034***	1.568
	[3.62]	[3.52]	[4.54]	[0.82]
ROA	-0.006**	-0.001	-0.006	-0.010*
	[-2.10]	[-0.16]	[-1.31]	[-1.73]
Leverage	0.001**	0.001	0.001	0.001
	[2.23]	[0.97]	[1.41]	[1.31]
BTM	2.154*	2.672	1.900	3.326
	[1.72]	[1.32]	[1.24]	[1.51]
_cons	-5.783***	-2.873***	-6.202***	-7.562***
	[-9.45]	[-4.45]	[-8.19]	[-7.33]
N	7,884	7,884	7,884	7,884
Adj. R^2	0.873	0.904	0.839	0.683

Table VI
Propensity-Score Matching Procedure for Tier1 UK Firms and Tier1 German Firms as the Control Group

Panel A. **Propensity score matching** - The table reports the results of a logit regression to identify in the year 2014 a matching a Frankfurt Stock Exchange listed firm to each FTSE350 that is continually part of the index during the years 2009-2018 with institutional investors in TIER1. We use a caliper-based nearest-neighbor match (matching 1:1 without replacement with a caliper of 0.25). The dependent variable ***TIER1_UK*** is a dummy variable to identify the target firms, 0 otherwise. ***Mktcap*** is natural logarithm of lag market capitalization. ***ROA*** is the the ratio between operating income before depreciation and lagged total assets. ***Leverage*** is the ratio between the total book value of debt and lagged total assets. ***BTM*** is the book value of shareholders' equity divided by market capitalization of equity. ***%TIER1_Own*** the percentage of ownership in TIER1. All the variables are for each firm *i* at the end of year *t*. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$TIER1\_UK_{i,t} = \beta_0 + \beta_1\, Market\ cap_{i,t} + \beta_2\, ROA_{i,t} + \beta_3\, Leverage_{i,t} + \beta_4\, BTM_{i,t} + \beta_5\, \%TIER1\_Own_{i,t} + \varepsilon_{i,t}$$

	Treat
Market cap	-0.339***
	[-19.19]
ROA	0.198***
	[3.91]
Leverage	0.038***
	[4.80]
BTM	0.448***
	[6.30]
%TIER1_Own	0.159***
	[5.88]
_cons	0.958*
	[1.71]
Nr. Firm obs.	1,423
Adj. R^2	0.849

Panel B. The table reports the Covariate Balance between the Matched Pairs The values of the mean difference for each variable between the treated firms and the control firms are the output of the *pstest* for the null hypothesis that a parametric model for the propensity score is correctly specified.

	Unmatched Matched	Mean Treated	Mean Control	t-test t	t-test p>t
		#nr.firms	#nr.firms		
	Unmatched	245	1178		
Variable	**Matched**	**205**	**205**		
Market cap	U	8.323	2.418	-8.09	0.000
	M	6.387	3.629	1.00	0.329
ROA	U	0.021	0.002	2.12	0.034
	M	0.045	0.008	0.72	0.479
Leverage	U	0.043	0.041	1.69	0.092
	M	0.120	0.101	-0.99	0.245
BTM	U	0.471	0.107	-13.22	0.000
	M	0.372	0.398	-0.07	0.945
%TIER1_Own	U	23.94	16.79	2.49	0.013
	M	18.26	14.01	0.37	0.713

Table VII
Propensity-Score Matching Difference-in-Differences Regressions for UK and German Firms

The table reports the results of the Diff-in-Diff regression model using a matched sample. The shock event corresponds to the adoption of Tiering classification proposed by the Financial Reporting Council of the UK Stewardship Code in the year **2016**. The dependent variable is ***ESG*** scores, split into ***E*** (E Score), ***S*** (S Score) and **G** (G Score) **-** source: Eikon Thomson Reuters**.** The independent variables are: ***UK***, a dummy variable equal to 1 for the matched panel sample of UK firms with shareholders in TIER1 listed in the FTSE350 continually during the years 2009-2018, zero otherwise; ***Post*** identifies the years **2017-2018** after the shock. The main variable of interest in the regression models is the interaction term ***Post x UK*** capturing the difference-in-difference effect. All the regressions include controls (***Market cap, ROA, Leverage and BTM***), firm (***Firm_FE***) fixed effects, and have two-way cluster-robust standard errors at firm and year level. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$ESG_{i,t} = \beta_0 + \beta_1 UK_{i,t} + \beta_2 Post\ x\ UK_{i,t} + \beta_3\ Post_t + Controls_{i,t} + Firm\_FE_i + \varepsilon_{i,t}$$

	(1) ***ESG***	*(2)* ***E***	*(3)* ***S***	*(4)* ***G***
UK	0.417**	0.096	0.194	0.226
	[2.27]	[0.43]	[0.80]	[0.75]
Post x UK	**2.222*****	**3.431*****	**5.908*****	**6.040*****
	[7.30]	[7.76]	[11.39]	[10.42]
Post	0.420	-1.082	-1.448*	-2.096**
	[0.79]	[-1.54]	[-1.66]	[-2.15]
Market cap	0.293*	1.019***	0.595**	0.443
	[1.92]	[3.66]	[2.24]	[1.06]
ROA	0.048	0.088	0.760	-0.979
	[0.10]	[0.17]	[1.21]	[-1.40]
Leverage	0.135	0.014	-0.351	0.675
	[0.52]	[0.04]	[-0.90]	[1.16]
BTM	0.139	3.457***	1.049	1.457
	[0.19]	[3.38]	[0.94]	[1.05]
_cons	-3.138***	-6.572**	-2.837***	-2.802***
	[-11.82]	[-2.07]	[-8.14]	[-5.91]
N	1,640	1,640	1,640	1,640
Adj. R^2	0.883	0.893	0.836	0.753

Table VIII
Multivariate Analyses: Difference-in-differences Regressions for Voting by UK Firms

Panel A. The table reports the results of the Diff-in-Diff regression model using the Table V matched sample. The shock event corresponds to the adoption of Tiering classification proposed by the Financial Reporting Council on the UK Stewardship Code in the year **2016**. The dependent variable is ***% Against***, the average of the percentage of votes "against", where the management is "*for*" and the ISS vote is "*against*" **-** source: ISS Voting Analytics (i.e., its Company Vote Results Global database). The independent variables are: ***TIER1_Own***, percentage of the ownership in TIER1 institutional investors for the FTSE350 companies**,** ***Post*** identifies the years **2017-2018** after the shock. The main variable of interest in the regression models is the interaction term ***Post x TIER1_Own*** capturing the difference-in-difference effect. All the regressions include controls (***Market cap, ROA, Leverage and BTM***), firm (***Firm_FE***) fixed effects, and have two-way cluster-robust standard errors at firm and year level. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$\%Against_{i,t} = \beta_0 + \beta_1 TIER1\_Own_{i,t} + \beta_2 Post\ x\ TIER1\_Own_{i,t} + \beta_3 Post_t + Controls_{i,t} + Firm\_FE_i + \varepsilon_{i,t}$$

	% Against
TIER1_Own	-0.131***
	[-24.02]
Post x TIER1_Own	**0.801*****
	[192.27]
Post	-0.107***
	[-21.30]
Market cap	0.078
	[0.78]
ROA	0.871
	[1.38]
Leverage	-0.002
	[-0.04]
BTM	0.907
	[0.84]
_cons	2.647***
	[24.13]
N	768
Adj. R^2	0.990

Panel B. The table reports the results of the Diff-in-Diff regression model using Table V matched. The shock event corresponds to the adoption of Tiering classification proposed by the Financial Reporting Council in the year **2016**. The dependent variable is ***ESG*** scores, split in ***E*** (E Score), ***S*** (S Score) and **G** (G Score) **-** source: Eikon Thomson Reuters**.** The independent variables are: ***TIER1_Own***, percentage of the ownership in TIER1 institutional investors for the FTSE350 companies; ***% Against***, the average of the percentage of votes "against", where the management recommendation is "*for*" and the ISS recommendation is "*against*" **-** source: ISS Voting Analytics (Company Vote Results Global database); the interaction term ***TIER1_Own x % Against*** capturing the incremental effect of percentage of the ownership in TIER1 within average of the percentage of votes "against"; ***Post*** identifies the years **2017-2018** after the shock. The main variable of interest in the regression models is the interaction term ***Post x TIER1_Own x % Against*** capturing the difference-in-difference effect after the adoption of Tiering classification proposed by the Financial Reporting Council of the UK Stewardship Code in the year **2016**. All the regressions include 1) controls (***Market cap, ROA, Leverage and BTM***), 2) firm (***Firm_FE***) fixed effects, 3) have two-way cluster-robust standard errors at firm and year level. Reported values: coefficient (p-value) ******* (******) (*****) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in parentheses.

$$ESG_{i,t} = \beta_0 + \beta_1\, TIER1\_Own_{i,t} + \beta_2\, \%\ Against_{i,t} + \beta_3\, TIER1\_Own \times \%\ Against_{i,t} + \beta_4\, Post_t + \beta_5\, Post \times TIER1\_Own_{i,t} + \beta_6\, Post \times TIER1\_Own \times \%\ Against_{i,t} + Controls_{i,t} + Firm\_FE + \varepsilon_{i,t}$$

	(1) ***ESG***	*(2)* ***E***	*(3)* ***S***	*(4)* ***G***
TIER1_Own	1.673	1.014	2.076	1.645
	[1.12]	[0.64]	[1.35]	[0.92]
% Against	0.745	3.860	-0.051	-1.543
	[0.23]	[1.11]	[-0.02]	[-0.34]
TIER1_Own x % Against	0.236***	0.121*	0.312***	0.231***
	[3.40]	[1.82]	[3.83]	[2.78]
Post	-7.410	-5.093	-9.815	-7.076
	[-1.30]	[-0.66]	[-1.46]	[-1.50]
Post x TIER1_Own	**3.340****	0.659	**4.677*****	**3.402***
	[2.03]	[0.39]	[2.69]	[1.75]
Post x TIER1_Own x % Against	**0.096*****	**0.114*****	**0.133*****	**0.051*****
	[3.22]	[2.89]	[3.33]	[4.01]
Market cap	6.591***	5.160***	6.948***	7.219***
	[6.01]	[4.46]	[5.27]	[5.53]
ROA	-30.928***	-16.316**	-32.211***	-44.018***
	[-4.57]	[-2.34]	[-4.39]	[-4.41]
Leverage	1.656***	1.493***	1.727***	1.775***
	[3.70]	[3.27]	[3.61]	[3.13]
BTM	0.715	0.001	0.955	1.138
	[1.02]	[0.00]	[1.13]	[1.55]
_cons	3.342	2.004	4.158	3.297
	[1.11]	[0.63]	[1.34]	[0.92]
N	768	768	768	768
Adj. R^2	0.547	0.370	0.580	0.459