

The Effects of Credible Voluntary Disclosures: Institutional Investor Engagement and Investees' ESG Performances

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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 an entropy 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 Classifications: G23, K22, Q50

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The Effects of Credible Voluntary Disclosures: Institutional Investor Engagement and Investees' ESG Performances

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Abstract

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“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 (Schanzenbach and Sitkoff 2020; 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 (Hunnicut 2017; Mooney 2020; Naaraayanan, Sachdeva, and Sharma 2020; Azar, Duro, Kadach, and Ormazabal 2021). However, the desirability of companies to pursue ESG goals is not without its skeptics who argue that pursuing such goals could make corporate leaders less accountable and more insulated from shareholder oversight and delay reforms that could bring real, meaningful protection to stakeholders (Bebchuk and Tallarita 2020; Bhagat and Hubbard 2020). Therefore, many institutional investors may choose to remain on the sidelines (Brandon, Glossner, Krueger, Matos, and Steffen 2021).

Many papers on ESG engagement use proprietary data from a single activist institution to follow their ESG activist campaigns (e.g., Dimson, Karakaş, and Li 2015; Becht, Franks, and Wagner 2019; Barko, Cremers, and Renneboog 2021). Other papers rely on proprietary data concerning engagement initiatives promoted by formal collective action organizations of institutional investors (see Doidge, Dyck, Mahmudi, and Virani 2015; Dimson, Karakaş, and Li 2020; Naaraayanan et al. 2020) provide results on the environmental activism of the “Big Three” (i.e., BlackRock, Vanguard and State Street Global Advisors). These papers show evidence consistent with ESG activism campaigns having positive effects on investee firms’ ESG performance or market-based performance measures. However, they also use a small number (often only one) of institutional investors who actively dedicate their resources to moving the needle on their investees’ ESG performances.

Our paper adds this literature 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

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, Gormley, and Keim 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.

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. 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). Beginning in 2012, the UK Stewardship Code explicitly states that the report should describe how the signatory has applied each of the seven principles of the Code and disclose the specific information requested in the guidance to each principle. The reports were prepared on a "comply or explain" basis, according to 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.

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. Bebhuk 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, Oikonomou, Sautner, Starks, and Zhou (2021)

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 low level of stewardship (Tiers 2 and 3, and No Tier). Notably, while 20 other jurisdictions around the world 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.² Other tiers or the no tier delineation are considered lower in quality by the FRC.³ Second, the tiering system used by the FRC introduces a credibility mechanism onto 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 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

² 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 2016a, p. 12)

³ For example, from the 2015 FRC Annual Report: Tier 2 signatories will be those where improvements are needed.

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 manager to engage the firm (Azar et al. 2021).

Using a difference-in-differences (DiD) 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 *NoTier* 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 and matched-sample regression results (using both entropy balancing and propensity score matching), thus alleviating concerns that our

results are driven by correlated omitted firm variables. Our findings and interpretations are similar across all specifications.

Second, we repeat our analyses using the year 2012 as a placebo “shock” event year. The year 2012 introduced a heightened description of how institutions were engaging their investee companies, but it pre-dated the initiation of the tiering system. In addition, 2013, our first post-period year in our placebo test, was the initial year in which UK firms were required to include disclosures about ESG, strategy, and their business models, where necessary, for a better understanding of the company’s conditions and perspectives (Strampelli 2018). Thus, whereas ESG might rise for all firms after 2012, there is no reason to believe they would rise more for Tier 1 invested firms vis-à-vis No Tier investees. Our placebo tests yields few differences in ESG changes between Tier 1 and No Tier invested firms, thus providing additional evidence that the 2016 classification system motivated institutions to increase their monitoring of their investees’ ESG scores.

Third, we match our FTSE350 firms with firms listed on the German Frankfurt Stock Exchange and re-run our analysis in which treatment firms are Tier 1 institutional investors in FTSE350 firms and the control group firms listed on the Frankfurt Stock Exchange that also have Tier 1 investors (also in this case we use both entropy balancing and propensity score matching). 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, our treatment and control samples include the same overall group of Tier 1 investors, but differ by 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 DiD 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 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, Cohen, and Hirst 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; Becht et al. 2019; Hoepner et al. 2021) 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 to empirically examine 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). However, as further illustrated below (section 2.3), 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 (the FRC) 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.⁴ 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.⁵ 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

⁴ 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 (Kingman 2018).

⁵ 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.

version of the Code was published in September 2012.⁶ The 2012 Code, without altering the previous structure articulated in seven principles, included some limited revisions and a new introductory section aimed at clarifying the definition and aim of stewardship.⁷

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 2012b).

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 2012b).

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

⁶ 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 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 (FRC 2011).

⁷ See the Revisions to the UK Stewardship Code. Consultation Document (FRC 2012a).

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 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,⁸ 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 quality of their Code statements, i.e. their annual reports against the seven principles of the Code and the supporting guidance.⁹ 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.

⁸See the Kingman Independent Review of the Financial Reporting Council (Kingman 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.

⁹ More information on Tiering of signatories to the Stewardship Code, PN 66/16 (FRC 2016b).

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.

According to the FRC, the tiering classification was successful in improving the quality of Code statements.¹⁰ Important to our research question, the FRC also found that many signatories chose to include more information on their environmental and social activities in their Code statements after tiering began.¹¹ In addition, one ramification of tiering firms was that it led to a decrease in the number of signatories; in 2017, the FRC removed Tier 3 signatories that did not improve their disclosure quality from 2016.¹² According to the FRC, this was not a cause for concern; it explained that being withdrawn from the list is appropriate if stewardship is not relevant for an organization's business model.¹³ As noted by Katelouzou and Sergakis (2020, 29) "this is a characteristic example of a membership sanction targeting specific norm-followers within an organizational and cognitive stewardship network. The removal from a signatory list has a clear impact upon the targeted norm-followers with reputational effects and loss of legitimacy." Moreover, as Tier 3 investors tended to withdraw because being a non-signatory (No Tier) sounded better than being classified in the third tier, the elimination of the Tier 3 designation allowed a better separation between signatories and non-signatories (Rust 2017). Thus, the tiering classification "indicates that the FRC has shifted its attention from the quantity to the quality of signatories" (Katelouzou 2019).

¹⁰ See Developments in Corporate Governance and Stewardship 2016 (FRC 2017, p. 24).

¹¹ See Developments in Corporate Governance and Stewardship 2016 (FRC 2017, p. 25).

¹² See Developments in Corporate Governance and Stewardship 2016 (FRC 2017, p. 26). Katelouzou (2019) reports that in 2019, however, there has been an increase in the number of stewardship signatories which amounted to 291.

¹³ See Developments in Corporate Governance and Stewardship 2016 (FRC 2017, p. 26).

2.3. The differences between the UK Stewardship Code and the Principles for Responsible Investing (PRI)

In 2006, a group of the world's largest institutional investors were invited by then United Nations Secretary-General Kofi Annan to join a process to develop the Principles for Responsible Investment (PRI), which defined responsible investment “as a strategy and practice to incorporate environmental, social and governance (ESG) factors in investment decisions and active ownership.”¹⁴ As of 2021, the PRI has more than 4,000 signatories in over 60 countries, including a large part of our UK Stewardship Code signatories.

By signing the PRI, signatories commit to the PRI's six principles, which include the incorporation of ESG issues into investment analysis and decision-making (Principle 1) and to being active owners that incorporate ESG issues into their ownership policies and practices (Principle 2). In applying such principles, signatories are requested, among other things, to exercise their voting rights and engage (individually or by participating in collective initiatives) with companies on ESG issues. Therefore, PRI signatories are generally deemed to closely monitor the sustainability practices of the invested firms and push more for sustainable practices in their portfolio firms (Dyck, Lins, Roth, and Wagner 2019; Brandon et al. 2021; Kordsachia, Focke, and Velte 2021).

The application of the PRI is entirely voluntary and, as stated by the PRI themselves, they provide a menu of possible actions for incorporating ESG issues in investing and stewardship strategies. Similar to the UK Stewardship Code, the PRI is overseen by an independent body, the PRI Association.¹⁵ Also similar to the UK Stewardship Code, the PRI places a reporting obligation on the signatories who are required to publicly report on their responsible investment activity. According to the PRI, reporting is aimed at ensuring “accountability of the PRI and its signatories, a standardized transparency tool for signatories’ reporting, and a mechanism that allows signatories to receive feedback from which to learn and develop.”¹⁶ However, data provided by

¹⁴ <https://www.unpri.org/pri/about-the-pri>

¹⁵ The PRI clearly states that “the PRI is truly independent. It encourages investors to use responsible investment to enhance returns and better manage risks, but does not operate for its own profit; it engages with global policymakers but is not associated with any government; it is supported by, but not part of, the United Nations.” In addition, to preserve PRI's independence, all directors of the PRI Association Board are elected by categories of signatories. Moreover, it is funded primarily via an annual membership fee payable by all signatories.

¹⁶ <https://www.unpri.org/reporting-and-assessment/the-reporting-process/3057.article>.

signatories are only partially made publicly available. The PRI provides signatories with a public transparency report, which is published on the PRI website and includes some indicators. It also provides signatories a private transparency report which includes all public and private indicators.

Like the 2016 UK Stewardship Code, since 2014, the PRI framework includes a signatories' assessment and scoring system based on their annual reports. However, this mechanism differs from the 2016 UK Stewardship Code classification process in several ways. First, the PRI assessment does not provide an overall organization score, but instead furnishes different scores for each asset class. Moreover, and more importantly to our setting, the PRI keeps such assessments confidential and, unlike the FRC, does not make the signatories' comparative assessment public. Thus, even though signatories are free to make their assessment report public, the PRI assessment system, if compared to the UK Tiering, has limited reputational consequences for low quality engagers.

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.

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

The role of institutional investors as active monitors, in general, is unclear (Appel et al. 2016; Bebhuk et al. 2017; Lewellen and Lewellen 2018; Appel, Gormley, and Keim 2019; Dasgupta, Fos, and Sautner 2020; Kahan and Rock 2020). On the one hand, financial institutions have little incentive to engage with investee companies due to their highly diversified portfolios,

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 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.

costs of engagement and collective action problems (Bebchuk et al. 2017; Bebchuk and Hirst 2020). These problems are particularly acute for passive index funds, who must hold certain stocks in their portfolios (Bebchuk and Hirst 2020; Fisch 2020). On the other hand, Kahan and Rock (2021) and Fisch, Hamdani, and Solomon (2019) contend that engagement can create higher investee returns and therefore effectuate new fund inflows, which accordingly will result in increased fees earned by the institutions.

Activist hedge funds overcome free-rider 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). Historically, most hedge fund activism involves operational or corporate decisions (Gillan and Starks 2007; Brav et al. 2008; Klein and Zur 2009), for example, they have been shown to be effective engagers in being able to obtain board seats, influence merger and acquisition activities, and change 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.

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 to focus on collaborative dialogue. McCahery 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; Corum, Malenko, and Malenko 2020; Griffin 2020; Heath et al. 2021). These papers, however, provide mixed evidence on the effects of voting on firm outcomes.

Institutional Investing and ESG

Gordon (2021), Barzuza, Curtis, and Webber (2020) and Kahan and Rock (2021) discuss institutional engagement on ESG issues. Gordon (2021) views ESG as systematic risk factors and proposes 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 reduce their portfolio firms’ ESG risks. Barzuza 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 Barzuza et al. (2020) would predict a positive association between institutional engagement and ESG, Kahan and Rock’s (2021) view would 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 it points out that there may not be reputational effects for PRI signatories that do not adhere to its principles.

With respect to the willingness of institutional investors to engage firms in improving their ESG performances, 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.¹⁹ 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. Recently a small group of hedge funds have begun to place ESG stewardship in the forefront of their investment decisions, for example, see Pershing Square Capital²⁰ and Engine No. 1’s successful campaign against ExxonMobil.²¹

Several papers examine institutional activism and its effects on investee firms’ ESG performance. Dimson et al. (2015), Becht et al. (2019), Hoepner et al. (2021) and Barko et al. (2021), use propriety data from one activist institution, respectively; they present evidence in favor of their investor’s engagement activities improving their investees’ ESG practices. Other papers rely on proprietary data concerning engagement initiatives promoted by formal collective action organizations of institutional investors. 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. Doidge et al. (2015) use proprietary data on engagement activities of a coalition of Canadian institutional investors (Canadian Coalition for Good Governance - CCGG) and find that that CCGG engagements are associated with a statistically and economically significant increase in the likelihood of an improvement in governance. Dimson et al. (2020) focus on a number of collective engagements addressing E&S concerns coordinated through the Collaboration Platform provided by the Principles for Responsible Investment (PRI); notably, they look at the long-term stock market performance and

¹⁹ <https://www.bfinance.com/insights/from-laggards-to-leaders-hedge-funds-slowly-embrace-esg/>

²⁰ In 2021, Pershing Square Capital stated in their letter to the shareholders that they “consider ESG issue in our investment selection process, and as part of our ongoing stewardship once we have made an investment” (Holding 2021, p. 12).

²¹ Engine No. 1 has developed Total Value Framework that is “is a data-driven approach to investing that puts tangible value on a company’s environmental, social and governance impacts and then ties those impacts to long-term financial value creation” (Engine1 2021).

accounting performance of the target firms, and not changes in ESG per se. 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.

4. 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 DiD 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. 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_NoPRI,” 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 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 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 ballots*;" 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

To facilitate comparisons with previous studies (e.g. Dyck et al. 2019), 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

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 in firm *i* in year *t*. The choice of the control variables (*Controls*) are based on Dyck et al. (2019), and they are *Mktcap*, the logarithm of the market capitalization, *ROA*, the ratio between net income and 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 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 to be associated with lower ESG performance despite the size of their investment. Given the differences existing between the

UK Stewardship Code and the PRI (see section 2.3), we further examine whether institutions that are not part of the FRC reporting regime but are signatories to the PRI are high or low quality ESG engagers. Kim and Yoon (2020) find evidence that institutions signing onto the PRI does not improve fund-level ESG performance nor 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. We thus create a variable, (*%PRI_NoTIER_Own*), which is equal to the percentage of ownership of the institutional investors that signed the PRI but are not Tier 1.

5.2 DiD analyses around the introduction of the tiering classification system in the UK Stewardship Code

Control Firms: No-TIER firms listed on the London Stock Exchange

Our identification strategy exploits the adoption of the Tiering Classification in the UK Stewardship Code in 2016 (see Figure 1). We use a DiD research design to analyze the average treatment effect of high-quality institutional engagement on ESG performances for 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 any Tier 1, 2, or 3 investors. In particular, we adopt the following DiD design using data from 2014 to 2018 for treatment and control firms:

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1_Own_{i,t} + \beta_2 Post \times TIER1_Own_{i,t} + \beta_3 Post + Control_{i,t} + Firm_FE + \varepsilon_{i,t} \quad (2)$$

where *ESG*, *TIER1_Own*, the control variables and the fixed effects are the same as in equation (1). As Figure 1 shows, Equation (2) is estimated around the introduction of the tiering classifications in 2016. 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). Because all FTSE-350 firms have at least one Tier1 investor, we expand the population of portfolio firms to include all firms listed on the London Stock Exchange. However, firms not in the FTSE-350, almost by definition, are different than those in the FTSE-350. Therefore, consistent with the literature, we employ three methods to deal with these different firm characteristics: unmatched sample with control variables, entropy balancing, and propensity score matching.

Entropy balancing is a quasi-matching approach which re-weights each control observation so that post-weighting distributional properties of matched variables of treatment and control observations are virtually identical, thereby ensuring covariate balance (Hainmueller 2012; McMullin and Schonberger 2015). Following Ferri, Zheng, and Zou (2018), as a first step, we select the distributional properties of interest (we focus on mean and variance) and the matching variables. We perform the matching in 2014 (first year of analysis) and choose the following variables: *Market cap*, *ROA*, *Leverage*, *Book-to-market* and industry indicators. The algorithm proceeds by first assigning possible weights (above or below one) to control observations, and then testing whether the ‘balance’ conditions have been met, i.e., whether the chosen distributional properties of treatment and post-weighted control observations for the matched variables are identical. The algorithm repeats this process over multiple iterations until a set of weights for control observations are found such that the balance conditions are met. The weights assigned to each control observation at the end of this procedure are then used in the regression analysis. The advantages of using this matching methodology is that it allows us to use all of the data in the treatment and control samples in our tests, and it matches firms on multiple dimensions (mean and variance).

As a robustness test, we use a propensity score matching (PSM) approach to create a sample of control firms. Specifically, we estimate a logit model using all of the possible treatment and control firms, with the independent variables being the same as those used in our entropy matching approach. Under PSM, we use only a subset of firms in the potential sample to achieve a 1-on-1 match between treatment and control firms.²²

Control firms: Tier 1 firms listed on the Frankfurt Stock Exchange

²² We use a caliper-based nearest-neighbor match (matching 1:1 without replacement with a caliper of 0.25). Our data are from 2014. The dependent variable is equal to 1 for firms held by Tier 1 investors and 0 for other firms.

We create a second control group for our sample of Tier1 UK firms. Specifically, we replace the control sample of No-tier 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 identities 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:

$$ESG_{i,t} = \beta_0 + \beta_1 UK_{i,t} + \beta_2 (Post_t \times UK_{i,t}) + \beta_3 Post_t + Controls_{i,t} + FirmFE + \varepsilon_{i,t} \quad (3).$$

The main variable of interest in the regression models is the interaction term, *Post x UK*, which captures the DiD effect. Equation (3) includes the controls (*Mktcap*, *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 run the regression with an unmatched sample, as well as entropy matching and propensity score matching (PSM) approaches. We employ entropy balancing to match each FTSE350 firm to a German listed firm with ownership in Tier1. As before, we match on *Mktcap*, *ROA*, *Leverage*, and *BTM*. We also match on *%TIER1_OWN* to account for the difference in the fundamental institutional ownership between the London and Frankfurt Stock Exchanges. Specifically, we note that in Germany, the ownership of listed companies is more concentrated, with institutional investors usually not owning a majority of the shares in listed companies (Ringe 2015; De La Cruz, Medina, and Tang 2019; Ringe 2021). Therefore, in theory, they are less well positioned to influence the ESG conduct of their investee firms, particularly in the presence of a controlling shareholder (Dharmapala and Khanna 2021; Puchniak 2021).

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 for 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 into E (environmental), S (social) and G (governance). As the first row of 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. In contrast, as the second row shows, we find no association between *%NoTIER_NoPRI_Own* and ESG. *%NoTIER_NoPRI_Own* is the percentage of ownership by institutional investors that are not classified as Tier 1 nor are signatories of the PRI. Thus, they represent a group of institutions with a minimal commitment to shareholder engagement. The insignificant coefficients across the four specifications support the view that institutions with low quality engagement have no discernible association with their investees' ESG performances.

Another question we explore is whether institutional investors adhering to a different set of ESG Guidelines are associated with the quality of ESG performance. Specifically, we examine signatories to the PRI. First, as row 3 shows, all signatories to the PRI are associated with greater ESG scores, a findings consistent with Dyck et al. (2019). Thus, at first blush it appears that signing onto the PRI encourages institutions to invest in firms with higher ESG. However, when we use the intersection of No Tier firms (e.g., mainly non Tier1 investors) 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 4). This finding may be explained by the fact that over our time period the PRI assessment system, if compared to the UK Tiering, has no publicly-available classification system, thereby providing limited reputational consequences to investors receiving negative assessments.

In total, the findings in Table III suggest that only investees by Tier1 institutional investors exhibit a positive and significant associations with ESG performance.

6.2 DiD tests on the effect of the UK stewardship code on ESG: Control sample are firms held by NoTier investors

To test if the ESG performance of investee companies respond to a change in the institutional investors' engagement regulatory framework, we adopt a DiD 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 without Tier 1 ownership. To be conservative, we drop firms with negative income to control for the possibility that differences in ESG expenditures (and presumably scores) may be due to larger (Tier 1) firms being more profitable than smaller (No Tier) firms. When we include all firms, those with positive and negative income, into our samples, we get similar results and implications (untabulated).

In Table IV panel A, we present summary statistics on regressions that do not employ any matching mechanism, but instead control for the covariates between *TIER1* and *NoTIER* firms, including firm fixed effects. As the panel shows, the coefficient on the interactive term, *Post x Tier1_Own* is significantly positive for the regression on ESG and for the regressions on each of the individual ESG components. Thus, we present evidence that after 2016, ESG measures increased for firms with highly engaged (Tier 1) investors vis-à-vis the sample of firms without these type of investors. We also find positive coefficients on *Mktcap*, suggesting that larger firms are more likely to have higher ESG scores, *ceteris paribus*.

However, our treatment and control firms are fundamentally different from each other in that one hales from the FTSE 350 whereas the other does not. As the top half of panel B of Table IV shows, the distributional properties of the treatment and control firms differ significantly in terms of market size, leverage, and the book-to-market ratio. Accordingly, we apply both an entropy balancing and propensity scoring matching (PMS) procedure to find comparable treatment/control papers. As the bottom half of Panel B shows, after applying entropy balancing, the means of our four control variables become identical.

Table IV panel C presents summary statistics for equation (3), the diff-on-diff regression around 2016 for the matched samples. 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 three of the 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. Using a PSM matching method (untabulated) produces similar, albeit even stronger, results to those in panel C. In summary, all three specifications (no matching, entropy matching, propensity scoring matching) produce similar findings and interpretations.²³

Placebo Tests

Our tests rely on the assumption that the introduction of the tiering system in 2016 spurred Tier 1 firms to increase their monitoring of ESG, thus leading to a rise in ESG for their investee firms. We attribute this phenomenon to the tiering system establishing a reputation effect among a class of institutions, a reputation they strive to maintain by increasing their engagement levels. However, we also have shown that Tier 1 firms, in general, invest in higher ESG firms throughout our sample. In addition, although we do not have the data to explore this assertion, it is highly probable that many, if not most, Tier 1 designated institutions would have been classified as Tier 1 engagers prior to 2016. Thus, it is possible that the observed rise in ESG for the 2017-2018 period might be due to factors other than the published FRC designations. For example, as Figure 2 shows, there was a general upward trend in ESG scores prior to 2016 for the treated (Tier 1) firms, suggesting that these firms already may be increasing their ESG.

To explore this possibility, we perform a placebo test using the same empirical models, but surrounding a date different from 2016. The year we choose as our placebo “shock” is 2012; thus our pre-period are the years 2010-2011 and our post-period are the years 2013-2014. We choose 2012 for two reasons. First, although the UK Stewardship Code was established in 2010, the FRC published a new Code in 2012 with increased clarifications as to what the role and functions of engaged institutions should constitute. This Code basically remained in place until the year 2020. Thus, the difference between 2012-2015 and 2016 onward is the introduction of the tiering system.

²³ We use firm fixed effects in our analyses. However, because entropy balancing assigns different weights to our treatment firms, fixed effects may bias these effects when estimating our regressions. We therefore repeat our analyses but remove the fixed effects from equation (2). Our results with this new specification yield similar but slightly weaker coefficients on *Post x TIER1_Own* than those shown in panel C of Table IV. Although we do not explore this path, we note too that the coefficients on *Leverage* become significantly positive when we forgo the fixed effects, suggesting an additional monitoring effect from creditors.

In addition, if the heightened Code of 2012, itself, created a push for greater activism by Tier 1 firms, then we should see a movement in ESG scores for their investees in 2013-2014.

Second, in 2013, the UK introduced a Strategic Report for all listed firms, requiring each firm to provide disclosures on strategy, its business model, diversity, environmental, social and employee matters, and human rights issues, where necessary, for a better understanding of the company's conditions and perspectives (Strampelli 2018). Thus, the introduction of ESG information in investees' UK annual reports in 2013 may be responsible for our observed increase in their ESG by Tier 1 firms if these firms are more influenced by their need to disclose relevant information about ESG in their annual reports. For example, according to a survey conducted by Hummel and Rötzel (2019), the percentage of firms in the FTSE350 providing information about GHG emissions (gender distributions) increased from 76% (30%) in 2012 to 90% (73%) in 2013.

Table V contains summary statistics for equation (2) in which the “shock” year is now 2012. As we show in panel A, when we use the full sample without matching on firm attributes, the coefficients on *Post x TIER1_Own* are insignificantly different from zero in three of the four equations – ESG, E and G. This differs from Table IV panel A in which all four of the regressions yielded significantly positive coefficients on the interactive term. In panel B, we present the regressions after using an entropy balancing method to address potential biases due to differences in firm characteristics. Although not shown, we find significant differences between treatment and control firms in *Mktcap*, *Leverage*, and *BTM*. As panel B illustrates, after balancing our samples, three of the four regressions produce statistically insignificant coefficients on *Post x TIER1_Own*, the one exception being the coefficient on the regression on S. Further, when we eschew fixed effects, (untabulated) all of the coefficients on the interactive terms become insignificantly different from zero. These findings differ from those presented in Table IV, which showed significantly positive coefficients for the interactive term in three of the four specifications.

Thus, our placebo tests lends credence to our assumption that the 2016 tiering classification system created a reputation effect on Tier 1 institutions, and that their increased monitoring produced higher ESG scores in their investee firms.

6.2 DiD 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 entropy balancing, propensity scoring matching, and controls for covariates, years, and firm fixed effects, our findings may be driven by omitted variables related to whether a 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, we keep the investors the same (TIER 1), but vary our analysis by whether the country has a (the UK) or does not have a Stewardship Code (Germany).

As Panel A of Table VI shows, the unmatched German and UK listed firms differ significantly from each other in terms of market capitalization, ROA, leverage, and the book-to-market ratio. In addition, Tier 1 ownership for the unmatched samples are 29.83% for the UK firms, but only 5.57% for the German firms, a finding consistent with Katelouzou and Puchniak (2021) who show that U.K. firms have more foreign institutional ownership when compared with other EU countries, for example, Germany. After entropy matching, we obtain the same weighted values across both treatment and control firms.

Table VI panel B and C contain summary statistics on the DiD regressions in which we compare Tier 1 firms in the UK to those in Germany using unmatched (Panel B) and entropy balancing (Panel C) matching. As the panels illustrates, we find significantly positive coefficients on *Post x UK*, the coefficient for UK listed firms after 2016 for both settings. Using a PMS approach yields consistent results (untabulated).²⁴ As for the other control variable, we observe similarities with Table IV, where *Mktcap* is positive and significant. The other control variable are not significantly different from zero with the exception of leverage in the setting without firm FE. 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.

²⁴ For the PSM estimation, we identify in the year 2014 a matching German listed firm to each FTSE350 continually part of the index during the years 2009-2018 with institutional investors in TIER1. For every treated firm a control firm is selected among non-treated firms from the same industry using propensity scores with 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. The matching variable are: *Market cap*, *ROA*, *Leverage*, *BTM* and *%TIER1_Own* (the percentage of ownership in TIER1).

6.3 VOTING RESULTS

To study whether the introduction of the tiering system affects the voting behavior of institutional investors, we adopt a DiD research design around the introduction of the tiering classification by the FRC in 2016. In particular we use the same entropy balancing 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 No Tier UK listed firms).

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

$$\begin{aligned} \% \text{ Against}_{i,t} = & \beta_0 + \beta_1 \text{TIER1_Own}_{i,t} + \beta_2 \text{Post} \times \text{TIER1_Own}_{i,t} + \beta_3 \text{Post } t \\ & + \text{Controls}_{i,t} + \text{Firm_FE} + \varepsilon_{i,t} \end{aligned} \quad (4)$$

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 DiD effect. As Table VII panel A shows, institutional investors in Tier1 increased their vote against management in contested ballot after 2016, as evidenced by the significantly positive coefficient on the interactive term, *Post x Tier1_Own*.

Our results are consistent with the introduction of a tiering system having an influence on Tier1 institutional voting behavior. These findings are similar in spirit to those reported by Appel et al. (2016) who demonstrate that passive investors engage with firms through their voting patterns, that is, that they are not necessarily non-engagers. Thus, our findings in panel A can be seen as a validation test on whether the introduction of the FRC tiering system induced a bump up in the engagement practices of Tier 1 institutions.

If our interpretation is valid, then we should also see an increase in ESG performance after 2016 for those Tier 1 institutions that also voted against management in contested ballots. To examine this, we estimate the following equation:

$$\text{ESG}_{i,t} = \beta_0 + \beta_1 \text{TIER1_Own}_{i,t} + \beta_2 \% \text{ Against}_{i,t} + \beta_3 \text{TIER1_Own}_{i,t} \times \% \text{ Against}_{i,t} \quad (5)$$

$$\begin{aligned}
& + \beta_4 Post_t + \beta_5 Post_t \times TIER1_Own_{i,t} + \beta_6 Post \times TIER1_Own_{i,t} \times \% Against_{i,t} \\
& + Control_{i,t} + Firm_FE_i + \varepsilon_{i,t}
\end{aligned}$$

The main variable of interest is the interaction term *Post x TIER1_Own x %Against*, which captures the DiD 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 VII panel B shows, we find significantly positive coefficients on *Post x TIER1_Own x % Against* for the regressions on *ESG* and *S*. These results are mildly consistent with Tier 1 institutions voting against management also having an impact on the ESG performances of investee companies. However, because these ballots are not necessarily associated with ESG issues, we do not claim causality. Nevertheless, our findings are consistent with those reported in the previous tables, thereby furnishing additional 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 lower quality (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 DiD empirical strategy that compares FTSE 350 firms to a similar matched control sample of UK firms (German 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. These latter two findings are consistent with Leuz (2018), who contends

that credible disclosure leads to changes in the disclosers' behavior. In addition, we find 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 with high quality stewardships have real effects on ESG performance.

Whether stewardship codes are effective in spurring institutions to improve or maintain high stewardship standards has been the subject of much debate among legal scholars and practitioners. To the best of our knowledge, our paper is the first to empirically test the efficacy of the UK Stewardship Tiering classification to assess the quality of the engagement. We believe 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.²⁵ Overall, our paper demonstrates that introducing a validation mechanism into voluntary disclosure provides a good incentive to make institutional investor accountable to their shareholders. Thus, our paper contributes to the disclosure literature in addition to the literature on shareholder activism and ESG performance.

²⁵ Interestingly, after having abandoned the tiering classification based on the criticisms raised by the Kingman Review (2018), the FRC stated that may in future consider introducing new mechanisms to differentiate the quality of signatories' report (FRC 2021).

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APPENDIX A
Variable Definitions

Variable	Definition	Source
<i>Institutional investors</i>	Shareholders are categorized as institutional investor if: 1) the investors listed in Tier and/or in PRI 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
<i>%TIER1_Own;</i> <i>%TIER2_Own;</i> <i>%TIER3_Own</i> <i>%PRI_Own</i>	The percentage of ownership of the institutional investors classified in TIER1; TIER2, TIER3.	UK Stewardship Code UK FRC & ORBIS Bureau Van Dijk
<i>%PRI_NoTIER_Own</i>	The percentage of ownership of the institutional investors joining the Principles for Responsible Investment.	PRI Code
<i>%NoTIER_Own</i>	The percentage of ownership of the institutional investors joining the Principles for Responsible Investment not classified as TIER1, TIER2, TIER3.	
<i>TIER1_UK</i>	The percentage of ownership of the institutional investors not classified in PRI and not classified TIER1, TIER2, TIER3.	ORBIS Bureau Van Dijk
<i>ESG</i> <i>E</i>	Dummy variable to identify the target firms (FTSE350 firms with institutional investors in TIER1) when we match them with a sample of German firms. ESG scores. Values range from 0 to 100, with 100 as the highest score. Environmental Pillar: 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.	
<i>S</i>	Social Pillar: 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	EIKON Thomson Reuters

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 Pillar: 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.

Nr. Meeting Agenda
Nr. Contested Ballot

The number of proposals for each year for all the UK listed firms.
The number of those proposals where the management is "for" and the ISS recommendation is "against".

Nr. Pass
Nr. Fail
% Contested Ballot
% Pass
% Fail
% Against

The number of the contested ballot proposals that are passed.
The number of the contested ballot that are failed.
The percentage of number of contested ballots over the number of meeting agenda.
The percentage of the number of passed proposals over the number of contested ballots.
The percentage of the number of failed proposals over the number of contested ballots.
The average of the percentage of votes "against" in contested ballot.

ISS Voting Analytics (Company
Vote Results Global database)

Control variables

Mktcap
ROA
Leverage
Book-to-Market

The logarithm of the market capitalization (Eikon Thomson Reuters).
Net income scaled by total assets (ORBIS Bureau Van Dijk).
The ratio between the asset minus equity over total assets (ORBIS Bureau Van Dijk).
Book value of shareholders' equity divided by market capitalization of equity (Eikon Thomson Reuters).

ORBIS Bureau Van Dijk
&
EIKON Thomson Reuters

Figure 1 – Timeline Difference in Difference Research Design

The figure shows the timeline underlying the research design. We utilize the Tiering regulatory change in year 2016 to design a difference-in-difference test. As treatment firms we use a panel sample of FTSE350 continually part of the index during the years 2009-2018 with shareholders in TIER1 (***TIER1***); as control firm we use alternatively: a panel sample of UK listed firms with shareholders not in TIER (**NoTIER_Own**); and a panel of listed German firm with shareholder in TIER1.

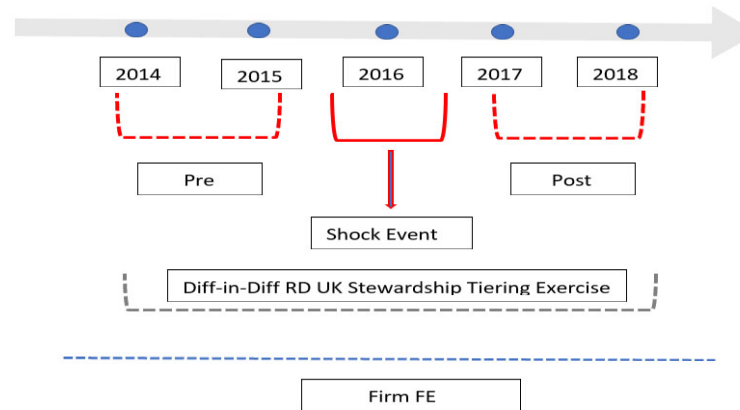
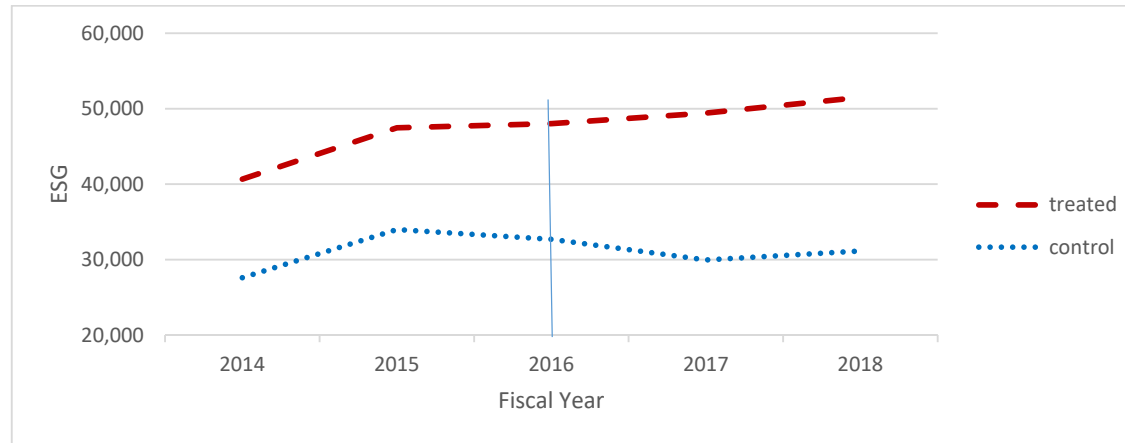


Figure 2 – Parallel Trend in ESG

The figure presents trends in ESG of treatment and UK control sample from 2014 to 2018. 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.



N.	Treated Firms	Control Firms	Treated - Controls	
	245	964	1,209	
	ESG		Difference	p-value
After (2017-2018)	47.22	23.66	23.56	0.000
Before (2014-2015)	36.17	22.62	13.55	0.000
Difference	11.05	1.04	10.01	0.000
p-value	0.000	0.000	0.000	

Table I
Sample Composition and Summary Statistics

Panel A. Sample composition

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 investors is listed in Tier and/or in PRI and/or classified by Bushee as institutional investor; 2) is professional money managers, including mutual fund companies, pension funds, bank trusts, and insurance companies (as classified by Orbis Bureau van Dijk database). Among the institutional investors we manually code asset managers and asset owners which are classified as **TIER1**, **TIER2** and **TIER3** by the Financial Reporting Council, and the institutional investors signing the Principles for Responsible Investment (**PRI**).

# 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. Summary statistics

The table presents summary statistics of the of the institutional investors' ownership 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 exercise; **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 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					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.

	<i>%TIER1_Own</i>	<i>%PRI_ALL_Own</i>	<i>%PRI_NoTIER_Own</i>	<i>%NoTIER_Own</i>	<i>ESG</i>	<i>E</i>	<i>S</i>	<i>G</i>	<i>Mktcap</i>	<i>ROA</i>	<i>Leverage</i>	<i>BTM</i>
<i>%TIER1_Own</i>	1											
<i>%PRI_Own</i>	0.819***	1										
<i>%PRI_NoTIER_Own</i>	0.545***	0.959***	1									
<i>%NoTIER_Own</i>	0.799***	0.998***	0.959***	1								
<i>ESG</i>	0.398***	0.542***	0.479***	0.523***	1							
<i>E</i>	0.349***	0.433***	0.365***	0.409***	0.943***	1						
<i>S</i>	0.375***	0.451***	0.380***	0.428***	0.978***	0.914***	1					
<i>G</i>	0.409***	0.477***	0.398***	0.455***	0.950***	0.837***	0.887***	1				
<i>Mktcap</i>	0.403***	0.495***	0.426***	0.472***	0.729***	0.684***	0.722***	0.687***	1			
<i>ROA</i>	0.197**	0.034***	0.0323***	0.034***	0.024***	0.066***	0.072***	0.074***	0.212***	1		
<i>Leverage</i>	-0.001	0.016*	0.0117	0.013	0.142***	0.175***	0.157***	0.167***	0.175***	0.002	1	
<i>BTM</i>	-0.014	-0.002	0.00462	-0.003	-0.009	-0.011	-0.008	-0.011	-0.024*	0.001	-0.001	1
<i>N.obs</i>	2,450											

* p < 0.10, ** p < 0.05, *** p < 0.01

Table II
ISS voting – UK firms’ descriptive statistics

Panel A. All UK listed firms

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.

Year	N. Firms- Years	Nr. Meeting Agenda	Nr. Contested Ballot	Nr. Pass	Nr. Fail	% Contested Ballot	% Pass	% Fail	% 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. UK listed firms with TIER1 institutional investors

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

Year	N. Firms- Years	Nr. Meeting Agenda	Nr. Contested Ballot	Nr. Pass	Nr. Fail	% Contested Ballot	% Pass	% Fail	% 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%

Table III
ESG performance and TIER1, PRI and NoTIER institutional investors

This table presents results from the estimation of Eq. (1) for the 245 companies continually part of the FTSE350 in the years 2009-2018. We regress ESG scores on different type of institutional investors ownership (*%Institutional_Own*), control variables (*Mktcap*, *ROA*, *Leverage* and *BTM*), year fixed effect (*Year FE*) and firm fixed effect (*Firm FE*). *ESG* scores, is compose by: *Environmental Pillar (E)*, *Social Pillar (S)* and *Governance Pillar (G)*. Institutional investors ownership is defined alternatively as: TIER1 asset owner and asset managers (*%TIER1_Own*); Institutional Investors not classified in TIER1, TIER2, TIER3 or PRI (*%NoTIER_NoPRI_Own*); institutional investor that signed the PRI (*%PRI_ALL_Own*); institutional investor that signed the PRI but are not TIER1, TIER2, TIER3 (*%PRI_NoTIER_Own*),. T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in details in Appendix A.

$$ESG_{i,t} = \beta_0 + \beta_1 \%Institutional_Own_{i,t} + Controls_{i,t} + Year_FE + Firm_FE + \varepsilon_{i,t}$$

	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>%TIER1_Own</i>	0.121*** [3.99]	0.141*** [4.50]	0.114*** [3.16]	0.121*** [2.58]												
<i>%NoTIER_NoPRI_Own</i>					0.017 [1.50]	0.018 [1.18]	0.013 [1.05]	0.016 [1.03]								
<i>%PRI_ALL_Own</i>									0.020** [2.02]	0.021** [2.12]	0.019 [1.60]	0.016 [1.05]				
<i>%PRI_NoTIER_Own</i>													0.011 [0.90]	0.024** [2.01]	0.005 [0.36]	0.003 [0.14]
<i>Mktcap</i>	0.459** [2.22]	1.008*** [4.80]	0.481* [1.83]	0.161 [0.47]	0.681*** [3.24]	1.269*** [5.92]	0.694*** [2.61]	0.385 [1.14]	0.664*** [3.16]	1.253*** [5.84]	0.674** [2.52]	0.375 [1.10]	0.682*** [3.23]	1.245*** [5.77]	0.701*** [2.62]	0.401 [1.18]
<i>ROA</i>	0.002 [0.03]	-0.010 [-0.31]	0.011 [0.16]	-0.012 [-0.15]	-0.005 [-0.08]	-0.018 [-0.56]	0.005 [0.08]	-0.018 [-0.25]	-0.004 [-0.08]	-0.018 [-0.55]	0.005 [0.08]	-0.018 [-0.24]	-0.004 [-0.07]	-0.017 [-0.53]	0.006 [0.08]	-0.017 [-0.24]
<i>Leverage</i>	0.036 [0.49]	-0.060 [-0.82]	0.130 [1.39]	-0.023 [-0.16]	0.033 [0.45]	-0.063 [-0.85]	0.128 [1.36]	-0.026 [-0.18]	0.033 [0.45]	-0.063 [-0.85]	0.127 [1.36]	-0.026 [-0.17]	0.035 [0.47]	-0.062 [-0.83]	0.130 [1.38]	-0.023 [-0.16]
<i>BTM</i>	0.006*** [3.82]	0.002*** [2.70]	0.007*** [3.78]	0.007*** [3.53]	0.006*** [4.04]	0.002*** [2.63]	0.007*** [3.89]	0.007*** [3.54]	0.005*** [4.05]	0.002** [2.36]	0.007*** [3.94]	0.007*** [3.50]	0.006*** [3.89]	0.002*** [2.72]	0.007*** [3.79]	0.007*** [3.46]
<i>Observations</i>	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
<i>Adj. R²</i>	0.946	0.946	0.925	0.875	0.973	0.875	0.811	0.771	0.945	0.945	0.924	0.874	0.945	0.945	0.924	0.874
<i>Year FE</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table IV
Difference-in-Differences Regressions for Tier1 vs. UK No-tier Firms

Panel A. Full Sample.

This table presents results from the estimation of Eq. (2) using the full sample of the 245 companies continually part of the FTSE350 and the control sample of listed UK firm 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. We regress ESG scores on *TIER1_Own* (percentage of the ownership by TIER1 institutional investors), *Post* (identifies the years 2017-2018 after the shock), *Post x TIER1_Own* (the interaction term capturing the difference-in-difference effect, which becomes 1 for treated firms in the post-treatment period of 2017-2018 and 0 otherwise), firm fixed effect (*Firm FE*), and controls (*Mktcap*, *ROA*, *Leverage* and *BTM*). T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in details in Appendix A.

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1_Own_{i,t} + \beta_2 Post \times TIER1_Own_{i,t} + \beta_3 Post_t + Controls_{i,t} + Firm_FE + \varepsilon_{i,t}$$

	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>TIER1_Own</i>	0.953*** [6.68]	1.177*** [6.81]	2.144*** [8.66]	1.518*** [5.74]
<i>Post x TIER1_Own</i>	0.548*** [5.00]	0.738*** [4.60]	1.757*** [8.26]	1.668*** [6.32]
<i>Post</i>	-0.233 [-1.43]	-0.654*** [-2.78]	-0.881*** [-2.79]	-1.113*** [-2.91]
<i>Mktcap</i>	1.556*** [4.31]	0.529*** [2.84]	1.410*** [4.09]	1.469*** [4.05]
<i>ROA</i>	-3.682** [-1.99]	-0.202 [-0.17]	-3.396 [-1.55]	-3.889* [-1.68]
<i>Leverage</i>	1.024* [1.89]	0.494 [0.84]	1.462 [1.36]	1.340 [1.20]
<i>BTM</i>	1.255* [1.96]	-0.293 [-0.41]	0.181 [0.20]	2.596** [2.27]
<i>N</i>	4,836	4,836	4,836	4,836
Adj. <i>R</i> ²	0.950	0.944	0.915	0.889
<i>Firm FE</i>	Yes	Yes	Yes	Yes

Panel B. Pre- and post-weighting distributional properties of treatment and control firms.

The table shows the distributional properties (mean and variance) of treatment and control firms before and after entropy balancing. The weights assigned to each control observation at the end of this procedure are then used in the Diff-in-Diff regression. Entropy balancing requires to select the distributional properties of interest (we focus on mean and variance) and the ‘matching’ variables (we choose, in the year 2014: Mktcap, ROA, leverage, book-to-market and industry indicators). In our case, we employ entropy balancing to match to each FTSE350 firm with a control sample of UK listed firm with the shareholder *classified in NoTIER (i.e., did not receive the TIER1 treatment)*.

Pre entropy balancing

Variable	<i>Treatment (N=245)</i>		<i>Control (N=964)</i>		T-test	p-value
	Mean	Variance	Mean	Variance		
Mktcap	6.335	11.73	1.491	5.308	-4.653	0.000
ROA	0.077	0.028	0.071	0.147	-0.003	0.694
Leverage	0.524	0.095	0.496	0.269	-0.053	0.002
BTM	0.369	0.143	0.201	0.154	-0.176	0.000

Post entropy balancing

Variable	<i>Treatment (N=245)</i>		<i>Control (N=964)</i>	
	Mean	Variance	Mean	Variance
Mktcap	6.335	11.73	6.334	0.983
ROA	0.077	0.028	0.077	0.007
Leverage	0.524	0.095	0.524	0.127
BTM	0.369	0.143	0.369	0.088

Panel C. Entropy balancing results.

This table presents results from the estimation of Eq. (4) using **using entropy balancing** weights from panel B to address potential selection bias. The shock event corresponds to the adoption of Tiering exercise proposed by the Financial Reporting Council of the UK Stewardship Code in the year **2016**.

We regress ESG scores on *TIER1_Own* (percentage of the ownership by TIER1 institutional investors), *Post* (identifies the years **2017-2018** after the shock), *Post x TIER1_Own* (the interaction term capturing the difference-in-difference effect, which becomes 1 for treated firms in the post-treatment period of 2017-2018, and 0 otherwise), firm fixed effect (*Firm FE*), and controls (*Mktcap*, *ROA*, *Leverage* and *BTM*).

T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in details in Appendix A.

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1_Own_{i,t} + \beta_2 Post \times TIER1_Own_{i,t} + \beta_3 Post_t + Controls_{i,t} + Firm_FE + \varepsilon_{i,t}$$

	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>TIER1_Own</i>	2.218*** [7.70]	2.752*** [4.99]	4.908*** [7.65]	3.123*** [5.28]
<i>Post x TIER1_Own</i>	1.289*** [5.74]	0.320 [0.80]	1.665*** [3.66]	1.427** [2.50]
<i>Post</i>	-0.575* [-1.68]	-1.207* [-1.71]	-1.297* [-1.88]	-0.983 [-1.08]
<i>Mktcap</i>	4.665*** [8.99]	1.814*** [3.76]	4.653*** [7.63]	4.650*** [7.92]
<i>ROA</i>	-7.846** [-2.14]	-0.913 [-0.17]	-8.991 [-1.42]	-12.172** [-1.98]
<i>Leverage</i>	-0.352 [-0.14]	4.038 [0.96]	6.742 [1.42]	2.537 [0.54]
<i>BTM</i>	0.734 [0.78]	2.812 [1.02]	3.911 [1.42]	8.995*** [2.78]
<i>N</i>	4,836	4,836	4,836	4,836
Adj. <i>R</i> ²	0.937	0.916	0.883	0.858
<i>Firm FE</i>	Yes	Yes	Yes	Yes

Table V
Diff-in-diff analyses - Placebo tests

Panel A. Full Sample.

This table presents results from the estimation of Eq. (2) using the full sample of the 245 companies continually part of the FTSE350 and the control sample of listed UK firm covering the years from 2010 until 2014. The shock event corresponds to the year **2012**. We regress ESG scores on *TIER1_Own* (percentage of the ownership by TIER1 institutional investors), *Post* (identifies the years **2013-2014** after the shock), *Post x TIER1_Own* (the interaction term capturing the difference-in-difference effect, which becomes 1 for treated firms in the post-treatment period of 2013-2014, and 0 otherwise), firm fixed effect (*Firm FE*), and controls (*Mktcap*, *ROA*, *Leverage* and *BTM*). T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in details in Appendix A.

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1_Own_{i,t} + \beta_2 Post_{i,t} + \beta_3 Post_{i,t} \times TIER1_Own_{i,t} + Controls_{i,t} + Firm_FE + \varepsilon_{i,t}$$

	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>TIER1_Own</i>	0.191*** [2.68]	0.248* [1.93]	0.517*** [3.65]	0.788*** [3.57]
<i>Post x TIER1_Own</i>	0.011 [0.13]	-0.024 [-0.16]	0.360** [2.32]	0.190 [0.95]
<i>Post</i>	-0.125 [-1.15]	0.002 [0.01]	-0.054 [-0.28]	-0.519* [-1.77]
<i>Mktcap</i>	1.396*** [3.07]	0.610* [1.90]	0.685* [1.70]	0.490 [1.27]
<i>ROA</i>	0.067 [0.06]	1.916 [1.15]	2.084 [1.28]	1.026 [0.40]
<i>Leverage</i>	0.483 [1.59]	0.254 [1.04]	0.576 [1.21]	0.587 [1.09]
<i>BTM</i>	0.876** [2.09]	0.547 [1.08]	0.878 [1.60]	2.136*** [2.84]
<i>N</i>	5,372	5,372	5,372	5,372
Adj. <i>R</i> ²	0.973	0.963	0.959	0.918
<i>Firm FE</i>	Yes	Yes	Yes	Yes

Panel B. Entropy balancing results.

This table presents results from the estimation of Eq. (4) using **using entropy balancing** weights to address potential selection bias. The shock event corresponds to the year **2012**. We regress ESG scores on *TIER1_Own* (percentage of the ownership by TIER1 institutional investors), *Post* (identifies the years **2013-2014** after the shock), *Post x TIER1_Own* (the interaction term capturing the difference-in-difference effect, which becomes 1 for treated firms in the post-treatment period of 2013-2014, and 0 otherwise), firm fixed effect (**Firm FE**), and controls (*Mktcap*, *ROA*, *Leverage* and *BTM*).

T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in details in Appendix A.

	$ESG_{i,t} = \beta_0 + \beta_1 TIER1_Own_{i,t} + \beta_2 Post \times TIER1_Own_{i,t} + \beta_3 Post_t + Controls_{i,t} + Firm_FE + \varepsilon_{i,t}$			
	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>TIER1_Own</i>	0.429** [2.44]	0.845** [2.03]	0.836 [1.50]	1.979** [3.09]
<i>Post x TIER1_Own</i>	0.190 [0.97]	-0.503 [-1.52]	1.088*** [2.72]	0.593 [1.10]
<i>Post</i>	-0.452* [-1.72]	-0.137 [-0.27]	-0.595 [-1.04]	-0.957 [-1.04]
<i>Mktcap</i>	2.189** [2.15]	2.504** [2.22]	2.185* [1.80]	0.518 [0.41]
<i>ROA</i>	-1.100 [-0.56]	3.622 [0.90]	0.721 [0.21]	0.049 [0.01]
<i>Leverage</i>	-0.590 [-0.46]	2.253 [0.89]	3.266 [1.28]	0.371 [0.11]
<i>BTM</i>	2.301* [1.93]	4.201** [2.18]	3.380* [1.74]	7.319*** [2.91]
<i>N</i>	5,372	5,372	5,372	5,372
Adj. <i>R</i> ²	0.969	0.950	0.939	0.882
<i>Firm FE</i>	Yes	Yes	Yes	Yes
<i>Firm FE</i>	Yes	Yes	Yes	Yes

Table VI

Difference-in-Differences Regressions for UK Tier 1 and German Firms

Panel A. Pre- and post-weighting distributional properties of treatment and control firms

The table shows the distributional properties (mean and variance) of treatment and control firms before and after entropy balancing. The weights assigned to each control observation at the end of this procedure are then used in the Diff-in-Diff regression. Entropy balancing requires to select the distributional properties of interest (we focus on mean and variance) and the ‘matching’ variables in the year 2014 (we choose Mktcap, ROA, leverage, book-to-market, %TIER1_Own and industry indicators). In our case, we employ entropy balancing to match to each FTSE350 firm a German listed firm with ownership in Tier1.

Pre entropy balancing						
Variable	<i>Treatment (N=245)</i>		<i>Control (N=1,174)</i>		T-test	p-value
	Mean	Variance	Mean	Variance		
Mktcap	6.335	11.73	5.024	34.69	1.311	0.000
ROA	0.077	0.028	0.101	0.023	-0.024	0.000
Leverage	0.524	0.095	0.588	0.103	-0.064	0.000
BTM	0.369	0.143	0.041	0.046	0.328	0.000
Tier 1 %	29.830	381.9	5.575	346.3		
Post entropy balancing						
Variable	<i>Treatment (N=245)</i>		<i>Control (N=1,174)</i>			
	Mean	Variance	Mean	Variance		
Mktcap	6.335	11.73	6.316	30.24		
ROA	0.077	0.028	0.077	0.029		
Leverage	0.524	0.095	0.517	0.093		
BTM	0.369	0.143	0.364	0.165		
Tier 1 %	29.830	381.9	29.800	263.8		

Panel B. Full Sample.

This table presents results from the estimation of Eq. (3) using the full sample of the 245 companies continually part of the FTSE350 and the control sample of German listed firms 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**.

We regress ESG scores on *UK*, (a dummy variable equal to 1 for the sample of UK firms with shareholders in Tier1), *Post* (identifies the years **2017-2018** after the shock), *Post x UK* (the interaction term capturing the difference-in-difference effect, which becomes 1 for treated firms in the post-treatment period of 2017-2018 and 0 otherwise), firm fixed effect (*Firm FE*), and controls (*Mktcap*, *ROA*, *Leverage* and *BTM*).

T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in detail in Appendix A.

$$ESG_{i,t} = \beta_0 + \beta_1 UK_{i,t} + \beta_2 Post \times UK_{i,t} + \beta_3 Post_t + Controls_{i,t} + Firm_FE + \varepsilon_{i,t}$$

	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>UK</i>	3.086*** [9.52]	2.341*** [6.79]	3.935*** [8.82]	2.758*** [5.71]
<i>Post x UK</i>	1.721*** [6.79]	3.449*** [8.76]	5.968*** [12.49]	5.582*** [10.81]
<i>Post</i>	-0.115 [-0.28]	-1.458** [-2.49]	-1.524** [-2.00]	-2.520*** [-3.28]
<i>Mktcap</i>	0.590*** [2.95]	1.698*** [6.46]	2.404*** [8.42]	2.289*** [7.33]
<i>ROA</i>	-5.147 [-1.07]	6.228 [1.40]	-3.893 [-0.67]	-4.665 [-0.75]
<i>Leverage</i>	-2.334 [-0.76]	-1.752 [-0.67]	-2.906 [-0.77]	-2.308 [-0.76]
<i>BTM</i>	8.977*** [3.48]	-6.504*** [-2.61]	-4.292 [-1.42]	3.218 [0.93]
<i>N</i>	5,676	5,676	5,676	5,676
Adj. <i>R</i> ²	0.894	0.903	0.839	0.808
<i>Firm FE</i>	Yes	Yes	Yes	Yes

Panel C. Entropy balancing results.

This table presents results from the estimation of Eq. (4) using **using entropy balancing** weights from panel B to address potential selection bias. The shock event corresponds to the adoption of Tiering exercise proposed by the Financial Reporting Council of the UK Stewardship Code in the year **2016**.

We regress ESG scores on **UK**, a dummy variable equal to 1 for UK firms with shareholders in TIER1 listed in the FTSE350 continually during the years 2009-2018, **Post** (identifies the years **2017-2018** after the shock), **Post x UK** capturing the difference-in-difference effect, firm fixed effect (**Firm FE**), and controls (**Mktcap**, **ROA**, **Leverage** and **BTM**).

T-statistics, based on two-way cluster-robust standard errors at firm and year level, are presented below the coefficient estimates. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) (***) (**) (*) indicate significance levels at 1%, (5%) (10%). All the variables are defined in detail in Appendix A.

$$ESG_{i,t} = \beta_0 + \beta_1 UK_{i,t} + \beta_2 Post_{i,t} + \beta_3 Post_{i,t} \times UK_{i,t} + Controls_{i,t} + Firm_{FE} + \varepsilon_{i,t}$$

	(1) <i>ESG</i>	(2) <i>E</i>	(3) <i>S</i>	(4) <i>G</i>
<i>UK</i>	4.131*** [9.39]	2.828*** [5.95]	5.398*** [9.68]	3.714*** [5.59]
<i>Post x UK</i>	1.897*** [5.57]	2.132*** [3.08]	3.647*** [5.23]	2.994*** [3.31]
<i>Post</i>	-0.683 [-1.17]	-1.241 [-1.43]	-1.074 [-1.11]	-1.909 [-1.58]
<i>Mktcap</i>	2.720*** [6.04]	1.655*** [4.45]	3.748*** [7.14]	3.580*** [7.28]
<i>ROA</i>	5.767 [1.16]	11.386*** [2.95]	0.349 [0.10]	13.641 [1.47]
<i>Leverage</i>	2.483 [0.70]	-0.241 [-0.07]	0.932 [0.19]	0.460 [0.10]
<i>BTM</i>	3.926 [1.55]	-5.005 [-1.49]	-3.024 [-0.83]	6.691 [1.56]
<i>N</i>	5,676	5,676	5,676	5,676
Adj. <i>R</i> ²	0.884	0.889	0.817	0.774
<i>Firm FE</i>	Yes	Yes	Yes	Yes

Table VII
Difference-in-differences Regressions for Voting by UK Firms

Panel A. Voting Against.

This table presents results from the estimation of Eq. (6) using **entropy balancing** sample in Table IV panel B. The shock event corresponds to the adoption of Tiering exercise 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 1) controls (**Mktcap**, **ROA**, **Leverage** and **BTM**), 2) firm fixed effects(**Firm_FE**), and 3) have two-way cluster-robust standard errors at firm and year level. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in brackets.

$$\% \text{ Against }_{i,t} = \beta_0 + \beta_1 \text{ TIER1_Own }_{i,t} + \beta_2 \text{ Post x TIER1_Own }_{i,t} + \beta_3 \text{ Post }_t + \text{Controls }_{i,t} + \text{Firm_FE} + \varepsilon_{i,t}$$

	(1) % Against
<i>TIER1_Own</i>	-0.587*** [-13.00]
<i>Post x TIER1_Own</i>	0.560*** [13.51]
<i>Post</i>	-0.326*** [-6.33]
<i>Mktcap</i>	-0.321** [-2.32]
<i>ROA</i>	1.576* [1.78]
<i>Leverage</i>	0.651 [0.91]
<i>BTM</i>	0.410* [1.71]
<i>N</i>	4,836
<i>Adj. R²</i>	0.686
<i>Firm FE</i>	Yes

Panel B. Voting *Against* and ESG.

This table presents results from the estimation of Eq. (7) using **entropy balancing** sample in Table IV panel B.. The shock event corresponds to the adoption of Tiering exercise proposed by the Financial Reporting Council in the year **2016**. The dependent variable is **ESG** scores, splitted in **E** (E Pillar), **S** (S Pillar) and **G** (G Pillar) - 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 exercise proposed by the Financial Reporting Council of the UK Stewardship Code in the year **2016**. All the regressions include 1) controls (**Mktcap**, **ROA**, **Leverage** and **BTM**), and 2) firm fixed effects (**Firm_FE**), 3) have two-way cluster-robust standard errors at firm and year level. The coefficients for the intercept are untabulated. Reported values: coefficient (p-value) *** (**) (*) indicate significance levels at 1%, (5%) (10%), two tailed; t-statistics in brackets.

$$ESG_{i,t} = \beta_0 + \beta_1 TIER1_Own_{i,t} + \beta_2 \% Against_{i,t} + \beta_3 TIER1_Own_{i,t} \times \% Against_{i,t} + \beta_4 Post_t + \beta_5 Post_t \times TIER1_Own_{i,t} + \beta_6 Post_t \times TIER1_Own_{i,t} \times \% Against_{i,t} + Controls_{i,t} + Firm_FE + \varepsilon_{i,t}$$

	(1) ESG	(2) E	(3) S	(4) G
<i>TIER1_Own</i>	2.005*** [7.32]	2.248*** [5.72]	3.839*** [7.43]	2.337*** [4.58]
<i>% Against</i>	-0.212 [-1.43]	-0.174 [-0.47]	-0.291 [-0.69]	-0.461 [-0.93]
<i>TIER1_Own x % Against</i>	-0.053 [-0.11]	-0.218 [-0.36]	0.352 [0.54]	0.027 [0.03]
<i>Post</i>	-1.419*** [-5.18]	-1.305* [-1.77]	-2.161*** [-3.00]	-1.380 [-1.45]
<i>Post x TIER1_Own</i>	0.987*** [4.99]	0.370 [1.16]	1.758*** [4.65]	1.562*** [3.29]
<i>Post x TIER1_Own x % Against</i>	1.643*** [4.37]	0.648 [1.05]	2.050*** [3.38]	1.326 [1.53]
<i>Mktcap</i>	3.699*** [8.01]	1.393*** [3.41]	3.845*** [6.92]	4.086*** [7.43]
<i>ROA</i>	-7.211* [-1.69]	0.296 [0.05]	-7.516 [-1.17]	-11.742* [-1.80]
<i>Leverage</i>	0.912 [0.34]	0.642 [0.23]	6.752 [1.62]	0.713 [0.20]
<i>BTM</i>	1.060 [0.81]	1.037 [0.57]	2.093 [0.84]	5.860** [2.17]
<i>N</i>	4,836	4,836	4,836	4,836
<i>Adj. R²</i>	0.945	0.933	0.907	0.883
<i>Firm FE</i>	Yes	Yes	Yes	Yes

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