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Trustee Board Diversity, Governance Mechanisms, Capital Structure and Performance in UK Charities

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Abstract

Purpose: We investigate the association among trustee board diversity (TBD), corporate governance (CG), capital structure (CS) and financial performance (FP) using a sample of UK charities. Specifically, we investigate the effect of TBD on CS, and ascertain whether CG quality moderates the TBD-CS nexus. Additionally, we examine the impact of CS on FP, and ascertain whether the CS-FP nexus is also moderated by TBD and CG quality.

Design/methodology/approach: We employ a number of multivariate regression techniques, including ordinary least squares, fixed-effects, lagged-effects and two-stage least squares to rigorously analyse the data and test the hypotheses.

Findings: First, we find that trustee board gender diversity has a negative effect on CS, but this relationship holds only up to the point of having three women trustees. We find similar, but relatively weak results for the presence of Black, Asian and Minority Ethnic trustees. Second, we find that the TBD-CS nexus depends on the quality of CG with the relationship being stronger in charities with higher frequency of meetings, independent CG committee, and larger trustee and audit firm size. Third, we find that CS structure has a positive effect on FP, but this is moderated by TBD and CG quality. Our evidence is robust to different econometric models that adjust for alternative measures and endogeneities. We interpret our findings within the explanations of a theoretical perspective that captures insights from different CG and CS theories.

Originality/value: Existing studies on TBD, CG, CS and FP in charities are rare. Our study distinctively attempts to address this empirical lacuna within the extant literature by providing four new insights with specific focus on UK charities. First, we provide new evidence on the relationship between TBD and CS. Second, we offer new evidence on the moderating effect of CG on the TBD-CS nexus. Third, we provide new evidence on the effect of CS on FP. Finally, we offer new evidence on the moderating effect of TBD and CG on the CS-FP nexus.

Keywords: Trustee board diversity, women and ethnic minority trustees, governance mechanisms, capital structure and performance, charities, UK

Paper Type: Research paper

1. Introduction

In this paper, we examine the relationship among trustee diversity (TBD), corporate governance (CG), capital structure (CS) and financial performance (FP) in small and medium-sized enterprises (SMEs) with specific focus on a sample of UK charities. The non-profit sector is economically vital worldwide. In the UK as at 31 March 2017, the number of charities registered was 165,277 with a total yearly income of £70.93bn and creating over a million jobs (Charity Commission, 2017). Charities in the UK also continue to receive a large amount of donations and grants from the general public/central government to support their services, despite severe public sector budget cuts following the recent global financial crisis. Thus, failure of charities can lead to significant reputational damage to the sector in particular, but the UK economy in general (Boateng et al., 2016). For example, it emerged that "Kids Company", a large UK charity that collapsed recently, received £3 million UK government grant following a ministerial direction despite advice that the grant was unlikely to represent value for money for UK tax-payers only in the few weeks preceding its failure, and in total, this charity received over £100m of UK tax-payers' funds. Additionally, charities in general are important as they provide a wide range of services to the local and international community, including providing services to children and their families, residential housing for the homeless, and free services to victims of earthquakes and wars. In spite of the importance of charities to local and the international community, CG structures in the charity sector are often overlooked, leading to poor accountability and CG, weak financial management and internal controls, and lack of adequate transparency (Newton, 2015). The weak monitoring and internal controls usually associated with charities has often led to their ultimate collapse, and the recent collapse of the "Kids Company" in the UK is a classic example. The UK Public Accounts Committee's report into the failure of this charity indicates that its insolvency was mainly caused by poor CG, CS and FP practices (PACAC, 2016).

One way to strengthen CG quality in charities is to ensure that more trustees of women and ethnic minority backgrounds are appointed to charity boards (Buse et al., 2016; Das & Dey, 2016; Gyapong et al., 2016; Ntim, 2015). Indeed, recent global debate and public policy, especially in the EU, UK and Scandinavian countries has sought to affirmatively increase diversity in corporate boards. It is argued that board gender and ethnic diversity can enhance managerial monitoring and board independence by bringing diverse ideas, perspectives and knowledge into board decision-making (Adams & Ferreira, 2009; Carter et al., 2003, 2010; Delis et al., 2016; Elmagrhi et al., 2016; Estelyi & Nisar, 2016; Gyapong et al., 2016; Loukil & Yousfi, 2015; Triana et al., 2013). The increased monitoring and independence often associated with diverse boards may enhance legitimacy and trustworthiness of the board, and consequently encourage stakeholders to provide support to charities, including finance (Ntim & Soobaroyen, 2013; Perrault, 2015; Terjesen & Sealy, 2016). It is generally accepted that board diversity, CG, CS and FP are interlinked with researchers suggesting that boardroom diversity has a significant impact on critical corporate decisions, including CG and CS choices (Goerzen & Beamish, 2005). However, there seems to be a lack of empirical evidence relating to the impact of board gender and ethnic diversity on CS, and the influence of CS on FP in charities. Therefore, in this paper, we seek to make a number of new contributions to prior studies by

examining the link among trustee board (i.e., gender and ethnic) diversity (TBD), CG, CS and FP using a sample of UK charities. Specifically, we investigate the extent to which TBD drives CS, and ascertain whether CG quality moderates the link between TBD and CS. In addition, we examine the effect of charity CS on FP, and ascertain whether the charity CS-FP nexus is also contingent on the quality of CG. A theoretical perspective that captures insights from different CG and CS theories informs our analysis.

Theoretically, agency theory (loosely incorporating signalling and perking order predictions) suggests that there is often a potential conflict of interest (and related agency costs) between the motives of principals (i.e., stakeholders, for example, donors) and agents (i.e., enterprise management, for example charity trustees) (Jensen & Meckling, 1976; Grossman and Hart, 1982; Fama & Jensen, 1983). According to Jensen (1986), substantial free cash flows in enterprises, such as charities could signal agency problems (costs) to principals because of the risk of cash misappropriation by charity trustees. To signal efficiency in the use of cash flows, Jensen (1986) suggests that charities can use debt financing as a useful CG mechanism to reduce such agency conflicts. This is because debt financing would effectively bond the trustees (a signal of agents' commitment) to operate efficiently in order to be able to pay the interest and the debt (i.e. future cash flows). Consequently, the use of high levels of debt may result in reducing agency costs often associated with having more free cash flows in the hands of trustees. In the same way, Grossman and Hart (1982) and Jiraporn, Kim, Kim and Kitsabunnarat (2012) suggest that the use debt may incentivise managers (trustees) to work harder, reduce misappropriation of resources, and make better investment decisions. Therefore, one way by which charities can reduce such agency conflict (e.g. the potential for misappropriation of excessive free cash flows in the hands of charity trustees) is by using debt financing.

Second, legitimacy theory indicates that charities gain their right to exist from the broader society. Consequently, the goals, norms and aspirations of charities should be aligned with those of the broader society (Patten, 1991) in order to attract funds (i.e., donations and government grants) (Deegan, 2002). Third, stakeholder theory identifies specific powerful stakeholders within the larger society that a charity may need to be accountable to in order to legitimise its operations and gain access to resources (Gray et al., 1995). Finally, resource dependence theory suggests that directors (trustees) can influence CS through their networks/connections with the providers of finance (Tricker, 2012). Specifically, and in relation to TBD, the presence of women and ethnic minority trustees on a charity's board may help in optimising CS and enhancing FP by providing a broader network of external donors (Singh, 2007).

Given the varied theoretical reasons underlying the relationship among CG, CS and FP, previous studies have explored governance and performance within charities (for example, see, Al-Najjar & Hussainey, 2011; Berger et al., 1997; Gomez et al., 2016; Hoffmann et al., 2014; Viviani, 2008; Padron et al., 2005; Ranti, 2013; Sheikh & Wang, 2012; Reed et al., 2000). However, the existing literature suffers from a number of limitations. First, previous studies have focused mainly on examining the determinants of CG, CS and FP in for-profit firms (Al-Najjar & Hussainey, 2011; Gomez et al., 2016; Hoffmann et al., 2014; Sheikh & Wang, 2012). Second, despite the theoretical and empirical indications that board gender and ethnic diversity have a

significant influence on corporate decisions, including financing (Adams & Ferreira, 2009; Ntim, 2015), the few existing studies examining CS in the not-for-profit sector have largely investigated how general charity characteristics, such as size and age, can influence CS (Jegers & Verschueren, 2006; Jegers, 2011). Arguably, this limits current understanding of the extent to which TBD can affect CG, CS and FP. Third, the few existing studies examining the determinants of CS in not-for-profit organisations have not investigated whether firm-level CG quality can moderate the association among TBD, CS and FP.

Fourth, studies examining the association between CS and FP are equally rare; but also have mainly focused on private and for-profit sectors. Additionally, the findings of these studies (in private and for-profit sectors) are largely mixed (Bandyopadhyay & Barua, 2016; Booth et al., 2001; Chadha & Sharma, 2015; Dawar, 2014; Ebaid, 2009; Kester, 1986; Krishnan & Moyer, 1997; Kyereboah-Coleman, 2007; Margaritis & Psillaki, 2010; Phillips & Sipahioglu, 2004; Rajan & Zingales, 1995; Sheikh & Wang, 2013). Another observable limitation of these studies is that they do not sufficiently consider the possible moderating effect of board gender/ethnic diversity and CG on the association between CS and FP. Finally, despite increasing theoretical/empirical suggestions that relying on a multi-theoretical perspective can help in explaining the association between CG, CS, and FP (Al-Najjar & Hussainey, 2011; Christopher, 2010; Ntim, 2015), existing studies are either mainly descriptive (Leuz et al., 2010; Titman & Trueman, 1986) or informed by single theoretical perspective (Berger et al., 1997; Jiraporn et al., 2012; Myers, 1984). Together, these limitations arguably impede our ability to understand and explain the impact of TBD on charity CG, CS and FP.

Consequently, the current research seeks to address some of the weaknesses of prior research in various ways, and thereby extend, as well as offer a couple of new contributions to the prior literature. **First,** we aim to contribute to the extant literature by examining the impact of TBD on CS in SMEs with specific focus on UK charities. **Second,** it contributes to the literature by providing new evidence on why and how charity-level CG quality can moderate the association between TBD and CS. **Third,** the study contributes to existing research by investigating the effect of CS on FP of charities. **Finally**, given that TBD, CG mechanisms and CS may act either as complements and/or substitutes, we contribute to existing literature by investigating whether TBD and CG quality can moderate the association between charity CS and FP.

The remainder of this study is organised in the following order. Section 2 outlines the TBD, CG and CS issues in UK charities. Sections 3 and 4 review the theoretical and empirical literature, respectively. The research design is presented in section 5. The empirical findings are discussed in section 6, whilst section 7 offers a conclusion to the paper.

2. TBD, CG, CS and regulatory environment of the UK charity sector

The need to improve CG practices in the UK gained strong momentum in the late 1980s as this period was characterised by low transparency, lack of accountability, weak CG structures and poor financial management (Conyon & Mallin, 1997; Palmer & Randall, 2002). Consequently and since the early 1990s, several legislations and reports have been introduced aimed at promoting high standards of CG by enhancing

accountability and transparency among UK charities. In 1993, the Charities Act was issued and sought to strengthen the crucial issue of reporting and financial management. Articles 43 and 45 of the 1993 Charities Act require all registered charities with gross annual income exceeding £10,000 or total expenditure exceeding £250,000 to prepare annual reports/accounts and submit them to charity commissioners within ten months of the year end. These annual reports/accounts should be professionally audited or independently examined. The annual reports/accounts shall fairly present the financial position of a charity and should be kept for at least six years of the relevant year end. This can be useful to different groups of stakeholders (e.g., government and other donors) in assessing trustees' management and stewardship of funds (Charity Commission and the Office of the Scottish Charity Regulator, 2014). The Charities Act was updated in 2006 and 2011 with the aim of enhancing the independence and objectivity of trustees. For example, Article 80 of 2011 Charities Act suggests that the Charity Commission has the right to remove any trustee who has been adjudged to be bankrupt. In addition, Articles 36 and 185 of the 2006 and 2011 Charities Acts, respectively, indicate that trustees should be paid sufficiently in order to attract, retain and encourage them to perform their activities effectively.

In addition to the above recommendations, UK charities are required to comply with CG codes, including 'The 2008 Hallmarks of an Effective Charity Guidance' and the '2010 Good Governance Charity Code'. In relation to the '2008 Hallmarks Guidance', it was published by the Charities Commission and it has six principles, including those relating to trustee board structure and risk management (Charity Commission, 2008). The Hallmarks recommends that charities should be run by a strong board of trustees, which should act in the charity's best interests, including those of donors and beneficiaries. The guidance fails to indicate the exact number of trustees that a board should consist of, but suggests that every board must be of sufficient size to perform its activities effectively. With regard to trustee board gender and ethnic diversity, the Hallmarks suggests that trustee boards should be sufficiently diverse in several aspects (e.g., age, ethnicity, experience, gender, qualifications and skills) in order to improve the effectiveness of the board. Additionally, the Hallmarks guidance suggests that charities should review/assess all risks faced by them regularly and plan for management of those risks. However, and unlike for profit-companies, the guidance does not require charities to have a risk register or establish a separate risk committee. Similarly, the Hallmarks did not provide specific guidance relating to maintaining a specific optimal CS, but it recommends charities to implement policies that will be aimed at managing their debts, investments and reserves in order to maintain long-term sustainable operations.

In addition to the 2008 Hallmarks Guidance, the Charity Commission issued a specific CG Code for the charity sector in 2005, known as "Good Governance: A Code for the Voluntary and Community Sector". This Code was revised in 2010 with the aim of promoting high standards of CG by enhancing accountability and transparency in UK charities. The 2010 CG Code sets out best practices for good governance by providing six principles that broadly mirror those contained in the 2010 Hallmarks Guidance. Similar to the Hallmarks, the 2010 CG Code suggests that trustee boards should be sufficient in size in order to perform their duties and activities effectively. The Code also emphasises that charities should review/assess all major

risks regularly and should also have in place appropriate policies to manage those risks. Unlike the Hallmarks, however, the 2010 CG Code indicates that it is the duty of trustees to pursue sound financial management and maintain adequate internal control systems, including complying with all applicable general or specific sector regulations and laws. The Code also recommends that trustees should hold regular meetings in order to perform their activities effectively. Additionally, the 2010 CG Code promotes trustee diversity by recommending that board of trustees should have appropriate mix of skills, experience, gender and ethnicity, in order to avoid tokenism and be effective.

3. Charity TBD, CG, CS and FP theories

Although corporate and academic interest in CG, CS and FP has increased in recent years (Dawar, 2014; Yazdanfar & Ohman, 2015), there is no comprehensive theoretical framework that can explain the relationship among TBD, CG, CS and FP (Calabrese, 2011; Christopher, 2010; Hussainey & Aljifri, 2012; Myers, 2001; Rosen & Sappington, 2016; Sheikh & Wang, 2013). One way of addressing this limitation is to adopt a multi-theoretical framework (Parker, 2015; Ntim & Soobaroyen, 2013), and therefore this study draws from insights provided by agency, legitimacy, stakeholder, resource dependence, pecking order and signalling theories in conducting our analysis.

For example and briefly, agency theory argues that trustees as agents in charities are typically opportunistic and thus, do not always act in the best interests of principals (donors) (Jensen & Meckling, 1976). In this setting, increased leverage usage and the associated capital and interest repayments can be a useful way in reducing the divergence of interests between trustees and providers of fund, and that may improve charity FP (Jiraporn et al., 2012). However, the usefulness of agency theory in explaining CS has been suggested to be impaired because it assumes that managers (trustees) always behave opportunistically, but this is often contested because trustees working in charities are often motivated (at least partly) by some level of altruistic behaviour than by financial incentives alone (Thomsen, 2014; Elghuweel et al., 2017).

Resource dependence theory suggests that boards provide an essential link between a charity and the powerful stakeholders who provide critical resources needed to be successful (Loukil & Yousfi, 2015; Pfeffer & Salancik, 1978; Ntim, 2016). This theory has also been criticised for suggesting that CG practices should be pursued in order to mainly advance the strategic interests of organisations (i.e., obtain fund and maximise profit), and thus fails to recognise the need for organisations to be accountable and responsible to a broader range of stakeholders (Barton & Gordon, 1987; Branco & Rodrigues, 2006).

Legitimacy theory indicates that there is a communal agreement between an organisation and the wider society. Hence, the organisation gains its right to exist from the broader society. Consequently, the goals, norms and aspirations of the organisations should be aligned with those of the wider society (Patten, 1991; Suchman, 1995). However, legitimacy theory is hindered by a number of weaknesses, including its failure to determine the identity of the specific stakeholders of charities, and often prioritising financial stakeholders, who are clearly not the main beneficiaries of charitable causes (Ntim & Soobaroyen, 2013).

Additionally, stakeholder theory presents a charity as consisting of a nexus of explicit and implicit contracts among stakeholders, with each group providing the charity with the critical resources required, and in exchange, expect their interests to be satisfied (Freeman & Reed, 1983; Elmagrhi et al., 2016, 2017). For example, donors provide charities with finance and they require their funds to be used only for the purposes for which they have been given. Stakeholder theory has, however, been criticised for its failure to outline how to align the often conflicting interests of different groups of stakeholders (Gray et al., 1995; Sternberg, 1997).

With respect to CS, pecking order theory suggests that organisations generally prefer internal to external sources of finance (Gomez et al., 2016; Myers, 1984; Myers & Majluf, 1984). In this case, external sources, such as debt will be used only if internal sources have been exhausted. Therefore, according to pecking order theory, organisations which are profitable and generate sufficient cash flows are less likely to use debt in their CS because they will be able to finance their activities using internal funds. Finally, signalling theory suggests that outsiders (i.e., providers of finance) may rely on an organisation external actions' in order to minimise information asymmetry problems. In particular, signalling theory assumes that the CS of a charity may act as a signal to outsiders about the organisation's future financial prospects (Michaelas et al., 1999; Ross, 1977). Thus, a charity's decision to issue more debt may be perceived by outsiders as a signal by trustees that their charity may have bright future prospects.

As there are clear limitations with respect to each individual theoretical perspective and given that this study seeks to examine four related issues (i.e., the impact of TBD on CS; the moderating effect of CG quality on the TBD-CS nexus; the relationship between CS and FP; and the moderating effect of TBD and CG quality on the CS-FP nexus), this study adopts a multi-theoretical approach.

4. Charity TBD, CG, CS and FP: Literature review and hypotheses development

4.1 Charity TBD and CS

TBD has been suggested to play an important function in terms of alleviating different types of agency problems and ensuring that organisations operate efficiently and competitively (Adams & Ferreira, 2009; Carter et al., 2003, 2010; Al-Bassam & Ntim, 2017). In particular, it has been suggested that TBD (gender and ethnic diversity) can perform a vital role in enhancing board effectiveness by increasing board independence from management and also by bringing diverse ideas, perspectives, knowledge and experience to the board (Buse et al., 2016; Carter et al., 2003; Das & Dey, 2016; Estelyi & Nisar, 2016; Loukil & Yousfi, 2015). Additionally, Delis et al. (2016), Gyapong et al. (2016) and Ntim (2015) argue that organisations with more women and ethnic minorities on their boards may be better place to improve FP by monitoring managers more closely. This implies that charities with gender/ethnically diverse boards may not need to employ higher levels of leverage in order to monitor and encourage trustees to act in line with stakeholders' interests. Further, and from legitimisation perspective, board diversity can enhance organisation's reputation/image by increasing public accountability and confidence (Loukil & Yousfi, 2015; Ntim & Soobaroyen, 2013; Sila et al., 2016; Terjesen & Sealy, 2016). In contrast, TBD can increase

managers' power and influence over board decisions by appointing a few women and ethnic minorities mainly for symbolic reasons (Estelyi & Nisar, 2016; Gyapong et al., 2016). In this case, charities with a token gender/ethnic representation may need to use more debt in order to reduce opportunistic behaviour of managers that may arise from potential poor managerial monitoring.

Existing empirical studies examining the effect of TBD on CS are rare and therefore, offer opportunities to make original contribution to the extant literature. However, prior studies suggest that TBD (gender and ethnic diversity) impacts positively on FP (e.g., Borghesi et al., 2016; Carter et al., 2003; Delis et al., 2016; Estelyi & Nisar, 2016; Gyapong et al., 2016; Ntim, 2015; Terjesen et al., 2015), voluntary CG disclosure (Al-Bassam et al., 2016; Elmagrhi et al., 2016; Abdulrahman et al., 2017; Elamer et al., 2017), audit quality (Gul et al., 2008), board monitoring (Triana et al., 2013), board meetings (Adams & Ferreira, 2009), dividend payout (Byoun et al., 2013), risk disclosure (Ntim et al., 2013) and social responsibility (Barako & Brown, 2008; Brammer et al., 2007; Ntim & Soobaroyen, 2013; Haque & Ntim, 2017), but negatively on executive pay (Gregory-Smith et al. 2014; Newton, 2015; Ntim et al., 2015, 2017; Perryman et al., 2016) and earnings management (Elghuweel et al., 2017). Observably, none of these studies relate to the charity sector and therefore, highlighting the lack of evidence. However, and to the extent that firms with more diverse boards have higher FP, but lower executive pay than firms with less diverse boards, we expect charities with diverse boards to monitor managers more closely and therefore, a limited use of debt as external governance mechanism. Within the European charity context in general, and UK in particular, there is a strong public policy commitment to improve charity governance by positively encouraging greater participation of women and Black, Asian and Minority Ethnic (BAME) groups in senior management teams. In particular, principle 3 of the 2010 Code of Good Governance for the Sector recommends that that trustee boards should be sufficiently diverse in a number of aspects, such as age, gender, faith, qualifications and ethnicity, in order to improve board effectiveness (Charity Commission, 2010), and thus TBD can be viewed as a positive development. Therefore, we propose the following hypothesis:

H1. *There is a negative association between TBD and CS.*

4.2 The moderating effect of CG quality on the TBD-CS nexus

As explained earlier, TBD may improve board monitoring and board independence by bringing different perspectives, skills, experience and ideas to the board (Carter et al., 2003; Triana et al., 2013), which can improve decisions relating to CS. However, the ability of trustees to perform their role effectively (i.e., optimising CS) may be contingent on the quality of CG (Adams & Ferreira, 2009; Hussainey & Aljifri, 2012). For example, larger boards are often associated with diversity in gender, age, ethnicity, knowledge and skills. This can help improve board independence, and thereby have a positive effect on CS (Al-Najjar & Hussainey, 2011; Berger et al., 1997). By contrast, others (Jensen, 1993; Yermack, 1996) suggest that increased communication, co-ordination and free-riding problems usually associated with larger boards imply that they are more likely to be controlled by powerful managers. Thus, in firms with larger boards, higher levels of leverage may be employed as an extra governance mechanism aimed at aligning the interest

of agents and principals (Hussainey & Aljifri, 2012; Jensen, 1986). Similarly, stronger managerial monitoring often associated with frequent board meetings can enhance managerial monitoring (Vafeas, 1999), and hence impact positively on CS. By contrast, regular board meetings may reduce the amount of time that directors (trustees) may have to perform their duties effectively (Lipton & Lorsch, 1992), and that can impact negatively on organisation CS. Additionally, charities with separate CG committees are more likely to use less debt compared with their counterparts that do not establish a separate compliance and risk committee. This is because strong governance associated with having independent CG committees (Ntim et al., 2012a, b) may act as a substitute for external managerial monitoring arising from debt usage. Finally, firms audited by large audit firms (e.g., Big-4) are expected to be associated with less agency and information asymmetry problems (DeAngelo, 1981), and thus a reduced incentive for managers to use debt because of higher agency costs associated with debt (Myers, 1984). In contrast, hiring large audit firms can signal to the stakeholders (i.e., donors) that managers are committed to high levels of good governance and transparency (Titman & Trueman, 1986) and that may encourage funders to provide more finance in the form of debt to charities. Empirically, there is an acute lack of studies examining the moderating effect of CG on the TBD-CS nexus generally, but specifically in not-for-profit organisations, and thus this study seeks to contribute to the extant literature by examining such an association, for the first time, in the charity sector. Given that CG structure can moderate the association between trustee board diversity and CS, our second hypothesis to be tested is as follows:

> ***H2.*** *CG quality moderates the association between TBD and CS, with the association being stronger (weaker) in charities with strong (weak) CG mechanisms.*

4.3 Charity CS and FP link

The separation of ownership from control creates agency problems, since agents (trustees) may have different interests from those of principals (stakeholders) (Jensen & Meckling, 1976; Nasr & Ntim, 2017). Agency theory suggests that the use of leverage in CS can help in mitigating agency costs by aligning the interests of agents with those of principals (Jensen & Meckling, 1976; Jensen, 1986), which can impact positively on FP (Dawar, 2014; Yazdanfar & Ohman, 2015). Similarly, signalling theory suggests that using more debt in CS may signal to outsiders (i.e., donors) that a charity has bright future financial prospects, which can also improve charity's FP. In contrast, pecking order theory (Myers, 1984; Myers & Majluf, 1984) suggests that charities, which are profitable and generate sufficient cash flows, are less likely to use debt in their CS because they will prefer using relatively cheaper internal sources of funds (i.e., retained earnings). Consequently, negative link could be predicted between debt usage and charity's FP.

The findings of extensive prior studies on the association between CS and FP are generally conflicting (Bandyopadhyay & Barua, 2016; Booth et al., 2001; Chadha & Sharma, 2015; Dawar, 2014; Ebaid, 2009; Kester, 1986; Krishnan & Moyer, 1997; Kyereboah-Coleman, 2007; Margaritis & Psillaki, 2010; Phillips & Sipahioglu, 2004; Rajan & Zingales, 1995; Sheikh & Wang, 2013). Noticeably, these studies have been conducted exclusively within for-profit contexts, and therefore offer genuine opportunities to contribute to the not-for-profit sector. For instance, and in line with the results of prior research (Booth et al., 2001;

Dawar, 2014; Kester, 1986; Sheikh & Wang, 2013; Rajan & Zingales, 1995), Chadha and Sharma (2015) report a negative association between CS and FP using a sample of 442 Indian listed firms. By contrast, Kyereboah-Coleman (2007), and Margaritis and Psillaki (2010) find a positive association between CS and FP. Some prior studies, however, report no significant link between CS and FP (Phillips & Sipahioglu, 2004; Krishnan & Moyer, 2007; Ebaid, 2009). A major limitation of prior studies examining the association between CS and FP is that they mainly control for general firm characteristics (i.e., firm age and growth) without controlling for CG mechanisms that may influence the CS-FP nexus. Thus, we seek to extend the literature further by taking into account a comprehensive number of CG variables (e.g., trustee board size and trustee board meeting) when examining the relationship between CS and FP. Notwithstanding the mixed findings of past studies on the CS-FP nexus, however, our third hypothesis to be tested is that:

H3. *There is a positive association between CS and FP.*

4.4 The moderating effect of TBD and CG quality on the CS-FP nexus

As previously explained, prior empirical studies have focused on examining the direct link between CS and FP. However, the ability of firms with optimal CS to maximise FP may be contingent on CG quality and TBD. TBD, for example, may enhance charity FP by providing better linkages with the external environment (Delis et al., 2016; Pfeffer & Salancik, 1978). However, TBD may increase conflict among board members (Estelyi & Nisar, 2016; Jackson et al., 2003) and that can impact negatively on the ability of boards to make optimal decisions regarding CS and thus charity's FP.

CG quality may also moderate the link between charity CS and FP. For example, larger boards may enjoy more diversity in skills, experience and knowledge compared with smaller boards, and that may enhance their capacity to monitor managers (Jensen & Meckling, 1976; Jensen & Murphy, 1990). In contrast, larger boards are associated with more communication and coordination problems (Haniffa & Hudaib, 2006; Yermack, 1996), which can impact negatively on FP. The presence of CG committees can enhance charity accountability and legitimacy by increasing managerial monitoring and ensuring compliance with good CG practices (Harrison, 1987; Ntim et al., 2012 a, b), and thereby impact positively on FP. Also and on the one hand, regular attendance of board meetings is considered to be a sign of a diligent trustee (Conger et al., 1998; Sonnenfeld, 2002), and thus, frequent board meeting can enhance charity FP. On the other hand, frequent meetings may impact negatively on FP, because it can increase agency costs in the form of travelling and meetings costs (Vafeas, 1999). Finally, the use of large audit firms can signal managerial commitment to good governance and transparency (DeAngelo, 1981; Titman & Trueman, 1986), which can impact positively on charity's FP. Empirically, existing studies have not examined the moderating effect of CG and TBD on the association between CS and FP (even within for-profit firms), and thus, our study aims to extend, as well as contribute to the extant literature by examining the moderating effect of TBD and CG quality on the CS-FP nexus in the charity sector. Given that CG quality and TBD may moderate the relationship between CS and charities' FP, the last hypothesis is:

H4: *TBD/CG quality moderates the association between CS and FP, with the association being stronger (weaker) in charities with more (less) women/ethnic trustees on the board.*

5. Research design

5.1 Sample selection and data sources

Three criteria were set to select the final sample: (i) the annual published accounts of the selected charities needed to be available/accessible for the years from 2010 to 2014; (ii) a charity's financial and CG data must be available for all years from 2010 to 2014; and (iii) availability of CS data for years from 2010 to 2014. A number of reasons encouraged the use of these criteria. First, this study limits its sample to charities with consecutive-years data available, because CG, financial and CS data were manually collected, which is well documented to be a highly labour intensive activity (Ntim et al., 2013). Second, and in line with past studies (Newton, 2015; Ntim, 2015; Rosen & Sappington, 2016), these criteria helped to satisfy the requirement of a balanced panel analysis. Third, combining time-series and cross-sectional data helps in determining whether any observed cross-sectional relationship among TBD, CG mechanisms, CS, and FP also holds over time. Further, by combining time series and cross-sectional properties, balanced panel data has the ability to increase the degrees of freedom and thus reduce econometric and statistical problems, such as multi-collinearities among the variables employed. Fourth, the financial year of 2010 was the first year when data collection started because in this year the Code of Good Governance for Voluntary and Community Sector was issued. The financial year of 2014 is the last year for which data was available to be collected from the data sources.

[Insert Table 1]

The study is based on the biggest 100 registered UK charities using total annual income as at 31 March 2014. Charities have been classified based on the classification provided by the Charities Aid Foundation to include five categories: (i) disability; (ii) health; (iii) education; (iv) poverty; and (v) others (see Table 1). Due to collecting the data manually, which is considered as a highly labour intensive activity, coupled with the extensive nature of TBD, CG, CS, and financial data required, we restricted our final balanced sample to 50 charities from 2010 to 2014 (i.e., resulting in a sample of 250 observations). Indeed, Table 1 shows the characteristics of 30 of the charities studied in terms of their (i) name, (ii) type of charity, (iii) total income, (iv) total assets, (v) total debt and (vi) capital expenditure. We collected our data manually from the annual published accounts of the examined sample. Those annual accounts were downloaded from charities websites and *FAME* database.

5.2 Definition of variables and model specification

Table 2 summarises all the main types of variables used in conducting our empirical analyses. To test *H1* (i.e., to answer our first central research question: the effect of TBD on CS), we use three main types of variables. First, and following prior studies (Calabrese, 2011; Rosen & Sappington, 2016; Sheikh & Wang, 2012), the ratios of long-term debt, short-term debt and total debt to total assets are our main dependent variables (CS). Second, our main independent variables are trustee board gender (*TGD*) and ethnic (*TED*) diversity and they are measured following prior studies (Gyapong et al., 2016; Liu et al., 2014) using: (i) the

percentage of women/ethnic minorities on the trustee board; and (ii) a dichotomous variable of presence (1) or absence of (0) of women and ethnic minorities on charity boards. Finally, and in order to address possible omitted variables bias (Gujarati 2003), we added a number of control variables that may affect CS. In particular, we controlled for CG mechanisms (i.e., board size, audit firm size, the CG committee, and board meetings) and charity characteristics (i.e., liquidity, capital expenditure, industry and year dummies). Assuming that all the hypothesised associations are linear, our base ordinary least square (OLS) regression model to be estimated is specified as follows:

$$CS_{it} = \alpha_0 + \beta_1 TBD_{it} + \sum_{i=1}^{8} \beta_i CONTS_{it} + \varepsilon_{it} \quad (1)$$

Where: CS is the main dependent variable; *TBD* is our main independent trustee board gender/ethnic diversity variable; and *CONTS* refers to control variables, including trustee board size (*TSE*), audit firm size (*AFS*), the presence of independent CG committee (*PCGC*), and frequency of trustee board meetings (*TMs*).

[Insert Table 2]

To test *H2* (i.e., to answer our supplementary research question: whether CG quality can moderate the association between TBD and CS), we divide study's variables into four groups. First, our main dependent variable is total debt (*TD)* and is broadly defined to include both long-term (*LTD*) and short-term (*STD*) debt. Second, our main independent variable is trustee board gender/ethnic diversity (*TBD*). Third, and to test for the moderating impact of CG quality on the TBD-CS nexus, we generate an interaction variable between each CG quality mechanism and TBD (*TBD*TSE, TBD*AFS, TBD*PCGC*, and *TBD*TMs*). Finally, we control for the same variables employed in Model 1.

To test *H3* (i.e., to answer our second central research question: the effect of *CS* on charity FP) we use three main types of variables. First, we classify our variables into three main groups. First, our main independent variable (CS) is total debt (*TD)* and is broadly defined to include both long-term (*LTD*) and short-term (*STD*) debt. Second, our main dependent variable is charity FP, as measured by return on assets (*ROA*). Finally, we control for the same variables employed in the first and second models. Assuming that all the associations are linear, the econometric model to specifically test *H3* is structured as follows:

$$ROA_{it} = \alpha_0 + \beta_1 CS_{it} + \sum_{i=1}^{8} \beta_i CONTS_{it} + \varepsilon_{it} \quad (2)$$

To test *H4* (i.e., to answer our supplementary research question: whether TBD and CG quality can moderate the CS-FP nexus), we divide study's variables into four groups. First, our main dependent variable (FP) is return on assets (*ROA*). Second, our main independent variable (CS) is total debt (*TD)*. Third, and to test for the moderating impact of TBD and CG quality on the CS-FP nexus, we create an interaction variable among firm-level CG quality, TBD and TD (e.g., *TD*TBD, TD*TSE, TD*AFS*, and *TD*PCGC*). Finally, we control for the same variables utilised previously in Model 2.

6. Empirical findings

6.1 Descriptive statistics and bivariate correlation analyses

Table 3 reports the summary descriptive statistics of our main dependent, independent and control variables over the period investigated (2010-2014), respectively. Overall, the Table shows wide spread for all variables under examination. For example, and consistent with Calabrese (2011), and Sheikh and Wang (2012), total debt (*TD*) ranges from 96.10% to 1.10% with a mean of 30.27%. The mean of trustee board gender diversity (*TGD*) indicates that 30.07% of all trustees are women, implying that UK trustee boards are dominated by men (70%). Similarly, the mean of trustee board ethnic diversity (*TED*) indicates that only 4.24% of all trustees are non-whites, suggesting that, on average, the boards of sampled UK charities are dominated by white trustees (96%), who are mainly white men (70%). In relation to return on assets (*ROA*), it ranges between a minimum of -34.29% to a maximum of 97.72%, with a mean of 61.67%, implying that the average UK trustee is profitable (i.e., have surplus). The mean value of trustee board size (*TSE*) is 13.69 members, ranging from 5 to 30 members. Trustee board meetings (*TMs*) ranges between a minimum of 2 meetings to a maximum of 14 annual meetings, with a mean of 5.13 annual board meetings. With respect to the other remaining variables, including *AFS, PCGC, LIQ* and *CEX*, all show wide variation, indicating that there is adequate variation in our variables.

[Insert Table 3]

Table 4 presents the correlation matrix for all independent, dependent and control variables included in our regression analysis in order to identify any potential multicollinearity problems. As a robustness check, we report both the parametric and non-parametric coefficients for Pearson's and Spearman's correlation coefficients, respectively. Observably, the direction and of both coefficients are essentially the same; suggesting that any remaining normality problems may not be statistically harmful. Additionally, both the Pearson and Spearman coefficients indicate that the levels of correlation among all variables are somewhat low, suggesting that there are no serious multicollinearity problems among the variables included in our study.

[Insert Table 4]

Table 4 (focusing on Pearson's parametric correlation coefficients) shows statistically strong links among *TD, TBD* and *ROA*. For example, the evidence that return on assets (*ROA*) is positively and significantly associated with *TD* is consistent with our predictions and the findings of Kyereboah-Coleman (2007) and Margaritis and Psillaki (2010) for publicly listed firms.

6.2 Multivariate regression analyses

6.2.1 The empirical findings of the effect of TBD on CS

First, to answer our first research question (i.e., the effect of TBD on CS), Table 5 presents the empirical findings of the impact of trustee board gender (*TGD*)/ethnic (*TED*) diversity on CS. Specifically, the table contains results relating to the effect of TGD and TED on long-term (*LTD*), short-term (*STD*) and total debt (*TD)*, respectively. Models 1, 2 and 3 of Table 5 suggest that *TGD* is negatively associated with CS, and thereby providing empirical support for *H1*. The negative *TGD-CS* nexus is consistent with the prediction that gender-diverse boards may provide better monitoring over management by bringing diverse ideas, perspectives, knowledge and experience to the board (Buse et al., 2016; Carter et al., 2003; Estelyi & Nisar, 2016; Loukil & Yousfi, 2016; Triana et al., 2013), which impact negatively on the charity debt level (CS). Empirically, the negative link between *TGD* and CS is empirically supportive of the results of previous studies (e.g., Adams & Ferreira, 2009; Elmagrhi et al., 2016; Gyapong et al., 2016; Ntim, 2015; Terjesen et al., 2015), which suggest that gender-diverse boards are associated with better monitoring over management, and thereby reducing agency problems that are often associated with managers having access to large free cash flows.

[Insert Table 5]

Models 5 to 7 of Table 5 also indicate that *TED* is insignificantly associated with short-term and total debt, which does not lend support to *H1*. Evidence of insignificant influence of *TED* in the UK charity boardrooms is largely consistent with their extremely low representation (4.24%, see Table 3), suggesting that ethnic minorities have less influence over boards' decisions, including CS (Carter et al., 2010). This also offers empirical support for the predictions of token status theory, which suggests charities may appoint a few ethnic minorities to their boards simply for symbolic reasons (i.e., representing disadvantaged groups) rather than for substantive ones (e.g., seeking their views in major charity decisions). Model 5 of Table 5 also suggests that *TED* is positively and significantly associated with CS, implying that *H1* is not empirically supported. The evidence is consistent with the expectations that ethnic diversity can increase managers' power and influence over board decisions by appointing few ethnic minorities mainly for symbolic reasons (Gyapong et al., 2016).

Second, to answer our second research question (i.e., the moderating effect of CG quality on the TBD-CS nexus), the empirical findings relating to investigating the potential moderating effect of CG quality (i.e. *TSE, AFS, PCGC* and *TMs*) on the TBD-CS nexus are presented in Table 5. In particular, Models 4 and 8 of Table 5 report results relating to the moderating effect of CG quality on the relationships among trustee board gender diversity (*TGD*), ethnic diversity (*TED*) and total debt (*TD*). All control variables included in Models 1-3 and 5-7 are included in Models 4 and 8 of Table 5. The coefficient of *TGD* on *TD* in Model 4 is negative and statistically significant, whereas the coefficient of *TED* on *TD* is statistically significant and positive. Crucially, it is clearly observable from our results that the *TBD-CS* nexus has noticeably improved. The result suggests that CG significantly moderates the TBD-CS nexus. For instance, the link between *TED* and *TD* has improved from 0.131 in Model 7 of Table 5 to 3.866 in Model 8 of the same Table. The results, therefore, provide empirical support for *H2* that CG quality moderates the association between *TBD* and CS, with the association being stronger in charities with good CG practices.

With respect to the interaction variables, the evidence reported in Models 4 and 8 of Table 5 generally provide evidence of a moderating effect of CG quality on the association between *TBD* and *TD*, which is largely consistent with our hypotheses. To be specific, the statistically positive effect of *TGD*TSE*, *TGD*AFS* and *TGD*TMs* on *TD* in Model 4 is empirically supportive of *H2*, whereas the statistically insignificant effect of *TGD*PCGC* on *TD* in Model 4 does not provide support to *H2*. The insignificant effect of *PCGC* on the association between *TGD* and *TD* may not be surprising, because only 28% of the sampled charities have a separate independent CG committee, and thus resulting in small cross-sectional variations of the *PCGC* among the examined charities. Additionally, the coefficient of *TED*TSE* on *TD* in Model 8 of Table 5 is statistically significant and negative providing support for the prediction that larger boards are associated with greater diversity in knowledge, experience and skills, and that may help reduce information asymmetry by improving board independence, and thus impact negatively on CS (Al-Najjar & Hussainey, 2011; Berger et al., 1997). However, the statistically insignificant effect of *TED*AFS*, *TED*PCGC* and *TED*TMs* on *TD* in Model 8 of Table 5 does not provide support for *H2*. Overall, the evidence is that the interacted variables (CG quality) have helped in improving the magnitude of *TD* and this is an indication that CG quality has a moderating effect on the link between TBD and CS, with the association being stronger in charities with good CG practices.

6.2.2 The empirical findings of the effect of charity CS on FP

Third, to answer our third research question (i.e., the effect of CS on FP), the empirical findings of the CS along with the control variables on charity FP are reported in Table 6. In particular, Table 6 contains the results for three models relating to *LTD* (Model 1), *STD* (Model 2) and *TD* (Model 3). The results generally suggest that CS (*LTD, STD* and *TD*) is positively and significantly linked with charity FP (*ROA*), implying that *H3* is empirically supported. The positive effect of CS on charity FP is consistent with the prediction that the use of leverage in CS can help in mitigating agency costs by aligning the interests of agents (trustees) with those of principals (donors) (Jensen & Meckling, 1976; Jensen, 1986), and thereby having a positive impact on FP (Dawar, 2014; Yazdanfar & Ohman, 2015). Additionally, using more debt in CS may signal to outsiders (i.e., funders) that a charity has bright future financial prospects and that can improve charity's FP. Empirically, our evidence offers support for the results of past research (Kyereboah-Coleman, 2007; Margaritis & Psillaki, 2010), which also reported a positive and significant association between CS and FP, albeit in for-profit firms.

[Insert Table 6]

Finally, to answer our fourth research question (i.e., the moderating effect of TBD and CG quality on the CS-FP nexus), the empirical findings relating to investigating the potential moderating effect of *TBD* and CG quality (i.e., *TSE, AFS, PCGC* and *TMs*) on the CS-FP nexus are reported in Models 4 and 5 of Table 6. All control variables included in Models 1 to 3 are included in Models 4 and 5 of Table 6. The coefficients of

TD on *ROA* in Models 4 and 5 are, respectively, positive and statistically significant. Crucially, it is clearly observable from our results presented in Models 4 and 5 that the CS-FP nexus has noticeably improved, implying that *TBD* and CG quality moderate the association between CS and charity FP. For example, the link between *TD* and *ROA* has increased from 0.962 in Model 3 to 1.709 in Model 4 of Table 6. Similarly, the link between *TD* and *RO*A has increased from 0.962 in Model 3 to 1.732 in Model 5 of Table 6. The result indicates that *TBD* and CG significantly moderates the association between CS and charity FP, with the association being stronger in charities with diverse boards and good CG practices.

With respect to the interaction variables, the results provided in Models 4 and 5 of Table 6 generally provide evidence of a moderating effect of CG structure and *TBD* on the association between CS and FP, which is largely consistent with our predictions. For example, the coefficients of *TD*TSE* and *TD*AFS* on *ROA* in Model 4 of Table 6 are statistically significant, providing support for *H4*. However, the coefficients of *TD*TGD, TD*PCGC* and *TD*TMs* on *ROA* in Model 4 of Table 6 are statistically insignificant, which does not provide support for *H4*. Similarly, the statistically significant and negative effect of *TD*TED*, *TD*TSE* and *TD*AFS* on *ROA* in Model 5 of Table 6 provides support for *H4*, whereas the statistically insignificant effect of *TD*PCGC* and *TD*TMs* on *ROA* in Model 5 of Table 6 does not provide support for *H4*. Overall, the interacted variables seem to have helped towards improving the magnitude of the coefficients and this suggests that diverse trustee boards and strong CG structures moderate the association between CS and FP, with the association being stronger in charities with diverse trustee boards and good CG practices.

6.3 Additional Analysis

Recent global debate and public policy, especially in the EU, UK and Scandinavian countries have sought to positively improve the representation of women and BAME groups on corporate boards (e.g., Gyapong et al., 2016). However, whilst it is ethically, morally and socially appropriate to include more women and ethnic minorities on corporate boards, such affirmative action measures can arguably be sustainable if their presence also improves board decision-making and FP. There is, however, no theoretical or empirical evidence on what is the optimal number of women and BAME groups that should be represented on charity boards. For example, the EU sets a 25% target of women directors for all large listed firms, whilst the target is 50% in Norway. Therefore, we seek to inform public debate by examining whether increasing the number of women and ethnic minority (e.g., from 1 to 7 or more) trustees affects CS. To answer this question, we adopt the critical mass theory and token status theory (Gyapong et al., 2016; Kanter, 1977; Schwab et al., 2016). These two theories suggest that gender and ethnic diversity may have a significant effect on board's decisions when there is a critical mass. We follow Gyapong et al. (2016), Liu et al. (2014) and Schwab et al. (2016) and create seven dummy variables to represent the level of trustee board gender/ethnic diversity. We replaced "*TGD* and *TED*" in Models 3 and 7 of Table 5 with our women/ethnic minority trustee dummies (*D1_TG/ED* to *D7_TG/ED*) (i.e., with average trustee board size of 13 members, 7 women on a board is the critical point at which the average board of trustees in our sample will be clearly

dominated by women (i.e., women are in the majority). In relation to *TGD*, the results presented in Models 1 to 7 of Table 7 suggest that increasing the number of women trustees to a certain level has a significant effect on CS. Specifically, the results indicate that trustee boards with one, two and three women (*D1_TGD, D2_TGD* and *D3_TGD*) are associated with significantly low debt usage. However, the decrease in *TD* is lower in trustee boards with four or more women. This implies that increasing the number of women on trustee board to a certain point (up to 3, which represents about 25% of board members) may enhance board decision. However, having four or more women on trustee boards appears to increase conflicts among board members, which may impact negatively on boardroom decision-making, CS and FP.

[Insert Table 7]

[Insert Table 8]

To further investigate the impact of increasing the number of women on CS and following Delis et al. (2016), our sample is divided into two groups: (i) charities with high percentage of women (charities having a *TGD* value higher than the mean value); and (ii) charities with low percentage of women (charities having a *TGD* value lower than the mean value). The results are reported in Table 8 under columns 9 and 10. Overall, the results suggest that charities with less gender diversity tend to use lower levels of debt compared to those with more gender diverse boards, a finding which is largely consistent with indications of our critical mass and token status theories and analyses. In relation to *TED*, the results presented in Models 1 to 7 of Table 7 suggest that there is no association between increasing the number of non-white trustees on charities boards. The insignificant effect of *TED* (*D1_TED* to *D7_TED*) on CS may be due to their extremely low representation (4.24%, see Table 3) and this suggests that ethnic minorities have less influence over boards' decisions, including CS, evidence which is again largely consistent with predictions of token status theory. Due to the insignificant effect *TED* (*D1_TED* to *D7_TED*) on CS, we have not divided our sample into charities with low and high percentage of non-white trustees.

6.4 Robustness Analysis

We carried out several additional tests to check the robustness of our results. With reference to the effect of *TBD* on CS, we run four different tests: (i) lagged structure models; (ii) fixed-effects; (iii) two-stage least square (*2SLS*); and (iv) Heckman selection model. First, to control for potential endogeneities that may arise from simultaneous associations between *TBD* and CS, a lagged effect model has been estimated, whereby this year's CS is influenced by past year's *TBD* and control variables. The findings reported in Columns 2 and 3 of Table 9 suggest that the findings are fairly robust to possible endogeneity issues that might emerge from simultaneous relationship between *TBD* and CS. Second, we seek to address concerns that CS might be influenced by unobserved charity-level characteristics. Models 3 and 7 of Table 5 are re-estimated by including dummies that represent the examined charities and the results are reported in Columns 4 and 5 in Table 9. Overall, the results remain generally the same, suggesting that our results are not affected by endogeneity problems that may be associated with unobserved charity-level characteristics.

[Insert Table 9]

Third, to address concerns associated with possible omitted variable bias and following past studies (Beiner et al., 2006; Carter et al., 2003, 2010), a Durbin-Wu-Hausman test (*DWH*) was conducted to investigate whether there is any endogenous link between TBD and *CS*. We re-estimated Models 3 and 7 of Table 5 using *DWH* and the test fails to accept the null hypothesis of no endogeneity, indicating that the *2SLS* may be more appropriate than *OLS* regression. In the first stage, TBD is expected to be influenced by the eight control variables. In stage two, the predicted values of TBD is used as instrument to re-estimate our models. Overall, after comparing the results of *2SLS* with the main *OLS* results, the findings reported in Column 6 and 7 of Table 9 remain relatively similar to those reported previously in Table 5, indicating that the findings of the study remained fairly robust to using *2SLS*.

Fourth and according to Gyapong et al. (2016), self-selection bias may be introduced into a study like this in a number of ways. For example, qualified women and BAME trustees are generally in short supply. This means that the few qualified women and BAME trustees will have the option to join the boards of charities of their choice, and thereby resulting in a situation whereby qualified women and BAME trustees self-select themselves to join boards of charities with good CG practices and higher performance. Similarly, some charities may choose (e.g., for ethical, financial, moral and social reasons) to deliberately pursue a policy of appointing more women and BAME trustees, and thereby making their presence on the boards of their charities a non-random occurrence. Further and as previously explained, by restricting our sample only to charities with the full five-year data required, survivorship biased can be introduced, and thereby potentially biasing the sample selection process. The availability of any of these conditions may introduce self-selection bias into our regression analyses, and consequently impact negatively on the reliability of our findings.

As a result and following prior studies (Gyapong et al., 2016; Hoechle et al., 2012; Peel & Makepeace, 2012), we use the Heckman (1979) two-stage model to address potential self-selection bias that may be inherent in our findings. In stage one of Heckman model, we employed dummies as dependent variables (*D_TGD* and *D_TED*) to analyse the decision to appoint (1) or not to appoint (0) a female/ethnic minority trustee. We identify independent variable that may influence charities' decision to appoint or not to appoint women/ethnic minority trustees. Previous studies (Gyapong et al., 2016; Hillman et al., 2007) suggest that charities in industries with many women/ethnic minority trustees are expected to appoint more women/ethnic minority trustees. We, therefore, use women/ethnic minority ratio (*TGD_Ratio* and *TED_Ratio*) as a factor that may influence charities' decision to appoint women/ethnic monitory trustees. We follow Gyapong et al. (2016) and Liu et al. (2014) and measure women and ethnic minority ratio as the total number of women/non-white trustees in an industry minus the total number of women/non-white trustees in that charity, all divided by the total number of trustees in that industry minus the total number of trustees in that charity. We employ *TGD_Ratio* and *TED_Ratio* as determinants of charities' decision to appoint or not to appoint a women/ethnic minority trustee in the first stage of Heckman model. We also include all the control variables included in our previous models.

In the second stage, we calculate Lambda and include it in our regression model to control for self-selection bias. The results reported in Models 8 and 10 of Table 10 indicate that Lambda (for both gender and ethnicity) has a positive and significant coefficient. However, trustee board gender diversity (*TGD*) remains positive and significantly related to *TD*, whereas trustee ethnic diversity (*TED*) still shows a positive and insignificant association with *TD* even after controlling for sample selection bias.

In terms of the association between CS and charity FP, three different robustness tests have been conducted: (i) lagged-effects; (ii) fixed-effects; and (iii) *2SLS*. First, to address endogeneity concerns that may arise from simultaneous associations between CS and charity FP, a lagged effect model has been estimated, whereby this year's FP is influenced by the past year's CS and control measures. The findings reported in Model 1 of Table 10 remain relatively similar to those reported previously in Table 5, indicating that the findings of the study remained fairly robust using lagged structure model. Second, this study also attempts to control for concerns that CS might be influenced by unobserved charity-level hetereoscedasticity by estimating fixed-effects model. We re-estimated Model 3 in Table 5 by including dummies to represent sampled charities and the results are reported in Column 3 of Table 10. Overall, the results indicate that total debt is significant and positively linked with FP (*ROA*), and thereby suggesting that our results are not affected by endogeneity problems that may be associated with unobserved charity-level characteristics.

[Insert Table 10]

Finally, to control for endogeneities that may be associated with potential omitted variables bias, we re-estimated Model 3 of Table 5 using the *2SLS* methodology. Following the same procedures adopted in Models 5 and 6 of Table 8, we first conducted the *DWH* test, to investigate whether there is any endogenous link between *ROA* and *TD*. *DWH* test fails to accept the null hypothesis of no endogeneity, indicating that the *2SLS* may be more appropriate than *OLS* regression. The findings reported in Model 3 of Table 10 remain relatively similar to those reported in Table 5, and therefore indicating that the results of the current study remain largely unaffected by problems associated with potential omitted variables bias.

7. Summary and conclusion

This study examines whether trustee board diversity (TBD) impacts on capital structure (CS), and consequently ascertains whether CG can moderate this association. Additionally, we examine the effect of CS on charity performance (FP), and consequently examine the potential moderating influence of TBD and CG quality on the association between CS and charity FP throughout the period from 2010 to 2014. Our study extends, as well as makes a number of new contributions to the current literature. First, we extend and contribute to the extant literature by examining the impact of TBD on CS. There is an acute dearth of prior research that has investigated the impact of TBD on CS in the charity sector. The findings indicate that charities with gender-diverse boards tend to use less debt. However, we also find that trustee board ethnic diversity is positively and significantly associated with long-term debt and insignificantly associated with short-term and total debt.

Second, this study extends, as well as contributes to existing literature by investigating the moderating effect of CG quality on the association between TBD and CS. We find that the association between TBD and CS has significantly improved, suggesting that charity-level CG quality appears to moderate this association. Third, we contribute to extant literature by examining the relationship between CS and FP in charity sector. Our results indicate that CS (including long-term, short-term and total debt) has a positive and significant association with charity FP, measured by *ROA*. Fourth, this study extends, as well as contributes to the extant literature by examining the potential moderating effect of TBD and CG on the association between CS and charity FP. Overall, and consistent with our expectations, we find that the association between CS and FP improves considerably in charities with gender/ethnically diverse boards and good CG structures.

Fifth, our study contributes to the extant literature by examining whether increasing the number of women and ethnic minority trustees affect CS. We find that increasing the number of women on trustee board to a certain point (up to 3, which represent about 25% of board members of the average charity included in our sample) enhances board decision-making. However, having four or more women on the board of trustees can increase conflicts among board members, which may reduce the influence of women in the boardroom, which is largely in line with the predictions of critical mass and token status theories. Similarly, the study finds no association between the level of trustee board ethnic diversity and CS. Sixth, despite increasing theoretical suggestions that adopting a multi-theoretical framework can help in explaining the varied reasons determining the choice of CS and the impact of CS on FP, existing studies are either descriptive or informed by single theories. Therefore, we contribute to the existing literature by offering new insights from agency, resource dependence, stakeholder, legitimacy, pecking order and signalling theories to explain the impact of TBD on CS, as well as the effect of CS on charity FP.

Seventh, the findings of our studies have important implications for charities and stakeholders. With reference to charities, the evidence suggests that TBD have a substantial influence on CS. This implies that charities may need to pay close attention to this mechanism in order to align the interests of agents (trustees) and principals (donors). In terms of stakeholders, the evidence suggests that CS has a significant impact on charity FP; hence stakeholders may use CS as indicator when providing finance to charities. Eighth, the evidence provided in this paper provides potential empirical and theoretical insights for further future studies. In terms of empirical expansions, this paper focused only on the UK, and thus future research can extend our study by examining the associations of interests (i.e., questions 1 to 4) in different international governance environments (i.e., developing or developed countries). With respect to the theoretical expansions, our evidence indicate that future studies may improve their theoretical grounds by using other theories, such as stewardship theory, when examining the impact of TBD on CS and also to ascertain whether charity FP is influenced by CS. Finally, although the results of this study are robust to alternative estimations and models, our study has some limitations, including restricting our analysis to TBD. As data becomes available, future studies may consider the impact of other factors, including country levels factors (e.g., inflation rate, political situation and macro-economic conditions) on CS. In addition, despite its potential strengths, such as increasing degrees of freedom and reducing potential multi-collinearities

problems, our use of balanced panel data can result in other sampling problems, such as survivorship bias, which needs to be taken into account when interpreting our results. Also, this study has examined the impact of CS on charity FP without considering the impact of CS on other outcomes, including trustees' pay, hence future studies can extend our study and contribute to the extant literature by investigating the impact of CS on trustees' pay. Further, the current study has examined the impact of TBD on CS, and consequently whether charity FP is related to CS, future studies can enhance our understanding by conducting in-depth interviews and qualitative analysis to gain further insights relating to these associations.

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Table 1
Financial Data of 30 Charites for 2010

Charity Name	Charity Type	Total Income (£000)	Total Assets (£000)	Total Debt (£000)	Capital Expenditure (£000)
ActionAid	Poverty	65,745	19,065	6,845	1,026
Arthritis Research UK	Health	36,261	113,488	13,525	24,021
Autism Initiatives UK	Disability	32,246	14,588	5,750	867
The Charities Aid Foundation	Other	377,433	1,854,579	1,074,055	96,096
Cancer Research UK	Health	514,900	482,100	255,300	77,100
Catholic Agency for Overseas Development	Other	49,055	34,827	7,791	7,144
Cats Protection	Other	34,736	60,836	2,997	7,918
Church of England Children's Society	Other	40,956	43,168	6,238	9,841
City and Guilds of London Institute	Education	118,259	102,970	25,291	10,572
BBC Children in Need	Poverty	44,204	83,279	51,873	274,390
CITB	Education	317,448	87,095	54,113	1,095
Care International UK	Poverty	32,509	18,038	6,579	119
Consumers' Association	Education	70,870	52,748	13,245	21,383
Crime Reduction Initiatives	Poverty	57,508	20,336	8,760	317
Dogs Trust	Other	60,702	100,862	5,342	17,841
The Keepers and Governors of the Free Grammar School of John Lyon	Education	39,957	99,486	22,607	9,217
Help for Heroes	Other	45,723	56,610	54,404	202
Historic Royal Palaces	Other	61,792	41,288	9,518	406
The Royal National Institute for Deaf People	Disability	47,258	24,816	3,409	2,308
International Planned Parenthood Federation	Education	87,998	89,006	11,998	466
SS. John and Elizabeth Charity	Health	42,671	41,052	24,270	935
The Kennedy Trust for Rheumatology Research	Health	62,662	100,921	13,128	2,411
The Legal Education Foundation	Education	73,113	118,203	24,967	3,393
Liverpool Hope University	Education	52,474	81,746	17,415	12,654
Learning and Skills Improvement Service	Education	147,128	30,298	26,124	720
The Mines Advisory Group	Poverty	31,173	8,847	7,539	1,844
Macmillan Cancer Support	Health	123,394	183,400	113,054	13,406
The National Autistic Society	Disability	88,310	54,743	24,196	3,987
National Centre for Social Research	Education	40,366	21,479	12,264	271
Nuffield Health	Health	553,100	563,800	293,700	28,200

Table 2
Variables definition and measurement

Panel A: Capital structure	
LTD	Percentage of total long term debt to total assets.
STD	Percentage of total short term debt to total assets.
TD	Percentage of total long and short term debts to total assets.
Panel B: Trustee board gender diversity	
TGD	The proportion of female trustee members to the total number of trustees.
D_TGD	1 if a charity has at least one woman director on the trustee board, 0 otherwise.
D1_TGD	1 if a charity has one woman director on the trustee board, 0 otherwise.
D2_TGD	1 if a charity has two women directors on the trustee board, 0 otherwise.
D3_TGD	1 if a charity has three women directors on the trustee board, 0 otherwise.
D4_TGD	1 if a charity has four women directors on the trustee board, 0 otherwise.
D5_TGD	1 if a charity has five women directors on the trustee board, 0 otherwise.
D6_TGD	1 if a charity has six women directors on the trustee board, 0 otherwise.
D7_TGD	1 if a charity has seven or more women directors on the trustee board, 0 otherwise.
Panel C: Trustee board ethnic diversity	
TED	The proportion of non-white or black, Asian and minority ethnic (BAME) background trustees to the total number of trustees.
D_TED	1 if a charity has at least one non-white or black, Asian and minority ethic (BAME) background trustee, 0 otherwise.
D1_TED	1 if a charity has one non-white or black, Asian and minority ethic (BAME) background trustee, 0 otherwise.
D2_TED	1 if a charity has two non-white or black, Asian and minority ethic (BAME) background trustees, 0 otherwise.
D3_TED	1 if a charity has three non-white or black, Asian and minority ethic (BAME) background trustees, 0 otherwise.
D4_TED	1 if a charity has four non-white or black, Asian and minority ethic (BAME) background trustees, 0 otherwise.
D5_TED	1 if a charity has five non-white or black, Asian and minority ethic (BAME) background trustees, 0 otherwise.
D6_TED	1 if a charity has six non-white or black, Asian and minority ethic (BAME) background trustees, 0 otherwise.
D7_TED	1 if a charity has seven or more non-white or black, Asian and minority ethic (BAME) background trustees, 0 otherwise.
Panel D: Charity performance	
ROA	Surplus or total funds generated in the financial period divided by total assets.
Panel E.1: Control variables (governance mechanisms)	
TSE	The total number of trustees in a financial year.
AFS	1 if a charity is audited by one of the biggest four audit firms (PricewaterhouseCoopers, Deloitte & Touche, Ernst & Young and KPMG), 0 otherwise.
PCGC	1 if a charity has a separate independent CG committee, 0 otherwise.
TMs	Natural logarithm of the frequency of trustee meetings in a financial year.
Panel E.2: Control variables (charity characteristics)	
LIQ	Current assets divided by current liabilities.
CEX	Total capital expenditure scaled by total assets.
IDU	Dummy variables for each of the main five industries.
YDU	Dummy variables for the years 2010-2014.

Table 3
Descriptive statistics

Variables	Mean	Median	Std. Dev.	Min	Max
Capital structure					
LTD (%)	6.64	0.37	10.87	0.04	42.90
STD (%)	23.63	16.85	20.37	1.10	96.10
TD (%)	30.27	24.84	21.93	1.10	96.10
Trustee board diversity					
TGD (%)	30.07	30.77	15.36	0.00	77.80
TED (%)	4.24	0.00	6.25	0.00	30.00
Charity performance					
ROA (%)	61.67	66.91	25.91	-34.29	97.72
Control variables (governance mechanisms)					
TSE (no.)	13.60	12.00	5.17	5.00	30.00
AFS (%)	40.00	00.00	49.00	00.00	100.00
PCGC (%)	28.00	00.00	45.00	00.00	100.00
TMs (no.)	5.13	4.00	1.90	2.00	14.00
Control variables (charity characteristics)					
LIQ (%)	2.36	1.85	2.34	29.04	0.03
CEX (%)	10.60	5.68	28.59	-29.57	29.48

Notes: *LTD* denotes long-term debt; *STD* denotes short-term debt; *TD* denotes total debt; *TGD* denotes trustee board gender diversity; *TED* denotes trustee ethnic diversity; *ROA* denotes return on assets; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. Table 2 fully defines all the variables used.

Table 4
Spearman and Pearson Correlation Matrices

Variable	LTD	STD	TD	TGD	TED	TSE	AFS	PCGC	TMs	LIQ	CEX	ROA
LTD		-.072	.329***	.125**	.204***	.003	-.076	-.038	-.120*	-.338***	-.144**	.182***
STD	-.118*		.867***	-.105*	-.103	.197***	.092	-.274***	-.065	-.175***	.121*	.778***
TD	.386***	.870***		-.089	.032	.164***	.079	-.254***	-.123*	-.355***	.061	.837***
TGD	-.080	-.017	-.055		.246***	.151**	.046	-.076	.181***	-.188***	-.049	-.165***
TED	.255***	-.075	.058	.166***		-.042	.029	.048	-.054	.029	-.258***	.032
TSE	-.042	.234***	.197***	.178***	-.137**		.019	.144**	-.133**	-.177***	.112*	.069
AFS	-.002	.038	.035	.077	.048	.023		-.073	-011	.082	.088	-.096
PCGC	.005	-.194***	-.178***	-.059	.063	.144**	-.073		.093	.009	-.037	-.158**
TMs	-.281***	-.014	-.152**	.199***	-.071	-.182***	-.101	.070		.099	.106*	-.093
LIQ	-.177***	-.228***	-.300***	-.099	.012	-.135**	.051	.078	.148**		.099	-.267***
CEX	-.211***	-.032	-.134**	.034	-.140**	-.061	.147**	-.095	.062	.007		-.025
ROA	.261***	.739***	.816***	-.140**	.051	.090	-.072	-.103	-.123*	-.238***	-.086	

Notes: The bottom left half of the table contains Pearson's correlation coefficient, whereas the upper right half of the table shows Spearman's correlation coefficients. Variables are definite as follows: *LTD* denotes long-term debt; *STD* denotes short-term debt; *TD* denotes total debt; *TGD* denotes trustee board gender diversity; *TED* denotes trustee ethnic diversity*; TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the existence of a separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure; *ROA* denotes return on assets. ***, ** and * indicate that correlations among variables are significant at the 0.01, 0.05 and 0.10 levels (2-tailed) respectively

Table 5
Effect of trustee board diversity on capital structure

Dep. Variable	LTD	STD	TD	TD	LTD	STD	TD	TD
(*Model*)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trustee board gender diversity:								
TGD	-0.048(.234)	-0.149(.074)*	-0.196(.022)**	-3.095(.000)***	-	-	-	-
Trustee board ethnic diversity								
TED	-	-	-	-	0.231(.015)**	-0.100(.616)	0.131(.523)	3.866(.028)**
*Interaction variables: Governance*TGD*								
TGD*TSE	-	-	-	0.603(.012)**	-	-	-	-
TGD*AFS	-	-	-	0.410(.23)**	-	-	-	-
TGD*PCGC	-	-	-	-0.131(.550)	-	-	-	-
TGD*TMs	-	-	-	0.800(.001)***	-	-	-	-
*Interaction variables: Governance*TED*								
TED*TSE	-	-	-	-	-	-	-	-1.615(.002)***
TED*AFS	-	-	-	-	-	-	-	0.294(.555)
TED*PCGC	-	-	-	-	-	-	-	-0.246(.622)
TED*TMs	-	-	-	-	-	-	-	0.040(.949)
Controls: Governance mechanisms								
TSE	-3.019(.065)*	17.282(.000)***	14.261(.000)***	0.589(.933)	-2.746(.088)*	15.634(.000)***	12.891(.000)***	19.822(.000)***
AFS	0.633(.595)	2.614(.290)	3.260(.200)	-10.685(.081)*	0.284(.809)	2.258(.363)	2.556(.318)	0.613(.844)
PCGC	0.170(.902)	-7.828(.007)***	-7.667(.010)***	-1.686(.811)	0.094(.945)	-7.012(.015)**	-6.928(.020)**	-6.024(.087)*
TMs	-6.930(.000)***	1.235(.761)	-5.717(.172)	-26.553(.001)***	-7.172(.000)***	-1.124(.774)	-8.313(.041)**	-9.209(.045)**
Controls: Charity characteristics								
LIQ	-0.480(.059)*	-1.910(.000)***	-2.392(.000)***	-2.528(.000)***	-0.463(.066)*	-1.830(.001)***	-2.295(.000)***	-2.568(.000)***
CEX	-0.084(.000)***	-0.003(.950)	-0.087(.048)**	-0.100(.022)**	-0.076(.000)***	-0.006(.896)	-0.082(.069)*	-0.070(.117)
YDU	YES	YES	YES	YES	YES	YES	YES	YES
IDU	YES	YES	YES	YES	YES	YES	YES	YES
Constant	12.704**	-72.881***	-60.151***	9.674***	9.928***	-69.159***	-59.214***	-75.385
Durbin-W. Stat.	2.646	2.306	2.548	2.589	2.753	2.224	2.452	2.480
F- value	9.553***	4.673***	6.738***	6.298***	10.062***	4.405***	6.259***	5.875***
Adj. R^2	0.345	0.171	0.244	0.277	0.338	0.161	0.228	0.261

Notes: *LTD* denotes long-term debt; *STD* denotes short-term debt; *TD* denotes total debt; *TGD* denotes trustee board gender diversity; *TED* denotes trustee board ethnic diversity; *TG/ED*TSE* denotes the interaction variable between trustee board gender/ethnic diversity and trustee size; *TG/ED*AFS* denotes the interaction variable between trustee board gender/ethnic diversity and audit firm size; *TG/ED*PCGC* denotes the interaction variable between trustee board gender/ethnic diversity and existence of a separate independent CG committee; *TG/ED*TMs* denotes the interaction variable between trustee board gender/ethnic diversity and trustee meetings; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the separate compliance, governance or risk committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. . *P*-values are between brackets. ***, **, and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively.

Table 6
Effect of Capital structure on charity performance

Dep. Variable	ROA	ROA	ROA	ROA	ROA
(*Model*)	(1)	(2)	(3)	(4)	(5)
Capital structure:					
LTD	0.467(.005)***	-	-	-	-
STD	-	0.919(.000)***	-	-	-
TD	-	-	0.962(.000)***	1.709(.000)***	1.732(.000)***
Interaction variables: Governance, TGD, TED and TD					
TD*TGD	-	-	-	0.003(.287)	-
TD*TED	-	-	-	-	-0.013(.082)*
TD*TSE	-	-	-	-0.304(.021)**	-0.268(.031)**
TD*AFS	-	-	-	-0.236(.015)**	-0.253(.008)***
TD*PCGC	-	-	-	0.039(.733)	0.097(.406)
TD*TMs	-	-	-	-0.008(.958)	0.011(.937)
Trustee board gender and ethnic diversity					
TGD	-	-	-	0.047(.625)	-
TED	-	-	-	-	-0.368(.167)
Controls: Governance mechanisms					
TSE	8.574(.038)**	-7.683(.009)***	-5.057(.048)**	-12.911(.002)***	-12.259(.001)***
AFS	-2.985(.324)	-4.749(.023)**	-5.329(.004)***	-12.873(.000)***	-12.299(.000)***
PCGC	-1.053(.762)	5.690(.019)**	5.634(.009)***	4.412(.327)	6.350(.156)
TMs	-11.614(.019)**	-14.319(.000)***	-6.929(.019)**	-5.242(.276)	-6.048(.204)
Controls: Charity characteristics					
LIQ	-2.101(.001)***	-0.629(.166)	-0.109(.790)	-0.039(.926)	-0.030(.942)
CEX	0.011(.842)	-0.026(.464)	0.055(.091)*	0.033(.335)	0.031(.367)
YDU	YES	YES	YES	YES	YES
IDU	YES	YES	YES	YES	YES
Constant	50.636***	121.844***	111.978***	132.669***	133.559***
Durbin-W. Stat.	2.274	2.538	2.469	2.582	2.439
F- value	4.892***	29.503***	41.399***	30.481***	30.792***
Adj. R^2	0.180	0.616	0.694	0.703	0.705

Notes: *ROA* denotes return on assets; *LTD* denotes long-term debt; *STD* denotes short-term debt; *TD* denotes total debt. The next set of six variables is interaction variable among trustee board gender (*TGD*) and ethnic (*TED*) diversity, CG mechanism and long-term debt, respectively. *TG/ED* denotes trustee gender and ethnic diversity; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the existence of a separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. . *P*-values are between brackets. ***, **, and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively.

Table 7
Effect of trustee board gender diversity (critical mass) on capital structure

Dep. Variable	TD	TD	TD	TD	TD	TD	TD	High	Low
(*Model*)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trustee board gender diversity:									
TGD	-	-	-	-	-	-	-	0.164(.292)	-0.852(.001)***
D1_TGD	-24.832(.000)***	-	-	-	-	-	-	-	-
D2_TGD	-	-13.209(.001)***	-	-	-	-	-	-	-
D3_TGD	-	-	-6.919(.039)**	-	-	-	-	-	-
D4_TGD	-	-	-	-3.552(.230)	-	-	-	-	-
D5_TGD	-	-	-	-	-0.736(.811)	-	-	-	-
D6_TGD	-	-	-	-	-	-0.272(.941)	-	-	-
D7_TGD	-	-	-	-	-	-	0.434(.916)	-	-
Controls: Governance mechanisms									
TSE	19.616(.000)***	18.046(.000)***	16.231(.000)***	14.612(.000)***	12.950(.001)***	12.638(.002)***	12.298(.002)***	17.562(.001)***	15.622(.006)***
AFS	2.868(.246)	2.514(.315)	3.271(.200)	3.025(.239)	2.726(.288)	2.713(.299)	2.626(.312)	3.665(.211)	4.497(.291)
PCGC	-6.941(.015)**	-7.323(.012)**	-6.708(.022)**	-7.012(.018)**	-6.845(.022)**	-6.799(.024)**	-6.723(.024)**	-7.966(.020)**	-7.084(.139)
TMs	-3.978(.326)	-3.686(.382)	-6.217(.135)	-7.413(.074)*	-8.491(.037)**	-8.569(.034)**	-8.543(.035)**	8.798(.159)	0.918(.897)
Controls: Charity characteristics									
LIQ	-2.342(.000)***	-2.467(.000)***	-2.293(.000)***	-2.356(.000)***	-2.295(.000)***	-2.290(.010)***	-2.290(.000)***	-5.081(.000)***	-2.145(.002)***
CEX	-0.085(.047)**	-0.084(.054)*	-0.081(.067)*	-0.088(.049)**	-0.088(.051)*	-0.087(.052)*	-0.086(.054)*	-0.109(.006)***	0.130(.480)
YDU	YES	YES	YES	YES	YES	YES	YES	YES	YES
IDU	YES	YES	YES	YES	YES	YES	YES	YES	YES
Constant	-55.894***	-65.239***	-62.833***	-59.775***	-55.723***	-55.011***	-54.316***	-115.564***	-53.571***
Durbin-W. Stat.	2.568	2.548	2.528	2.514	2.477	2.470	2.467	2.415	2.353
F- value	7.920***	7.293***	6.642***	6.361***	6.225***	6.220***	6.221***	9.756***	2.613***
Adj. R^2	0.280	0.261	0.241	0.232	0.227	0.227	0.227	0.478	0.165

Notes: *TD* denotes total debt; *TGD* denotes trustee board gender diversity; *D1_TGD* to *D7_TGD* are dummy variables to represent the level of trustee board gender diversity; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the existence of a separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. . *P*-values are between brackets. ***, **, and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively.

Table 8
Effect of trustee board Ethnic diversity (critical mass) on capital structure

Dep. Variable (*Model*)	TD (1)	TD (2)	TD (3)	TD (4)	TD (5)	TD (6)	TD (7)
Trustee board ethnic diversity:							
D1_TED	-0.968(.715)	-	-	-	-	-	-
D2_TED	-	-4.267(.315)	-	-	-	-	-
D3_TED	-	-	2.845(.665)	-	-	-	-
D4_TED	-	-	-	-4.008(.663)	-	-	-
D5_TED	-	-	-	-	-5.235(.599)	-	-
D6_TED	-	-	-	-	-	-5.235(.599)	-
D7_TED	-	-	-	-	-	-	-5.235(.599)
Controls: Governance mechanisms							
TSE	12.557(.000)***	13.028(.000)***	12.382(.000)***	12.810(.000)***	12.892(.000)***	12.892(.000)***	12.892(.000)***
AFS	2.687(.294)	3.144(.226)	2.568(.317)	3.882(.268)	2.895(.264)	2.895(.264)	2.895(.264)
PCGC	-6.703(.024)**	-6.940(.019)**	-6.832(.021)**	-6.862(.021)**	-6.868(.021)**	-6.868(.021)**	-6.868(.021)**
TMs	-8.783(.032)**	-9.011(.027)**	-8.134(.051)*	-9.101(.032)**	-9.220(.030)**	-9.220(.030)**	-9.220(.030)**
Controls: Charity characteristics							
LIQ	-2.291(.000)***	-2.314(.000)***	-2.243(.000)***	-2.336(.000)***	-2.340(.000)***	-2.340(.000)***	-2.340(.000)***
CEX	-0.089(.049)**	-0.091(.042)**	-0.085(.056)*	-0.088(.050)**	-0.087(.050)**	-0.087(.050)**	-0.087(.050)**
YDU	YES	YES	YES	YES	YES	YES	YES
IDU	YES	YES	YES	YES	YES	YES	YES
Constant	-54.202***	-54.716***	-55.117***	-54.739***	-54.766***	-54.766***	-54.766***
Durbin-W. Stat.	2.479	2.475	2.470	2.455	2.457	2.457	2.457
F- value	6.233***	6.319***	6.238***	6.238***	6.247***	6.247***	6.247***
Adj. R^2	0.227	0.230	0.228	0.228	0.228	0.228	0.228

Notes: *TD* denotes total debt; *TGD* denotes trustee board gender diversity; *D1_TED* to *D7_TED* are dummy variables to represent the level of trustee board ethnic diversity; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the existence of a separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. . *P*-values are between brackets. ***, **, and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively.

Table 9
Additional analyses relating to the effect of trustee board diversity on capital structure

	Lagged-Effects		Fixed-Effects		2SLS		Heckman Selection Model			
Dep. Variable	TD	TD	TD	TD	TD	TD	D_TGD	TD	D_TED	TD
(*Model*)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trustee board diversity										
TGD	-0.181(.049)**	-	-0.199(.019)**	-	-2.734(.004)***	-	-	-0.196(.022)**	-	-
TED	-	0.225(.321)	-	0.236(.199)	-	2.864(.318)	-	-	-	0.095(.641)
TGD_Ratio	-	-	-	-	-	-	-0.019(.961)	-	-	-
TED_Ratio	-	-	-	-	-	-	-	-	-2.085(.252)	-
LAMBDA	-	-	-	-	-	-	-	2.078(.087)*	-	83.967(.018)**
Controls: Governance mechanisms										
TSE	14.461(.000)***	13.487 (.000)***	-0.796(.850)	-0.946(.824)	49.624(.001)***	20.758(.028)**	0.286(.000)***	14.261(.000)***	0.054(.529)	7.086(.094)*
AFS	3.010(.275)	2.358(.395)	0.834(.764)	1.315(.638)	-92.749(.000)***	22.774(.523)	0.008(.775)	3.260(.200)	0.011(.862)	1.440(.576)
PCGC	-7.557(.020)**	-6.995(.032)**	-7.197(.013)**	7.473 (.010)**	-22.857(.000)***	-8.502(.129)	-0.007(.821)	-7.667(.010)***	0.059(.412)	-11.814(.001)***
TMs	-7.240(.124)	-9.390(.040)**	-10.992(.012)**	11.927(.007)***	44.488(.013)**	0.051(.995)	0.185(.000)***	-5.717(.172)	-0.207(.039)**	10.213(.243)
Controls: Charity characteristics										
LIQ	-1.844(.001)***	-1.750(.002)***	-1.194(.000)***	-1.292(.000)***	-2.589(.000)***	-2.765(.001)***	-0.002(.719)	-2.392(.000)***	-0.001(.919)	-2.336(.000)***
CEX	-0.089(.045)**	0.081(.072)*	0.043(.208)	0.042(.220)	1.483(.044)**	-0.043(.751)	0.000(.928)	-0.087(.048)**	-0.002(.088)*	0.100(.259)
YDU	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
IDU	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Constant	-55.393***	-56.165***	-51.732***	-60.720***	-112.265***	-113.235**	-0.041(.831)	-57.608***	0.626**	-99.995***
Durbin-W. Stat.	1.737	1.772	2.049	2.000	2.168	2.133	2.025	2.180	0.126	2.186
F- value	5.923***	5.611***	36.048***	35.264***	6.493***	6.259***	8.994(.000)***	6.738***	2.377***	6.340***
Adj. R^2	0.243	0.231	0.894	0.892	0.223	0.228	0.310	0.244	0.072	0.243

Notes: *TD* denotes total debt; *TGD* denotes trustee board gender diversity; *TED* denotes trustee board ethnic diversity; *TGD_Ratio* denotes women ratio; *TED_Ratio* denotes ethnic minorities ratio; *LAMBDA* examines the effect of self-selection bias; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the existence of a separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. . *P*-values are between brackets. ***, **, and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively.

Table 10
Additional analyses relating to the effect of capital structure on financial performance

	Lagged-Effects	Fixed-Effects	2SLS
Dep. Variable	ROA	ROA	ROA
(*Model*)	(1)	(3)	(5)
Capital structure:			
TD	0.803(.000)***	1.037(.000)***	0.809(.019)**
Controls: Governance mechanisms			
TSE	-3.534(.297)	-3.858(.128)	-41.050(.001)***
AFS	-6.315(.010)***	-4.511(.007)***	-28.032(.000)***
PCGC	3.999(.162)	-1.544(.377)	66.488(.000)***
TMs	-8.145(.042)**	-2.343(.377)	-43.687(.000)***
Controls: Charity characteristics			
LIQ	0.039(.939)	-0.203(.263)	3.242(.000)***
CEX	0.025(.531)	-0.012(.555)	0.650(.000)***
YDU	YES	YES	YES
IDU	YES	YES	YES
Constant	108.547***	111.575***	82.165***
Durbin-W. Stat.	1.789	2.446	2.085
F- value	19.761***	140.047***	41.399***
Adj. R^2	0.551	0.971	0.694

Notes: *ROA* denotes return on assets; *TD* denotes total debt; *TSE* denotes trustee size; *AFS* denotes audit firm size; *PCGC* denotes the existence of a separate independent CG committee; *TMs* denotes trustee meetings; *LIQ* denotes liquidity and *CEX* denotes capital expenditure. *P*-values are between brackets. ***, **, and * indicate significance at the 0.01, 0.05 and 0.10 levels, respectively.