



Does Compliance with the UK Stewardship Code
by Institutional Investors Enhance Investee
Earnings Quality?

Presented by

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Abstract

This thesis examines whether compliance with the UK Stewardship Code (the Code) by institutional investors influences their investee companies' earnings quality. The Code sets out the principles of effective stewardship for UK institutional investors, and aims to encourage them to better exercise governance responsibilities toward investee companies. This thesis tests whether Code compliance strengthens the relation between investment duration and size and earnings quality. The findings show no significant evidence indicating that Code compliance enhances investee companies' earnings quality. The study also presents content analysis of compliance disclosure and an index is developed of Code compliance quality. Subsequent analysis allowing for variation in Code compliance quality still fails to indicate any significant relation with reported earnings quality.

This study is one of the first attempts to test the effectiveness of the UK Stewardship Code. It provides valuable insights regarding the policy approach that underpins the Code as a method of improving corporate governance and provides a reference for further revision

and development of the Code by policymakers.

Declaration

This thesis is submitted to Bond University in fulfilment of the requirements of the degree of Master of Philosophy. This thesis represents my own original work towards this research degree and contains no material which has been previously submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

Chun Lu

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Chapter 1 Introduction

1.1 Research Background

This study examines the impact of the UK Stewardship Code (hereafter ‘the Code’), a code of governance applicable to institutional investors with an equity holding in UK listed companies, based on the earnings quality of their investee companies. First published in 2010, and updated in 2012, the aim of the Code is to enhance the quality of engagement between asset managers and companies to help improve long-term risk-adjusted returns to shareholders (Financial Reporting Council, 2012).

The Code was developed by the Institutional Shareholders’ Committee (ISC) in response to a call for institutional investors to take a more active role in the corporate governance of their investee companies. The passiveness of institutional investors was perceived as a major shortcoming of the UK system (Goergen et al., 2008). The Code aims to provide guidance that enhances the quality of dialogue between investors and their

investee companies, and facilitates the exercise of good governance (Financial Reporting Council, 2012). Arsalidou (2012, p343) comments that the UK Stewardship Code 'is an important attempt to redress the balance in the corporate governance matrix...' and that 'the Code is the first of its type in the world'.

The development of a 'Stewardship Code' for institutional investors is part of a worldwide response to high profile corporate failures in recent decades, which have been attributed in part to poor corporate governance. Many countries have published Codes of Corporate Governance for publicly listed companies. The Index of Codes published by the European Corporate Governance Institute (ECGI, 2014), shows that over sixty countries have developed corporate governance guidelines. However, the UK was the first to develop a code of governance specifically for institutional investors. Following their lead, only Japan has since adopted this approach with the release in 2014 of the 'Principles for Responsible Institutional Investors'.

1.2 The UK Stewardship Code

Institutional investors were first acknowledged as having stewardship responsibilities for their investee companies in the 1992 Cadbury Report, which contained brief recommendations on their governance role. Subsequently, the Greenbury Report (1995) and the Hampel Report (1998) included recommendations for institutional investors regarding their disclosure, engagement and monitoring functions. The resulting general UK Governance Codes of 1998 and 2003 only included recommendations for institutional investors to maintain a dialogue with the boards of investee companies.

The origins of the UK Stewardship Code, which is specifically for institutional investors, can be traced to 2002 when the Institutional Shareholders Committee (ISC) published ‘The Responsibilities of Institutional Shareholders and Agents: Statement of Principles’. This document was a response to the call for institutional investors to take an active role in the corporate governance of investee companies. The Statement of

Principles was later adopted and converted to a code by the ISC in 2009. Later in the same year, the Walker Review of governance in financial institutions invited the Financial Reporting Council (FRC) to take responsibility for the converted code that went on to become the first version of the UK Stewardship Code and was published in 2010 (and then updated in 2012). The principal aim of the Code is to ‘enhance the quality of engagement between asset managers and companies to help improve long-term risk-adjusted returns to shareholders’ (Financial Reporting Council, 2012). The Code provides guidance for institutional investors on enhancing the quality of dialogue with investee companies and to facilitate their exercise of effective and responsible governance (Financial Reporting Council, 2012).

1.2.1 The UK Stewardship Code Principles

The Code adopted by the Financial Reporting Council classifies institutional investors as asset owners, including such frameworks as pension funds, insurance companies, investment trusts and other collective investment vehicles. The Code states that it aims to assist institutional investors to better exercise their stewardship activities including ‘monitoring and engaging with companies on matters such as strategy, performance, risk, capital structure, and corporate governance’ (Financial Reporting Council, 2012). Recognising that not all the principles contained in the code will necessarily be applicable, the Code operates on a voluntary ‘comply or explain’ model. It outlines an expectation that institutional investors will disclose their level of compliance via a statement of compliance on their website, or disclose reasons why they are not compliant. The Code consists of seven guiding principles on how institutional investors should exercise their stewardship responsibilities. These include disclosure of their

activities, managing conflicts of interest, monitoring and engagement with investee companies. The principles are:

1. Publicly disclose their policy on how they will discharge their stewardship responsibilities.
2. Have a robust policy on managing conflicts of interest in relation to stewardship, which should be publicly disclosed.
3. Monitor their investee companies.
4. Establish clear guidelines on when and how they will escalate their stewardship activities.
5. Be willing to act collectively with other investors where appropriate.
6. Have a clear policy on voting and disclosure of voting activity.
7. Report periodically on their stewardship and voting activities.

These principles are discussed in greater detail in Chapter 2.

1.3 Institutional investors' role in corporate governance

Monks and Minow (1995) refer to three main pillars of governance: the shareholders, management (led by the CEO), and the board of directors. Institutional investors are a sub-group of the first category (Stapledon, 1995), and their role in corporate governance has drawn increasing attention given their capacity as significant shareholders to influence the board. The role of institutional investors has been contentious. Gillan and Starks (2000) argue that institutional investors have abandoned their traditional passive approach in governance of investee companies for a more active role. In contrast, Koh (2003) called for institutional investors to play a more influential role in governance of their portfolio firms, and suggested the removal of legal barriers, such as legal and political restraints on control and ownership of quoted companies, which prevent institutional investors from involvement in corporate governance (Stapledon, 1996).

It is recognized that strong corporate governance structures are needed to mitigate the 'agency' problem

that arises due to the separation of ownership and control in corporations. This study uses agency theory as the theoretical framework to explain the benefit of having a governance mechanism such as the UK Stewardship Code. From an agency perspective, effective governance provides monitoring of managers to protect shareholders by mitigating opportunistic behavior and related agency costs (Fama and Jensen, 1983; Shleifer and Vishny, 1997). This study argues that institutional investors who comply with the Code may impact the quality of earnings of UK listed companies through more effective monitoring.

1.4 Institutional investors and earnings quality

Agency theory is the basis for the explaining why institutional investors influence earnings quality in the context the separation of ownership from management in modern corporations (Jensen and Meckling, 1976). Agency theory analysis suggests that managers are motivated by self-interest and work to make personal gain which can be in conflict with the interests of shareholders. Managers have personal incentives to manage reported earnings. For example, they may manipulate earnings to meet or beat earnings targets in order to be rewarded with bonus payments that are tied to accounting performance (Healy, 1985). Monitoring of managers by shareholders or their representatives can mitigate earnings manipulation (Almazan et al., 2005). Institutional shareholders are well placed to provide monitoring, and this is particularly the case where they have adopted the Code.

Prior research has examined the corporate governance role of institutional investors by examining the relation between institutional investment and market

returns, profitability (Brous and Kini, 1994), executive compensation (Almazan et al., 2005), and earnings management (Koh and Hsu, 2005; Velury and Jenkins, 2006; Roychowdhury and Watts, 2007; Zeng et al., 2013). Healy and Wahlen (1999) define earnings management as occurring when managers use judgment in structuring transactions to modify financial reports so as to either mislead stakeholders about the underlying economic performance of their firms, or to influence contractual outcomes that depend on reported accounting numbers. Lo (2008) defines earnings quality as the sustainability of earnings and the unbiasedness or neutrality of the earnings and of the accounting policies and estimates used to generate earnings.

The nature of their investment allows institutional investors to play a significant role in the governance of investee companies. There are two opposing views on the role institutional investors play in monitoring investee companies, known as the private benefit hypothesis and the active monitoring hypothesis (Bhojraj and Sengupta, 2003; Velury and Jenkins, 2006). The private benefit hypothesis suggests that institutional investors with a

larger degree of investment have an opportunity to obtain undisclosed information which may be utilized for self-serving behavior on the part of institutional investors (Koh, 2003). This hypothesis suggests institutional investors will have little or no influence over earnings quality. In contrast, the active monitoring hypothesis purports that institutional investors with substantial holdings levels have a greater incentive to actively monitor their investee companies (Jung and Kwon, 2002; Koh, 2003). This hypothesis suggests institutional ownership is associated with greater monitoring, less earnings management and consequently higher investee reported earnings quality.

1.5 Research question

This study extends existing work on the relation between the corporate governance role of institutional investors and the quality of reported earnings. Although it is widely accepted that institutional investors can play a corporate governance role through monitoring, their influence on earnings quality is still unclear. Specifically, this thesis examines whether adoption of the UK

Stewardship Code by institutional investors is associated with higher reported earnings quality by their investee companies as a result of improved governance. The broad research question is therefore: what impact does Code compliance by institutional investors have on earnings quality of investee companies?

1.6 Motivation and Contribution

There are several factors motivating this study. Firstly, there is the need for research to test the policy decision to implement the Code. There are costs associated with regulation and evidence is required to justify the imposition of costs. While there is a considerable body of evidence in the literature that the general UK governance codes of 1998 and 2003 have had a significant impact on the corporate governance systems of UK companies, there is a lack of evidence to support the Code. A number of commentators have expressed doubt that the Code will have the desired impact on governance by institutional investors. Cheffins (2010, p.1004) argues that even if the Code is a brave and worthwhile initiative, it is unlikely to “foster substantially

greater shareholder involvement in UK corporate governance”. Roach (2011) comments that in its current form, the Code’s impact on institutional investors’ engagement in the corporate governance of its investees is likely to be modest at best. In a recent paper Reisberg (2015, p.217) asserts that the Code is “absent of meaning and incapable of achieving its goal and will be ‘travelling along the road to nowhere’...”

Prior studies have examined the financial characteristics of institutional investors (Bushee, 1998; Bhojraj and Sengupta, 2003; Aggarwal et al., 2005). Several studies have found a relation between investment duration and monitoring by institutional investors (Porter, 1992; Black and Coffee, 1994; Pound, 1988; Rajgopal and Venkatachalam, 1998). Other studies have considered how the size of the institutional investment is related to governance (Shleifer and Vishny, 1986; Black and Coffee, 1994; Stapledon, 1996; Maug, 1998). The present study makes a contribution to this literature by testing whether code compliance strengthens the positive relation between investment duration and both size and earnings quality. To the best knowledge of the researcher,

there is no existing empirical study that has examined the effectiveness of the Code.

This study is also motivated by the debate surrounding the issue of shareholder engagement. Whether or not shareholder activism is useful and whether shareholder involvement generates net benefits are important issues for policymakers. For example, Plender (2010) argues that prior to the Global Financial Crisis, institutional investors supported the use of leverage to pursue high returns on equity and applied pressure for high dividends. Therefore, a close relation between investors and investee companies can have negative consequences.

Wang (2014) suggests further research is needed to explore monitoring by institutional investors to enhance earnings quality. This study is motivated by the call for empirical evidence of the effectiveness of the Code and examines the association between the Code and investee companies' earnings quality. Earnings data is key information provided in the financial reports of listed companies for investors, analysts and executives (Schipper, 1989; Healy and Wahlen, 1999; Dechow and

Skinner, 2000; Dechow et al., 2010), which highlights the need to understand how governance is related to earnings quality. While there are a number of studies that examine the relation between institutional ownership and earnings quality (Koh, 2003; Koh and Hsu, 2005), this study is the first to explore the relation between compliance with the Code and earnings quality.

1.7 Methodology

Testable hypotheses are developed regarding whether institutional investors, who are subject to the Code, have an impact on the earnings quality of investee companies in the context of the opposing views of the role of institutional investors outlined in the private benefit hypothesis and the active monitoring hypothesis (Hashim and Devi, 2012; Velury and Jenkins, 2006).

This study examines a sample of 98 UK investee companies listed in the Top 100 FTSE Index during the period 2010 to 2014, who had significant ownership by institutional investors. Archival data from the company financial reports is combined with both qualitative and quantitative information for the institutional investors.

Regression analysis is used to test the relation between the earnings quality of investee companies and Code compliance by their institutional investors. The analysis first examines the association between earnings quality and Code adoption by institutional investors. Second, because the quality of code compliance varies among institutional investors, the relation between Code compliance quality and earnings quality is further tested. An index is developed to categorize the type of disclosures made in relation to each institutional investors' stewardship role according to each of the seven principles as soft (low quality) or hard (high quality), and to record Code compliance disclosure quality scores. Earnings quality is determined by the empirical model developed by Francis et al. (2005) that measures discretionary accruals quality.

1.8 Summary of results

Institutional investors with longer investment durations and higher block-holding levels help constrain investee firms' earnings management and obtain higher earnings quality. However, no significant relation is

found between Code compliant institutional investors and investee firms' earnings quality. A Code disclosure quality index is developed to determine Code compliance in more detail.

This chapter provides an overview of the research study. Chapter 2 describes the relevant literature on which this study is based and hypotheses are developed. Chapter 3 describes the research methodology applied in this study. Chapter 4 presents the results from the descriptive statistics of the data and the OLS regression models. Chapter 5 presents a summary of the study's findings in addition to identifying limitations and opportunities for further research.

Chapter 2 Literature Review and Hypothesis Development

2.1 The UK Stewardship Code

The Code specifies seven guiding principles developed to protect and enhance shareholder value when followed by institutional investors. The Code aims to enhance the quality of engagement between investors and companies in order to improve long-term risk-adjusted returns to shareholders (Financial Reporting Council, 2012). The Code was first published in 2010, and was revised in 2012. The Code applies to institutional investors with equity holdings in UK listed companies (Financial Reporting Council, 2012). Therefore, the Code focuses on domestic investors, despite an increasing number of foreign investors in the UK market. The Code sets out best practice for institutional investors, and it requires all institutional investors to publish a statement concerning the extent to which they have complied with the Code (Financial Reporting Council, 2012).

As with the UK Corporate Governance Code, the Code is applied on a “comply or explain” basis. This regulatory approach can have drawbacks because evidence suggests companies that do not comply with voluntary codes often poorly explain their non-compliance (Arsalidou, 2012). However, the comply or explain regulation avoids unnecessary costs associated with a mandatory “one size fits all” approach and allows companies flexibility to adopt practices best suited to their needs (Luo and Salterio, 2014).

2.1.1 Origins of the Stewardship Code

With levels of institutional investment increasing over the last three decades, many researchers have argued that concentrated ownership by institutional investors allows them to play a more effective and active governance role (Ingley and Van der Walt, 2004; Heineman and Davis, 2011; OECD, 2011). Institutional shareholder activism can assist in reducing agency problems and may mitigate the detrimental effects of

managers pursuing their own interests rather than the company's interests. Effective engagement by institutional investors with their investee companies can improve governance, increase trust in the business and, more generally, improve market credibility (Gillan and Starks, 2000; Gifford, 2012).

Institutional investors have traditionally tended to act as passive participants in investee UK companies. The Association of British Insurers and the National Association of Pension Funds disclosed in the Report of the Committee of Inquiry into UK Vote Execution that institutional voting at annual shareholder meetings was low, at around 20 per cent in the early 1990s. Myners (2007) reviewed shareholders' voting activities from 2003 to 2007, and found that voting levels at company meetings were around 50 per cent in late 2003 and in 2007 voting levels for FTSE 350 and FTSE 100 were at 61 per cent and 63 per cent, respectively. The passive role of UK institutional investors raises the question of how to encourage institutional investors to participate more actively and effectively in corporate governance of

investee firms. This issue has been addressed in numerous UK reports.

The Cadbury Report (1992) emphasized the importance of institutional investors and highlighted the potential use of their capacity to ensure investee companies comply with the Governance Code of Best Practice (Cadbury Report, 1992). The Cadbury Report contained only brief recommendations to institutional investors on their governance role, including communication with senior executive directors to exchange views on firm performance and management; use of voting rights; and utilisation of the right to appoint board directors (Cadbury Report, 1992).

Following the Cadbury Report, governance reviews in the Greenbury Report (1995) and the Hampel Report (1998) provided limited recommendations for institutional investors. The Greenbury Report discussed institutional investors' disclosure of their ownership levels, business interests and directors' activities. The report also recommended institutional shareholders should be invited to approve senior executive

remuneration incentive schemes. The Hampel Report (1998) suggested that institutional shareholders should engage with investee companies as delegated monitors by voting on resolutions in general meetings or through informal communication with firms.

However despite these earlier reports, the first version of UK Combined Code on Corporate Governance (1998) provided only brief reference to the governance role of institutional investors. Section E of the Code focused on recommendations concerning institutional investors with three general principles from the Cadbury Report: institutional investors should be responsible when using their voting rights; they should have effective dialogue with companies based on the mutual understanding of goals; and, they should give due weight to all factors relating to board structure and composition when evaluating governance issues (The UK Combined Code on Corporate Governance, 1998).

Later, following the Higgs Report (2003), the revised UK Combined Code on Corporate Governance (2003) included discussion that emphasised the

importance of dialogue between the CEO and experienced independent directors and institutional investors. Section D of the Code includes the recommendations of the Higgs Report (2003) and suggests the board keep in touch with shareholders through the most practical and efficient methods. For instance, it is recommended that the chairman discusses governance strategy with major shareholders, and non-executive directors should have a chance to attend meetings with major shareholders. In addition, the board should state the methods used to develop an understanding of shareholders' views in the annual report, such as contact with analysts, brokers' briefings or surveys of shareholder opinion.

At this time Paul Myners was commissioned by the UK Government to investigate the role of institutional investors. The subsequent Myners Report (2001) made suggestions aimed at improving institutional investors' engagement with corporate decision-making. Specifically, the report suggested improved monitoring in order to enhance overall company value and that there should be a

legal requirement that decisions by institutional investors should reflect the skill and prudence of someone familiar with the issues concerned. The report suggested these recommendations should be subject to voluntary adoption by institutional investors. Following the Myners Report (2001), the Institutional Shareholders Committee (ISC) announced it would revise the Principles on the Responsibilities of Institutional Shareholders and their Agents. This was amended in 2005, and presented as the Code on the Responsibilities of Institutional Investors (2005). Institutions that chose to disclose how they complied with the ISC Code were identified on the ISC website.

In 2009 the Walk Review, “a review of corporate governance in UK banks and other financial industry entities”, suggested that the ISC code should be endorsed by the Financial Reporting Council (FRC) and renamed the Stewardship Code. In January 2010, the FRC published a consultation document regarding the content and operation of a proposed Stewardship Code. This consultation document raised issues regarding whether

the Stewardship Code should be based on the ISC code; whether the ISC Code should be amended; and whether the FRC should be responsible for superintending, inspecting and updating the proposed Stewardship Code. On 28 May 2010, the FRC updated the UK Combined Code on Corporate Governance and renamed it the UK Corporate Governance Code. The original Section E, which dealt with institutional investors, was updated to focus on general relations between the company and investors. On 2 July 2010, the UK Stewardship Code (2010) was launched by the FRC. The Code was updated in 2012 with amendments regarding aspects such as proposed definition of stewardship, the roles of asset owners and asset managers, conflicts of interest and extending the Code to other classes (Financial Reporting Council, 2012).

2.1.2 The UK Stewardship Code Principles

The UK Stewardship Code (2012) contains seven principles with substantial guidance under each principle. Principles one to seven set a foundation for improved institutional investor stewardship. Potentially, all of the seven principles benefit the institutional investor and investee company relationship through improved corporate governance. Principles three and four specially encourage institutional investors to engage in monitoring activities, and are therefore directly related to the issue of the impact of Code compliance on investee earnings quality. A summary of the seven Code principles follows:

- 1. Publicly disclose their policy on how they will discharge their stewardship responsibilities:* requires institutional investors to disclose the way they discharge their stewardship responsibilities in five areas. These include how they monitor portfolio companies and have active dialogue with the board; how they intervene in the governance; how they integrate internal affairs with wider

investment procedure; how they derive the policy on voting and make use of proxy voting or other voting advisory services; and how their explanations in relation to the UK Corporate Governance Code hold up.

2. *Have a robust policy on managing conflicts of interest in relation to stewardship, which should be publicly disclosed:* outlines the necessity of having a robust policy on managing conflicts of interest and requires public disclosure of this policy. It emphasizes the duty of institutional investors to act in the interests of clients and beneficiaries when taking matters of engagement and voting into consideration. A policy should be maintained to manage avoidable conflicts of interest, such as conflicts when voting on matters affecting a parent company or client.
3. *Monitor their investee companies:* requires institutional shareholders to monitor their investee companies and determine when it is necessary to enter into active communication with investee company boards. As part of this monitoring,

institutional investors should be satisfied that board and committee structures are effectively operated. An audit trail is to be maintained regarding records of private meetings and votes cast. Institutional investors are required to attend the general meetings of companies in which they have a holding. If there is a departure from the UK Corporate Governance Code, investors should carefully explain and give reasoned judgments. Institutional investors should identify and disclose any possible problems that may lead to a loss in shareholder value at the very early stage.

4. *Establish clear guidelines on when and how they will escalate their stewardship activities:* requires investors to establish clear guidelines on when and how they will escalate their activities to protect and enhance shareholder value. It requires institutional investors to set out the particular circumstances in which they will actively intervene. Initial discussion about intervention should take place on a confidential basis, but if there is no response from the investee company's

board, investors can hold additional meetings with managers to discuss particular concerns or express concerns to a company's advisers.

5. *Be willing to act collectively with other investors where appropriate:* discusses the collective action of institutional investors. The specific requirements are that appropriate collaboration among investors is necessary when significant corporate or wider economic stress or risk threatens the investee company's development. The policy of collective engagement should be disclosed.
6. *Have a clear policy on voting and disclosure of voting activity:* outlines the expectation that institutional investors have a clear policy on voting and disclosure of voting activities. Institutional investors should seek to vote whenever possible and they should not support the board automatically. It is necessary for them to inform the company of their voting intention and reasons in advance. Voting records and use of any proxy voting or voting advisory should be

publicly disclosed, or an explanation provided for non-disclosure.

7. *Report periodically on their stewardship and voting activities*: requires institutional investors to report on their stewardship and voting activities periodically.

These principles are intended to change the typically passive approach of UK institutional investors towards their investee to one of active engagement. Whether the Code has achieved, or will achieve, the objective of ‘enhancing the quality of engagement between asset managers and companies to help improve long-term risk-adjusted returns to shareholders’ (Financial Reporting Council, 2012) is yet to be determined since there is little empirical evidence relating to the effectiveness of Code compliance.

2.1.3 Effectiveness of the Code

The UK Stewardship Code is seen as ‘an important attempt to redress the balance in the corporate governance matrix and although similar efforts have been taken in other markets, such as France and the Netherlands, the Code is the first of its type in the world’ (Arsalidou, 2012, p.342). Sullivan (2010) reports that the CEO of the International Corporate Governance Network (ICGN) described the UK Stewardship Code as offering a method to address inactivity of shareholders and indifference by institutional investors regarding governance matters. However, it is not clear whether a more systematic and continuous relationship between institutional investors and managers will evolve through the Code (Arsalidou, 2012). The extent to which the Code will transform traditional passive shareholders into active participants and foster good governance remains an open question (OECD, 2009; Cheffins, 2010). This study provides evidence of the relation between Code compliance by institutional investors and the quality of earnings of the investee companies.

In contrast, potential limitations of the Code have been identified that raise questions as to whether it is capable of achieving its objectives. One major concern is the Code's limited application to domestic companies. Several factors deter institutional investors from activism, but a central factor is ownership of shares by companies that are not required to apply the Code (Cheffins, 2010). Further, a large proportion of shares are held by overseas investors, hedge funds and private individuals. A 2008 survey of ordinary shareholdings conducted by the UK National Statistics office shows 41.5 per cent ownership by investors outside the UK to whom the Code will not apply (Reisberg, 2011). Hence the domestic focus of the Code and the lack of coverage for many investee companies could limit the Code's ability to achieve its objective.

A further concern stems from the Code's voluntary "comply or explain" regulatory approach. Institutional investors can choose not to comply with the Code, and the only penalty for non-compliance is failure to be listed on the FRC website as compliant. Arcot et al.

(2005) conducted a study on the “comply or explain” model adopted by the UK Combined Code on Corporate Governance and found that non-compliant institutional investors usually disclosed a poor explanation of reasons for not complying. In addition, one in five non-complying institutional investors did not provide any explanation. Therefore, the comply-or-explain approach also represents a potential limitation. However, there is also evidence that companies take advantage of the flexible and adaptable nature of the comply-or-explain model to fine-tune their governance according to their circumstances (Luo and Salterio, 2014).

Issues with the lack of broad coverage of the Code, and potential problems with its comply-or-explain approach could affect its operation. Thus the future of the Code is uncertain at this time. Reisberg (2015) calls for further research to investigate the effectiveness of actual compliance by UK institutional investors.

2.2 Institutional Investors

Monks and Minow (1995) refer to three main pillars of governance, which are shareholders, management (led by the CEO), and the board of directors. Institutional investors are a subgroup of the first category (Stapledon, 1995). Their role in corporate governance has drawn increasing attention given their capacity to influence the board. There are various definitions of an institutional investor in the accounting and finance literature. Broadly they are defined as organisations that aggregate and invest large sums of money in companies and who can play an active role in corporate governance of their investees (Gillan and Starks, 2000; 2003).

Shareholders are the owners of the firm who have certain rights, including the election of the board of directors. The directors are responsible for monitoring managers' performance. If shareholders (e.g., institutional investors) are not satisfied with the performance of directors and managers they can "vote with their feet" by selling their shares. Alternatively, they can hold their

shares but voice their dissatisfaction, or do nothing and hold their shares.

Institutional investors are a diverse body that differ in their investment horizons and risk preference but are united in the same purpose of maximising profit on their investments. In a review of institutional investment in the UK, Myners (2001) identified the types of institutional investors as occupational pension funds, insurance companies, pooled investment vehicles (e.g., unit trusts, open-ended investment companies and investment trusts) and other financial institutions (e.g., charities, endowments and educational institutions). Myners (2001) observed that, since the 1960s, the proportion of UK equity capital acquired by institutions has increased. Institutional investors, mainly in the form of insurance companies and investment funds, dominate the UK share markets and have become the largest owners of shares in listed companies (Goergen et al., 2008). Myners (2001) suggests three beneficial effects for the UK economy from the increase in institutional investment. First, the presence of large and sophisticated

institutional investment improves the liquidity of capital markets and is positively related to the effectiveness of capital raising. Second, savers and pension scheme members receive benefits from the substantial investments made by institutions. Third, institutional shareholding is an important factor in building the strength of the UK financial service sector.

This study categorises institutional investors according to Nix and Chen (2013) as banks, mutual funds, pension funds, hedge funds, endowments, insurance companies, private equity funds and wealth funds. The adoption of this categorisation is in line with the Code definition of institutional investors:

“Broadly speaking, asset owners include pension funds, insurance companies, investment trusts and other collective investment vehicles. As the providers of capital, they set the tone for stewardship and may influence behavioural changes that lead to better stewardship by asset managers and companies. Asset managers, with day-to-day responsibility for managing investments, are well positioned to influence companies’ long-term

performance through stewardship.” (Financial Reporting Council (FRC), 2012, p.1).

2.2.1 The governance role of institutional investors

Whether institutional investors can play an active and effective governance role has been discussed in previous literature. Webb et al. (2003) use financial system theory as a framework for discussing the problems and limitations of institutional investors taking a more active monitoring role in enforcing UK corporate governance. They argue that there are three concerns with institutional investors taking on a governance role. The first concern arises from the difficulty of institutional investors to align financial market efficiency with governance (Fama, 1970; 1991; 1998). The second concern is whether institutional investors have sufficient incentives to participate in governance as delegated monitors. The third concern relates to the monitoring costs for an institution, and whether they can absorb the cost of investors' influence on the company's strategy and also bear the uncertain consequence(s) of the chosen strategy. Webb et al. (2003) also conclude that the

increased involvement of institutional investors may create problems for the operation of capital markets, increase costs and lead to free rider problems. Therefore, it is unclear whether institutional investors will be willing to take on a substantive governance role regardless of the imposition of the Code.

Agency theory is often applied as a theoretical framework to analyse the monitoring role of institutional investors in corporate governance. Specifically, agency theory describes the relationship between the principal and agent and the agency problem that arises when there is principal-agent conflict (Jensen and Meckling, 1976). Agency problems arise from the separation of ownership and management (Fama and Jensen, 1983). Research has found that agency costs are positively related to corporate ownership that is diffuse or consists of a large number of small shareholders (Demsetz and Lehn, 1985; Roe, 1990). Large shareholders have few incentives to monitor the management of their portfolio firms when there is a diffuse ownership structure, because the large shareholder will bear monitoring costs while other shareholders enjoy

the benefits (Demsetz and Lehn, 1985). In contrast, firms with a concentrated ownership structure may have lower agency costs, since large shareholders are more likely to be involved in monitoring (Shleifer and Vishny, 1986; Maug, 1998; Noe, 2002).

Evidence that institutional investors play a meaningful governance role through monitoring is limited. In the US, Romano (1993) and Murphy and Nuys (1994) analyse the monitoring role of institutional investors according to their types using an agency theory framework. They show that managers of public funds may use their influence to achieve personal or political goals, rather than maximizing a firm's value, which prevents fund managers from being effective monitors. Other institutions, such as corporate pension funds, banks and insurance companies may be unwilling to intervene in investee company affairs since they are reluctant to be in conflict with investee firm management or endanger cooperative relations (Guercio and Hawkins, 1999). McCahery and Vermeulen (2008) find that corporate governance is of importance to institutional investors, and

many institutions are willing to engage in shareholder activism. Moreover, evidence shows that shares held by institutions increase with the quality of governance (Chung et al., 2002). The literature shows that institutional investors can form an effective external governance mechanism in the US; however, there is little evidence on the governance role played by institutional investors outside the US (Aggarwal et al., 2011).

In the UK, there is evidence that institutional investors are moving from mostly passive policies to more active involvement in investees (Short and Keasey, 2005). Typically, as a heterogeneous group, institutional investors have different investment objectives and targets, and have less interest in governance. They try to achieve their goals or desirable performance through selling or buying shares, and tend not to vote regularly but limit their intervention to crisis situations (Black and Coffee, 1994). However, institutional investors have tended to move away from their traditional passive role in more recent times. UK research shows that as institutional investment increases within an entity, there is increasing

interest in monitoring activities by institutions (Ridge, 1999).

Previous studies also examine the association between institutional monitoring and improvement in long-term performance. Bushee (1998) concludes that there is a positive relation between institutional shareholding and the level of research and development expenditures. He examines whether institutional investors create incentives for managers to reduce investment in research and development (R&D) to achieve short-term goals of earnings. He reported that sophisticated institutional investors pursue long-term value rather than focusing on short-term benefits. In contrast, Wahal and McConnell (2000) find no evidence that institutional investors contribute to short-term managerial decisions regardless of investment style.

As stated in Principle 3 of the Code, “institutional investors should monitor their investee firms and seek to be informed of the company’s performance”. It is clear from the evidence discussed that institutional investors can contribute to the governance role through monitoring.

However, there are limitations and problems associated with the effective execution of the monitoring role and appropriate interventions in the affairs of investee companies. When institutional investors comply with the Code, these limitations and problems should be mitigated, resulting in enhanced monitoring.

2.3 Institutional investors and earnings quality

This study examines the impact of the Code on the *earnings quality* of their investee companies. Dechow et al. (2010) describe *earnings quality* as measuring the extent to which reported earnings numbers faithfully represent the fundamental earnings performance. Healy and Wahlen (1999) define *earnings management* as occurring when managers use judgment in structuring transactions to modify financial reports, to either mislead stakeholders about the underlying economic performance of their portfolio firms, or to influence contractual outcomes that depend on reported accounting numbers. The terms earnings quality and earnings management are commonly used interchangeably in the literature as they are two sides of the same coin, as when earnings quality

is high, earnings management is low and vice versa (Dechow et al., 2010). Therefore this study draws also on the earnings management literature.

To the extent that institutional investors play a governance role by monitoring their investee companies, a reduction in the propensity for investee companies to engage in earnings management should be observed (Lin et al., 2014). Monitoring will include assessment of the quality of financial reporting, and institutional investors have the capacity to discipline managers who engage in low quality accounting reporting (Velury and Jenkins, 2006).

Pound (1988) put forward three hypotheses regarding the relationship between institutional investors and earnings management: (1) the efficient monitoring hypothesis; (2) the strategic alignment hypothesis; and (3) the conflict of interest hypothesis.

The efficient monitoring hypothesis explains that institutional investors can better constrain earnings management than individual investors, as they have monitoring expertise and monitoring is less costly for

them. Institutional investors can decrease information symmetry so that it is more difficult for managers to opportunistically manipulate earnings (Shiller and Pound 1989). Further, Pound (1988) contends that the larger the shareholding by institutional investors, the more efficient the monitoring, resulting in a reduced likelihood of earnings management.

In contrast, the strategic alignment hypothesis states that large institutional shareholders align themselves with incumbent managers. This hypothesis suggests institutional investors' behaviour will be affected by their relation with investee company management, which can result in a lower likelihood of monitoring success. Similar to the strategic alignment hypothesis, the conflict of interest hypothesis explains that investor companies will vote to pass proposals in general meetings based on their personal advantage, which also decreases the likelihood of successful monitoring behaviour.

Hence, the efficient monitoring hypothesis predicts institutional investors will engage in monitoring resulting in higher reported earnings quality, whereas the

strategic alignment and conflict of interest hypotheses predict unsuccessful monitoring. Pound (1988) investigated proxy contests and found that institutions were more likely to vote in favour of management, which indicated they were not likely to be efficient monitors. The result suggests that institutions strategically align with the current management, and seek returns towards their own advantage when faced with conflicts of interest. Hence this behaviour indicates that institutional investors will not constrain earnings management and therefore enhance earnings quality.

The incentives for institutional investors to play a role in ensuring the quality of reported earnings has also been discussed in terms of the private benefit view and the active monitoring view (Bhojraj and Sengupta, 2003; Velury and Jenkins, 2006). The private benefit view suggests that substantial institutional investors have an opportunity to obtain undisclosed information, which may be utilized for self-serving behavior by institutional investors (Koh, 2003). In contrast, the active monitoring view is that substantial institutional investors have a

greater incentive to actively monitor their investee companies (Jung and Kwon, 2002; Koh, 2003), which reduces the likelihood of earnings management, resulting in higher reported earnings quality. Consistent with the private benefit view, Beasley (1996) and Peasnell et al. (2005) find institutional investors are ineffective in reducing earnings management (enhancing earnings quality). Porter (1992) suggests the reason that institutional investors may not display an interest in monitoring earnings management is that they tend to focus on current earnings when pricing securities. However, some prior research provides support for the active monitoring view, suggesting institutional investors mitigate earnings management (Chung et al., 2002; Mitra and Cready, 2005; Jiraporn and Gleason, 2007).

The results of studies that have examined the relation between institutional investors and earnings management may be influenced by their treatment as a homogenous group (Jiang and Anandarajan, 2009; Wang, 2014). Analysis that treats institutional shareholders as heterogeneous has provided more consistent results. Later

studies have found that investment duration and investment level are associated with increased monitoring and mitigation of earnings management (Shleifer and Vishny, 1986; Maug, 1998; Koh, 2003; Koh and Hsu, 2005; Roychowdhury and Watts, 2007; Wang, 2014). Thus, it is appropriate to examine the role of institutional investors in mitigating earnings management with analysis that is conditioned on their categorization as long-term or short-term investors (investment duration), and as large or small investors (investment size).

The Code specifically encourages monitoring and escalation of stewardship activity by institutional investors, to achieve improved corporate governance. Therefore, hypotheses are developed according to whether Code compliance will help long-term institutional investors and higher block-holding institutional investors further constrain investee company earnings management thereby resulting in higher earnings quality.

2.3.1 Investment duration and earnings quality

Short-term or transient institutional investors are characterized as myopic investors who prefer current earnings to long-term earnings, and prefer to sell shares in poor performance investees (Pound and Shiller, 1987; Black et al., 1998; Bushee, 2001). Such institutional investors focus on short-term profit and underweight long-term value creating incentives (Porter, 1992; Levitt, 1998). In contrast, long-term institutional investors exhibit a preference for long-term earnings (Bushee, 2001). Consistent with this view, Dobrzynski (1993) suggests that long-term institutional investors introduce management accountability measures through involvement in governance and monitoring activities. For instance, they set boundaries on accruals discretion to curb potential undesirable accruals management. Long-term institutional investors are motivated by their desire to prevent misrepresentation of their portfolio firms' financial affairs. Bushee (1998) suggests that institutional investors can reduce agency problems to some extent

when they take a greater interest in the long-term value of their investee companies.

A study in the US market by Porter (1992) provides evidence that short-term or transient institutional investors (with a short-term focus on company performance) are associated with managers that increase earnings through accounting and operational decisions. Black and Coffee (1994) explain that the investment horizons of transient institutional investors are limited because of the need for managers to rebalance portfolios to improve performance compared to their industry peers. Under this condition, institutions “vote with their feet” rather than deal with governance matters actively.

In contrast, the benefits of monitoring associated with longer term investments have been demonstrated in studies that have considered institutional investment and earnings management. Koh (2003) provides evidence that transient institutional investors have incentives for managers to manipulate income-increasing earnings, while long-term institutional investors are motivated to mitigate managers’ aggressive earnings management. Hsu

and Koh (2005) extend the work of Koh (2003) and reveal the co-existence of the opposing influences of short-term and long-term investment for Australian companies.

The prior literature suggests that institutional investors are more likely to monitor the management of investee firms in which they have made a long-term substantial investment. In this study, the joint effect of institutional investors and their compliance with the Code is tested. The Code encourages institutional investors to actively engage in the governance of investee companies and to provide disclosure of their monitoring activities. In particular, Principle 3 of the Code requires institutional investors to monitor their investee firms. This suggests they will give attention to the quality of reporting earnings. If institutional investors comply with the Code, their monitoring should decrease information asymmetry and increase overall transparency, leading to a decrease in the likelihood of managers managing earnings and thus improving the quality of reported earnings. Therefore, it is hypothesized that:

H1: The positive association between institutional investor investment duration and investee company earnings quality is stronger if institutional investors comply with the UK Stewardship Code.

2.3.2 Block-holding levels and earnings quality

The ability of an institutional investor to influence management of an investee firm is associated with the investment size (Shleifer and Vishny, 1986; Maug, 1998). It is possible for stakeholders with significant ownership of a firm to participate in the management of a company. They are able to ensure the company operates in the interest of shareholders, and they also have informational advantages as economies of scale may reduce the costs of acquiring information (Maug, 1998). Roychowdhury and Watts (2007) show that institutional investors with higher shareholding reduce managerial discretion. Institutional shareholders have greater incentive to monitor managers' behaviour, collect information and pursue a better information environment (Wang, 2014). Black and Coffee (1994) and Stapledon (1996) provide evidence that large institutional investors stand to benefit more from

successful monitoring and intervention than investors with a small shareholding.

There is substantial evidence that higher levels of shareholdings by institutional investors reduce the likelihood of accounting manipulation and myopic earnings management (Dechow et al., 1996; Bushee, 1998; Xia and Li, 2008; Edmans, 2009). Schipper (1989, p.98) argues that “concentrated user groups with substantial financial sophistication, material sums at stake, and no contractual friction to inhibit their behavior are, for example, likely candidates for undoing earnings management”. Given the investment size of institutional investors, larger institutional investors fit the profile of “concentrated user groups”. Consistent with this view, Gillan and Starks (1998) note that when the level of ownership is sufficiently high, monitoring by institutional investors discourages managers from providing “noisy” financial reports. In summary, prior studies provide evidence that institutional investment size is positively related to the earnings quality.

There is some evidence that there is an optimal level of shareholding by institutional investors, beyond which the incentives to monitor management are limited. Navissi and Naiker (2006) suggest that institutions which have representatives as board directors in investee companies have greater incentives to monitor management. However, once the ownership exceeds a certain level, institutional investors with board representatives may induce managers to make sub-optimal decisions, which may include earnings management.

Even though contrary views exist, this study relies on the majority of prior work that shows a positive relation between the size of institutional investment and earnings quality. As explained above, institutional investors' compliance with the Code is expected to improve governance through monitoring, thereby mitigating information asymmetry and increasing overall transparency. Therefore, it is hypothesized that the Code will result in better-reported earnings quality at a given size of institutional shareholding.

H2: The positive association between institutional shareholding size and investee company earnings quality is stronger if institutional investors comply with the UK Stewardship Code.

2.4 Other factors impacting earnings quality

There are other investee characteristics that are likely to be associated with earnings quality identified in the prior literature. This study includes a number of control variables, board size and independence, growth, age, size, leverage, performance and industry classification.

Board size is a key characteristic that can influence the quality of board monitoring. Previous studies show that larger boards have more experience and knowledge and bring more diverse opinions and viewpoints, which strengthens the monitoring function (Chaganti et al., 1985; Dalton et al., 1999) and may enhance earnings quality. However, Xie et al. (2003) show that difficulties with coordination of a large board may offset the advantages of increased monitoring and resources.

Board independence. Prior studies in the UK, US and Australia suggest a negative relation between board independence and earnings management (Beasley, 1996; Peasnell et al., 2000; Klein, 2002 and Cornett et al., 2008). In line with these results, it is expected that investee companies with higher board independence will have higher earnings quality.

Other board variables that have been found to be related to earnings quality are CEO duality (O'Connor et al., 2006; Cornett et al., 2008), and engagement of a Big 4 auditor by the company (Balsam et al., 2003; Lam and Mensah, 2006). For the sample used in this study all companies have separated the role of the chairperson and the CEO, and all are audited by a Big 4 audit firm. Therefore, the variables are not included in the analysis since there is no variation.

Growth. The ratio of book to market value, calculated as total assets minus total liabilities divided by total market capitalization, is a proxy measure of firm growth. Teoh et al. (1998) argue that growing companies are more inclined to manage earnings since it is difficult

to observe managers' business activities. Furthermore, companies with high growth rates are more likely to experience internal accounting control issues, which may lead to earnings manipulation (Larcker and Richardson, 2004). Consistent with previous studies it is expected that investee companies with higher growth will have a lower quality of reported earnings.

Age. Company age is also included as a control variable as it has previously been found to be negatively related to earnings management (Bergstresser et al., 2006; Jiang et al., 2010). Hence it is expected that older investee companies will have higher earnings quality.

Company size. It is suggested by previous research that larger companies have better corporate governance structures (Smith and Watts, 1992). Smaller companies are more likely to experience information asymmetry (Noe and Rebello, 1996). Hence it is expected larger investee companies will have higher earnings quality.

Leverage. Previous studies show that leverage can influence risk management and accruals manipulation

(Smith and Stulz, 1985), and that managers attempt to avoid the violation of debt covenant by manipulating earnings (Sweeney, 1994). It is expected that investee companies with higher leverage will have lower quality of reported earnings.

Company performance. Managers of companies with poor performance are more likely to manage earnings in order to keep their position (Kothari et al., 2005). Hence it is expected that better performing investee companies will have higher earnings quality.

Industry. Propensity to manage earnings is likely to vary across industry groups.

This chapter has reviewed the principles of the UK Stewardship Code in detail, and added to the discussion on the effectiveness of the Code by pointing out the advantages and limitations of its content and compliance model. The literature regarding the corporate governance role of institutional investors were reviewed from two perspectives, including the impact of different investment durations and different block holdings on earnings quality. The hypotheses were identified and fundamental

information identified that can provide incremental information relating to the association between compliance with the UK Code by institutional investors and investee firms' earnings quality. The following chapter outlines the research methods applied to examine the hypotheses developed here.

Chapter 3 - Research Method

3.1 Introduction

This chapter describes the research method adopted for this study. The study applies quantitative and qualitative research methods to investigate the association between institutional investors' compliance with the UK Stewardship Code (the Code) and investee company earnings quality.

Regression analysis is used to test the relation between the earnings quality of investee companies and Code compliance by their institutional investors. The analysis first examines the association between earnings quality and Code adoption by institutional investors. Second, because the quality of code compliance varies among institutional investors, analysis is presented that tests the relation between Code compliance quality and earnings quality. In these tests, earnings quality is determined by the empirical model developed by Francis et al. (2005) that measures discretionary accruals quality.

The hypotheses (stated in Chapter 2) suggest that the positive association between investment duration and investment size is stronger when institutional investors comply with the Code. To test the hypotheses, interaction terms are included in the regression models between investment duration and size and the code compliance variables. A positive coefficient for the interaction variables will support the hypotheses that Code compliance *strengthens* the relation between earnings quality and investment duration and size. In addition to regression analysis with interaction terms for the Code compliance variables, the direct relation between Code compliance and earnings quality is tested.

The qualitative aspect of this research is the application of content analysis to develop an index that measures the quality of institutional investors' Code compliance. Institutional investors provide information about their compliance with the Code in annual report disclosure statements. The index developed classifies disclosure as either objective, measurable and verifiable high quality 'hard' disclosures, or subjective unverifiable

‘soft’ disclosures. The extent of ‘hard’ disclosures is the measure of Code compliance quality used in the analysis.

3.2 Sample and Data

The sample consists of Financial Times Stock Exchange (FTSE) 100 companies listed on the London Stock Exchange (LSE) in 2013. The FTSE 100 includes LSE companies with the highest market capitalization. A sample period of 2013 was selected for the study as it allows for sufficient time to have elapsed from the introduction of the Code in 2010 for it to be sufficiently embedded into company practice.

Companies in the financial industry group were excluded from the initial sample of FTSE 100 companies in 2013 (19 companies in total) because they have substantially different financial characteristics and governance practice (Fama and French, 1992). Two other companies were excluded from the sample due to bankruptcy and merger proceedings, leaving a final sample of 79 investee companies.

The next task is identification of each investee company’s institutional investors. Institutional investors

are identified using data from the Capital IQ database, and their shareholding data are manually collected from company annual reports. In total, 103 different institutional investors were identified as having a shareholding in the 79 investee companies in the sample.

To determine the quality of institutional investor Code compliance, an index is developed using content analysis of disclosures made under the Code provisions. Institutional investors that comply with the Code disclose how they adhere with the Code's seven principles. Using the official investor company websites, a search was conducted for investor Code compliance statements. Of the 103 institutional investors, 51 provided Code compliance reports. The companies that did not provide reports were 45 foreign investor companies (who are not subject to the Code provisions) and seven UK companies for which no compliance statement was found. Of the 7 UK companies who did not comply with the Code, only two provided an explanation for their non-compliance.

3.3 Dependent Variable

The dependent variable in this study is reported earnings quality, which is determined using the technique developed by Francis et al. (2005) to measure discretionary accruals quality. Following is a discussion of the method applied to determine the dependent variable.

The Dechow and Dichev (2002) accruals quality measure is the starting point for the measurement of earnings quality. Dechow and Dichev (2002) model accruals quality as the magnitude of errors in estimating accruals based on the association between cash flows and accruals. The essence of their model is that earnings quality can be measured by examining accruals estimation and cash flow realizations. Estimation error is defined as the difference between the amount accrued and the amount realized. Empirically, Dechow and Dichev (2002) define earnings quality as the association between working capital accruals and cash flows in the adjacent periods using the company-level regression shown in Equation (1) below.

$$\Delta WC_t = \beta_0 + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \varepsilon_t$$

(1)

ΔWC_t is the change in accounts receivable, the change in accounts payable, the change in taxes payable, the change in inventory and change in other assets. $CFO_{t-1}, CFO_t, CFO_{t+1}$ are cash flows from operations in the previous period, current period and the next period, respectively. The residuals from the regression represent the accruals that are not explained by the realizations of cash flows. The standard deviation of the regression residuals is the company-level measure of accrual quality, and a higher value of standard deviation means lower earnings quality.

McNichols (2002), in her review of the Dechow and Dichev (2002) paper outlining the accruals quality model, shows that change in sales and the size of plant, property and equipment increase the model's performance. McNichols (2002) suggests the adjusted model shown in Equation (2) below.

$$\Delta WC = \beta_0 + \beta_1 CFO_{t-1} + \beta_2 CFO_t + \beta_3 CFO_{t+1} + \beta_4 \Delta REV_t + \beta_5 PPE_t + \varepsilon_t$$

(2)

The adjusted model adds the change in sales revenue (ΔREV_t), and the size of property, plant and equipment (PPE_t). Each of the variables in the accrual quality model is scaled by total assets.

The residual or error term (ε_t) in Equation (2) provides the measure of earnings quality. It represents the portion of accruals that does not estimate actual cash flows. Dechow and Dichev (2002) use the standard deviation of firm-level annual regression residuals over a five-year period as the measurement of accruals quality. However, they suggest using the absolute value of the residual from annualized cross-sectional regressions as an alternative appropriate measure. The advantage of this method is it has fewer data requirements. Accordingly, this study uses the absolute value of the residual for the fiscal year 2013 to measure accruals quality (AQ). A higher absolute value of AQ indicates lower earnings quality, since a higher absolute value represents larger estimation error.

Using the overall accruals quality measure calculated as discussed above, the technique suggested by Francis et

al. (2005) is then applied to determine the discretionary component of overall accruals quality. This is done because the analysis in this thesis is concerned with the effects of earnings management on the quality of reported earnings. Calculating discretionary accruals quality involves regressing the accruals quality measure on innate company characteristics (Francis et al., 2005). The selected innate characteristics follow Dechow and Dichev (2002) and Francis et al. (2005), and include measures of company size, incidence of negative earnings, length of operating cycle, and volatility of operating environment. To determine the components of accruals quality, the regression shown in Equation (3) is calculated.

$$AQ = \beta_0 + \beta_1 SIZE + \beta_2 LOSS + \beta_3 OPCYC + \beta_4 SDOR + \varepsilon_t \quad (3)$$

Where AQ is the accruals quality measure (the regression residual from equation (2)); SIZE is the natural log of total assets for 2013; LOSS is negative earnings, measured as a dummy variable coded 1 if negative net profit after tax reported in 2013, otherwise zero; OPCYC is the natural log of average age of inventory plus the

average age of receivables (in days) after winsorizing at 365 days for 2013; SDOR is the standard deviation of operating revenue divided by total assets for 2012 to 2014. The regression predicted values are the estimate of innate accruals quality, and the residual values are the estimate of discretionary accruals quality (DAQ). Discretionary accruals quality (DAQ) measures earnings quality, and is the dependent variable in models used in this thesis to test the hypotheses. A higher value of DAQ suggests more earnings management, and therefore lower earnings quality.

3.4 Independent Variables

The independent variables in this study are the investment duration (INVDUR) of the five largest institutional investors; the size of shareholding of the five largest institutional investors (INVSIZE); an indicator of institutional investor Code compliance (CODECOMP1); and the quality of Code compliance as determined by content analysis of institutional investor Code compliance statements (CODEQUAL1).

Investment duration (INVDUR) is the sum of the number of years the five largest institutional investors in 2013 have owned shares in the investee company. Size of institutional investment (INVSIZE) is the sum of the value of shares owned by the five largest institutional investors in the sample of investee companies. It is measured as the percentage of ownership, and is calculated by dividing the number of shares held by the foreign and domestic institutional investors by the total shares issued by the company.

The Code compliance variable (CODECOMP1) is a dummy indicator coded 1 if the number of compliant institutional investors in the investee company exceeds the median number of compliant institutional investors across all investee companies, and is otherwise coded zero. Code compliance quality (CODEQUAL1) is also a dummy variable. It is coded 1 if the sum of the ‘hard’ disclosures made by the five largest institutional investors (as determined by content analysis of Code compliance statements) is larger than the median of ‘hard’ disclosures made by the five largest institutional investors across all

investee companies, and is otherwise coded zero. Disclosures are classified as ‘hard’ if they are accessible, objective and verifiable. Each Code principle for which the investor makes a ‘hard’ disclosure is scored with a value of 1. Details of the content analysis method used to determine ‘hard’ disclosures are described in Section 3.7 below.

3.5 Control Variables

The control variables included are investee company characteristics that have been found in prior literature to be associated with earnings management. These include board independence and size, growth, leverage, size, age, performance and industry classification.

Board size (BDSIZE), measured as the number of directors, is a key characteristic that can influence the quality of board monitoring. Previous studies show that larger boards have more experience and knowledge and bring more diverse opinions and viewpoints, which strengthens the monitoring function (Chaganti et al., 1985; Dalton et al., 1999). Recall that a lower value of the dependent variable DAQ means higher earnings quality.

A negative relation is therefore expected between board size and DAQ.

Board independence (BDIND) is measured as the number of non-executive directors on the board divided by the total number of directors. Prior studies in the UK, US and Australia suggest a negative relation between board independence and earnings management (Beasley, 1996; Peasnell et al., 2000; Klein, 2002 and Cornett et al., 2008). In line with these results, it is expected investee companies with higher board independence will have better earnings quality; namely, board independence is expected to be negatively related to DAQ.

Growth. The ratio of book to market value, calculated as total assets minus total liabilities divided by total market capitalization, is a proxy measure of firm growth (GROWTH). Consistent with previous studies it is expected that investee companies with higher GROWTH will have lower quality of reported earnings. It is hypothesized that there is a negative relation between GROWTH and earnings quality, thus a positive association is expected between GROWTH and DAQ.

Company age (AGE), measured as the number of years since the company was founded, is also included as a control variable as it has previously been found to be negatively related to earnings management (Bergstresser et al., 2006; Jiang et al., 2010).

Leverage ratio (LEV) is measured as total liabilities divided by total assets. Previous studies show that leverage can influence risk management and accruals manipulation (Smith and Stulz, 1985), and managers attempt to avoid the violation of debt covenants through manipulating earnings (Sweeney, 1994). Thus, a positive association is expected between leverage and DAQ.

Company size (SIZE) is measured as the natural log of total assets. It is suggested by previous research that larger companies have better corporate governance structures (Smith and Watts, 1992). Smaller companies are more likely to experience information asymmetry (Noe and Rebello, 1996). Therefore, a negative relation is expected between SIZE and DAQ.

Company performance is measured by return on assets (ROA), which is calculated as earnings before tax

and interest divided by total assets, and adjusted by dividing the industry average return on assets ratio. Managers of companies with poor performance are more likely to manage earnings in order to keep their position (Kothari et al., 2005). Therefore, a negative relation between company performance (ROA) and DAQ is expected.

Propensity to manage earnings is likely to vary across industry groups. Industry dummy variables (IND) are therefore included in the analysis as control variables. Dummy variables are included as fixed effects for the following industry sectors: materials, consumer staples, industrials, energy, information technology, healthcare, consumer discretionary, telecommunication services and utilities.

3.6 Statistical Models

Ordinary least squares regression is used to test whether compliance with the Code by institutional investors is associated with investee company earnings management. The models that test the direct effects of

code compliance are shown in Equations (4) and (5) below:

$$\begin{aligned}
 DAQ = & \alpha_0 + \alpha_1 INVDUR_t + \alpha_2 INVSIZET_t + \\
 & \alpha_3 CODECOMP1_t + \alpha_4 BDSIZET_t + \alpha_5 BDIND_t + \\
 & \alpha_6 GROWTH_t + \alpha_7 AGET_t + \alpha_8 SIZET_t + \alpha_9 LEV_t + \\
 & \alpha_{10} ROA_t + \sum_{i=11}^{n=19} IND_n + \varepsilon_t
 \end{aligned}
 \tag{4}$$

$$\begin{aligned}
 DAQ = & \alpha_0 + \alpha_1 INVDUR_t + \alpha_2 INVSIZET_t + \\
 & \alpha_3 CODEQUAL1_t + \alpha_4 BDSIZET_t + \alpha_5 BDIND_t + \\
 & \alpha_6 GROWTH_t + \alpha_7 AGET_t + \alpha_8 SIZET_t + \alpha_9 LEV_t + \\
 & \alpha_{10} ROA_t + \alpha_n \sum_{i=11}^{n=19} IND_n + \varepsilon_t
 \end{aligned}
 \tag{5}$$

In Equations (4) and (5), the dependent variable *DAQ* is the measure of discretionary accruals quality for investee companies (see discussion in Section 3.4 above). Independent variables include characteristics of the institutional investment. Analysis is also conducted using interactions between the code compliance variables and investment duration and size. The presence of a significant interaction shows that the effect of one variable on the dependent variable is different for values

of another independent variable. In this analysis, it is posited that any negative relation between discretionary accruals quality and investment duration and size will be strengthened by both Code compliance and higher quality Code compliance. The models to test interaction effects of code compliance are shown in Equations (6) and (7) below:

$$\begin{aligned}
 DAQ = & \alpha_0 + \alpha_1 INVDUR_t + \alpha_2 INVSIZ E_t + \\
 & \alpha_3 CODECOMP1_t + \alpha_4 INVDUR_t \times CODECOMP1_t + \\
 & \alpha_5 INVSIZ E_t \times CODECOMP1_t + \\
 & \alpha_6 BDSIZ E_t + \alpha_7 BDIND_t + \alpha_8 GROWTH_t + \alpha_9 AGE_t + \\
 & \alpha_{10} SIZE_t + \alpha_{11} LEV_t + \alpha_{12} ROA_t + \sum_{i=13}^{n=21} IND_n + \varepsilon_t
 \end{aligned}$$

(6)

$$\begin{aligned}
 DAQ = & \alpha_0 + \alpha_1 INVDURA_t + \alpha_2 INVSIZ E_t + \\
 & \alpha_3 CODEQUAL1_t + \alpha_4 INVDURA_t \times CODEQUAL1_t + \\
 & \alpha_5 INVSIZ E_t \times CODEQUAL1_t + \\
 & \alpha_6 BDSIZ E_t + \alpha_7 BDIND_t + \alpha_8 GROWTH_t + \alpha_9 AGE_t + \\
 & \alpha_{10} SIZE_t + \alpha_{11} LEV_t + \alpha_{12} ROA_t + \sum_{i=13}^{n=21} IND_n + \varepsilon_t
 \end{aligned}$$

(7)

In the regression for Code compliance (Equation (6)), the coefficients α_4 and α_5 indicate whether Code compliance moderates the relation between DAQ and investment duration (INVDUR) and size (INVSIZ). Similarly, for the Code quality regression (Equation (7)), the coefficients α_4 and α_5 show if Code compliance quality moderates the relation between DAQ and investment duration and size. A significant and negative relation for the coefficients α_4 and α_5 in both equations will indicate that compliance with the Code and better Code compliance quality is associated with a lower DAQ value and therefore higher earnings quality.

For analysis using interactions, it is recommended that continuous predictor variables are centred because this makes regression coefficients more interpretable and reduces potential collinearity among predictor variables (Aiken and West, 1991; McClelland and Judd, 1993). Centring is performed by subtracting the mean from a variable, leaving deviation scores. This procedure is applied to continuous predictor variables in the regression models.

3.7 Content Analysis

Prior governance studies have used content analysis of company disclosures to assess their quality (Singhvi and Desai, 1971; Williamson, 1985; Forker, 1992; Chen and Jaggi, 2001; Eng and Mak, 2003). In this study, Code compliance information from disclosures by institutional investors is likewise used to assess the quality of Code compliance. Fifty-one Code compliance disclosure statements of institutional investors are located on institutional investor company websites. The quality of Code disclosures is investigated and documented according to an index that scores the quality of institutional investors' adherence to the Code.

To ensure reliability of the content analysis a doctoral student was employed as a second coder for measuring disclosure quality. Reliability is concerned with the consistency of scoring produced by independent observers. To measure reliability, Krippendorff's *alpha* (Krippendorff, 2004) is estimated to determine the coding agreement.

A Code compliance quality index documenting information about the extent of institutional investors' adherence to the Code is constructed. The disclosure metric is based on adherence to each principle in the Code as disclosed in the compliance statements. Three attributes of disclosure quality are 'completeness, accuracy and reliability' according to Singhvi and Desai (1971, p131). The transparency and objectivity of information about how institutional investors comply with the Code is investigated. Specifically, disclosures are examined to determine whether institutional investors comment on each Code principle and whether the disclosed information is objective or subjective. Institutional investor disclosures that provide objective information about compliance with the relevant Code principle are classified as 'hard' disclosures. Otherwise, general and indirect information are categorised as 'soft' disclosures'.

Hard disclosure means information on code compliance is objectively measured, stated clearly and accessible. Examples of 'hard' disclosures for Code

principles are: the frequency of meetings between institutional investor representatives and fund managers; whether institutional investors have regular meetings with the management of investee companies to discuss the company strategy; disclosure of voting history, process and method; and whether institutional investors report periodically on their stewardship and voting activities. In contrast, ‘soft’ disclosures are more subjective, less capable of verification and lack evidence.

In determining the disclosure score, Code compliance statements for each of the seven Code principles are examined. When an investor is considered to have made a ‘hard’ disclosure on any of the Code principles, it receives a score of one. Each of the seven Code principles is evaluated, and a score ranging from 0-7 is determined for each institutional investor. The final score is the total number of Code principles for which at least one ‘hard’ disclosure is made.

3.7.1 Index reliability tests

There are three forms of content analysis reliability: stability, reproducibility and accuracy (Krippendorff, 2004), with reproducibility being the most frequently reported (Weber, 1990). When content analysis involves human coding it is important to validate the coding scheme (Neuendorf, 2002). Reproducibility involves ‘inter-coder reliability’ and ‘intersubjective agreement’ (Krippendorff, 2004, p215), and signifies the degree to which independent judges make the same coding decisions (Lombard et al., 2002). According to Krippendorff (2004), at least two independent coders are required for reproducibility. Accordingly, for this study, a Doctoral student with a background in finance was employed as the second coder. The second coder fulfils the preconditions for generating reliable data, which are an understanding of the coding instructions and capacity to effectively carry out the coding process (Krippendorff, 2004).

To confirm coding agreement, Krippendorff’s agreement coefficient *alpha* (Krippendorff, 2004) was

determined for the researcher and the second employed coder. Minimum *alpha* levels for acceptability of reproducibility are 70 per cent, 80 per cent or higher is acceptable in most situations, and greater than 90 per cent is ideal (Neuendorf, 2002).

3.8 Summary

In summary, this chapter has explained the sample and data used in this study. Also, it provides a detailed description of the dependent and independent variables used in the regression models that test whether Code compliance moderates the relation between investment size and duration and earnings quality. The chapter also describes the content analysis method used to measure the quality of Code compliance by institutional investors. Details of the disclosure index are provided and the method of testing coding reliability is outlined. Table 1 below shows a summary of variables used in the analyses and provides the descriptor used for each variable in the analysis reported in the next chapter.

Table 1: Summary of Variables

Descriptor	Variable	Measurement
<i>Panel A: AQ regression model</i>		
<i>Dependent variable</i>		
ΔWC	Change in working capital	Change in accounts receivable, accounts payable, taxes payable, inventory and other current assets
<i>Independent variable</i>		
CFO_{t-1}	Cash flows in previous year	Cash flows from operating activities in 2012

CFO_t	Cash flows in current year	Cash flows from operating activities in 2013
CFO_{t+1}	Cash flows in next year	Cash flows from operating activities in 2014
ΔREV	Change in sales revenue	Measured as sales revenue in 2013 minus sales revenue in 2012
PPE_t	Property, plant and equipment	Reported property, plant and equipment in 2013
<i>Panel B: DAQ regression model</i>		
<i>Dependent variable</i>		
AQ	Accruals quality	Standard deviation of the regression residuals for 2010-2014
<i>Independent variable</i>		
SIZE	Company size.	Natural log of total assets.
LOSS	Negative earnings	Dummy variable coded 1 if negative net profit after tax reported in 2013;

		otherwise 0
OPCYC	Operating cycle	Natural log of average age of inventory plus the average age of receivable for 2012 and 2013
SDOR	Volatility	Windsorised standard deviation of operating revenue for 2012 to 2014
<i>Panel C: Code compliance and disclosure quality regression model</i>		
<i>Dependent variable</i>		
DAQ	Discretionary accruals quality	Absolute value of residuals from regression shown in Equation 2 for sample of investee companies
<i>Independent Variable</i>		
INVDUR	Institutional Investment duration	Number of years the five largest institutional investors in 2013 have held their ownership in the investee company
INVSIZE	Institutional Investment size. Size of share	Measured as the percentage of ownership calculated by dividing the

	ownership of the five largest institutional investors in the sample of investee companies	number of shares held by the foreign and domestic institutional investors by the total shares issued by the company
CODECOMP1	Code compliance dummy variable	Coded 1 if CODECOMP* larger than its median; otherwise 0
CODEQUAL1	Quality of Code compliance dummy variable	Coded 1 if CODEQUAL* larger than its median; otherwise 0
<i>Control Variables</i>		
BDSIZE	Board size	Number of directors
BDIND	Board independence	Number of non-executive directors on the board divided by the total number of directors
GROWTH	Book to market ratio	Total assets minus total liabilities divided by market capitalization
LEV	Leverage ratio	Total liabilities divided by total assets

SIZE	Company size	Natural log of total assets
AGE	Company age	Number of years since the company was founded
ROA	Return on assets	Net income divided by total assets
IND	Industry classification based on GICS	Dummy variables for industry sectors: materials, consumer staples, industrials, energy, information technology, healthcare, consumer discretionary, telecommunication services and utilities

*Note: CODECOMP means Code Compliance, the indicator for institutional investors that comply with the Code. It is the number of Code compliant investors among the five largest institutional investors. CODEQUAL is quality of Code compliance, indicating the number of ‘hard’ disclosures in the investor’s Code compliance statement related to the seven principles outlined in the Code. Disclosures are classified as ‘hard’ if they are objective and verifiable.

Chapter 4 - Results

4.1 Introduction

This study seeks to identify the relation between compliance with the UK Stewardship Code by institutional investors and investee company earnings quality. The analysis presented tests the hypothesis that Code compliance is associated with less earnings management and therefore higher earnings quality. In this chapter, results of the analyses conducted are presented. First, results are presented of analysis conducted to measure discretionary accruals quality, which is the dependent variable in the main regression analyses. Second, details of the disclosure index that is used to measure Code compliance quality are reported. Third, descriptive statistics of dependent and independent variables in the main analysis are presented. Fourth, results of regression analyses that test the relation between Code compliance by institutional investors and investee earnings quality are reported.

4.2 Earnings Quality

Table 2 reports results of regressions conducted to measure discretionary accruals quality. As discussed in Chapter 3, the method involves two steps. The first step is to determine overall accruals quality by regressing past, present and future cash flows on the current period change in working capital. Following McNichols (2002), change in revenue and current period reported property, plant and equipment are also included in the model. Results of this regression are reported in Panel A of Table 2. The residual value of this regression is the overall measure of accruals quality (AQ).

The second step (reported in Panel B of Table 2) is to regress the overall accruals quality measure (AQ) against innate company characteristics. The residual value from this regression is the measure of discretionary accruals quality as it is the portion of overall accruals quality that is not explained by company fundamentals (Francis et al. 2005).

Table 2: Regressions for Discretionary Accruals Quality

	Coefficient	<i>t</i> -statistic	<i>p</i> -value
Panel A (<i>n</i> =79): McNichols model (Equation (2))			
CFO ₁₂	-0.016	-0.09	0.927
CFO ₁₃	0.245	1.30	0.198
CFO ₁₄	-0.137	-1.39	0.170
ΔREV	0.019	0.28	0.783
PPE	0.001	0.08	0.937

Constant	-0.004	-0.29	0.773
Model Statistics	$F=0.89$		
Adj. R square	-0.194		
Panel B ($n=79$): Francis et al. (2005) model (Equation (3))			
SIZE	0.010	0.748	0.457
LOSS	0.055	2.240	*0.028
OPCYC	-0.021	-1.622	0.109
SDOR	0.000	-0.411	0.683

Constant	0.005	0.089	0.929
Model Statistics	$F=2.44$		
Adj. R square	0.068		

Notes: * denotes significant at $p<0.1$, ** significant at $p< 0.05$, and *** significant at $p<0.01$.

The dependent variable in the McNichols (2002) model is ΔWC , which is the change in accounts receivable, the change in accounts payable, the change in taxes payable, the change in inventory and change in other assets. CFO_{12} , CFO_{13} and CFO_{14} are reported cash flows from operations in year 2012, 2013 and 2014. ΔREV is change in sales revenue from 2012 to 2013, and PPE is reported property, plant and equipment in 2013. The dependent variable in the Francis et al. (2005) reported in Panel B of Table 2 is the residual from the McNichols (2002) model reported in Panel A of Table 2. SIZE is the natural log of total assets for 2013. LOSS is a dummy variable coded 1 if negative net profit after tax is reported in 2013, and 0

otherwise. OPCYC is the natural log of average age of inventory plus the average age of receivables (in days) after winsorizing at 365 days, for 2013. SDOR is the standard deviation of operating revenue divided by total assets for 2012 to 2014.

4.3 Disclosure index

Table 3 below reports the Code disclosure analysis for each Code compliant institutional investor in the sample. There are 51 institutional investors complying with the Code for which compliance statements are found.

In Table 3, the second to fourth columns record the number of words, paragraphs and pages of the Code compliance statements for each institutional investor company. The average number of words of the Code compliance statements is 1565 ranging from 192 to 6102. The average length of compliance statements is 18 paragraphs, with a mean of 3.4 pages. The average score of disclosure quality is 3.2 for the sample, with a minimum score of zero and a maximum score of seven.

The next seven columns document disclosure quality for each principle in the UK Stewardship Code guidelines. Each company is scored as having made at least one hard disclosure (recorded as ‘H’), or as having only made soft disclosures (‘S’). The last column in Table 3 is the total number of hard disclosures for each institutional investor,

which is the index score measure of compliance quality used in the main analysis.

Krippendorff's (2004) alpha is used to measure the reliability of the coding (detailed results of the alpha estimation are reported in Appendix). The coefficient alpha value is 0.851 (85 per cent), which is an acceptable reliability score and indicates the index scoring is reliable (Neuendorf, 2002; Krippendorff, 2004).

Table 3: Code Disclosure Analysis

Institutional Investor	Word	Para.	Page	P1	P2	P3	P4	P5	P6	P7	Index Score
Aberdeen Asset Management PLC	1977	20	5	H	H	H	S	S	H	S	4
Allianz Asset Management AG	490	7	1	H	H	H	S	S	H	H	5
Artemis Investment Management LLP	2850	24	5	H	S	H	S	S	H	H	4
Artisan Partners	1590	21	3	S	H	H	S	S	H	S	3

Limited Partnership												
Aviva Investors Global Services Limited	671	9	2	H	S	S	H	S	H	H		4
AXA Investment Managers S.A.	1086	14	4	H	H	H	S	S	H	H		5
Baillie Gifford and Co.	192	3	1	S	S	S	S	S	S	S		0
BlackRock, Inc.	1611	13	3	H	H	S	H	S	H	H		5

BNP Paribas Investment Partners	933	16	3	H	H	H	H	H	H	H	7
BNY Mellon Asset Management	764	7	3	H	S	H	H	S	H	H	5
Brandes Investment Partners, L.P.	753	9	2	H	S	S	S	H	H	H	4
Brewin Dolphin Limited	1066	20	3	S	H	S	S	S	H	H	3
Cantillon Capital Management LLC	959	8	3	S	S	H	H	S	H	H	4

Cazenove Capital Management Limited	745	9	2	H	S	S	S	S	S	S	1
Cevian Capital Limited	567	10	2	H	S	S	S	S	S	S	1
Cohen and Steers Capital Management, Inc.	913	12	3	H	S	S	H	S	S	H	3
Comgest S.A.	1221	19	4	H	S	S	S	S	S	S	1
Coronation Fund Managers Limited	1063	12	3	S	S	S	H	S	S	S	1

FIL Limited	2050	21	5	H	S	H	H	S	H	H	5
Franklin Resources, Inc.	943	12	2	H	H	H	S	S	H	H	5
Genesis Asset Managers, LLP	1303	20	4	S	H	H	H	S	H	H	5
Henderson Global Investors Limited	1267	20	5	H	S	S	S	S	H	H	3
HSBC Global Asset Management (UK) Limited	1265	16	2	H	H	S	S	S	H	H	4

Invesco Ltd.		1394	18	2	H	S	S	H	S	H	S	3
Investec Management Limited	Asset	1105	9	2	H	S	S	S	S	S	H	2
JPMorgan Management Holdings Inc.	Asset	1373	20	2	H	H	H	H	S	H	H	6
Kames Capital plc		1069	9	3	H	S	H	H	S	H	H	5
Lazard Management LLC	Asset	4353	43	6	H	H	H	H	H	H	H	7

Legal and General Investment Management Limited	2629	35	4	H	S	S	H	S	H	H	4
Lindsell Train Limited	702	12	2	S	S	S	S	S	S	S	0
Marathon Asset Management, LLP	560	12	2	S	S	H	S	S	H	S	2
Massachusetts Financial Services Company	3258	13	3	H	H	S	S	S	H	S	3
Mitsubishi UFJ Asset	571	9	2	S	S	S	S	S	S	S	0

Management Co., Ltd.												
Mondrian Investment Partners Limited	2185	27	4	H	H	S	S	H	H	H		5
Morgan Stanley Investment Management Inc.	1288	17	2	H	H	H	S	S	H	H		5
Norges Bank Investment Management	1602	16	3	S	S	S	S	S	S	S		0

Northern Cross, LLC	729	12	2	H	H	S	S	S	S	S	2
Odey Asset Management LLP	1258	19	3	H	H	S	S	S	H	S	3
Old Mutual Global Investors	380	4	1	S	S	S	S	S	S	S	0
Pictet Asset Management Limited	1260	27	6	S	S	S	S	S	S	H	1
Putnam LLC	2138	23	6	H	S	S	S	S	S	S	1
Schroder Investment Management Limited	1579	27	4	S	H	S	S	S	H	H	3

Silchester International Investors LLP	3291	29	5	H	S	H	S	S	H	H	4
Standard Life Investments Limited	3364	44	9	H	H	S	S	S	H	H	4
State Street Global Advisors, Inc.	4080	41	5	H	H	S	H	S	H	H	5
T. Rowe Price Group, Inc.	1536	10	4	H	H	S	S	S	H	H	4
The Vanguard	2044	27	4	H	H	S	S	S	H	H	4

Group, Inc.												
UBS Global Asset Management	6102	55	8	S	S	H	S	S	H	H		3
Veritas Asset Management LLP	708	13	2	H	S	H	S	S	S	S		2
Walter Scott and Partners Limited	1308	20	4	S	S	S	S	S	H	S		1
Wellington Management Group LLP	1680	20	4	S	S	S	S	S	S	S		0

4.4 Descriptive statistics

Table 4 reports descriptive statistics for dependent and independent variables included in the main regression analysis. Institutional ownership of sample companies is described by two variables. Institutional investment duration (INVDUR) is the sum of the years the five largest institutional investors have retained holdings in the investee company. INVDUR has an average of 17.6 years, with a minimum of 7 years and a maximum sum of 24 years. Institutional investment size (INVSIZE) is the sum of the five largest institutional investors in the investee companies. INVSIZE has an average of 22.2 percent, ranging from 6.1 to 54.7 percent.

The range of Code compliance scores (CODECOMP) for institutional investors across the investee companies extended from 0 - 5, with a median of 4. Of the sample companies, 44 have at least 4 Code compliant institutional investors, and 35 firms have less than 4 institutional investors. CODEQUAL, which is the aggregate score of Code compliance for the top five

institutional investors, has a range from 0 to 28, with a median of 17 and a mean of 16.6. CODEQUAL1 shows that the Code disclosure quality score of institutional investors in 46 firms were above the median score for CODEQUAL.

Panel A in Table 2 also shows descriptive statistics for the corporate governance financial characteristics of the sample companies. For the board governance variables, the number of directors (BDSIZE) ranges from 6 to 28, with an average board size of 10 and a median of 11, and an average of 64 percent of boards comprised of non-executive directors (BDIND). Company size, measured as the natural log of reported total assets, has an average of 10. The book to market ratio, which indicates the growth of sample firms (GROWTH), ranges from -0.01 to 3.9 with a mean of 0.5. The number of years since the firms were founded (AGE) varies between 1 and 196 years, with a mean of 81 years. The leverage ratio (LEV) of sample companies has a maximum value of 1.0 and a minimum of 0.002 with a mean of 0.6. The return on

assets (ROA) ratio ranges from -0.002 to 0.4 with an average value of 0.1.

Finally, the industry classification of the sample firms shows industrials (INDUS) and consumer discretionary (CD) to be the largest groups, with 20 and 17 companies respectively. Of the remaining industry groups, there are 12 companies in consumer staple (CS), 6 in energy (ENERGY), 4 in healthcare (HC), 2 in information technology (IT), 2 in telecommunication (TELEC) and 5 companies in utilities (UTILI).

Table 4: Descriptive Statistics ($n=79$)

Variables	Mean	Std. Dev.	Minimum	Median	Maximum
Panel A: Continuous variables					
INVDUR	17.582	3.350	7.000	18.000	24.000
INVSIZ	22.153	7.770	6.091	21.470	54.651
CODECOMP	3.443	1.035	0.000	4.000	5.000
CODEQUAL	16.595	5.464	0.000	17.000	28.000
BDSIZE	11.038	3.535	6.000	10.000	28.000
BDIND	0.643	0.158	0.214	0.636	1.000

SIZE	9.994	0.585	9.102	9.881	11.553
GROWTH	0.492	0.530	-0.014	0.347	3.875
AGE	81.013	58.812	1.000	77.000	196.000
LEV	0.589	0.187	0.002	0.592	1.024
ROA	0.117	0.059	-0.002	0.109	0.350
Panel B: Dummy variables					
	Coded 1	Coded 0			
CODECOMP1	44.000	35.000			

CODEQUAL1	46.000	33.000			
LOSS	4.000	75.000			
Industry					
CD	17.000	62.000			
CS	12.000	67.000			
ENERGY	6.000	73.000			
HC	4.000	75.000			
INDUS	20.000	59.000			
IT	2.000	77.000			

MAT	11.000	68.000			
TELEC	2.000	77.000			
UTILI	5.000	74.000			

SIZE is company size, measured as natural log of total assets; LOSS is negative earnings, measured as dummy variable coded 1 if negative net profit after tax is reported in 2013; otherwise 0. INVDUR is institutional investment duration, measured as number of years the five largest institutional investors in 2013 have held their ownership in the investee company. INVSIZE is institutional investment size (size of share ownership of the five largest institutional investors in the sample of investee companies), measured as the percentage of ownership calculated by dividing the number of shares held by the foreign and domestic institutional investors by the total shares issued by the company. CODECOMP is Code

Compliance, indicator for institutional investors that comply with the Code, measured as number of Code compliant investors among the five largest institutional investors. CODECOMP1 is the Code compliance dummy variable, coded 1 if CODECOMP is larger than its median; otherwise 0. CODEQUAL is quality of Code Compliance, measured as the number of ‘hard’ disclosures in the investor’s Code compliance statement related to the seven principles outlined in the Code. Disclosures are classified as ‘hard’ if they are objective and verifiable. CODEQUAL1 is quality of Code compliance dummy variable, coded 1 if CODEQUAL larger than its median; otherwise 0. BDSIZE is board size, measured as the number of directors. BDIND is board independence, measured as the number of non-executive directors on the board divided by the total number of directors. GROWTH is book to market ratio, measured as total assets minus total liabilities divided by the market capitalization. LEV is leverage ratio, measured as total liabilities divided by total assets. AGE is company age, measured as the number of years that the company has been founded; ROA is

return on assets, measured as net income divided by total assets; industry dummy variables include materials (MAT), consumer staples (CS), industrials (INDUS), energy (ENERGY), information technology (IT), healthcare (HC), consumer discretionary (CD), telecommunication services (TELEC) and utilities (UTILT).

4.5 Bivariate Tests

Table 5 reports correlation measures for all independent variables included in the regression analysis. The correlations between the Code compliance indicator and other independent and control variables are not significant. Code disclosure quality (CODEQUAL1) was significantly correlated with leverage (LEV) ($p < 0.05$). Of the institutional ownership characteristics, investment duration (INVDUR) was significantly correlated to investee company board size (BDSIZE) and company size (SIZE) at $p < 0.01$. Institutional investment size (INVSIZE) was significantly correlated to total assets (SIZE) at $p < 0.01$, and significantly correlated with board size (BDSIZE) ($p < 0.1$). None of the reported correlations are of significant magnitude to suggest concerns with multicollinearity.

Table 5: Correlation matrix ($n=79$)

	INV DUR	INVS IZE	COD ECO MP1	COD EQU AL1	BDSI ZE	BDI ND	GRO WTH	AG E	SIZE	LE V	ROA
INVDU R	1.00 0										
INVSIZ E	- 0.12 6	1.000									
	0.26 8										

CODEC OMP1	- 0.12 3	0.013	1.000								
	0.28 2	0.912									
CODEQ UAL1	0.05 6	-0.035		1.000							
	0.62 6	0.761									
BDSIZE	***0 .313	*_ 0.205	- 0.019	0.017	1.000						
	0.00	0.070	0.868	0.886							

	5										
BDIND	0.03	-0.153	-	-	***-	1.00					
	0		0.053	0.007	0.292	0					
	0.79	0.180	0.642	0.954	0.009						
	0										
GROWT	-	-0.005	-	0.028	-	-	1.000				
H	0.08		0.002		0.007	0.00					
	7					3					
	0.44	0.964	0.984	0.804	0.949	0.98					
	6					2					
AGE	0.09	0.017	-	-	0.053	0.10	-0.134	1.0			

	0		0.127	0.139		7		00			
	0.42 9	0.883	0.264	0.223	0.645	0.34 9	0.240				
SIZE	***0 .351	***_ 0.421	- 0.024	0.080	***0. 362	0.14 2	***0. 331	- 0.1 36	1.000		
	0.00 2	0.000	0.833	0.483	0.001	0.21 3	0.003	0.2 33			
LEV	0.05 3	-0.147	0.186	**0.2 29	0.068	- 0.15 2	**_ 0.237	- 0.1 58	0.149	1.0 00	
	0.64	0.195	0.102	0.042	0.552	0.18	0.036	0.1	0.191		

	2					0		64			
ROA	0.10	0.091	-	-	-	0.04	***-	0.1	***-	0.1	1.00
	8		0.009	0.146	0.134	5	0.389	70	0.352	51	0
	0.34	0.426	0.936	0.201	0.238	0.69	0.000	0.1	0.002	0.1	
	5					1		35		84	

Notes: * denotes significant at $p < 0.1$, ** significant at $p < 0.05$, and *** significant at $p < 0.01$.

INVDUR is institutional Investment duration, measured as number of years the five largest institutional investors in 2013 have held their ownership in the investee company. INVSIZE is institutional investment size (size of share ownership of the five largest institutional investors in the sample of investee companies), measured as the percentage of ownership calculated by dividing the number of shares held by the foreign and domestic institutional investors by the total shares issued by the company. CODECOMP is Code Compliance, an indicator for

institutional investors that comply with the Code, measured as the number of Code compliant investors among the five largest institutional investors. CODECOMP1 is a Code compliance dummy variable, coded 1 if CODECOMP is larger than its median; otherwise 0. CODEQUAL is quality of Code Compliance, measured as the number of ‘hard’ disclosures in the investor’s Code compliance statement related to the seven principles outlined in the Code. Disclosures are classified as ‘hard’ if they are objective and verifiable. CODEQUAL1 is quality of Code compliance dummy variable, coded 1 if CODEQUAL is larger than its median; otherwise 0. BDSIZE is board size, measured as the number of directors. BDIND is board independence, measured as the number of non-executive directors on the board divided by the total number of directors. GROWTH is book to market ratio, measured as total assets minus total liabilities divided by the market capitalization. LEV is leverage ratio, measured as total liabilities divided by total assets. AGE is company age, measured as the number of years

that the company has been founded; ROA is return on assets, measured as net income divided by total assets.

4.6 Multivariate Analysis

4.6.1 Direct effect regressions

The regressions of Code compliance indicators and investee firms' characteristics on the measure of discretionary accruals quality (DAQ) are reported in Table 6. The analysis shows the direct effects of Code compliance on discretionary accruals, with Panel A reporting results for the code compliance indicator (CODECOMP1) and Panel B reporting results for the Code compliance quality indicator (CODEQUAL1). Both models are significant, and the adjusted R-square values show that 9.4 and 8.6 percent of variance in DAQ is explained by the models, respectively.

The two Code compliance variables CODECOMP1 and CODEQUAL1 are not significant in either model. The two institutional ownership variables, investment duration (INVDUR) and investment size (INVSIZE), are significant at $p < 0.05$ and $p < 0.01$ respectively. The coefficients are negative, so longer duration and greater size of investment is negatively related to discretionary

accruals quality (DAQ). A smaller value of DAQ means less earnings management and therefore higher earnings quality. The results for duration and size are consistent with prior studies (Shleifer and Vishny, 1986; Maug, 1998; Koh, 2003; Koh and Hsu, 2005; Roychowdhury and Watts, 2007; Wang, 2014).

The proportion of independent directors on the board (BDIND) is significantly negatively related to DAQ in both models. This negative significant relation between board independence and earnings management is consistent with previous studies showing that larger number of outside directors is linked to more effective board monitoring and less incidence of financial fraud (Brickley et al., 1994; Dechow et al., 1996; Beasley, 1996; Peasnell et al., 2005).

Table 6: Regression Results - Direct Effects

Panel A: Code Compliance (Equation (4))				
Variable	Predicted Sign	Coefficient	t-statistic	<i>p</i> value
Constant		0.024	2.708	***0.009
INVDUR	-	-0.003	-2.515	**0.015
INVSIZE	-	-0.001	-1.761	*0.083
CODECOMP1	-	-0.008	-1.09	0.280
BDSIZE	-	0.001	0.394	0.695
BDIND	-	-0.05	-1.763	*0.083
GROWTH	+	0.005	0.603	0.549
AGE	-	0.000	0.613	0.542
SIZE	-	-0.009	-0.861	0.393

LEV	+	0.014	0.601	0.55
ROA	-	0.048	0.574	0.568
Industry Included				
Model Statistics	$F=1.448$			
Adj. R-Squared	0.094			
Panel B: Code Compliance Quality model (Equation (5))				
Variable	Predicted Sign	Coefficient	t-statistic	<i>p</i> value
Constant		0.024	2.544	**0.014
INVDUR	-	-0.003	-2.285	**0.026
INVSIZ	-	-0.001	-1.795	*0.078
CODEQUAL1	-	-0.007	-0.804	0.425
BDSIZE	-	0.001	0.381	0.705

BDIND	-	-0.048	-1.694	*0.095
GROWTH	+	0.005	0.565	0.574
AGE	-	0.000	0.59	0.558
SIZE	-	-0.009	-0.817	0.417
LEV	+	0.012	0.487	0.628
ROA	-	0.051	0.606	0.547
Industry Included				
Model Statistics	$F=1.406$			
Adj. R-Squared	0.086			

Notes: * denotes significant at $p < 0.1$, ** significant at $p < 0.05$, and *** significant at $p < 0.01$. The discretionary accruals quality (DAQ) is used as a proxy for earnings quality, which is the dependent variable in the empirical models. INVDUR is institutional Investment duration, measured as the number of years the five largest institutional investors in 2013 have held their

ownership in the investee company. *INVSIZE* is institutional investment size (size of share ownership of the five largest institutional investors in the sample of investee companies), measured as the percentage of ownership calculated by dividing the number of shares held by the foreign and domestic institutional investors by the total shares issued by the company. *CODECOMP* is Code Compliance, an indicator for institutional investors that comply with the Code, measured as the number of Code compliant investors among the five largest institutional investors. *CODECOMP1* is the Code compliance dummy variable, coded 1 if *CODECOMP* is larger than its median; otherwise 0. *CODEQUAL* is quality of Code Compliance, measured as the number of ‘hard’ disclosures in the investor’s Code compliance statement related to the seven principles outlined in the Code. Disclosures are classified as ‘hard’ if they are objective and verifiable. *CODEQUAL1* is the quality of Code compliance dummy variable, coded 1 if *CODEQUAL* is larger than its median; otherwise 0. *BDSIZE* is

board size, measured as the number of directors. BDIND is board independence, measured as the number of non-executive directors on the board divided by the total number of directors. GROWTH is book to market ratio, measured as total assets minus total liabilities divided by the market capitalization. LEV is leverage ratio, measured as total liabilities divided by total assets. AGE is company age, measured as the number of years that the company has been founded; ROA is return on assets, measured as net income divided by total assets; Industry classifications include consumer staples, industrials, energy, information technology, healthcare, consumer discretionary, materials, telecommunication services and utilities.

4.6.2 Interaction effect regressions

Regression analysis with interaction terms for Code compliance and Code compliance quality is presented in Table 7. Overall, the results are qualitatively similar to those reported in Table 6. Both models are significant, and the adjusted R-square values show that 9.4 and 8.7 percent of variance in DAQ is explained by the models, respectively.

Investment duration (INVDUR) and investment size (INVSIZE) are both negatively significantly related to earnings management ($p < 0.05$). Four interaction terms are included to test the hypotheses that Code compliance and Code compliance quality moderates the relation between investment size and duration and DAQ. The analysis reported in Panel A and Panel B of Table 7 show that none of the interaction variables are significant. However, the regression results for the second interaction term in equation (6) indicate a marginal significant relation ($p < 0.1$) between Code compliant institutional investors and their investee firms' earnings management. It shows the DAQ increase 0.002 with every unit increase

in investment size (INVSIZE) of Code compliant institutional investors. Therefore, the results do not provide support for H1 and H2.

Table 7: Regression Results - Interaction Effects

Panel A: Code Compliance (Equation (6))				
Variable	Predicted Sign	Coefficient	<i>t</i> -statistic	<i>p</i> value
Constant		0.020	2.137	0.037
INVDUR	-	-0.004	-2.16	**0.035
INVSIZ	-	-0.001	-2.168	**0.034
CODECOMP1	-	-0.008	-1.088	0.281
INVDUR*CODECOMP1	-	0.000	0.11	0.913
INVSIZ*CODECOMP1	-	0.002	1.417	*0.162
BDSIZE	-	0.001	0.731	0.468
BDIND	-	-0.045	-1.561	*0.124

GROWTH	+	0.000	0.257	0.798
AGE	-	0.000	0.589	0.558
SIZE	-	-0.008	-0.769	0.445
LEV	+	0.011	0.436	0.665
ROA	-	0.079	0.916	0.363
Industry Included				
Model Statistics	$F=1.404$			
Adj. R-Squared	0.094			
Panel B: Code Compliance Quality (Equation (7))				
Variable	Expected Sign	Coefficient	t -statistic	p value
Constant		0.024	2.500	0.015
INVDUR	-	-0.003	-1.755	*0.085
INVSZ	-	-0.001	-2.234	**0.029

CODEQUAL1	-	-0.006	-0.787	0.435
INVDUR*CODEQUAL1	-	-0.001	-0.35	0.728
INVSIZ*CODEQUAL1	-	0.002	1.343	*0.184
BDSIZE	-	0.001	0.555	0.581
BDIND	-	-0.037	-1.242	0.219
GROWTH	+	0.000	0.221	0.826
AGE	-	0.000	0.445	0.658
SIZE	-	-0.005	-0.426	0.672
LEV	+	0.005	0.184	0.854
ROA	-	0.095	1.065	0.291
Industry Included				
Model Statistics	<i>F</i> =1.373			

Adj. R-Squared	0.087
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Notes: * denotes significant at $p < 0.1$, ** significant at $p < 0.05$, and *** significant at $p < 0.01$.

The discretionary accruals quality (DAQ) is used as a proxy for earnings quality, which is the dependent variable in the empirical models. INVDUR is institutional Investment duration, measured as the number of years the five largest institutional investors in 2013 have held their ownership in the investee company. INVSIZE is institutional investment size (size of share ownership of the five largest institutional investors in the sample of investee companies), measured as the percentage of ownership calculated by dividing the number of shares held by the foreign and domestic institutional investors by the total shares issued by the company. CODECOMP is Code Compliance, an indicator for institutional investors that comply with the Code, measured as the number of Code compliant investors among the five largest institutional investors. CODECOMP1 is the Code compliance dummy variable, coded 1 if CODECOMP is larger than its median; otherwise 0. CODEQUAL is quality of Code

Compliance, measured as the number of ‘hard’ disclosures in the investor’s Code compliance statement related to the seven principles outlined in the Code. Disclosures are classified as ‘hard’ if they are objective and verifiable. CODEQUAL1 is the quality of Code compliance dummy variable, coded 1 if CODEQUAL is larger than its median; otherwise 0. $INVDUR*CODECOMP1$, $INVSIZ*CODECOMP1$, $INVDUR*CODEQUAL1$ and $INVSIZ*CODEQUAL1$ are interaction terms, and the coefficients of these interactions indicate with every unit increase in $INVDUR_t$ and $INVSIZ_t$, the effect of compliance with the Code and better Code disclosure quality made by institutional investors on earnings management. BDSIZE is board size, measured as the number of directors. BDIND is board independence, measured as the number of non-executive directors on the board divided by the total number of directors. GROWTH is book to market ratio, measured as total assets minus total liabilities divided by the market capitalization. LEV is leverage ratio, measured as total

liabilities divided by total assets. AGE is company age, measured as the number of years that the company has been founded; ROA is return on assets, measured as net income divided by total assets; Industry classifications include consumer staples, industrials, energy, information technology, healthcare, consumer discretionary, materials, telecommunication services and utilities.

4.7 Summary

In summary, institutional investors with longer investment duration and larger investment size can help constrain earnings management of their investee firms. However, the first hypothesis in this thesis of an enhanced positive relation between Code compliant longer investment duration institutional investors and investee firms' earnings quality is not supported by the results. Similarly, this study finds no evidence supporting the second hypothesis that the positive relation between institutional investment size is stronger if institutional investors comply with the Code. Therefore, the overall conclusion is that Code compliance by institutional investors does not strengthen the influence of institutional investors on investee companies such that they obtain a higher quality of reported earnings. A Code disclosure quality index is constructed and presents the Code compliance situation in detail, with an acceptable reliability of 85 per cent.

Chapter 5 Conclusion

5.1 Summary of the study and findings

This study empirically examined whether compliance with the UK Stewardship Code by institutional investors would have a positive effect on the earnings quality of investee companies. It was assumed that Code compliance by institutional investors would enhance monitoring of investee companies' accounting activities and result in a higher quality of reporting earnings. The McNichols (2002) version of the Dechow and Dichev (2002) model is applied to measure overall accruals quality, and the technique suggested by Francis et al. (2005) is applied to calculate the discretionary accruals quality.

Regression models were used to test the association between institutional investors and earnings quality using measurement of discretionary accruals quality as the dependent variable. Consistent with prior studies, evidence was found that institutional investors' investment duration and investment size were positively

related to earnings quality. In order to answer the research question, regression analyses with interaction terms for code compliance and code compliance quality were conducted. However, the results did not show that institutional investor compliance with the Code strengthened the positive relation between investment duration and size on investee company earnings quality.

5.2 Discussion on possibilities of the Code non-effectiveness

Examination of the association between Code compliance by institutional investors and levels of investee earnings management did not reveal significant results, which is consistent with the prediction made by prior researchers that adoption of the Code is unlikely to have a transformative impact on institutional investors' engagement in corporate governance (Cheffins, 2010; Roach, 2011; Arsalidou, 2012; Reisberg, 2015). This result may be the consequence of deficiency in the Code

itself, the passive nature of UK shareholders, or other limitations of the conduct of this study.

According to commentary on the Code, deficiency of the Code is possible in three areas. The first area stems from the domestic focus and lack of comprehensive coverage of the Code (Cheffins, 2010; Roach, 2011; Arsalidou, 2012). Coverage of the Code is limited to UK institutional investors in listed companies. However, less than one-third of the ordinary shares in the UK are held by domestic institutional investors, and almost half of all shares are held by foreign investors. Cheffins (2010, p1020) provides analysis that suggests that ‘the fragmentation of share ownership in the UK stands out as a major stumbling block to activism by the mainstream institutional investors and may be reducing the investors’ sense of responsibility’, thus weakening the Code’s usefulness as a corporate governance mechanism. Another potential shortcoming of the Code is the comply-or-explain model (Cheffins, 2010; Arsalidou, 2012). This flexible compliance approach means institutional investors could fail to regard compliance as a priority

(Cheffins, 2010). A further issue that can limit the effectiveness of the Code is that it fails to meet the criteria of establishing ‘a set of high quality and forward-looking engagement principles’ (Roach, 2011, p.493). Even the Financial Reporting Council itself has commented that many statements in the Code to guide investor practices could be improved (Financial Reporting Council, 2014).

The effectiveness also depends on whether activism by institutional investors is regarded as beneficial. The idea that shareholders with responsibility should play a positive role in reforming UK corporate governance should not be taken for granted (Cheffins, 2010). Obstacles to their playing a positive role are insufficient expertise of institutional investors, a preference not to be ‘locked in’ by policies or interventions, and the cost and inconvenience associated with activism (Sullivan, 2010). Moreover, fund managers normally focus on trading decisions rather than act as owners. Additional concerns about shareholder activism stem from the passive nature of some institutional investors, as they are generally

disinterested in monitoring their companies (Reisberg, 2015).

However, the results of this study cannot be fully explained even by assuming a degree of deficiency in both the tenets of the Code and its execution by institutional investors. Several limitations of the study itself may have impacted the results. First, the sample size of this study may not be sufficiently large enough. It is limited to FTSE 100 companies and studied 103 institutional investors in total, which is a small percentage of the 300 or so companies that have indicated some degree of Code compliance (according to the Financial Reporting Council). In addition, the time frame of the study is short, which means the Code may not have yet been completely integrated by investor companies. It should also be recognised that the earnings quality measure used in this study is inefficient at measuring discretionary accruals quality.

This study finds that there is no significant association between Code compliance and quality of reported earnings, which is just one measure of corporate

performance that could be influenced by investor companies. Accounting ability is important but not the only measurement of shareholder's monitoring effectiveness.

Lastly, although institutional investors were defined and studied according to their investment size and investment durations in this study, classification should not be limited to these two categories. Institutional investors can also be categorised and investigated according to their investment asset objectives such as banks, mutual funds, pension funds, hedge funds, endowments, insurance companies, private equity funds and wealth funds. Qiu (2006) adopted this method of classification and found that large pension fund shareholders were effective monitors.

5.3 Discussion of endogeneity problem

The problem of endogeneity is common in corporate governance studies (Brown et al, 2011; Roberts and Whited, 2012; Gippel et al., 2015), and is of concern regarding econometric tests of the hypotheses for this study. Endogeneity problems may arise if earnings quality and Code compliance are jointly determined or if omitted variables lead to spurious results. The scope of this thesis does not extend to addressing endogeneity concerns. Options available for addressing endogeneity include using instrumental variables. An alternative is to exploit circumstances that make a natural experiment possible (Gippel et al., 2015). This may be possible in the circumstances of the current study, as introduction of the UK Stewardship Code is not related to the incidence of earnings management by investee companies.

5.4 Implications and further research

Limitations of this study provide opportunities for further research. Firstly, the sample can be extended to FTSE 200 or 300 and the sample time frame could be extended. Secondly, alternative measures of earnings quality or earnings management could be used, such as the Jones (1991) model. Thirdly, how risk is monitored and assessed, and how firm performance is optimized, can be investigated as alternative indicators of corporate governance when examining the effectiveness of the Code. Lastly, Code compliance by different types of institutional investors could be classified according to ownership type.

This study has academic implications. The findings of this thesis offer some insight regarding the role of institutional investors in constraining earnings management. Institutional investors are a complex group with diverse types of financial institutions, and they should be analysed with multiple dimensions regarding monitoring activities in future research.

This study also has implications for practitioners and policymakers. It meets the need for research to test the efficacy of policy decisions that result in implementation of corporate governance codes. Policymakers may pay attention to the present study in terms of the information it provides regarding the enhancement of institutional investors' engagement with investee companies. This study also provides empirical evidence that raises questions regarding the effectiveness of a comply-or-explain model. Policymakers may also need to consider compliance regulation when revising the existing Code.

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Appendix

Krippendorff's Alpha Reliability Estimate

Observrvs	Alpha	LL95%CI	UL95%CI	Units
Pairs				
Ordinal	.8509	.7269	.9492	51.0000
2.0000	51.0000			
Probability (q) of failure to achieve an alpha of at least alphamin:				
alphamin	q			
.9000	.7983			
.8000	.1774			
.7000	.0087			
.6700	.0034			
.6000	.0001			
.5000	.0000			
Number of bootstrap samples: 10000				
Judges used in these computations: OBS1 OBS2				
Observed Coincidence Matrix				
10.0	.00	.00	1.00	.00
	.00	.00	.00	.00
				.0

0							0
.00	6.00	2.00	2.00	1.00	.00	.00	.0 0
.00	2.00	4.00	1.00	.00	1.0 0	.0 0	.00
1.00	2.00	1.00	16.0 0	2.0 0	.0 0	1.00	.00
.00	1.00	.00	2.00	16.0 0	1.0 0	.0 0	.0 0
.00	.00	1.00	.00	1.00	18.0 0	1.00	.00
.00	.00	.00	1.00	.00	1.00	2.00	.0 0
.00	.00	.00	.00	.00	.00	.00	4.0 0
Expected Coincidence Matrix							
1.09	1.2 0	.87	2.5 0	2. 1	2.29	.44	.44

				8			
1.20	1.0 9	.87	2.5 0	2. 1 8	2.29	.44	.44
.87	.87	.55	1.82	1.58	1.66	.32	.32
2.50	2.5 0	1.82	5. 01	4.55	4.78	.91	.9 1
2.18	2.1 8	1.58	4. 55	3.76	4.16	.79	.79
2.29	2.2 9	1.66	4. 78	4.16	4.16	.83	.83
.44	.44	.32	.91	.79	.83	.1 6	. 1 2
Delta Matrix							
.00	121. 00	420. 25	1296 .00	330 6.25	6084 .00	8190 .25	8930 .25
121.	.00	90.	625	2162	4489	6320	6972

00		25	.00	.25	.00	.25	.25
420. 25	90.2 5	.00	240. 25	1369 .00	3306 .25	4900 .00	5476 .00
1296 .00	625. 00	240.2 5	.00	462. 25	1764 .00	2970 .25	3422 .25
3306 .25	2162 .25	1369 .00	462 .25	.00	420. 25	1089 .00	1369 .00
6084 .00	4489 .00	3306 .25	176 4.00	420. 25	.00	156. 25	272. 25
8190 .25	6320 .25	4900 .00	297 0.25	1089 .00	156 .25	.0 0	16 .0 0
8930 .25	6972 .25	547 6.00	3422 .25	1369 .00	272. 25	16. 00	.0 0
Rows and columns correspond to following unit values							
.00	1.00	2.0 0	3.00	4.00	5.0 0	6.00	7.00

Note: After run commands `KALPHA judges = 2/level = 2/detail = 1/boot = 1000`, the alpha value obtained is 0.8509, which is an acceptable reliability level.