Do Donor Sophistication & Donor-Beneficiary Proximity moderate the NFP managers' Earnings Management behaviour? Evidence from UK Charities

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Abstract

In this study, we examine the impact of donor sophistication and low donor-beneficiary separation (service-orientation) on earnings management behaviour in large UK charities. Using a sample of charities that report to the Charity Commission for England and Wales over the period 2007 to 2018, we first show that charities manipulate their bottom-line income using both accrual and real-based manipulation techniques to achieve a target benchmark of a small surplus. Furthermore, we find that the sophistication of funders and larger endowment funds are positively associated with financial reporting quality, moderating the effect of manipulation. We also find that lower donor-beneficiary separation (more service-oriented charity) deters real earnings management behaviour. Instead, where the funders are also the users of a charity's services, i.e. when the donor-beneficiary separation is low, managers are more likely to resort to accruals-based earnings management. Overall, we provide empirical evidence on earnings management in a little-researched sector that need not be beyond reproach, especially in the times of depleting public confidence in the sector.

1. Introduction

The government's inability to meet the demand for public goods in populations with heterogeneous preferences leads to the need for nonprofit organisations (e.g. Weisbrod, 1977; Weisbrod, 2009). Therefore, governments support charities as they reduce the burden on state funds. Where almost a billion individuals volunteer globally (Salamon et al., 2011), one in four adults donate to the sector in the UK and amongst them young adults volunteer the most (UK Parliament research briefing, 2017).[1] Although, the scale of social and economic value added by the sector may not be fully quantifiable, with the help of a large "volunteers army", 1.25 million full-time employees create economic value above £50 billion annually.[2] To put this into perspective, charities fund almost half of all medical research in the UK.[3]

Given the economic and social significance of the sector, it is important that it remains transparent. However, according to a survey, commissioned by the regulator, the Charity Commission, the confidence in the sector has been low; referring to which William Shawcross, the regulator's chairman said, *"Action is needed to restore public confidence. These results are a call to action for everyone who values public trust in charities."*[4]

The latest high-profile scandals surrounding UK charities (e.g. Oxfam UK, Kids Company's and Age UK etc.) have further contributed to an already diminished public confidence to its lowest level since it was first measured in 2005.[5] Consequently, the cash donations to charities, a lifeline for the sector, have dropped.[6] The British Parliament has criticised that the regulator is placing insufficient emphasis on the monitoring and investigation of charities and recommends *'better use of the intelligence'* to identify risks, in prioritising the use of its resources.[7] Add to this the concerns, expressed by the Charity Commission's head of the accountancy services: "*the deterioration in the quality of accounts is of serious concern*."[8] This

[1]Community Life Survey data for 2015/16 shows that 73% of adults in England had given to charity in the four weeks prior to survey.

2 In giving, how much do we receive? The social value of volunteering. Speech given by Andrew G Haldane, Chief Economist, Bank of England. A Pro Bono Economics lecture to the Society of Business Economists, London 9 September 2014.

[3]Association of Medical Research Charities: *"The charities' combined research spend makes up nearly half (47%) of publicly funded medical research"*
https://www.amrc.org.uk/news/uk-charities-research-funding-remains-stable-despite-tough-environment

[4] https://www.gov.uk/government/news/public-trust-in-charities-has-fallen-reports-charity-commission. .Results showing a falling public trust from the research using surveys of a representative sample of over 1,000.

[5](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/532104/Public_trust_and_confidence_in_charities_2016.pdf)

[6] https://www.theguardian.com/society/2019/may/07/fewer-britons-donate-charities-after-scandals-erode-trust

[7] https://publications.parliament.uk/pa/cm201314/cmselect/cmpubacc/792/792.pdf

[8]GOV.UK - Regulator finds quality and transparency in charity accounts has fallen. https://www.gov.uk/government/news/regulator-finds-quality-and-transparency-in-charity-accounts-has-fallen

prompts an urgent need to resurrect dissipating public confidence. Within the financial reporting realm, accounting academics can help to highlight evidence-based factors that lead to better financial reporting quality.

This study is, therefore, motivated by the need to respond to the fall in confidence in charities in recent times, by investigating reasons that might lead to poor financial reporting quality.

Agency problems in charities can contribute to accounting manipulation which can impact negatively on welfare (Jegers, 2010). In fact, there is evidence, albeit much limited compared to for-profit firms, that managers of nonprofits opportunistically misreport the accounting numbers that may influence the level of private donations or government funding (e.g. Bouwens et al., 2004; Leone & Van Horn, 2005; Ballantine et al., 2007; Verbruggen and Christiaens, 2012; Yetman & Yetman, 2012; Balsam and Harris, 2014; Ferreira et al., 2013; Greenwood et al., 2017; Beck, 2018). Research on earnings manipulation in nonprofits is predominantly focused on nonprofit hospitals. Only a handful of studies focus on the charity sector as a whole. Given the importance of the sector and the potential impact of misreporting on resource allocation, this study investigates this issue in UK charities, focusing on how funders' sophistication, restrictions and donor-beneficiary separation in the charity sector affects earnings management behaviour.

There are several stakeholders of a charity such as users of its services, donors, lenders, and the regulator. Many of these stakeholders expect nonprofit firms to break-even and therefore report a zero-profit figure in their financial statements. The violation of the zero-profit constraint increases the likelihood of CEO termination (e.g. Leone and Van Horn 2005). Where a large surplus implies that the nonprofit is not fulfilling its charitable purpose, a deficit would cast doubt over management's stewardship in steering a nonprofit as a going concern. Similarly, an indebted nonprofit's deficit could increase the cost of debt, or damage its reputation in the eyes of the subsidising government, affecting a number of services (Leone and Van Horn, 2005; Jones & Roberts, 2006; Ballantine et al., 2007; Verbruggen and Christiaens, 2012). This leads to an inherent appetite for a bottom-line earnings figure, which hovers around zero. Furthermore, a significant number of nonprofits maintain very little reserves because charities discount the benefits of reserves as they are possibly evaluated on spending (Calabrese, 2013). As surplus/deficit end up in reserves, large surpluses, could, therefore, lead to undesirably large reserves. This may attract undue attention, resulting in

reduced funding owing to the assertion that the charity has sufficient funds and does not need further financial support.

Following limited previous studies that firms use multiple earnings management strategies (e.g. Leone and Van Horn, 2005; Cohen and Zarowin, 2010), we first examine whether UK charities resort to accrual and real-based earnings management activities to report bottom-line net income around a zero surplus/deficit. Using an initial sample of more than 103,000 nonprofit firm-year observations, we find that nonprofits drive their results towards a target range of a small surplus using both manipulation techniques.

We then examine whether the type of funders to the charity can moderate or exacerbate the manipulation. Consistent with prior literature that shows more accounting manipulation in the charities funded by less sophisticated funders (e.g. Yetman & Yetman, 2013; Balsam and Harris, 2014), we observe that the charities with more sophisticated funders, that place restrictions on their funds through restricted donations tend to manipulate less towards a target range. We find that same for the charities with higher levels of endowment funds. This finding is in contrast to Parsons et al. (2017), who do not find more accounting manipulation in charities that are funded by less-sophisticated funders. Furthermore, we find that charities have preferences for different earnings management types, depending on the level of programme revenue, a proxy for their service-orientation. We observe a higher affinity for accrual-based manipulation in more service-oriented charities. On the contrary, real-based management is higher in more-charitable (i.e. less service-oriented) nonprofits, the costlier of the two forms of earnings management.

The results of the current study provide several contributions to the nonprofit accounting literature, which has a limited number of studies on the charity sector's earnings quality. First, to our knowledge, there have been no studies that separately investigate the alternative earnings management approaches between more-service-oriented and their more-charitable nonprofit counterparts. Second, prior literature finds that more-sophisticated funders discount poor quality financial statements (e.g. Yetman & Yetman, 2013; Balsam and Harris, 2014) or goes as far as suggesting that sophisticated managers of a nonprofit are less likely to misreport in their financial statements, but does not investigate the impact of donor sophistication on the willingness of nonprofits' managers to misreport in their financial statements. Using two measures to investigate the sophistication of funders, we find similar results that sophistication of funders reduces manipulation in charities.

This study has societal relevance as it boosts confidence in earnings quality of the charities funded by donors that are more sophisticated: those that place restrictions on the use of their donations. Prior research points to the preference for accruals earnings management due to its lower reversal costs than making real management of operating costs (Peasnell, 1998; Pilcher and Van der Zhan, 2010). In this study, we show that in pursuit for a small surplus, more service-oriented charities prefer accruals-based earnings management to preserve their "real" level of services, which are more noticeable due to a low donor-beneficiary separation in the case of more service-oriented charities.

The remainder of the study is organised as follows. The next section discusses the literature and develops the hypotheses of the study. This is followed by a discussion of the sample and variables used. We then present the results of the study, followed by a conclusion and discussion of limitations and potential future research.

2. Literature review and hypotheses development

2.1 Accrual and real activities manipulation in nonprofits

Resource dependency theory (hereafter, RDT) argues that organisational actions have societal acceptance rather than economic performance as an underlying motive (Drees & Heugens, 2013). This theory postulates that an organisation devises its operating strategy according to the expectations and preferences of its resource providers (Pfeffer & Salancik, 1978; Drees & Heugens, 2013; Parsons et al., 2017). Variations in financial reporting quality could undermine both regulatory effectiveness and resource allocation (Greenwood et al., 2017). RDT suggests that funding sources are associated with varying levels of oversight. Recognising these levels, the managers must respond to every key resource provider's demands to sustain continued funding (Ling and Roberts, 2017). Therefore, the information contained in financial statements can be aimed at responding to resource dependency pressures which sometimes can come at the cost of true and fair reporting.

Theoretical and anecdotal evidence presented in the literature finds a preference for managers of for-profit firms to report profits compared to losses. Individuals are more averse to losses than to an equivalent amount of profits (Kahneman and Tversky, 1974, 2013). This can be extended to the preference for managers of firms to avoid reporting losses in favour of profits or a breakeven point i.e. zero bottom-line earnings (Leone and Van Horne, 2005). Managers of charities arguably have similar preferences. Based on prospect theory, the cost to a nonprofit of reporting a £1 loss will be larger than the cost of reporting a £1 profit. However, reporting

a surplus can also come with transactional costs in the form of increased scrutiny (Eldenburg et al., 2011). An excessive level of surplus may suggest that the charity has exhausted its philanthropic activities, delayed these to a future period, or not exerted sufficient effort to identify worthy projects (Leone and Van Horn 2005). On the other hand, if a charity suffers sustained deficits, this would lead to the depletion of its reserves making it appear less sustainable and therefore casting doubts over its ability to fulfil its mission. Although some nonprofit sectors such as the UK National Health Service (NHS) Trust hospitals have a regulatory duty to deliver zero bottom-line earnings (Ballantine et al., 2007), there is currently no such regulatory obligation for charities.

Prior research confirms that donors consider earnings in deciding on the level of current or future donations. They are found less likely to donate money to those nonprofits that return high levels of surpluses (e.g. Leone and Van Horn, 2005; Bouwens et al., 2004; Ballantine et al., 2007; Verbruggen and Christiaens 2012; Ferreira et al., 2013; Jegers, 2013; Arcas and Marti, 2016). There is evidence that managers manage earnings to report a small surplus in the nonprofit sector (e.g. Leone and Van Horn, 2005; Bouwens et al., 2004; Ballantine et al., 2007; Stalebrink, 2007; Verbruggen and Christiaens 2012; Ferreira et al., 2013; Jegers, 2013; Arcas and Marti, 2016; Greenwood et al., 2017; Beck, 2018; Nguyen and Soobaroyen, 2019).

Based on the above discussion, we expect that the earnings (surplus/deficit) distribution should be close to zero with a tendency towards a small surplus; this small surplus would assure the stakeholders of its financial viability. We formulate the following two hypotheses:

H_{1a}: Nonprofits are more likely to report a small surplus than a small deficit.

In the for-profit sector, managers are known to use both accrual-based earnings management (hereafter, AEM) and real activities-based earnings management (hereafter, REM) to manage earnings towards a benchmark target or range. Most studies have focused on AEM (e.g. DeFond and Jiambalvo, 1994; Peasnell et al., 1999; Cheng and Warfield, 2005; Bergstresser and Philippon, 2006; Gore et al., 2007; Cohen and Zarowin, 2010). However, there has been growing evidence that firms also engage in REM (e.g. Baber et al., 1991; Dechow and Sloan 1991; Bushee, 1998; Graham et al., 2005; Roychowdhury 2006; Cohen et al., 2008; Cohen and Zarowin 2010; Cheng et al., 2015).

Most studies in the nonprofit sector concentrate on AEM with a handful that investigates REM (e.g. Hoerger, 1991; Leone and Van Horn, 2005; Eldenburg et al., 2011). If discretionary accruals in charities are managed to reduce both surplus and deficit we would expect a negative

association between discretionary accruals and pre-managed performance and (e.g. Leone and Van Horne, 2005; Ferreira et al., 2013; Verbruggen and Christiaens 2012). We therefore formulate the following hypothesis.

H_{1b}: There is a negative relationship between discretionary accruals and earnings before discretionary accruals in nonprofits.

If however, REM were used, this would be through the increase of revenues or reduction of expenses. Advertisement expense is characteristically acknowledged as a discretionary expense in the literature (e.g. Cohen et al., 2008; Cohen and Zarowin, 2010; Gunny, 2010; Eldenburg et al., 2011). In nonprofits, the fundraising expenses are incurred to induce contributions. These fundraising costs are associated with fundraising campaigns, mailings for funds from supporters, and other solicitations for contributions from individuals, foundations, and governments; in other words, they effectively advertise the nonprofit to raise awareness. Even though the solicited funds and contributions may not come in until a later date (maybe even in the subsequent year), the cost of mailing solicitation letters and the salaries of development/fundraising employees should be expensed as the expense is incurred. Advertising expenditures could be cut back or postponed (Eldenburg et al., 2011), therefore fundraising expenses could be an ideal candidate for managing earnings through discretionary expenses. Therefore, we formulate the following hypothesis when earnings are below and above the zero-profit benchmark.

H_{1c}:When earnings of nonprofits are expected to be below (above) the benchmark, nonprofits will decrease (increase) spending on fundraising activities.

2.2 Sophisticated funders

The RDT posits that different funding sources lead to varying monitoring demands by the funders/donors (Pfeffer and Salancik, 1978; Gaver and Im, 2014). Therefore, it is expected that the ability to report a small surplus may not be comparable for charities with varying degrees of funder sophistication. The extant literature provides empirical evidence that the sophistication of funders has an impact on financial reporting quality of a nonprofit (Krishnan and Yetman, 2011; Balsam and Harris, 2014; Greenwood et al., 2017).

Earlier studies have considered a high proportion of restricted funds as an indicator of sophistication. More sophisticated donors are more likely to discount the impact of manipulation compared to their less sophisticated counterparts who are made up of disparate small donors (Yetman and Yetman, 2013). The reason for this is that smaller individual donors

do not generally seek detailed information directly. Also, they may not have the necessary skills to unpick the intricate details of the accounting data. A large number of small donors may not know where to find the relevant information in the financial reports (Tinkelman 1998; Yetman and Yetman 2013). On the contrary, sophisticated funders/donors are expected to better comprehend a complicated set of financial information. Similarly, they would be more interested in monitoring, with the intent to assess whether their restricted funds are being used for the stipulated purposes. Restrictions on the use of donations impose direct control over the spending of resources by a nonprofit (Loftin, 1998; Silverman and Beatty, 2006; Parsons et al., 2017).

Parsons et al. (2017) find that charities that face pressures to manage their ratios are less likely to do so when there are monitors and sophisticated managers. Information asymmetry between a nonprofit and those monitoring and evaluating its performance is often low (Greenwood et al., 2017). Balsam and Harris (2014) find that sophisticated donors look at more complex forms of information in the financial statements whereas small donors tend to rely on media reports.

Based on the discussed ratio manipulation literature (e.g. Tinkelman 1998; Yetman and Yetman, 2013; Balsam and Harris, 2014; Parsons et al., 2017) and a limited AEM literature (e.g. Greenwood et al., 2017), we expect the sophistication of funders to be a deterrent against AEM and therefore formulate the following hypothesis:

H_{2a}: The relationship between discretionary accruals and earnings before discretionary accruals is less negative for charities with more sophisticated funders than for charities with less sophisticated funders.

Similarly, Guo et al. (2015) indicate that sophisticated investors improve the accounting oversight curbing earnings manipulation via operating activities regulations. Restricting donations give donors direct control over where, when, and how the organisation spends its resources (Loftin, 1998). With the fear that debt holders, being another sophisticated stakeholder group would be suspicious, municipalities' managers do not manipulate earnings upward in the public sector (Beck, 2018).

The formal compliance with financial reporting standards improves with dependence on funding sources such as government subsidies and financial debts (Verbruggen et al., 2011). As the economic impact of REM is expected to be higher than AEM, sophisticated funders must be particularly interested in maintaining the level of "real" services to the end

beneficiaries and that they do not freely fluctuate in pursuit of a target bottom line. Therefore, we formulate the following hypothesis:

H_{2b}: When earnings of nonprofits are expected to be above (below) the benchmark, nonprofits with more sophisticated funders are less likely to increase (decrease) spending on fundraising activities than nonprofits with less sophisticated funders.

2.3. Endowment charities

Following prior literature, in addition to using restricted funds as a proxy for the sophistication of charity funders, we have an a priori assertion that charities with high endowment funds are also monitored closely and hence they are less likely to manage earnings. Endowment charities receive a lump-sum donation where the donor stipulates that the money is to be invested to provide a regular stream of income. UK regulations allow charities to spend permanent endowments in certain circumstances by special permission from the Charity Commission. In some cases, nonprofits may be more restricted in spending these endowments. For example, if charities are funded mainly via government grants, have relatively stronger control policies and therefore a higher level of scrutiny, then they are more restricted (e.g. Rose-Ackerman, 1981; Ostrower, 2007). Since the endowment fund is mostly set out as a restriction, just as other restricted funds donated by other sophisticated funders, we hypothesise that the likelihood of manipulation would be less prevalent for an 'endowment charity' due to an expected higher sophistication of its funders. We formulate the following hypothesis:

H_{3a}: The relationship between discretionary accruals and earnings before discretionary accruals is less negative for endowment charities than for other charities.

Similarly, charities that are predominantly funded through endowments would face higher scrutiny from their funders. Also, they would have weaker incentives to make real spending manipulation, as their income is relatively assured from mostly connected and closely associated donors. Therefore, we formulate the following hypothesis:

H_{3b}: When earnings of nonprofits are expected to be above (below) the benchmark, nonprofits with high endowment funding are less likely to increase (decrease) spending on fundraising activities than other nonprofits.

2.4 Service-oriented charities

Although all nonprofits do not fit neatly into one category, those nonprofits that receive most or all of their income from grants/donations, are categorised as "donative" and those that rely

predominantly on income from the sale of services are classified as "commercial" (Hansmann, 1980). These two types have also been referred to as charitable nonprofits and service-oriented nonprofits, respectively (e.g. Yetman and Yetman, 2013; Balsam and Harris, 2014), where, the charitable nonprofits receive donations mostly from donors who are not themselves the recipients of its services, as opposed to service-oriented charities, where donors are also in receipt of such charities' services (e.g. museums who charge entrance fees including a donation). This donor-beneficiary separation is expected to have an impact on the earnings management behaviour of managers.

Differences between these types of charities have been found in terms of donation levels in response to executive compensation and accounting quality (Yetman and Yetman, 2013; Balsam and Harris, 2014). Therefore, it may be that more service-oriented nonprofits would have more compelling incentives to manage earnings using the accruals-based method in response to funder pressures. On the other hand, their more charitable counterparts may also face pressures due to media scrutiny on donors' behalf. Therefore, it is difficult to form an a priori assumption about which of the two types may be more prone to exercising AEM. Therefore, we form a non-directional prediction for the effect of more service-oriented charities on the relationship between accounting-based discretion and earnings before discretionary accruals relationship as follows:

H_{4a}: The relationship between discretionary accruals and earnings before discretionary accruals is different for service-oriented charities compared with their more charitable counterparts.

Since the donor-beneficiary separation is minimal in more service-oriented charities, this suggests closer monitoring of the "real" services by the beneficiaries, who are also their funders. The *"supporters who are recipients of nonprofit services can directly evaluate the quality of those services"* (Balsam and Harris, 2014). A surge in real manipulation was noticed after the adoption of International Financial Reporting Standards (Ferentinou and Anagnostopoulou, 2016), at the time of seasonal equity offerings (Kothari et al., 2015) and with better audit quality (e.g., Chi et al., 2011). Therefore, this suggests that a stricter inspection, either through the enactment of a tighter reporting regime or tighter scrutiny is associated with more real manipulation. We therefore formulate the following hypothesis:

H_{4b}: When earnings of nonprofits are expected to be above (below) the benchmark, nonprofits that are service-oriented are less likely to increase (decrease) spending on fundraising activities compared to charitable nonprofits.

3. Data and sample

3.1 Sample

The data used for this study is from the Charity Commission for England and Wales dataset.[9] The charities are required to submit their accounts to the Charity Commission within ten months of their financial year-end. The sample consists of all firms with gross income over £0.5m from 2007 to 2018. Until 2015, the audit threshold for registered charities was £1m, which was subsequently reduced to £0.5m under the Charity Statement of Recommended Practice (SORP: FRS102).[10] Hence, the data do not exclude any charity which would have required a statutory audit in the period of study. We exclude firms that earned trading income because discretionary accruals would carry a measurement error due to the unavailability of data on inventory in the annual returns filed by charities to the Charity Commission.[11] All charities with three years of data were included in the sample.

3.2 Classification of nonprofits

The first classification relates to the type of funders in terms of sophistication. Prior literature (e.g. Yetman and Yetman, 2013; Balsam and Harris, 2014; Amin and Harris, 2017) classifies sophistication according to the level of restricted funds or donations, suggesting that sophisticated donors are more likely to place permanent or temporary restrictions on their donations.[12] We use the level of restricted funds (following Yetman and Yetman, 2013) as the criterion for categorising a charity as sophisticated or Less sophisticated. Those charities which have above-median restricted funds within their respective nonprofit subgroup classification are categorised as sophisticated. Hence, to measure donor sophistication we partition organisations in each charity subgroup by the presence of restricted donations using a 0/1 dummy variable, where 1(0) represents a charity with more sophisticated (less sophisticated) donors.

[9] The content is available under the Open Government Licence v3.0.
[10] In England and Wales, an audit is required if either the charity's gross income exceeds £500,000 or its gross assets exceed £3.26m and gross income exceeds £250,000.
http://www.charitysorp.org/media/619101/frs102_complete.pdf
[11] All auditable charities are required to complete Part b of the online annual return.
[12] Relatively older studies use accounting expertise or donor size as proxies for sophistication (e.g. Keating et al., 2008; Tinkelman,1998)

The second classification of nonprofits is according to their source of funding from endowment. First, we calculate the endowment fund ratio by dividing the year-end endowment fund by the year-end total funds. Those charities that have an above-median level of endowment fund ratio within their respective charity subgroup, have been categorised as endowed charities. Hence, an endowed charity has a relatively sizeable income from its endowment fund.

Finally, to test the impact of more service-oriented charities against more charitable nonprofits, following Balsam and Harris (2014), we partition the sample according to the median of programme service revenue (hereafter, PSR), which is measured as the ratio of PSR to total revenue. The firms with higher PSR than the median of their respective nonprofit subcategory classification are categorised as service-oriented and those below the median as charitable.

To classify nonprofits by industry or subcategory, we use the Charity Commission data, merged with the classification specified by the International Classification of Nonprofit Organisations (ICNPO)[13] (Salamon and Anheier, 1996). All charities have been classified using the International Classification of Nonprofit Organisations (ICNPO) as listed in appendix 1. Except for group 12 (Not elsewhere classified), all classifications have been allocated according to the median values of each respective group. The charities in group 12 have been dropped from the analysis, as the median value for a miscellaneous group may not be a good representation of the individual nonprofits placed in that group.

Robustness tests are carried out using the ratios as continuous variables with similar results.

3.4 Manipulation measures

We use two measures of manipulation to investigate earnings management: accrual and real manipulation. We use a measure of AEM similar to that used in prior work in the charity sector (e.g. Bouwens et al, 2004; Leone and Van Horn, 2005; Ballantine et al., 2007; Verbruggen and Christiaens, 2012). Specifically, we use an aggregate accruals model primarily based on the Jones (1991) model with modifications proposed by Dechow et al. (1995) and Kothari et al. (2005).

We use a cross-sectional model of discretionary accruals, which is used in various studies such as in Ibrahim and Lloyd (2011), where for each year, we estimate the model for every charity subgroup (industry) according to the Charity Commission classification. In doing so, we

[13] The National Council of Voluntary Organisations classification data was merged with Charity Commission data to allocate charity types according to the International classification.

partially control for any changes that are specific to each charity subgroup. The modified Jones model is estimated for all charity classifications as follows:

$$ACC_{it}/TA_{it-1} = \alpha_0 + \beta_1/TA_{it-1} + \beta_2 \Delta REV_{it}/TA_{it-1} + \beta_3 PPE_{it}/TA_{it-1} + \beta_4 ROA_{it}/TA_{it-1} + \varepsilon_{it} \quad (1)$$

Where:

ACC_{it} is total reported accruals, measured as the change in current assets (excluding cash) for charity *i* from year *t-1* to year *t*, less the change in current liabilities from year *t-1* to year *t*, less depreciation charge for the year;

TA_{it-1} is total assets in charity *i* in year t-1;

$\Delta INCOME_{it}$ represents annual change in income (same as revenues in for-profit firms) in charity *i* from year *t-1* to year *t*;

PPE_{it} denotes property, plant, and equipment charity *i* in year *t*;

ROA_{it} is the return on assets measured as net income in charity *i* in year *t* divided by total assets in year *t*; and

ε_{it} is the error term.

We run industry-specific regression models for the eleven industry groups (per ICNPO classification) and use their residuals to proxy for discretionary accruals (*DACC*). It is worth noting that the accruals calculation in the extant literature comprises inventory. The Charity Commission data does not include separate figures for inventory. Although the amount of inventory in the charity sector is expected to be negligible compared to the for-profit sector, to alleviate the risk of measurement error, we remove all those firm years where there were any expenses on trading expecting that the trading charities would have inventory within their current assets.[14]

The second measure of manipulation relates to real accounts. Real earnings management involves manipulation of operating, investing, or financing activities. There are several ways to manipulate earnings using real accounts such as the overproduction of finished goods inventory to suppress cost of goods sold, disposal of fixed assets to inflate profit (e.g. Bartov,

[14] The effect of such inventory is very small and the results are very similar even when the firm years with more than zero pounds of trading expenses are included in the final sample.

1993; Herrmann et al. 2003; Roychowdhury, 2006; Xu et al., 2007;Gunny, 2010), relaxing credit terms by offering price discounts to accelerate sales (e.g. Cohen et al., 2008; Kothari et al., 2015), or curtailing the discretionary expenses e.g. research and development (R&D) and selling, general and administrative (SG&A) expenses (e.g. Roychowdhury, 2006; Gunny, 2010). REM in nonprofits relates to the decisions that can be implemented swiftly, hence affecting accounting performance quickly. We expect that real earnings management for nonprofits can be achieved by regulating their fundraising activities. Fixed costs are allocated between charitable and fundraising costs and therefore it would not be easy to decouple fixed from variable costs, which we would expect to be more discretionary. Therefore, we use total fundraising costs in year t as the discretionary expense.

3.5 Descriptive statistics

Table 1 reports the descriptive statistics for all charity years in the sample. The mean (median) total income deflated by lagged total assets is 1.46 (0.86). A large number of very small and a small number of very large charities drive the skewness. The mean (median) of fundraising expenses (FR) deflated by lagged total assets is 0.08 (0.00), showing that most charities have a very low level of fundraising costs. The mean (median) of *Net_Income* deflated by lagged total assets is 0.06 (0.02), showing that most charities' results lean towards a small surplus. After winsorising the variables at the 1% and 99% percentiles of the distribution, the positive mean net income is consistent with charities aiming for small surpluses.

((Table 1 here))

The correlation matrix in table 2 (Panel A) presents correlation coefficients between variables used in equation (1) to estimate discretionary accruals. The table shows low correlation between the variables, following earlier literature (e.g. Jones, 1991; Leone and Van Horne, 2005; Verbruggen and Christiaens, 2012) with a correlation coefficient between $\Delta INCOME_{it}$ and PPE_{it} of -0.033, and 0.33 between $\Delta INCOME_{it}$ and ROA_{it}. Similarly the coefficient between ROA_{it} and PPE_{it} is also sufficiently low at -0.027.

Panel B presents correlation coefficients between REM variables. Again, there do not appear to be issues with multicollinearity.

((Table 2 here))

4. Hypotheses testing

4.1 Accrual and real activities manipulation

To test the first hypothesis (H_{1a}) , we use Burgstahler and Dichev's (1997) methodology which is based on the analysis of the frequency distribution of earnings. Burgstahler and Dichev (1997) use net earnings deflated by lagged market value as their variable of choice. As charities do not have equity, we use lagged total assets as the deflator following the earlier nonprofit literature (e.g. Leone and Van Horn, 2005; Ferreira et al., 2013). We measure earnings before discretionary accruals (hereafter, *EBDA*) as the difference between *Net_Income* in year t and *DACC*.

Panel A of Figure 1 (panels B) presents the histograms of EBDA (net income). The bin widths used are in both cases are 0.005.[15] Similar to earlier studies (e.g. Burgstahler and Dichev, 1997; Leone and Van Horn, 2005; Jacob and Jorgensen, 2007; Gore et al., 2007; Bennett et al., 2017), the distribution of *EBDA* (Figure 1 – Panel A) is compared with that of *Net_Income* (Panel B). The histograms show that a large number of charities' earnings have been shifted to the right of zero. The mean (standard deviation) of *EBDA* and *Net_Income* are not significantly different at 0.056 (0.286) and 0.056 (0.222) respectively. This confirms Leone and Van Horn's (2005) assertion, that overall, discretionary accruals do not contribute in altering the mean and medians but they do reduce the variance. The standard deviation is reduced from 0.286 for *EBDA* to 0.222 for *Net_Income*. A one-tailed F-test for differences in variances is significant and strongly rejects the null the equality of the distributions at $p < 0.001$.

((Figure1 here))

We conduct statistical tests similar to those performed by Leone and Van Horn (2005) (following Burgstahler and Dichev, 1997) to determine the significance of the results. For the test, the null hypothesis is for a smooth distribution of *Net_Income*. Smoothness is confirmed if the number of observations in a given interval (i) is equal to the expected number of observations in that particular interval.[16] The results indicate that the z-score of the standardised

[15] Following Degeorge et al. (1999) the bin widths were chosen using the formula 2(IQR)n -1/3. n denotes the number of available observations where IQR represents the interquartile range.

[16] The expected number in an interval is the average of the adjacent intervals on either side i.e. i−1 and i+1. The standardised differences are calculated by dividing the difference between actual and observed observations in the interval (i) with the expected standard deviation of that interval. The variance (being the square of standard deviation) of the difference between actual and expected observations is approximately as follows:
Npi(1−pi) + (1/4)N(pi−1 + pi+1)(1−pi−1 −pi+1)
where N is the number of observations and pi is the probability for observation to fall into the interval i. Under the null, we would expect a normal distribution with a mean of 0 and the standard deviation of 1.

difference to the left of the benchmark range in Panel B is -0.58, which is not significantly different from 0. Furthermore, the z-score of the standardised difference in the interval to the immediate right of the benchmark range is −0.68, which is not significantly different from zero. However, the benchmark range (*Net_Income* between 0 and 0.005) has a disproportionately high number of firm years with a z-score of the standardised difference of 2.35 which is significantly different from 0. Therefore, there is a higher than expected number of charities that report zero profits. This provides limited support to the first hypothesis.

In terms of the results for *EBDA*, we find that the z-score of the standardised differences for the benchmark range and the two adjacent ranges on either side are not significantly different from zero. The interval on the left of the benchmark range in Panel B has the z-score of the standardised difference of -0.17, which is not significantly different from 0. Similarly, the z-score of the standardised difference in the interval to the immediate right of the benchmark range is −0.44, which is also not significantly different from zero and in the predicted direction. The benchmark range of the interval between 0 and -0.005 has a z-score of the standardised difference of 0.29, not significantly different from 0. This supports Leone and Van Horn's (2005) inference that managers use discretionary accruals to manage earnings to report a small surplus and avoid losses. The difference in Panels A and B of Figure 1 rejects the possibility that the kink around zero could be entirely due to operating activities. Therefore, we find limited support for hypothesis 1a, that charities are more likely to report a small surplus compared to a small deficit.

To test H_{1b}, we follow the methodology set by Leone and Van Horn (2005). We use the following model to examine the relationship between *EBDA* and discretionary accruals:

$$DACC_{it} = \alpha_0 + \beta_1 EBDA_{it} + \beta_2 Net\_Income_{it-1} + \beta_3 DACC_{it-1} + \varepsilon_{it} \quad (2)$$

Where:

$DACC_{it}$ is discretionary accruals in charity *i* in year *t* from equation (1);

$EBDA_{it}$ is earnings before discretionary accruals in charity *i* in year *t*, measured as *Net_Income* in year *t* less discretionary accruals;

Net_Income_{it-1} is net income in charity *i* in year *t-1* deflated by lagged total assets; and

ε_{it} is the error term.

In all regressions, standard errors are clustered by firm (Petersen 2009).

A negative coefficient β_1 would confirm the negative relationship between $DACC_{it}$ and $EBDA_{it}$, in line with H_{1b}. Net_Income_{it-1} is added as a control variable because there is a positive relationship between past performance and discretionary accruals for the current period. A positive sign is expected for β_2. $DACC_{it-1}$ controls for the probability of autocorrelation in discretionary accruals (e.g. Leone and Van Horn, 2005; Ferreira et al., 2013). The results are presented in table 3.

((Table 3 here))

The results in table 3 indicate that there is a negative and significant coefficient between discretionary accruals and *EBDA* (β_1 = -0.391, significant at the 1% level). Therefore, hypothesis 1b is supported, whereby there is evidence that charities use more discretionary accruals when *EBDA* are lower. In terms of the control variables, the results indicate that charities with higher past performance have lower current year discretionary accruals.

Hypothesis 1c examines fundraising expenses as a real manipulation tool to manage earnings, either upwards or downwards in pursuit of a zero-profit benchmark. Following Eldenburg et al. (2011) we compute "projected income" which signifies what net income would be if the fundraising expenses in year *t* were the same as in year *t-1*. This is calculated by computing *Net_income* before fundraising expense of year *t* and then adding back the reported fundraising costs in year *t-1*. The purpose for computing projected income is to categorise the ranges which are mainly above and below the benchmark *Net_income* range. A charity is classified within the "benchmark range" if its projected income deflated by lagged total assets falls in interval [0, 0.04). The projected income of a "far below "charity is below zero by an amount more than the fundraising expenses in *t-1* and therefore the real expense management of fundraising costs on its own will not suffice to enter the desired benchmark range. The neighbouring bins of the benchmark range is "below" on its left where a downward adjustment to the expense can help to move the charity from a small loss into the benchmark range.

Following Eldenburg et al. (2011), we hypothesise that the firms in the "below" range have incentives to move into the benchmark range. They achieve the desired range by managing fundraising expenses downwards in relation to their fundraising expenses in year *t-1*. Likewise, the firms in the "above" range have incentives to migrate into the benchmark range from the right. These firms would have incentives to achieve the benchmark range by managing fundraising expenses upwards in relation to their fundraising expenses in *t-1*.

We use the following regression to test H_{1c}:

$$\Delta FR_{it} = \alpha_0 + \beta_1 Decrease_{it} + \beta_2 Increase_{it} + \beta_3 NoPred_{it} + \beta_4 Log(Assets_{it-1}) + \beta_5 \Delta Income_{it} + \sum_{j=1}^{11} \beta_{5+j} Year_j + \varepsilon_{it} \quad (3)$$

where:

ΔFR_{it} = change in fundraising expenses in charity *i* from *t-1* to *t*, deflated by lagged total assets;

Decrease = 1 if projected income is below benchmark range ([0, 0.04)) by an amount lower than previous year's fundraising expense, 0 otherwise;

Increase = 1 if projected income is above benchmark range ([0, 0.04)) by an amount larger than previous year's fundraising expense, 0 otherwise;

NoPred= 1 if projected income is below benchmark range ([0, 0.04)) by an amount larger than previous year's fundraising expense, 0 otherwise;

$Log(Assets_{it-1})$is log of total assets in charity *i* in year *t-1*;

$\Delta Income_{it}$is change in total income in charity *i* from year *t-1* to year *t*, deflated by lagged total assets; and

$YEAR_j$ = 1 if observation is in year *j* of the sample, 0 otherwise;

All other variables are as previously defined.

The independent primary indicator variables of interest are *Increase, Decrease* and *NoPred. Increase* and *Decrease* in the multivariate regression model represent the charity years for which we expect managers to manage fundraising expenditure upwards and downwards respectively (corresponding to the "above" and "below" classifications discussed above). The *NoPred* variable indicates the firm-years which are "far below" the benchmark range and hence the direction of manipulation cannot be predicted. Following the extant literature, we use the log of total assets to control for the charity size and $\Delta Income$ to control for changes in ordinary operations from *t-1* to *t*. Hypothesis 1b is supported if we find a negative sign for $\beta_1$and a positive sign for β_2. The results are presented in table 4.

((Table 4 here))

Consistent with H_{1c}, the charities with negative (positive) projected net income decrease (increase) fundraising expenses to achieve the target benchmark net income. The coefficient estimate on *Decrease* is -0.091 and significant at the 1% significance level. The coefficient estimate on *Increase* is 0.021 and significant at the 1% level. Similarly, the charities far below the benchmark range also decrease their fundraising expenses, presumably in their effort to reduce their deficit.

4.2 Accrual manipulation and type of funders

In this section we examine whether AEM will differ in alternative types of charities. Specifically, hypotheses 2a, 3a and 4a relate to AEM in sophisticated funders, endowment funders, and service-oriented charities, respectively. We use the following regressions to test these hypotheses:

$$DACC_{it} = \alpha_0 + \beta_1 EBDA_{it} + \beta_2 Funder\_Type_{it} + \beta_3 EBDA_{it} * Funder\_Type_{it} + \beta_4 Net\_Income_{it-1} + \beta_5 DACC_{it-1} + \varepsilon_{it} \quad (4)$$

Where *Funder_Type* is either *Sophisticated, Endowment, or Service*.

Sophisticated is a dummy variable equal to 1 if the charity has above-median restricted funds within its respective nonprofit classification, and 0 otherwise;

Endowment is a dummy variable equal to 1 if the charity has above-median endowment fund ratio (end of year endowment fund divided by total funds) within its respective nonprofit classification, and 0 otherwise;

Service is a dummy variable equal to 1 if the charity has above-median PSR to total revenue within its respective nonprofit classification, and 0 otherwise;

All other variables are as previously defined.

The results of the regressions are tabulated in table 5. The coefficient on the interaction of charities with more sophisticated donors with EBDA is significantly positive at the 5% significance level (coefficient 0.026; p=0.045), suggesting that a charity with more sophisticated donors is less likely to manipulate earnings using discretionary accruals, in line with H_{2a}. Similarly, nonprofits that receive their largest funds from endowments are less likely to manipulate the earnings figure (coefficient 0.066; p=0.003), supporting H_{3a}. This can be explained by a regularly assured stream of income from an endowment, pointing to a lower persistent resource dependency from the endowing funders of an endowed nonprofit.

((Table 5 here))

The results therefore show that the charities which are funded by sophisticated and often large donors (Balsam and Harris, 2014) are less likely to manipulate the earnings to a small surplus benchmark employing accruals manipulation. On the contrary, the charities with unsophisticated funders, comprising often smaller donors are more likely to manipulate the bottom line through AEM. This observation may point to relatively intricate scrutiny which is expected to be beyond the skill or even motivation of the average donor. This finding is in line with Yetman and Yetman (2013), who study programme ratios and report that sophisticated donors apply discounts to accounting manipulation. The finding extends this to AEM. In order to disentangle the complexities of AEM, small and unsophisticated donors would require data across charities and time. To analyse "normal" levels of accruals and any deviations, they would need to utilise statistical models which are far more formal than "heuristics" (Yetman and Yetman, 2013) for an unsophisticated funder. Tinkelman (1998) uses the size of donors as a proxy for their sophistication. They find that larger donors are more likely to discount joint cost disclosures relative to smaller (less sophisticated) donors, whereas Khumawala et al. (2005) find that expert donors are less likely to discount joint cost disclosures relative to novice donors. The heightened government oversight is associated with lower financial reporting aggressiveness through AEM (Koreff et al., 2020).

The results for service-oriented charities are tabulated in the third set of results of table 5, illustrating that they are more likely than their charitable counterparts to manipulate the bottom-line earnings through AEM. Specifically, the coefficient on the interaction of service-oriented charities with *EBDA* is significantly negative (coefficient -0.114; p=0.000), thus supporting H_{4a}.

The increase in AEM is consistent with the notion that the demand for financial reporting increases as the donor's direct involvement with the recipient organisation decreases (Gordon and Khumawala, 1999; Balsam and Harris, 2014). Therefore AEM is more likely when users refer to financial statements relatively less to other information sources (Balsam and Harris, 2014). As financial statements become more relevant for charitable nonprofits with a bigger donor-recipient separation, the accounting-based manipulation may be less desirable due to its detectability through financial statements. Another possible explanation could be that the donations from small donors are hard to accrue, hence the opportunity for the income-based earnings management may be less available to charitable nonprofits. On the other hand, when

there are large contracts, where the payment periods can shift between periods there is a more likelihood of subjectivity in income recognition.

4.3 Real activities manipulation and type of funders

To test the remaining hypotheses investigating the prevalence of real manipulation around the zero benchmark, with respect to the type of funder, we include an interaction term to equation (3). In this equation, we examine the interaction of *Increase*, *Decrease* and *NoPred* with indicator variables representing sophisticated funders, endowment funds, and service-oriented funding.

$$\Delta FR_{it} = \alpha_0 + \beta_1 Decrease_{it} + \beta_2 Increase_{it} + \beta_3 NoPred_{it} + \beta_4 Funder\_Type_{it} + \beta_5 Decrease_{it} * Funder\_Type_{it} + \beta_6 Increase_{it} * Funder\_Type_{it} + \beta_7 NoPred_{it} * Funder\_Type_{it} + \beta_8 Log(Assets_{it}) + \beta_9 \Delta Income_{it} + \sum_{j=1}^{11} \beta_{9+j} YEAR_j + \varepsilon_{it} \quad (5)$$

Where all variables have been previously defined.

As discussed earlier the sophisticated donors have a detailed direct scrutiny or monitoring because of higher than median level of restricted donations. An increased level of restricted donations implies increased monitoring by the donors relative to the nonprofits funded by unrestricted income from less sophisticated donors. We thus expect such interaction will decrease the likelihood of REM employing the fundraising expenses. These results can be found in the first set of columns in table 6. We find that the coefficient on the interaction of the indicator variable *Sophisticated* with *Decrease* is significantly positive (coefficient 0.016; p=0.002). The coefficient of the interaction with *Increase* is significantly negative (coefficient -0.007; p=0.001). These results suggest that a charity funded predominantly by sophisticated donors, who place restrictions on the use of their funds, is less likely to employ real earnings management using fundraising expenses from either side of the benchmark. The coefficient on the interaction of *Sophisticated* with *NoPred* is not significant, indicating that the sophistication of a charity's funders does not affect the willingness of nonprofit managers, when their projected income is far below the benchmark range. These results confirm our expectations in H_{2b}.

((Table 6 here))

The second set of results in table 6 relates to endowment funds. Consistent with H8, the coefficient on the interaction of the indicator variable *Endowment* with *Decrease* is

significantly positive (coefficient 0.07; p=0.000) and that with *Increase* is significantly negative (coefficient -0.013; p=0.000). This suggests that a charity funded predominantly through endowment income, from the donors who also tend to be sophisticated, placing restrictions on the use of funds, is less likely to employ real earnings management using fundraising expenses from either side of the benchmark. The coefficient on the interaction of *endowed charity* with *NoPred* is significantly positive, indicating that the endowment charities are less likely to manage fundraising expenses downwards to reduce large deficits. This again is in line with H_{3b}.

The final hypothesis (H_{4b}) refers to the impact of the interaction with service-oriented nonprofits, which by design have a higher level of direct scrutiny due to a low donor-beneficiary distance. On the contrary, the donors of more charitable nonprofits are predominantly disparate donors who are not the beneficiaries of the charity. Hence, the reliance on a more detailed study of the financial statements is expected relative to their more service-oriented counterparts that have other direct sources of information of a charity's services. The results appear in the final columns of table 6. The coefficient on the interaction of the indicator variable, *Service*, with *Decrease* is not significant and that with *Increase* is significantly negative (coefficient -0.015; p=0.000) suggesting that a service-oriented charity is less likely to employ real earnings management to increase fundraising expenses to reduce net income. It may be that a service-oriented charity would be more concerned to shift its deficit into the benchmark than reducing its income employing REM; avoiding it looking financially unviable to a contract-providing authority. On the contrary, the coefficient on the interaction of service-oriented charity with *NoPred* is significantly positive (coefficient 0.014; p=0.000). There are two possible explanations to explain this. It may be an indication that a service-oriented charity is less likely to manage its fundraising costs than its charitable nonprofit counterpart to move towards the benchmark range when it makes a very large deficit, like in the case of a small deficit. Alternatively, it may take a "bath" by employing REM to increase the expenses further by bringing them forward (Eldenburg et al., 2011), hence shifting discretionary expenditures from future periods to the current period. Such practice can potentially improve the chances of achieving the benchmark in the next period, when the probability to convert loss into surplus would otherwise be remote.

4.4 Robustness tests

We conduct several robustness tests to ensure the validity of our results. First, we re-estimate the estimation regression (1) to measure discretionary accruals using Kothari et al. (2005), by adding either return on assets for the current year (ROA_t) or previous year (ROA_{t-1}) as a control variable for the effect of performance on measured discretionary accruals. We estimate the regressions by industry and year and find the results are qualitatively similar using either the current year (ROA_t) or the previous year (ROA_{t-1}) to those reported in the main analysis.

Second, we re-estimate all results (equations 2-4) by adding log of total assets and change in net income as additional control variables. The results are qualitatively similar. For example, the coefficient on *EBDA* in equation (2) is as -0.44 and significant. For the results in equation (3), although the interaction coefficient on sophisticated charity is not significant, the endowment charity interaction remains significantly positive with the coefficient 0.044, supporting a weaker negative relationship between *DACC* and *EBDA*. The results for the service-oriented charities are also similar with a significantly negative interaction coefficient of -0.1, confirming a higher degree of AEM for service-oriented charities.

Third, we use continuous variables, rather than dichotomous variables as proxies for sophistication and donor-beneficiary separation in the main analysis. The continuous variable for sophistication is the restricted funds as a ratio of total funds, and we use PSR as a ratio of total income to proxy for donor-beneficiary separation. The results are qualitatively similar to the results tabulated for the main analysis.

Fourth, to address the possible mechanical relation between discretionary accruals and *EBDA*, following Leone and Van Horn (2005) and Vansant (2016), we substitute *EBDA* with *EBAE* i.e. earnings before total accrual expenses. To calculate *EBAE* we add back total accruals to net income. The results are similar to those for the main analysis. In equation (2), when *DACC* is used as the dependent variable, the coefficient on *EBAE* is -0.45 and significant. All other results are qualitatively similar.

Finally, in the main tests, we use bin widths for *Net_Income* of 0.004 and 0.006. The results are qualitatively the same.

5. Conclusion

This study investigates both accrual and real manipulation in charities around a significant benchmark: zero net income, with a focus on the type of funders within the charities. Our main

findings are that nonprofits use both accrual and real manipulation to avoid a large surplus and deficit. This is also found to be affected by the sophistication of funders and donor-beneficiary distance. Specifically, charities that are funded by sophisticated donors or those with large endowment funds, are less likely to manage earnings using AEM or REM.

We also investigate manipulation in service-oriented charities that are dependent mainly on public support through programme revenue from government grants or contracts. We find these charities to be less manipulative in targeting a small surplus employing real accounts manipulation (i.e. fundraising costs). This could be because a low donor-recipient separation would make abnormal changes to fundraising costs more noticeable and hence reduce their preference as a tool for earnings management. This may also be because such charities resort mainly to accrual manipulation techniques as a substitute during the year.

Overall, the oversight for real spending appears better for service-oriented charities, presumably, due to a low donor-recipient separation, through better supervision of charity funds. Possibly, the reduced desire for real accounts manipulation points to a better awareness of the adverse effects of this on future performance compared to the accounting-based earning management.

We also find differences between small and large charities. Specifically, larger charities are less likely to manage earnings by altering fundraising costs. Given that the size of a firm is used as a proxy of management sophistication in prior literature, these findings support the argument that real manipulation is seen as more dysfunctional, hence sophisticated donors and managers are comparatively less inclined to employing it.

As with all research, there are limitations to this study. There may be certain charities that are temporarily targeting a particular funding source whilst making accounting or expense-related decisions, hence cannot practically have typical attributes of its particular taxonomy. Similarly, a complex mix of funding from programme, fundraising, restricted, and unrestricted income sources could make a manager's job more difficult to predict than a manager of a nonprofit that belongs to a clearly defined classification.

In terms of future research, a better understanding of the interplay between AEM and REM would make a useful addition to this work. Similarly, the addition of variables related to high quality audits as a monitoring mechanism will help in understanding management's behaviour purely due to monitoring.

The study of the impact of AEM and REM on future performance would also have important policy implications. For-profit earnings management research points to a more severe impact on a firm's future health when it engages in real manipulation (e.g. Cohen and Zarowin, 2010; Kim and Sohn, 2013). Empirical evidence to test the same for nonprofits will have implications for several stakeholders. This could be linked with a corporate governance study of charities such as to assess whether highly-paid CEOs prefer one type or the other.

References

Amin, K., & Harris, E. E. (2017). Nonprofit stakeholder response to going-concern audit opinions. *Journal of Accounting, Auditing & Finance*, *32*(3), 329-349.

Arcas, M. J., & Martí, C. (2016). Financial performance adjustment in English local governments. *Australian Accounting Review*, *26*(2), 141-152.

Baber, W. R., Fairfield, P. M., & Haggard, J. A. (1991). The effect of concern about reported income on discretionary spending decisions: The case of research and development. *The Accounting Review*, 818-829.

Ballantine, J., Forker, J., & Greenwood, M. (2007). Earnings management in English NHS hospital trusts. *Financial Accountability & Management*, *23*(4), 421-440.

Balsam, S., & Harris, E. E. (2014). The impact of CEO compensation on nonprofit donations. *The Accounting Review*, *89*(2), 425-450.

Bartov, E. (1993). The timing of asset sales and earnings manipulation. *The Accounting Review*, 840-855.

Beck, A. W. (2018). Opportunistic financial reporting around municipal bond issues. *Review of Accounting Studies*, *23*(3), 785-826.

Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics*, *80*(3), 511-529.

Bouwens, J., Hollander, S., & Schaepkens, F. (2004). *Accountability in (not-for-profit) hospitals: evidence of calculative management*. Working paper.

Burgstahler, D., & Dichev, I. (1997). Earnings management to avoid earnings decreases and losses. *Journal of Accounting & economics*, *24*(1), 99-126.

Bushee, B. J. (1998). The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review*, 305-333.

Calabrese, T. (2013). Running on empty: The operating reserves of US nonprofit organizations. *Nonprofit Management & Leadership*, *23*(3), 281-302.

Cheng, Q., & Warfield, T. D. (2005). Equity incentives and earnings management. *The Accounting Review*, *80*(2), 441-476.

Cheng, Q., Lee, J., & Shevlin, T. (2015). Internal governance and real earnings management. *The Accounting Review*, *91*(4), 1051-1085.

Chi, W., Lisic, L. L., & Pevzner, M. (2011). Is enhanced audit quality associated with greater real earnings management? *Accounting Horizons*, *25*(2), 315-335.

Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre-and post-Sarbanes-Oxley periods. *The Accounting Review*, *83*(3), 757-787.

Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting & Economics*, *50*(1), 2-19.

Dechow, P. M., & Sloan, R. G. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of Accounting & Economics*, *14*(1), 51-89.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting review*, 193-225.

DeFond, M. L., & Jiambalvo, J. (1994). Debt covenant violation and manipulation of accruals. *Journal of Accounting & Economics*, *17*(1-2), 145-176.

Degeorge, F., Patel, J., & Zeckhauser, R. (1999). Earnings management to exceed thresholds. *The Journal of Business*, *72*(1), 1-33.

Drees, J. M., & Heugens, P. P. (2013). Synthesizing and extending resource dependence theory: A meta-analysis. *Journal of Management*, *39*(6), 1666-1698.

Eldenburg, L. G., Gunny, K. A., Hee, K. W., & Soderstrom, N. (2011). Earnings management using real activities: Evidence from nonprofit hospitals. *The Accounting Review*, *86*(5), 1605-1630.

Ferreira, A., Carvalho, J., & Pinho, F. (2013). Earnings Management Around Zero: A motivation to local politician signalling competence. *Public Management Review*, *15*(5), 657-686.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting & Economics*, *40*(1-3), 3-73.

Gaver, J. J., & Im, S. M. (2014). Funding sources and excess CEO compensation in not-for-profit organisations. *Accounting Horizons*, *28*(1), 1-16.

Gore, P., Pope, P. F., & Singh, A. K. (2007). Earnings management and the distribution of earnings relative to targets: UK evidence. *Accounting & Business Research*, *37*(2), 123-149.

Greenwood, M. J., Baylis, R. M., & Tao, L. (2017). Regulatory incentives and financial reporting quality in public healthcare organisations. *Accounting & Business Research*, *47*(7), 831-855.

Gunny, K. A. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research*, *27*(3), 855-888.

Guo, J., Huang, P., Zhang, Y., & Zhou, N. (2015). Foreign ownership and real earnings management: Evidence from Japan. *Journal of International Accounting Research*, *14*(2), 185-213.

Hansmann, H. B. (1980). The role of nonprofit enterprise. *The Yale law journal*, *89*(5), 835-901.

Herrmann, D., Inoue, T., & Thomas, W. B. (2003). The sale of assets to manage earnings in Japan. *Journal of Accounting Research*, *41*(1), 89-108.

Hoerger, T. J. (1991). 'Profit' variability in for-profit and not-for-profit hospitals. *Journal of Health Economics*, *10*(3), 259-289.

Ibrahim, S., & Lloyd, C. (2011). The association between non-financial performance measures in executive compensation contracts and earnings management. *Journal of Accounting & Public Policy*, *30*(3), 256-274.

Jegers, M. (2010). The effect of board-manager agency conflicts on non-profit organisations' earnings and cost allocation manipulations. *Accounting and Business Research*, *40*(5), 407-419.

Jegers, M. (2013). Do nonprofit organisations manage earnings? An empirical study. *VOLUNTAS: International Journal of Voluntary & Nonprofit Organisations*, *24*(4), 953-968.

Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research*, *29*(2), 193-228.

Jones, C. L., & Roberts, A. A. (2006). Management of financial information in charitable organizations: The case of joint-cost allocations. *The Accounting Review*, *81*(1), 159-178.

Kahneman, D., & Tversky, A. (2013). Prospect theory: An analysis of decision under risk. In *Handbook of the Fundamentals of Financial Decision Making: Part I* (pp. 99-127).

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *science*, *185*(4157), 1124-1131.

Gordon, T. P., & Khumawala, S. B. (1999). The demand for not-for-profit financial statements: A model of individual giving. *Journal of Accounting Literature*, *18*, 31.

Khumawala, S. B., Parsons, L. M., & Gordon, T. P. (2005). TRACKS: Assessing the quality of not-for-profit efficiency ratios: Do donors use joint cost allocation disclosures?. *Journal of Accounting, Auditing & Finance*, *20*(3), 287-309.

Koreff, J., Robb, S. W., & Trompeter, G. (2020). The Sentinel Effect and Financial Reporting Aggressiveness in the Healthcare Industry. *Accounting Horizons*, 34(1): 131–149.

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting & Economics*, *39*(1), 163-197.

Kothari, S. P., Mizik, N., & Roychowdhury, S. (2015). Managing for the moment: The role of earnings management via real activities versus accruals in SEO valuation. *The Accounting Review*, *91*(2), 559-586.

Krishnan, R., & Yetman, M. H. (2011). Institutional drivers of reporting decisions in nonprofit hospitals. *Journal of Accounting Research*, *49*(4), 1001-1039.

Leone, A. J., & Van Horn, R. L. (2005). How do nonprofit hospitals manage earnings?. *Journal of Health Economics*, *24*(4), 815-837.

Ling, Q., & Roberts, A. A. (2017). Identical program ratios: A red flag of ratio management. Working paper, a*vailable at:* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2929649.

Loftin, L. (1998). Protecting the charitable investor: A rationale for donor enforcement of restricted gifts. *Boston University Public Interest Law Journal*, *8*, 361.

Nguyen, T., & Soobaroyen, T. (2019). Earnings Management by Non-profit Organisations: Evidence from UK Charities. *Australian Accounting Review*, *29*(1), 124-142.

Parsons, L. M., Pryor, C., & Roberts, A. A. (2017). Pressure to manage ratios and willingness to do so: Evidence from nonprofit managers. *Nonprofit & Voluntary Sector Quarterly*, *46*(4), 705-724.

Peasnell, K. V. (1998). Discussion of" Earnings management using asset sales: an international study of countries allowing asset revaluation". *Journal of Business Finance & Accounting*, *25*, 1319-1324.

Peasnell, K. V., Pope, P. F., & Young, S. (1999). Accrual management to meet earnings targets: did Cadbury make a difference? Working paper, available at: https://ssrn.com/abstract=163990 or http://dx.doi.org/10.2139/ssrn.163990.

Pfeffer J. and G.R. Salancik (1978). The External Control of Organizations: A Resource Dependency Perspective, New York, Harper and Row.

Pilcher, R., & Van Der Zahn, M. (2010). Local governments, unexpected depreciation and financial performance adjustment. *Financial Accountability & Management*, *26*(3), 299-324.

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting & Economics*, *42*(3), 335-370.

Salamon, L. M., & Anheier, H. K. (1996). *The international classification of nonprofit organisations: ICNPO-Revision 1, 1996*. Baltimore Mar: Johns Hopkins University Institute for Policy Studies.

Salamon, L. M., Sokolowski, S. W., & Haddock, M. A. (2011). Measuring the economic value of volunteer work globally: Concepts, estimates, and a roadmap to the future. *Annals of Public and Cooperative Economics*, *82*(3), 217-252.

Silverman, R. E., & Beatty, S. (2006). Save the children (but pay the bills, too); with donors balking at overhead, charities make the case for funding administrative costs. *Wall Street Journal*, (December 26), D1.

Stalebrink, O. J. (2007). An Investigation of Discretionary Accruals and Surplus-Deficit Management: Evidence From Swedish Municipalities. *Financial Accountability & Management*, *23*(4), 441-458.

Tinkelman, D. (1998). Differences in sensitivity of financial statement users to joint cost allocations: The case of nonprofit organisations. *Journal of Accounting, Auditing & Finance*, *13*(4), 377-393.

Verbruggen, S., Christiaens, J., Reheul, A. M., & Van Caneghem, T. (2011). Audit pricing in a reformed nonprofit market. Working paper, available at: https://econpapers.repec.org/paper/hubwpecon/201129.htm.

Verbruggen, S., & Christiaens, J. (2012). Do Non-profit Organisations Manage Earnings toward Zero Profit and Does Governmental Financing Play a Role?. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *29*(3), 205-217.

Weisbrod, B. A. (2009). *The nonprofit economy*. Harvard University Press.

Weisbrod, B. A. (1977). The voluntary nonprofit sector: An economic analysis.

Xu, R. Z., Taylor, G. K., & Dugan, M. T. (2007). Review of real earnings management literature. *Journal of Accounting Literature*, *26*, 195.

Yetman, M. H., & Yetman, R. J. (2013). Do donors discount low-quality accounting information? *The Accounting Review*, *88*(3), 1041-1067.

Table 1: Descriptive Statistics
The table presents descriptive statistics of all variables used in the study

Variable	N	Mean	Median	Std. Dev.	25%	75%
$Income_t$	103,469	1.46	0.86	1.94	0.38	1.79
$\Delta Income_t$	88,739	0.04	0.01	0.39	-0.04	0.11
Net_Income_t	88,743	0.06	0.02	0.22	-0.02	0.08
$Log(Assets_t)$	103,469	14.81	14.66	1.71	13.52	15.98
$FR\ Expenses_t$	103,469	0.08	0.00	0.22	0.00	0.04
$\Delta FR\ Expenses_t$	88,739	-0.01	0.00	0.10	0.00	0.00
ACC_t	88,743	-0.03	-0.02	0.2	-0.07	0.02
ΔREV_t	88,743	0.07	0.01	0.48	-0.05	0.12
PPE_t	88,743	0.54	0.62	0.40	0.10	0.88
ROA_t	103,469	0.04	0.02	0.20	-0.02	0.09
$DACC_t$	88,731	0.00	0.01	0.19	-0.05	0.05
$EBDA_t$	88,731	0.06	0.01	0.29	-0.06	0.12

All variables are defined in Appendix 2.

Table 2: Correlation

Panel A: Spearman (Below)/Pearson (Above) Correlation Matrix for AEM measures

Variable	Net_Income_t	ACC_t	$\Delta INCOME_t$	PPE_t	ROA_t	$DACC_t$	$EBDA_t$
Net_Income_t	1	0.191	0.404	-0.004	0.899	0.026	0.788
ACC_t	0.151	1	-0.183	-0.033	0.221	0.921	-0.390
$\Delta INCOME_t$	0.331	-0.174	1	-0.045	0.321	0.000	0.336
PPE_t	-0.023	-0.035	-0.033	1	0.062	0.000	-0.004
ROA_t	0.997	0.160	0.329	-0.027	1	0.000	0.727
$DACC_t$	-0.103	0.832	-0.069	0.049	-0.098	1	-0.568
$EBDA_t$	0.699	-0.400	0.288	-0.045	0.693	-0.662	1

Panel B: Spearman (Below)/Pearson (Above) Correlation Matrix for REM measures

Variable	$Income_t$	$\Delta Income_t$	$Log(Assets_t)$	$FR\ Expenses_t$	$\Delta FR\ Expenses_t$
$Income_t$	1	0.150	-0.589	0.298	-0.033
$\Delta Income_t$	0.236	1	-0.040	0.042	0.119
$Log(Assets_t)$	-0.750	-0.088	1	-0.216	0.043
$FR\ Expenses_t$	0.129	0.040	-0.048	1	0.260
$\Delta FR\ Expenses_t$	0.007	0.104	0.022	0.310	1

All variables are defined in Appendix 2.

Table 3: Tests of AEM in charities

The table presents results of the regression of the form:

$$DACC_{it} = \alpha_0 + \beta_1 EBDA_{it} + \beta_2 Net\_Income_{it-1} + \beta_3 DACC_{it-1} + \varepsilon_{it} \quad (2)$$

Independent Variable	Prediction	Coeff	P-value
Intercept		0.021	0.000***
$EBDA_t$	-	-0.391	0.000***
Net_Income_{t-1}	+	-0.062	0.000***
$DACC_{t-1}$		-0.181	0.000***
Observations		74,319	
R^2		0.35	

All variables are defined in Appendix 2.

*** represents significance at the 1% level.

Table 4: Test of REM in charities

The table presents results of the regression of the form:

$$\Delta FR_{it} = \alpha_0 + \beta_1 Decrease_{it} + \beta_2 Increase_{it} + \beta_3 NoPred_{it} + \beta_4 Log(Assets_{it-1}) + \beta_5 \Delta Income_{it} + \sum_{j=1}^{11} \beta_{5+j} Year_j + \varepsilon_{it} \quad (3)$$

Independent Variables	Prediction	Coeff	P-Value
Intercept		0.082	0.000***
$Decrease_t$	-	-0.100	0.000***
$Increase_t$	+	0.022	0.000***
$NoPred_t$	?	-0.012	0.000***
$Log(Assets_t)$		-0.006	0.000***
$\Delta Income_t$		0.013	0.000***
Year Indicators		Yes	
Observations		86,777	
R^2		0.13	

All variables are defined in Appendix 2.

*** represents significance at the 1% level.

Table 5: Tests of AEM in charities related to type of funder

The table presents results of regressions of the form:

$$DACC_{it} = \alpha_0 + \beta_1 EBDA_{it} + \beta_2 Funder\_Type_{it} + \beta_3 EBDA_{it} * Funder\_Type_{it} + \beta_4 Net\_Income_{it-1} + \beta_5 DACC_{it-1} + \varepsilon_{it} \quad (4)$$

Where Funder_Type is either Sophisticated, Endowment, or Service

		Sophisticated		*Endowment*		*Service*	
Independent Variable	Prediction	Coeff	P-Value	Coeff	P-Value	Coeff	P-Value
Intercept		0.013	0.000***	0.021	0.000***	0.028	0.000***
$EBDA_t$	-	-0.407	0.000***	-0.396	0.000***	-0.337	0.000***
$Sophisticated_t$	?	0.015	0.000***				
$Endowment_t$	?			-0.002	0.691		
$Service_t$	?					-0.011	0.000***
$EBDA_t * Sophisticated_t$	+	0.026	0.045**				
$EBDA_t * Endowment_t$	+			0.066	0.003***		
$EBDA_t * Service_t$	?					-0.114	0.000***
Net_Income_{t-1}	+	-0.062	0.000***	-0.062	0.000***	-0.060	0.000***
$DACC_{t-1}$	?	-0.181	0.000***	-0.181	0.000***	-0.180	0.000***
Observations		74,319		74,319		74,319	
R^2		0.35		0.35		0.36	

All variables are defined in Appendix 2.

*** and ** represent significance at the 1% and 5% levels, respectively.

Table 6: Test of REM in charities related to type of funder

The table presents results of regressions of the form:

$\Delta FR_{it} = \alpha_0 + \beta_1 Decrease_{it} + \beta_2 Increase_{it} + \beta_3 NoPred_{it} + \beta_4 Funder\_Type_{it} + \beta_5 Decrease_{it} * Funder\_Type_{it} + \beta_6 Increase_{it} * Funder\_Type_{it} + \beta_7 NoPred_{it} * Funder\_Type_{it} + \beta_8 Log(Assets_{it}) + \beta_9 \Delta Income_{it} + \sum_{j=1}^{11} \beta_{9+j} YEAR_j + \varepsilon_{it}$ *(5)*

Where Funder_Type is either Sophisticated, Endowment, or Service

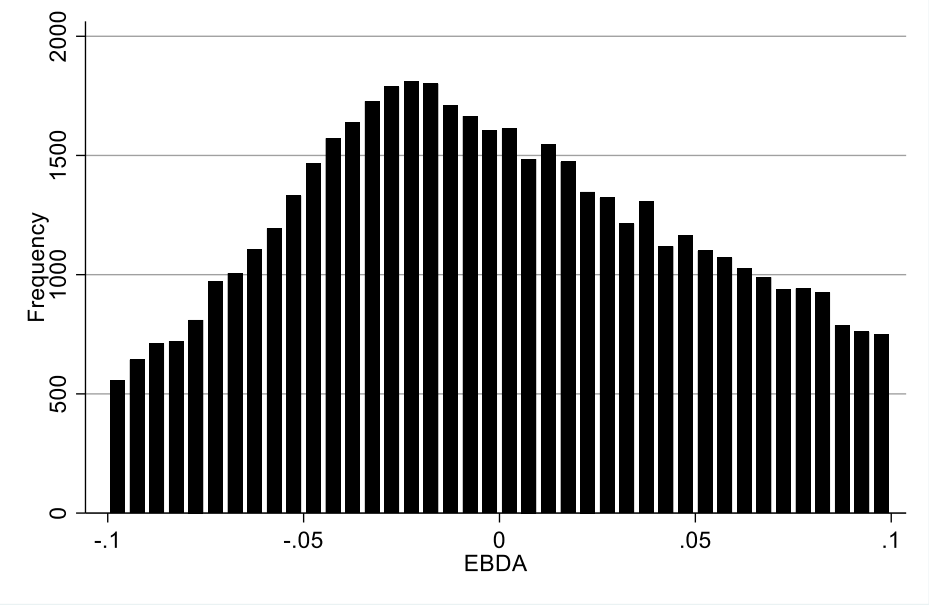
		Sophisticated		*Endowment*		*Service*	
Independent Variable	Prediction	Coeff	P-Value	Coeff	P-Value	Coeff	P-Value
Intercept		0.081	0.000***	0.084	0.000***	0.087	0.000***
$Decrease_t$	-	-0.109	0.000***	-0.110	0.000***	-0.098	0.000***
$Increase_t$	+	0.025	0.000***	0.023	0.000***	0.030	0.000***
$NoPred_t$	?	-0.011	0.000***	-0.014	0.000***	-0.020	0.000***
$Sophisticated_t$	-	-0.001	0.636				
$Endowment_t$	-			-0.002	0.473		
$Service_t$	?					-0.004	0.073*
$Decrease_t * Sophisticated_t$	+	0.016	0.002***				
$Increase_t * Sophisticated_t$	-	-0.007	0.001***				
$NoPred_t * Sophisticated_t$	?	-0.002	0.355				
$Decrease_t * Endowment_t$	+			0.065	0.000***		
$Increase_t * Endowment_t$	-			-0.013	0.000***		
$NoPred_t * Endowment_t$	?			0.009	0.000***		
$Decrease_t * Service_t$	?					-0.001	0.901
$Increase_t * Service_t$	?					-0.015	0.000***
$NoPred_t * Service_t$	?					0.014	0.000***
$Log(Assets_t)$		-0.006	0.000***	-0.006	0.000***	-0.006	0.000***
$\Delta Income_t$		0.013	0.000***	0.012	0.000***	0.012	0.000***
Year Indicators		Yes		Yes		Yes	
Observations		86,777		86,777		86,777	
R^2		0.13		0.13		0.13	

All variables are defined in Appendix 2.

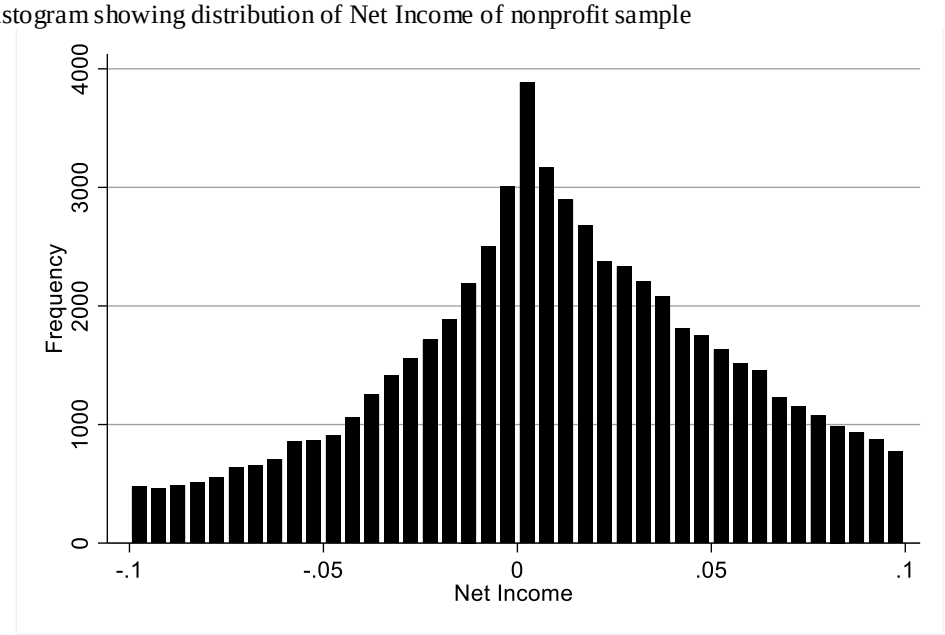
*** and * represent significance at the 1% and 10% levels, respectively.

Figure 1: EBDA and net income histograms

Panel A: Histogram showing distribution of earnings before discretionary accruals (EBDA) of nonprofit sample



Panel B: Histogram showing distribution of Net Income of nonprofit sample



Appendix 1: International Classification of Nonprofit Organizations (ICNPO)

Group	Description
Group 1	Culture and recreation
Group 2	Education and research
Group 3	Health
Group 4	Social services
Group 5	Environment
Group 6	Development and housing
Group 7	Law, advocacy and politics
Group 8	Philanthropic intermediaries and voluntarism promotion
Group 9	International
Group 10	Religion
Group 11	Business and professional associations, unions
Group 12	Not elsewhere classified

Appendix 2: Variable definitions

Variable	Definition
$Income_t$	Income in year t (similar to revenues in for-profit organisations), deflated by lagged total assets
$\Delta Income_t$	Change in Income from year t-1 to t, deflated by lagged total assets
Net_Income_t	Net income in year t, deflated by lagged total assets
$Log(Assets_t)$	Natural logarithm of total assets in year t
FR_t	Fundraising expenses in year t, deflated by lagged total assets
ΔFR_t	Change in fundraising expenses from t-1 to t, deflated by lagged total assets
ACC_t	Accruals in year t, deflated by lagged total assets
ΔREV_t	Change in revenues from year t-1 to year t, deflated by lagged total assets
PPE_t	Property, plant, and equipment in year t, deflated by lagged total assets
ROA_t	Return (Net Income) on assets in year t measured as net income in year t divided by total assets in year t
$DACC_t$	Discretionary accruals in year t
$EBDA_t$	Earnings before discretionary accruals in year t, measured as net income in year t less discretionary accruals
$Sophisticated_t$	Dummy variable equal to 1 if the charity has above-median restricted funds within its respective nonprofit industry classification, and 0 otherwise
$Endowment_t$	Dummy variable equal to 1 if the charity has above-median endowment fund ratio (end of year endowment fund divided by total funds) within its respective nonprofit industry classification, and 0 otherwise
$Service_t$	Dummy variable equal to 1 if the charity has above-median programme service revenue to total revenue within its respective nonprofit industry classification, and 0 otherwise
$Decrease_t$	Dummy variable equal to 1 if projected income is below benchmark range ([0, 0.04)) by an amount lower than previous year's fundraising expense, and 0 otherwise
$Increase_t$	Dummy variable equal to 1 if projected income is above benchmark range ([0, 0.04)) by an amount higher than previous year's fundraising expense, and 0 otherwise
$NoPred_t$	Dummy variable equal to 1 if projected income is below benchmark range ([0, 0.04)) by an amount larger than previous year's fundraising expense, and 0 otherwise