

**SRI INDICES AND RESPONSIBLE CORPORATE BEHAVIOUR:
A STUDY OF THE FTSE4GOOD INDEX**

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Abstract

In recent years a large number of rankings, ratings and indices have been developed that attempt to measure the Corporate Social Responsibility (CSR) of companies. Substantive growth in the Socially Responsible Investment (SRI) market in the last decade plays a major role in this development. Little is known about the extent to, and ways in which, the metrics developed for the SRI market may contribute to improvements in CSR. The research aims to answer these questions by studying the FTSE4Good index, an SRI index launched by FTSE Group in 2001. The research examines how this metric for the SRI market is developed by FTSE with the help of third parties; and the influence of the index on the responsible corporate behaviour of included companies. A mixed-methods approach to data collection and analysis is used to study these two research questions, drawing on interviews, archival data and document analysis, media analysis and multivariate analysis.

The research employs an institutional work perspective to study the practices of individual and collective actors aimed at creating, maintaining, and disrupting institutions (Lawrence, Suddaby & Leca, 2011). The research shows how the FTSE4Good index has become an integral part of international accountability standards that have emerged in the CSR field (Waddock, 2008a; Waddock, 2008b). Three types of activities underpin this trend: first, the work by FTSE and social rating agency EIRIS to frame the index inclusion criteria and measure compliance; second, the process of engagement and dialogue with companies and third parties (e.g. NGOs) by the FTSE Responsible Investment (RI) team; and third, the valorising by companies and third parties of the index as a *de facto* CSR standard.

The research builds on a central concern in the social sciences regarding reactivity – the idea that people change their behaviour in reaction to being

evaluated, observed or measured. External metrics that evaluate, measure or rank the performance of organisations often induce strong reactivity (Espeland & Sauder, 2007). The research findings show how, as the bar for inclusion in the FTSE4Good index is continuously raised, companies react by adjusting their behaviour in line with the index criteria. A dynamic conceptualisation of reactivity is developed, and the range of organisational responses to CSR metrics in the SRI market is explored. The engagement dialogue between the FTSE RI team and included companies is one of the main mechanisms to create reactivity, as it provides companies an opportunity to obtain advice and guidance about the index inclusion criteria. A conceptual framework is developed that links engagement, symbolism and routine practices of calculation and measurement to changes in corporate behavior.

The research examines the institutional work needed for reactivity to occur. The study contributes to the literature on SRI by providing qualitative and quantitative analyses of the effect of engagement by the FTSE RI team on the responsible behaviour of companies. The research contributes to the study of reactivity and metrics by highlighting the work that is needed from the part of both the organisation undertaking the measurement and the organisations that are subject to the evaluation. The research contributes to the study of institutional work by incorporating sociomateriality (Orlikowski & Scott, 2008) into the analysis of embedded agency. The study has implications for those seeking to govern by metrics, as it shows how striking a balance between what *can* be measured and what *ought* to be measured is complicated and requires a lot of work. Lastly, the research opens up a number of venues for future research into CSR, SRI and institutional work.

Publications Declaration

The following is a list of my publications both related to, and arising from the research carried out for this PhD.

1. Slager, R., Gond, J-P., & Moon, J. 2010. What gets measured gets managed? The impact of SRI indices on responsible corporate behaviour. *Academy of Management Best Paper Proceedings*
2. Slager, R., Gond, J-P., & Moon, J. 2012. Standardization as institutional work: The regulatory power of a responsible investment standard *Organization Studies* 33(6)
3. Slager (2012) Calculative Routines and Dynamic Reactivity: How an SRI Index Shapes CSR Practices. *Academy of Management Best Paper Proceedings* (forthcoming).

The empirical research of papers 2 and 3 is incorporated within the empirical chapters of the thesis (Chapters 4 and 5).

In all publications with co-authors I was responsible for the original research idea, and I was responsible for the design and conduct of the research, in close consultation with the co-authors. In each case I undertook the analysis and drafted the initial write up of the research. My co-authors then contributed to these papers, and after further discussion and revisions I finalised drafts for submission to reviewers. Conference papers describing preliminary findings of the research have been awarded a research award for Best Ongoing Research by the French Forum for Responsible Investment in 2009, and an award for Best Paper by the UN Principles for Responsible Investment and the Danish Government in 2010.

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1. Introduction

It was the night before Christmas and all through the warehouse there were scenes of frantic activity as the employees of SClaus, distributor of seasonal novelties, prepared for their most important 12 hours of trading in the entire year.

Groups of casual Christmas staff, known as little helpers, were processing soot-stained batches of very late orders. Outside, a team of reindeer, used to pull the firm's quaint but surprisingly speedy distribution vehicle, munched on a last meal of hay. And at the centre of this bustle, keeping everything humming, was Santa Claus himself. Until, that was, his secretary led two strangers out on to the warehouse floor.

"Mr Claus?" said an unsmiling man in a pinstriped suit. "My name is Box, and this is my colleague Ms Ticker. Sorry about the late hour but I'm here to check your Higgs-compliance."

Santa bridled visibly. "Sir," he said, "what a man does in the privacy of his own home with a consenting creature is nobody's business but his."

"Mr Claus, I think you misunderstand," said Ms Ticker. "Mr Box and I are investment experts from the City of London. He is here to check whether your company complies with the corporate governance code, as recently amended by the Higgs report. I am a specialist in corporate social responsibility. I decide whether companies are good citizens."

"I get it," said Santa, relaxing, "it's a bit like my job, checking who is naughty and nice . . ."

"Exactly, and those who are really, really nice may qualify for inclusion in the FTSE4Good index."

"Crumbs," said Santa. "I should get in. My mission statement is to dispense happiness to millions of children . . ."

"We will be the judges of that," said Mr Box tartly, holding up a clipboard. "Now kindly answer the following questions. First, executive pay. How long is your contract?"

Santa stroked his beard. "Well, a lifetime, I guess . . ."

"Surely not," snapped Mr Box. "Don't you realise 12 months is the standard now?"

". . . Just like my father's and his before him."

"Serial nepotism," muttered Mr Box, "this is worse than BSKyB . . . now, what about the perks of your job. Do you have a bonus system, and is it performance-related?"

"Well, yes, in a manner of speaking," said Santa. "For each delivery I make I get a mince pie and glass of sherry and the reindeer get to share a carrot."

"Up to what limit?"

"Well, no limit. The more houses, the more sherry . . . it's a unique arrangement."

"Uncapped bonuses, no adequate comparator group of companies," hissed Mr Box, "this is worse by far than GlaxoSmithKline. Now, Mr Claus, tell us about your board, I presume you have a separate chairman and chief executive?"

"No, there's just me, and I've no plans to change the custom of hundreds of years."

"Worse than British Land! And do you have a majority of independent non-executives?"

"Well, I suppose I occasionally consult the reindeer about directions."

"This makes Wm Morrison look acceptable!" groaned Mr Box, writing furiously and allowing his colleague to take up the interrogation.

"Mr Claus," she said, "just looking round this warehouse I can see large numbers of very small people working extremely hard at an unsociable hour of the evening."

"Yes," said Santa proudly, "my little helpers."

"You are employing under-aged labour in sweatshop conditions that would shame the most underdeveloped country. As for those poor reindeer - expected to circle the earth all night - I've never seen a worse case of animal exploitation. . . And I do not observe any signs of ethnic diversity."

"Persons of colour are hard to come by at the North Pole," said Santa.

Ignoring him, Ms Ticker pressed on: "Now, how well developed is your supply chain audit system?"

"Golly," said Santa, "what's that?"

She picked up a piece of bright red wrapping paper. "Can you assure me this is not the result of wanton destruction of tropical rainforests?"

"How should I know?"

"That's the point, Mr Claus. We expect you to know. We expect you to have in place a sophisticated system for monitoring the sources of all your raw materials, to be compliant with best ecosystem management practice."

"Blimey," said Santa, "that takes the biscuit. All your endless rules and regulations. I've had enough. I'm cancelling Christmas - even if that means kids weeping all round the world."

"Er, isn't that a bit radical?" said Mr Box, backtracking quickly. "Under the Higgs code, you have the choice of complying with our rules or explaining why you are not. We don't want to be accused of destroying the Christmas spirit."

"Then perhaps," said Santa, climbing into his sled, "you folks should blooming well pay more attention to the spirit of things and less to the box-ticking letter."

And they heard him declaim, as he drove out of sight: "Happy Christmas to all, and to all a good night."

From the Financial Times. 24th December 2003. 'The Night before Christmas at S Claus and Co' .Martin Dickson. The Financial Times Limited © 2003. All Rights Reserved

1.1 Introduction

The publication in 2003 of Martin Dickson's satirical piece on Corporate Social Responsibility (CSR) and the FTSE4Good index came at a time of rapid developments in the popularity of CSR amongst management practitioners and management scholars. Whilst scholarly contributions to the subject of CSR date back to the 1950s, CSR has in particular risen to prominence in management practice in the 1990s and 2000s (Crane, McWilliams, Matten, Moon, & Siegel, 2008). It has acquired distinctive organisational status within many companies, for example through designated CSR departments and staff members in charge of CSR policies and management systems, assignment of senior management responsibilities and related incentive structures (Crane et al, 2008: 4). The prominence of CSR can also be witnessed in the increase in corporate reporting: 95% of the largest global companies report on their CSR activities in 2010, up from 50% in 2005 (KPMG 2005, 2011).

Although the reasons for the rise in prominence of CSR are many and complex, the increase in Socially Responsible Investment (SRI) is often pointed to as one of the factors contributing to this development (e.g. see Kurtz, 2008). The SRI market worldwide continues to grow, despite the current economic and financial crisis (Eurosif, 2010; SIF, 2010). Today's developments in the SRI market are linked to the rise of institutional investors, such as pension funds, which have become the largest corporate equity holder in global financial markets (Useem, 1996; Verstegen Ryan & Schneider, 2002). As institutional investors have become interested in the SRI market, they have put less emphasis on excluding 'sin stocks' such as shares in companies producing alcohol or tobacco from their portfolios. Instead they have started to employ strategies aimed at encouraging responsible corporate behaviour

through engagement, and seeking financial performance through the integration of extra-financial considerations in investment decisions.

The SRI market relies on increasingly sophisticated tools and metrics to measure the responsible corporate behaviour of companies. These metrics are produced by social rating agencies and index providers who collect and aggregate data about corporations' ethical, environmental, social, and/or corporate governance behaviour for investors (Louche, 2004). With the increasing popularity of CSR and SRI the number of metrics has grown substantively: a recent survey reviewed 108 separate ratings and indices, of which only 21 existed in 2000 (Sustainability, 2010: 4). SRI indices select companies for inclusion based on criteria regarding environmental, social and corporate governance performance, and are used by investors for the benchmarking of SRI funds and the creation of derivatives products and index tracker funds. SRI indices are also used by companies themselves as an external 'proof of worth' of their CSR practices. The logos of the major SRI indices, such as the FTSE4Good index and the Dow Jones Sustainability Index can be seen dotted around CSR reports and corporate webpages.

These types of metrics are often being dismissed as 'box-ticking exercises' by critics, such as in Martin Dickson's column, but they may be as powerful as they are controversial (Power, 2004). Research on rankings and league tables in higher education suggests metrics have a strong and lasting impact on organisational behaviour and even on work content (Minzberg, 2004; Starkey & Tiratsoo, 2007). As the number of rankings increases, management scholars and sociologists have started to explore how such external metrics structure organisational fields (Sauder, 2008; Wedlin, 2007) and trigger organisational responses (Elsbach & Kramer, 1996; Sauder & Espeland, 2009). This research shows metrics induce reactivity:

organisations and individuals adjust their behaviour in response to being measured and evaluated on aspects of their performance (Espeland & Sauder, 2007). Metrics elicit responses that may lead to them becoming constitutive of what is being measured. Due to the proliferation of metrics in organisational life and their capacity to produce intended or unintended organisational change, metrics deserve much closer attention in organisation studies (Espeland & Sauder, 2007). The study of CSR metrics is particularly pertinent. The rankings in higher education were never designed with the objective to change organisational behaviour (Espeland & Sauder, 2007). The FTSE4Good index, whilst initially designed purely as an investment tool, now has the explicit objective to improve the responsible behaviour of companies. Many SRI indices and other CSR metrics have a similar objective (Sustainability, 2010). Little is known however about the way and the extent to which this objective could be achieved. How may SRI indices be used to improve responsible corporate behaviour? How do SRI indices measure CSR and to what extent do they provide incentives to companies to improve CSR? Do SRI indices induce reactivity in the sense that companies adjust their CSR in response to the measurement by rating agencies and index providers?

The research presented here answers these questions by studying the FTSE4Good index, one of most prominent SRI indices, which was created in 2001 by FTSE Group, one of the major index providers worldwide. An institutional work perspective is employed to study the practices of individual and collective actors aimed at creating, maintaining, and disrupting institutions (Lawrence, Suddaby & Leca, 2011). The research explores the work that needs to be done to create and maintain an SRI index, and the impact this work has on the responsible behaviour of companies included in the index. It examines the process of measuring and

aggregating data on CSR, both within companies and by the index provider and its affiliates. It will become clear that in order to achieve legitimacy – a generalized perception or assumption that the actions of an entity are desirable, proper and appropriate (Suchman, 1995: 574) - the work of index creation and maintenance entails the actions of a large number of organisations. At the same time, the process of index inclusion is also used to confer legitimacy onto intra-organisational practices related to CSR. Legitimacy is thus co-constituted (Durand & McGuire, 2005) between the rater and the rated. The research explores this co-constitutive relationship from a practice perspective, and in doing so uncovers the influence of calculation and measurement, symbolism, dialogue and engagement on the behaviour of the main parties involved.

The main concern of the research lies with *the way in which* the activities related to SRI indices influence organisational behaviour; therefore it does not seek to answer questions of a more technical nature, such as those related to whether SRI indices effectively measure CSR. A definition of CSR is context dependent (Matten & Moon, 2008). As such, this research will not attempt to define what CSR is, but take as a starting point the measurement process by the FTSE4Good index. This approach is justified on pragmatic and conceptual grounds. Most SRI indices continue to measure different aspects of CSR. This is unlikely to change in the near future as the differentiation of the various SRI indices in the market depends on their distinctive inclusion criteria and ways of measuring CSR. At a more conceptual level, the research on university rankings and league tables has shown that these external metrics shape organisational perceptions and identities, regardless of questions regarding the quality and content of their underlying methodology (Sauder, 2008). Even flawed metrics still have an impact on organisational behaviour, as long

as they are credible: ‘It is critical to acknowledge that we often choose measures based on their credibility more than their efficiency or validity. It matters not if we have valid measures if no one believes them’ (Mitnick, 2000: 420). Therefore, the definition of CSR or responsible corporate behaviour is grounded in the process of creation and maintenance of the FTSE4Good index, and not given *a priori*.

The next sections will further introduce the research. Section 1.2 will outline the two aims of the research. The first aim is to develop and apply a conceptual framework that articulates the mechanisms whereby CSR metrics in the SRI market influence responsible corporate behaviour. The second aim is to identify how the effect of metrics may be captured and used in a positive way to guide and improve CSR practices.

Section 1.3 introduces the research questions that guide the research. Specifically, the questions that are posed in the case-study of the FTSE4Good index are introduced. How did FTSE use its general expertise in providing equity indices to create the FTSE4Good index? FTSE has relied heavily on engagement with companies included in the index, and the research explores how this engagement acts as one of the mechanisms that strengthen the effect of index inclusion.

Section 1.4 provides a summary of the contributions of the research. In short, the research explores both the work done to create CSR metrics for the SRI market and the reactivity induced by these metrics. The contributions that follow from this are related to the state of theorising in academic research on SRI, whilst adding a more developed conceptualisation of the institutional work for reactivity (Lawrence & Suddaby, 2006; Lawrence, Suddaby, & Leca, 2009).

Lastly, section 1.5 provides an overview of the structure of the dissertation.

There are four parts to the empirical part of the research. Each chapter will be briefly introduced and the connections between them will be highlighted.

1.2 Aims of the research

External metrics, such as rankings, ratings and indices designed by popular media and other organisations to measure and rank aspects of organisational performance, are an increasingly common aspect of organisational life. Underlying the controversy that often surrounds these kinds of metrics are claims about calculability and commensuration (Espeland & Stevens, 1998; Vollmer, Mennicken, & Preda, 2009). Commensuration entails the transformation of different qualities into a common metric (Espeland & Stevens, 1998). Critics will often claim certain aspects of organisations, such as intrinsic quality of its production processes or its responsible organisational behaviour cannot be measured meaningfully through quantification. A similar problem of incommensurability is often ascribed to the concept of CSR, which often defies measurement and quantification. Nevertheless, metrics have played a key role in the development and growth of SRI markets around the world (Déjean, Gond, & Leca, 2004). SRI metrics seek to commensurate different organisational attributes related to CSR into a quantifiable measure that can be used to guide investment decisions.

The purpose of this investigation is twofold: the first aim is to develop and apply a conceptual framework that articulates the mechanisms whereby CSR metrics in the SRI market influence responsible corporate behaviour. The academic literature on SRI has long been dominated by a central focus on the relationship between financial performance and responsible corporate behaviour, whether encompassing environmental, social or governance aspects (Margolis, Elfenbein, & Walsh, 2007;

Orlitzky, Schmidt, & Rynes, 2003). Much less attention has been paid to questions of commensurability, performance and impact beyond financial considerations, both in the literature on CSR as well as that on SRI. This research answers these questions by exploring how metrics used in the SRI market are developed and how they may be employed to change corporate behaviour. It looks at issues of commensurability, attempts by an SRI index provider to measure and categorize responsible companies, and the effects of these categorizations on corporate behaviour. Specifically, the research focuses on the FTSE4Good index, managed on a day-to-day basis by the FTSE RI team. The research first explores the activities that are needed to create and maintain the FTSE4Good index, and subsequently examines how these activities guide the reactivity towards the index on the part of included companies. The case study of the FTSE4Good index is used to develop a conceptual framework that is grounded in theory and data, and which identifies the mechanisms through which the reactivity of CSR metrics is channelled.

The second aim of the research is to identify how the effects of metrics on organisational behaviour may be captured and strengthened to improve responsible corporate behaviour. The FTSE4Good index is designed as an ‘aspirational framework for change’ (FTSE, 2006), which seeks to drive continuous improvements in responsible corporate behaviour. The aim of the research is to identify common mechanisms that channel this impact, so that it can be strengthened further. If metrics may be used to trigger changes in organisational behaviour, this also holds important implications for public policy and governance. Governing by numbers is increasingly popular in different areas of social life (Porter, 1995; Power, 1997). Scholars who study the history of social statistics have long pointed to the way in which social measurement may create new markets, industries and even

social identities (Porter, 1994, 1995). Critics have pointed to adverse reactions to ratings in the field of education (Gioia & Corley, 2002) and healthcare (Bevan & Hood, 2006), as organisations seek to game the ratings without actually improving the practices that are being evaluated. A better understanding of the potential effect of metrics on organisational behaviour, both positive and negative, and of the mechanisms through which this effect may be channelled, will be able to tell us more about when and in what way governing by metrics may be appropriate and effective in the area of CSR.

1.3 Research questions

The research employs a theoretical perspective that is anchored in institutional theory, which provides the opportunity to examine the interaction of organisations with their environments, thus providing a more holistic picture of CSR (Campbell, 2007). Specifically, the research draws on theoretical concepts that have been specified in recent studies on institutional work (Lawrence & Suddaby, 2006; Lawrence et al., 2009). The concept of institutional work allows for an examination of the dynamic nature of institutions and the recursive relationship between institutions and organisational practices (Lawrence, Suddaby, & Leca, 2011). Additional theoretical perspectives stemming from the social studies of finance (Callon & Muniesa, 2005; MacKenzie, 2009) and organisational routines (Feldman & Pentland, 2003; Pentland & Feldman, 2005) are also employed. Lastly, the research draws on evidence provided by studies of rankings in the field of education, which, in contrast to SRI indices, have attracted critical examination in a number of studies (Espeland & Sauder, 2007; Sauder & Espeland, 2009). Therefore conceptually, the main focus of the research lies with processes of

institutionalisation, the impact on organisational behaviour and sensemaking, and the sociomaterial aspects associated with these processes.

The research aims to answer two sets of research questions. The first set of questions focuses on the FTSE4Good index as an institution in the making. How did FTSE, as a traditional index provider, manage to establish and maintain an SRI index? What practices did FTSE employ, and which other organisations and actors were involved? Why have SRI indices become so popular, especially amongst companies listed on them? This set of research questions looks at the institutional work (Lawrence & Suddaby, 2006; Lawrence et al., 2009) undertaken by various actors. This study of the FTSE4Good index allows for an examination of the work done by various organisations that might result in reactivity on the part of the companies included in the index.

The next set of research questions focuses on the impact of this institutional work on organisational behaviour. How and to what extent does being listed on the FTSE4Good Index impact on responsible corporate behaviour? What type of changes, if any, do companies make in reaction to being measured and included in the index? What are the mechanisms whereby this impact is channelled? Grounded in the theory and data of the case, the concept of reactivity is further developed to encompass both the actions of companies as they adjust CSR practices to comply with the FTSE4Good inclusion criteria, and the development of deeper shared understandings of the importance of good CSR practices that are mediated through index inclusion and engagement by the FTSE RI team. The research takes a comparative approach to capture the differences in the organisational responses to index inclusion, and hypothesises the main mechanisms by which reactivity is channelled.

1.4 Contributions of the research

With its two sets of research questions, the research examines two interrelated themes: first, the institutional work involved in creating and maintaining an SRI index, and second, the impact of this institutional work on responsible organisational behaviour. By addressing these themes, the research makes three distinct theoretical contributions.

The first contribution relates to the study of the linkages between SRI and CSR. Whilst investors are often identified as one of the change agents for CSR, alongside consumers, employees and other stakeholders, relatively little is known about their practices and their impact on organisational behaviour (Gond & Piani, forthcoming). Evidence suggests that the SRI market continues to grow, despite the current economic crisis (Eurosif, 2010). Institutional investors in the SRI market increasingly favour an engagement approach, which emphasises dialogue between investors and company management, rather than exclusion from SRI portfolios. This process and its impact on responsible corporate behaviour have so far been understudied in the literature on SRI. A study of the FTSE4Good index, which employs a particular engagement approach, provides insights into the effectiveness of this more inclusive approach to SRI. Empirically, the study shows that engagement is an important mechanism to create shared understandings about the importance of CSR between investors and companies, and that the work of engagement can be used to incentivise companies to adjust and improve corporate policies, management systems and reporting practices related to CSR. The research shows how the FTSE4Good index has become part of the structure of international accountability standards that have emerged in the CSR field (Waddock, 2008a; Waddock, 2008b). The findings show how the bar for inclusion in the FTSE4Good

index is continuously raised, in order to influence the responsible behaviour of included companies.

These findings aid the theoretical development of the study of engagement in the literature on SRI. A theoretical framework is developed in the study that links engagement, symbolism and routine practices of calculation and measurement to changes in corporate behaviour. These mechanisms may be studied in different contexts, including other CSR metrics and other forms of interaction between responsible investors and corporations, in order to strengthen the theoretical development of field of study as a whole. The research findings also have wider implications for the study of the relationship between financial performance and CSR, or the eternal quest for 'doing well whilst going good'. This strand of research has in the main employed an instrumental, economic perspective to build increasingly sophisticated models to examine this complex relationship (Margolis et al., 2007; Orlitzky et al., 2003). The data used in these studies is often obtained from databases provided by social rating agencies like the one studied in the current context. The research findings show how the work that is done to collect this data may, at the same time, influence the actual data collected by rating agencies and index providers. The research also provides a way to incorporate the symbolic, socialmaterial and routine practices that influence this process into the models used in research on Corporate Social Performance (CSP).

The second contribution of the study relates to the concept of reactivity, an important but understudied phenomenon in the social sciences (Espeland & Sauder, 2007). Reactivity relates to the process whereby individuals or organisations change their behaviour in reaction to being evaluated, observed or measured (Espeland & Sauder, 2007:1). This is a pervasive methodological concern in the social sciences. It

is also a significant question in the study of metrics, as rankings, ratings and other forms of performance measurement become an increasingly common aspect of organisational life. But reactivity induced by metrics has mostly been studied from a sensemaking perspective (e.g. Elsbach & Kramer, 1996; Sauder & Espeland, 2009; Wedlin, 2007). These studies have not fully theorised the sociomaterial practices that are needed to make intra-organisational performance calculable, in order for the subjects of measurement to obtain a favourable place in metrics. The research develops a more encompassing view of reactivity that includes looking at patterns of practices, shared understandings and material artefacts. This allows a bridging of institutional and sensemaking perspectives by focusing on patterns of collective action carried on by organisations and individuals involved in enacting those patterns (Kaghan & Lounsbury, 2006; Lounsbury, 2008). In effect, the research develops a framework for examining the institutional work for reactivity.

The research findings show that the activities of measurement and being measured are closely linked. Most studies of reactivity have focussed on the process of reactivity within organisations that are being measured, rated or ranked (e.g. Espeland and Sauder 2007; Sauder and Espeland 2009). The institutional work perspective on reactivity shows that this process of reactivity is influenced by the specific activities of the organisation(s) undertaking the measurement. By first exploring these activities, their influence on the different types of organisational response can be traced, leading to a more dynamic concept of reactivity. This concept may be used in further research to study the impact of metrics on organisational behaviour over time and under varying circumstances.

The third contribution of the study relates to recent advances in the literature on the dynamic interaction between institutions and organisations. Metrics have a

propensity to ‘travel at a distance’ and are perceived to be more objective than qualitative information (Porter, 1995). As such, metrics aid the diffusion of new practices, because they help to make new practices seem legitimate or desirable (Lawrence, 1999). At the same time, the metrics themselves may become constitutive of what they measure (Espeland & Sauder, 2007), thereby affecting sensemaking processes by organisations in the field. The study of metrics can therefore tell us more about the recursive interplay between institutionalisation and intra-organisational processes of sensemaking, an area of research that remains under-explored in the study of institutions (Lounsbury, 2008). The findings highlight how the maintenance of metrics is an ongoing process that is never completely finished, and that is dynamic enough to take into account unintended consequences and events. Different types of institutional work are deployed by different actors at various points in time to design and legitimise metrics, and to monitor the behaviour of its constituents.

In order to study the institutional work that underlies the creation and maintenance of metrics, perspectives grounded in Actor-Network theory (ANT) are integrated into the ‘umbrella concept’ (Hirsh & Levin, 1999) of institutional work. This includes the concept of calculability, which refers to the cognitive and material practices related to measurement and calculation (Callon, Millo, & Muniesa, 2007; Callon & Muniesa, 2005; Vollmer et al., 2009). Also integrated into the framework is a dynamic perspective on organizational routines, which includes an examination of material artefacts (Feldman, 2003; Feldman & Pentland, 2003; Pentland & Feldman, 2005). Current studies of institutional work focus on micro-practices that aid institutionalisation, and have emphasized human agency, arguing that the influence of institutions can be transcended at the individual level (Lawrence et al.,

2011). This approach to the study of institutional work risks neglecting the fact that ‘actors are caught up in multiple social and technical structures at all levels (micro, meso, and macro) and affected by cross-cutting institutions’ (Kaghan & Lounsbury, 2011: 76). By integrating the perspectives grounded in ANT into the institutional work framework, a more encompassing approach to agency is provided that includes human and non-human actors and artefacts. The study of SRI metrics provides the opportunity to ‘bring artefacts back in’, and explore the sociomaterial (Orlikowski & Scott, 2008) aspects in institutionalisation and sensemaking processes. This brings the institutional work perspective closer to its roots in old institutional theory such as that proposed by Selznick (Selznick, 1949, 1957), which at its core contains the assumption that rationality and interests are collectively constituted and institutionalised, whilst adding a conceptual framework to study the collective agency of actors, organisations *and* objects. It also provides a much needed opportunity to develop a multi-level approach to studying the antecedents and outcomes of CSR (Aguinis & Glavas, 2012).

The conclusions and contributions of the research findings will be further discussed in chapter 8. In that chapter the implications of the research findings will be identified, including the implications for the management of CSR metrics and for public policy makers seeking to advance regulation by metrics. The next section provides an overview of the structure of the dissertation.

1.5 Structure and chapter flow

The sections above have provided an introduction to the main research topic and its importance for the study of SRI, CSR and institutional work. The following chapters will review the current literature in relation to the themes outlined above, develop

and apply the conceptual framework, and provide suggestions for further research. Figure 1.1 provides a schematic of the structure of the thesis.

The research is divided into two parts. The study takes a qualitative, inductive approach in the first phase of research, in order to answer the first set of research questions and to build a conceptual framework that is grounded in theory and data. The second phase of the research provides a quantitative application of the conceptual framework. The inductive part of the research, which uses elements of a grounded theory approach, may complicate the presentation of the emerging framework:

'In pure form, grounded theory research would be presented as a jumble of literature consultation, data collection, and analysis conducted in ongoing iterations that produce many relatively fuzzy categories that, over time, reduce to fewer, clearer conceptual structures. Theory would be presented last.' (Suddaby, 2006: 637)

Presenting the research in this way would remain true to the inductive nature of the first part of the research, but be rather difficult to follow. This is complicated by the mixed methods approach, which requires clear hypothesis to be derived for the quantitative methods. To accommodate these concerns, different aspects of the conceptual framework are presented through-out the thesis. Even though the choice of theoretical perspectives resulted from an interaction between theory and data, the theoretical perspectives that ground the framework will be outlined first in chapter 2 (see section 2.7). The framework will then be augmented and clarified in each subsequent chapter based on the data. It is hoped this approach will balance an efficient presentation of results with an accurate reflection of the nature of data collection and analysis employed.

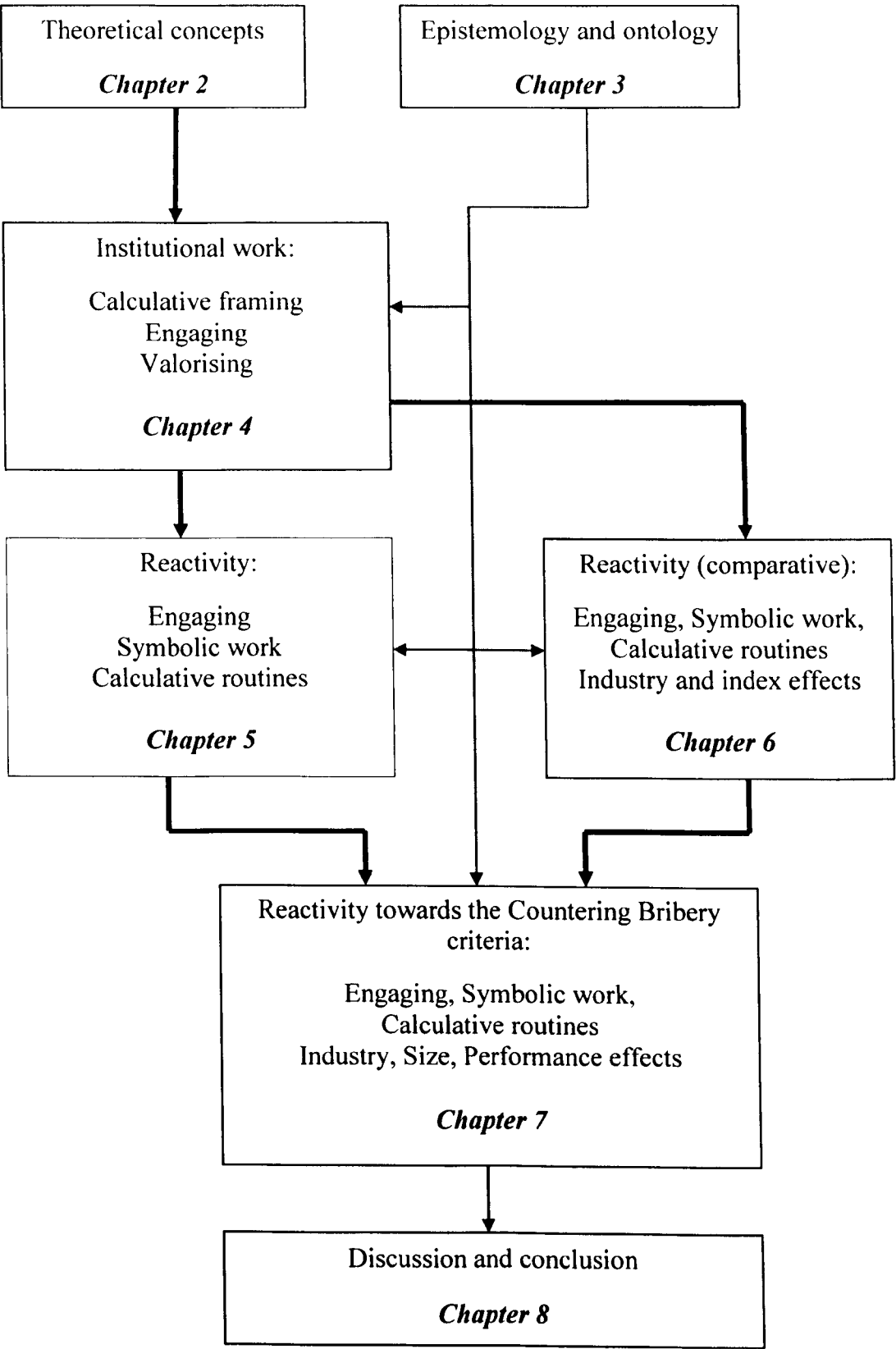
Four empirical chapters will ground the conceptual framework in the data and apply it to a specific case (the introduction of the countering bribery inclusion criteria by FTSE). Each empirical chapter will build on the theoretical concepts outlined in chapter 2 and the methodology outlined in chapter 3 (see figure 1.1):

Chapter 2: An institutional work perspective on SRI indices. This chapter includes a review of current literature on SRI indices, and introduces the theoretical perspectives that the study builds on: institutional theory (specifically, the literature on institutional work), and the research on calculability and reactivity. It also highlights how socio-material practices and routine activities have received limited attention in these perspectives and integrates these perspectives into a theoretical framework for the research.

Chapter 3: Methodology. This chapter discusses the epistemological and ontological assumptions of the research, and introduces the mixed methods approach. Each empirical chapter that follows will use a different research methodology, and therefore specific details regarding methods for data collection and analysis will be introduced in the relevant chapters.

Chapter 4: The FTSE4Good as a standard for responsible corporate behaviour. The first empirical chapter explores the institutional work that is needed to create and maintain the FTSE4Good index. Three types of institutional work can be distinguished: *calculative framing*, *engaging* and *valorising*. Calculative framing relates to the creation and calculation of the index inclusion criteria. Engaging refers to the creation of knowledge and expertise needed to legitimate the index and monitor the behaviour of companies.

Figure 1.1: Flow of chapters



Valorising is the infusion of values beyond technical requirements of the index (Selznick, 1949, 1957). In recursive cycles, this work has led to the index being seen as CSR standard, especially by included companies.

Chapter 5: Dynamic reactivity and calculative routines. The second empirical chapter further explores the reactivity of companies. It highlights the mechanisms that channel this reactivity, including *engaging*, *symbolic work* and *calculative routines*. Symbolic work refers to the use of artefacts associated with index inclusion. Corporate calculative routines are needed to measure CSR activities and communicate CSR performance to EIRIS and FTSE. A typology of corporate reactions towards index inclusion and engagement with the FTSE RI team is developed.

Chapter 6: Qualitative Case Analysis of reactivity and engagement. The third empirical chapter builds on the typology of corporate reactions established in chapter 5. It uses fuzzy set Qualitative Case Analysis (QCA) to systematically explore organisational characteristics, such as industry sector and length of inclusion in the index, which might influence corporate reactions and the extent of their reactivity to index inclusion. It confirms the typology found in chapter 5 and highlights the importance of engagement and symbolic work in the process of reactivity.

Chapter 7: Reactivity towards the Countering Bribery criteria. The last empirical chapter builds on previous analyses to apply the model of institutional work for reactivity. Taking a sample of companies that are considered to be operating in environments with a high risk for exposure to bribery and corruption, the analysis investigates how index inclusion and engagement by the FTSE RI team impact on corporate policies, management systems and reporting of corporate

practices for countering bribery and corruption. By using multivariate analyses the potential confounding effects caused by industry, size and financial performance effects are controlled for.

Chapter 8: SRI indices and responsible corporate behaviour: discussion and conclusion. The last chapter discusses the findings and provides recommendations for further research. Implications of the research for scholarly work on SRI, the measurement of CSR, reactivity and institutional work are discussed. Implications are also identified for the management of the SRI indices in particular, and for policy makers seeking to regulate through metrics in general.

2. An institutional work perspective on SRI indices

2.0 Chapter summary

This chapter provides a critical overview of the various literatures related to the research questions. This includes current research on SRI and SRI indices, which provides the context for the research. In addition various theoretical concepts are outlined, which, at a more conceptual level, serve as ‘building blocks’ for the research. These include the concepts of **institutional work**, **reactivity**, **calculability**, **sociomateriality**, **performative** and **ostensive** organisational practices. These various concepts are explored using the theoretical perspective of institutional theory and institutional work, which is used to integrate the various literatures into the theoretical framework employed in the research.

2.1 Introduction

The context of the research is set by the rapid growth in SRI markets in recent years, and the accompanying increase in the number of instruments used by responsible investors to measure the responsible behaviour of firms they are seeking to invest in. To date, limited theoretical development has taken place within the academic literature on SRI, which has been characterised by an emphasis on empirical work (Haigh & Hazelton, 2004). Of central concern in these empirical studies is the relationship between CSR or corporate social performance (CSP) and firm financial performance: the search for the relationship between ‘doing well’ and ‘doing good’. Notwithstanding the importance of such a relationship for academic research and practitioners alike, over-emphasising this question risks losing sight of antecedents

and consequences of CSR that may provide a more holistic picture of the responsible behaviour of firms. For example, just as the relationship between financial performance and CSP is complex (see further chapter 7), the relationship between SRI and CSR is likely to be bi-directional: responsible investors don't simply select 'good' corporations to invest in (CSR→SRI), but firms are also likely to be driven by responsible investors to improve their responsible behaviour (SRI→CSR). As the research will show, the relationship between the measurement of responsible corporate behaviour and actual organisational behaviour is likely to be bi-directional as well, as CSR measurement instruments may become constitutive of what they measure (Espeland & Sauder, 2007; Sauder & Espeland, 2009).

Considering this complex relationship, and given the relative underdeveloped nature of theoretical work in SRI literature, the research employs a theoretical perspective that is anchored in institutional theory. An institutional perspective provides an opportunity to examine the interaction of organisations with their environments, thus providing a more holistic picture of CSR (Campbell, 2007). Institutional accounts stress it is the adherence to commonly accepted norms and values that maintain the legitimacy of organisations and ensure their continued survival (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). Despite rapid growth, SRI remains a niche in global financial markets which represents a relatively limited amount of capital investments. Therefore it is decided to employ a theoretical perspective that emphasises the disciplinary effects of norms and values (which do abound in SRI). This chapter draws on theoretical concepts that have been specified in recent work on institutional theory and institutional work (Lawrence & Suddaby, 2006; Lawrence et al., 2009), whilst adding perspectives stemming from the social studies of finance (Callon & Muniesa, 2005; MacKenzie, 2009) and organisational

routines (Feldman & Pentland, 2003; Pentland & Feldman, 2005). It also draws on evidence provided by studies of rankings in the field of education, which, in contrast to SRI indices, have attracted critical examination (Espeland & Sauder, 2007; Sauder & Espeland, 2009). This combined theoretical perspective suits the research questions well. Institutional theory has paid limited attention to role of tools and artefacts, such as metrics, in institutionalisation processes (Miller, 2008). Conversely, economic sociologists draw attention to the influence of quantification and calculation on actors' interests (Callon, 1998; Callon et al., 2007; Callon & Muniesa, 2005), with specific attention being paid to the role of artefacts, calculative practices and technologies. Thus, an integration of these various perspectives within the institutional work perspective leads to a more holistic exploration of the determinants of the responsible corporate behaviour of firms.

The chapter proceeds as follows. Section 2.2 reviews the origins and current developments in SRI markets and the role of SRI indices therein. It shows the lack of academic research that has effectively explored the complex relationship between SRI, SRI instruments and CSR.

Whilst the context of the study is set by the developments in the SRI markets, at a more conceptual level the research is concerned with measurement instruments (or metrics) and organisational responses to metrics. Therefore section 2.3 reviews the institutional perspective on metrics by introducing one of the central tenets of institutional theory: actual practices are frequently decoupled from formal practices in organisations. Metrics however contain particular attributes that make effective decoupling more complex, as shown in studies of university ratings and rankings (Sauder & Espeland, 2009).

Section 2.4 introduces the theoretical perspective that informs the study:

institutional work. Institutional work acts as a new ‘umbrella concept’ within institutional theory to study the practices needed to create, maintain or disrupt institutions (Lawrence & Suddaby, 2006; Lawrence et al., 2009). The concept is here used to explore the practices undertaken by various organisations to create and maintain CSR metrics in the SRI market. The concept of institutional work allows for an examination of the dynamic nature of institutions and the recursive relationship between institutions and organisational practices. It is also a relatively flexible and open concept that allows for supplementing the institutional lens with additional theoretical perspectives (Suddaby, Elsbach, Greenwood, Meyer, & Zilber, 2010). The attributes of metrics are explored through two additional lenses. Section 2.4 reviews the concept of calculability, which originates in the social studies of finance (Callon et al., 2007; Callon & Muniesa, 2005; Vollmer et al., 2009). Section 2.5 introduces a sociomaterial perspective that highlights the important role of material artefacts in routine organisational practices.

Lastly, in section 2.6 a theoretical framework is presented that summarises and integrates the various perspectives, which can be used to study the creation, maintenance and effect of SRI indices on responsible organisational behaviour.

2.2 Developments in Socially Responsible Investment

SRI is a concept that is not easily defined due to the diverse nature of the actors involved, their motivations for investment, and the types of investments and investment strategies commonly used. In general, the term refers to investments made based on considerations of financial returns, as well as extra-financial considerations, such as concerns regarding the ethical, religious, social, governance or environmental impacts of the entities that investors are looking to invest in (Kurtz,

2008).¹ Current interest in SRI is rooted in the investment strategies of activist and religious organisations dating back to the 1960s and 70s. Pax World is reportedly the first SRI retail fund founded in the US in 1971 by Methodists (Kurtz, 2008; Sparkes, 2001). Church investors' concerns over 'sin stocks' such as alcohol, tobacco, gambling and defence companies were later supplemented by activists developing campaigns over issues such as civil rights, Vietnam, consumer rights, and apartheid. Many religious investors abstained from investing in companies that were in any way involved in these issues and urged others to follow their lead (Sparkes & Cowton, 2004).

Today's developments in the SRI market are linked to the rise of institutional investors, including pension funds, mutual funds and insurance companies, which have become the largest corporate equity holder in global financial markets (Useem, 1996; Verstegen Ryan & Schneider, 2002). As institutional investors have become interested in the SRI market, the main strategies employed by SRI investors have developed. Three main SRI strategies as practiced by institutional investors can be distinguished:

Screening: this can be negative or exclusionary screening, based on excluding the traditional 'sin stocks' such as alcohol, tobacco, and gambling; positive or inclusionary screening, based on a commitment to take into account positive company behaviour; pioneer screening, which aims to identify the 'industries of the future', such as sustainable energy companies; and norm-based screening, taking into account company compliance with international standards. The best-in-class

¹ A variety of other terms is also employed, which are linked to SRI and reflect ongoing developments of issues under consideration, for instance ethical investment, responsible investment, and sustainable investment (see Sparkes 2001). Green investment can also be considered part of the SRI market. Organisations currently active in the market favour the acronym of the factors under consideration: economic (E), social (S) and governance (G) issues. The term SRI is employed here as was the term in use when the main SRI indices were developed at the end of the millennium.

approach, where leading companies from each sector or industry are identified according to pre-determined criteria, can also be considered a form of positive screening.

Engagement: investors engage in a dialogue regarding issues of concern with companies. This can include a direct, private dialogue with management or targeted companies, or more public actions such as seeking publicity around issues of concern, filing shareholder resolutions and proxy voting. The latter form of engagement is often referred to as shareholder activism.

Integration: consideration of the long-term value of extra-financial considerations and integration of these issues into traditional financial analysis and portfolio management (Eurosif, 2008; 2010).

These approaches are not exclusionary; some investors use a combination of approaches, for example different types of screens or combining screening with an engagement approach. Generally speaking common approaches to SRI in the EU have developed from negative to positive screening to a best-in-class approach and pioneer screening, with most recently emphasis on engagement and integration (Gond & Piani, forthcoming; Louche, 2004; EUROSIF, 2010)

An important difference between the US and European approaches to SRI is the prevalence of shareholder activism in the US, where there is a long tradition of using shareholder rights to influence company behaviour (Sparkes, 2001). The regulations on shareholder rights in the EU are more stringent than in the US, making it harder for shareholders to file so-called 'social proxies' or non-financial resolutions (Sparkes, 2001).

The UK SRI market is the largest in terms of assets under management

(AuM) of the European countries. The roots of SRI in the UK can again be traced back to religious investors, while the environmental movement has had great impact as well. The social rating agency EIRIS was founded in 1983, and the UK's first SRI fund, Friends Provident Stewardship, was launched in 1984 (Sparkes, 2001). Government regulation has also been an important driver for the development of the UK SRI movement with a change to the 1995 Pension Act (Sparkes, 2001). Since the amended act has come into force in 2000, pension funds in the UK are required to provide transparency on whether and how they take into account extra-financial considerations in their investment practices. Similar regulation has been put in place in Belgium and France. It is clear that pension funds and other institutional investors have become important actors in the SRI movement in the last decade (Eurosif, 2010; UKSIF 2010).

Table 2.1 provides an indication of the amount of assets under management (AuM) in the main SRI markets.² Apart from sustained growth in AuM in the last decade, global SRI markets are also characterised by increased organisation of market participants in professional networks, industry associations and coalitions. In the US as well as in most countries in Europe there exist SRI industry associations called Social Investment Forum (SIF), on top of which there is a pan-European forum (Eurosif). The United Nations-backed Principles for Responsible Investment (PRI) is a network of international investors that support six principles for SRI and aims to promote collective action on SRI issues. The network was launched in 2006

² The figures provided are based on a broad definition of SRI including for example those investors employing a single exclusionary screen. It is therefore likely that the core SRI market represents a smaller share of global financial markets and figures should be taken as indicative only.

and currently has 954 asset owners, investment managers and professional service firms as signatories.³

Table 2.1: SRI markets compared

Characteristic	US	EU
Prevalent strategies	Screening	Screening
	Shareholder activism	Engagement
		Integration
PRI signatories*	128	415
AuM**	\$ 3.07 trillion / £1.9 trillion	€ 5 trillion / £4.45 trillion
% of total market	12%	10%

* accessed from www.unpri.org on 20-11-2011 **Asset under Management (AuM) for end 2009, value in pound calculated using exchange rate at 31 December 2009.

Despite these indications of institutionalisation of the SRI markets, evidence of the link between CSR and SRI has remained somewhat inconclusive. For example, Cox et al found that long term institutional investment in the UK was positively related to corporate social performance of companies (Cox, Brammer, & Millington, 2004), whilst Parthiban et al (2007) found a negative relationship between shareholder activism and subsequent CSR practices of targeted companies (Parthiban, Bloom, & Hillman, 2007). The relatively small market shares, the average size of SRI funds and the small percentage of shares held in individual companies by SRI institutional investors are often cited as barriers to the cost-of-capital argument, which states that firms with good CSR have lower costs of capital because they can attract SRI investors (Haigh & Hazelton, 2004; Juravle & Lewis, 2008).

³ As of November 2011.

Whilst the relationship between SRI and financial performance is still the main focus of most of the academic research on SRI,⁴ the development and institutionalisation of SRI markets has recently received attention from scholars employing social movement theory (Arjaliès, 2010), science and technology studies (Amaeshi, 2010) and conventions theory (Guyatt, 2005). These studies generally employ a macro perspective to explain the development of the SRI markets in the last decade and the impediments to SRI becoming mainstream investment practice (Juravle & Lewis, 2008). These macro level studies have provided a welcome contribution to the study of SRI by sketching out the wider context in which global SRI markets have developed in recent years. However, given that SRI is a notoriously heterogeneous concept (Sandberg, Juravle, Hedesström, & Hamilton, 2009), a more micro perspective is likely to provide greater insights into the way SRI measurement tools are constructed and the impact these tools have on responsible corporate behaviour. Studies employing such a micro perspective (Déjean et al., 2004; Louche, Gond, & Ventresca, 2005) have shown that SRI measurement tools confer legitimacy and systemic power onto responsible investors. In the current research a similar micro perspective is employed, but with a focus on the practices of rated companies (rather than investors), in reaction to SRI metrics such as the FTSE4Good index. Focussing on rated companies' practices provides an opportunity to study organisational responses to the pressures exerted by SRI metrics and thus explores questions of broader relevance to institutional theory, such as the identification of the mechanisms by which institutional pressure is exerted on organisations and the carriers of institutional norms and values that confer legitimacy

⁴ For a review of the debate on the link between financial performance and social performance see Wood and Jones (1995); Margolis and Walsh (2003); Orlitzky et al. (2003). I draw on this stream of research in the development of the econometric models in chapter 7, where these works will be further discussed.

onto organisations (Hasselbladh & Kallinikos, 2000).

To provide further context, the next section will first introduce and compare the main SRI indices that have been developed since early the 2000s. Subsequent sections will outline the theoretical perspective on organisational responses to metrics.

2.2.1 SRI Indices

SRI investors need metrics which allow them to make a judgment of the extra-financial ‘quality’ of corporate stocks (Déjean et al., 2004; Lydenberg, 2005; Sullivan, 2011). These metrics are usually produced by organisations such as social rating agencies or research providers which collect and provide aggregated data about corporations’ ethical, environmental, social, and/or governance behaviour for investors (Louche, 2004). Among the various metrics for responsible business that have emerged over last fifteen years, SRI indices have appeared since the early 2000s as an especially salient category. SRI indices equip investors with tools that have similar characteristics as ‘mainstream’ equity market indices. An equity index, essentially a calculated average of a selected list of stocks, is designed to track the performance of equity markets. It can be used to compare the performance of an investment portfolio against the overall market performance at different times (Arnold, 2004) and can also be used as a basis for creating index tracker funds and other investment products such as derivatives. The selection of companies included in an index can be made on various criteria, for example size (e.g. FTSE100 includes the largest 100 UK companies) or type of company (e.g. technology firms).

Similarly, an SRI Index is a weighted listing of stocks that is typically constructed by filtering a broader universe of stocks according to a set of social, environmental or corporate governance criteria. The indices are used by fund

managers to identify socially responsible companies and serve as benchmarks against which fund managers can evaluate the performance of their fund (Collison, Cobb, Power, & Stevenson, 2008), and to create SRI tracker funds and derivatives. Investors pay a license fee to the index provider to use the information provided by the index. SRI indices can also be used as a proxy by investors for identifying target companies to engage with, or for the development of engagement strategies with those companies *not* included in the index (Oulton, 2006). However, while originally developed for investors, the indices have become a tool for a wider group of actors within the CSR industry. NGOs use them as a tool to identify ‘good’ companies to partner with or ‘bad’ companies to campaign against, companies use inclusion for reputational purposes, while CSR consultants may identify excluded companies as profitable potential clients.

The first SRI index, the Domini 400 Social index (DSI), was launched in 1990 by Kinder, Lydenberg and Domini (KLD) and consists of 400 medium and large US companies (Fowler & Hope, 2007). Launched in September 1999, the Dow Jones Sustainability indices (DJSI) were the first indices to expand the coverage of eligible companies worldwide. The DJSI consists of a family of indices; each index is made up of the highest scoring companies in 57 industry groups (Dow Jones, 2011). The FTSE4Good index also covers companies from the developed world, including the EU, Japan, Australasia and North America. Several other national or regional SRI indices exist, such as the Jantzi Social index in Canada, and the ASPI Eurozone covering Europe. In recent years there has also been an increase in the development of thematic indices, such as those including companies involved with clean technology or renewable energy.

Whilst the list of SRI indices is growing due to this trend, the main SRI

indices are still considered to be those that are developed via a partnership between mainstream financial index providers (such as Dow Jones or FTSE) and a social rating agency. To differentiate their respective products, these indices each have a specific set of inclusion criteria and are built using distinctive SRI strategies: the DJSI is built on the best-in-class data provided by Sustainable Asset Management (SAM) and the FTSE4Good index is based on a mixed screening approach employed by social rating agency EIRIS (Fowler & Hope, 2007).⁵ The DJSI is a relative benchmark: corporate CSR scores are compared against industry peers and the top ten percent of companies is included. The FTSE4Good index employs an absolute benchmark: all companies from the underlying broader stock universe that meet the criteria are included in the index. This means it is generally harder for companies to be included in the DJSI, and inclusion in this index is therefore considered particularly prestigious by leading CSR companies (Robinson, Kleffner, & Bertels, 2011). See chapter 5 for a further discussion of this issue.

Most empirical studies of SRI indices are concerned with examining the impact of index changes on company financial performance. Whilst Curran and Moran (2007) do not find conclusive evidence of an impact on share price of inclusion or deletion from the FTSE4Good index in the period after launch to 2002 (Curran & Moran, 2007), more recent studies have found some, albeit conflicting, evidence of an impact on share price. In an event study of the FTSE4Good, the ASPI Eurozone and the DJSI, Capelle and Couderc (2009) find no evidence of long-term impact, but some evidence of a short-term effect around the date of inclusion (but not deletion), which they relate to the presence of passive shareholders rebalancing their portfolios (Capelle-Blancard & Couderc, 2009). Wai (2011) finds similar

⁵ See appendix A for a more detailed overview of the main SRI indices

results for a selection of US stocks from the DJSI index (Wai Kong Cheung, 2011), whilst Robinson et al (2011) find a sustained effect of inclusion in that index for US firms (Robinson et al., 2011). Conversely, Doh et al (2010) find a significant decline in share prices for firms deleted from the Calvert Social Index in the US (Doh, Howton, Howton, & Siegel, 2010b). The generally weak statistical evidence found in these studies could be explained by the often limited understanding of the technical aspects of the various SRI indices shown in these studies. For example, most fail to distinguish technical index changes as a result from delisting from the broader stock universe, from changes related to CSR performance (but see Capelle and Couderc (2009) and Doh et al (2010b) for exceptions), whilst some simply get their facts wrong.⁶

Only a handful of studies have looked at the impact of indices in responsible corporate behaviour. Adam and Shavit (2008) argue that obtaining a ranking on SRI indices is not an incentive for companies to invest resources in CSR so long as its peers are not ranked (Adam & Shavit, 2008). Scalet and Kelly's (2009) study of company interaction with rating agencies suggests that companies do not communicate about negative CSR events (such as index exclusions), but highlight positive CSR news, including good ratings (Scalet & Kelly, 2009). Chatterji and Toffel (2010) look at the impact of being rated on environmental performance, finding that companies with poor ratings are more likely to improve their environmental performance (Chatterji & Toffel, 2010).

The processes associated with gathering CSR data and aggregating it into a composite SRI index have received limited in-depth examination (Fowler & Hope,

⁶ For example Robinson et al (2011) fail to distinguish between the FTSE4Good UK and Global Index, and erroneously state that the FTSE4Good only includes 50 UK companies, when in fact the global index includes ~850 companies worldwide. Capelle and Couderc (2009) do not account for the fact the FTSE4Good index is updated bi-annually rather than annually, thereby limiting the number of observations in their event study, creating potential bias.

2007). In a quantitative study of the DJSI inclusion process, Ziegler and Schröder (2010) did notice that the selection process can introduce arbitrariness, so that inclusion cannot be taken as a straight-forward proxy for corporate social performance (Ziegler & Schröder, 2010). An important aspect of SRI indices that has remained unexplored is the dialogue and engagement that is needed between companies, rating agencies and index providers to facilitate the processes of data gathering and aggregation. For example in the survey of corporate managers by Collinson et al (2009) regarding the impact of inclusion on the FTSE4Good index on corporate conduct (Collison, Cobb, Power, & Stevenson, 2009), the engagement activities undertaken by the index provider FTSE are not taken into account. However, as will be shown in the subsequent chapters, these activities hold important clues for a more encompassing view of changes in corporate behaviour in response to the FTSE4Good index.

In sum, whilst SRI markets have continued to grow in the last decade and increasingly rely on engagement between investors and companies, the practices underlying this trend have received scant attention in the studies of SRI. The theoretical and empirical frameworks used in SRI research have not been able to capture the organising processes of engagement (Gond & Piani, forthcoming) and CSR ratings, nor the impact of measurement tools and engagement on responsible corporate behaviour. From the review of recent developments in SRI noted above it is clear that it is difficult to empirically substantiate the link between SRI and CSR based on propositions related solely to financial performance (e.g. the cost-of-capital argument or the effect on share prices). A broader theoretical framework, which goes beyond a narrow focus on the financial implications of the use of SRI metrics, is required in order to capture the role of metrics as institutional carriers of expected

norms of behaviour (Campbell, 2007). An institutional perspective can be used to inform about instances in which firms adopt CSR practices in response to pressure exerted by various components in the institutional environment (Doh et al., 2010b: 1463). Indeed, studies of metrics in other environments, such as the rankings of universities in public media, have often (partly) relied on institutional perspectives (e.g. Sauder, 2008; Espeland & Sauder, 2009). At the same time these studies have shown that the specific attributes of metrics as carriers of institutional pressure pose challenges to some of the central tenets of institutional theory, leaving open important questions regarding the practices of measurement and the role of material artefacts therein.

The next sections therefore review and integrate various theoretical perspectives to provide the theoretical framework that is used to examine the impact of SRI indices on responsible organisational behaviour. First, the institutional perspective on metrics is introduced, and the challenges to some of its central tenets posed by studies of metrics are discussed. Although these latter works represent an eclectic array of studies, they employ a perspective that emphasises organisational sense-making and are thus summarised here under that label. In subsequent sections the institutional perspective is further expanded by introducing the concept of institutional work, and integrating theoretical perspectives that allow for a more in-depth exploration of the role of measurement and material artefacts.

2.3 Institutional and sensemaking perspectives on metrics

Institutional theory aims to explain how organisations derive their legitimacy, and their long-term survival, by conforming to the prevailing norms and commonly accepted values in their environment (Meyer & Rowan, 1977). Institutions include

both material and symbolic practices, that constitute supra-organisational patterns of human activity by which individuals and organisations produce and reproduce their material substance and organise time and space (Friedland & Alford, 1991: 243). Institutional pressure to conform with accepted norms, as exerted through government mandates, by peers or through professional organisations, often results in organisations becoming isomorphic or homogenous (DiMaggio & Powell, 1983). It may also lead to the creation of formal structures within organisations to signal conformation with the institutional environment. Decoupling entails conformation to ‘external criteria of worth’ that demonstrate the social fitness of the organisation, but which remain decoupled from day-to-day practices and routines (Meyer & Rowan, 1977; Westphal & Zajac, 1994, 1998). Such decoupling is more likely when institutional pressures conflict with the interests of actors who hold power in the organisation (Westphal & Zajac, 2001). Symbolic actions can nevertheless provide legitimacy, and this is further enhanced by using socially acceptable language to justify behaviour (Fiss & Zajac, 2006; Westphal & Zajac, 1998). To allow for credible yet decoupled management of institutional pressure, there is a need to avoid external inspection and evaluation, as these undermine the ceremonial aspects of organisations (Boxenbaum & Jonsson, 2006; Meyer & Rowan, 1977).

Seeking ceremonial awards and employing external assessment criteria (Meyer & Rowan, 1977) have been popular responses to normative pressures for CSR (Behnam & MacLean, 2011). Inclusion in SRI indices can be used as a type of external certification of good CSR practices, and companies often display their inclusion in their sustainability reports (Gond & Herrbach, 2006). Whilst investors show an increasing interest in non-financial aspects of company performance, companies are often uncertain about how to present their CSR policies and

programmes to investors (Hockerts & Moir, 2004). Obtaining inclusion in an SRI index can be one of the ways to handle these pressures.

In the three decades after publication of the seminal articles by Meyer and Rowan (1977) and DiMaggio and Powell (1983), the concepts of isomorphism and decoupling have spawned numerous empirical studies, conceptual modifications and theoretical extensions (Boxenbaum & Jonsson, 2006). Decoupling has been explained by institutional features, such as the rational nature of the institution or the strength of its enforcement mechanisms (Edelman, 1992; Townley, 2002); organisational characteristics, such as the relative timing of adoption, power and trust dynamics (Kostova & Roth, 2002; Westphal & Zajac, 1994; Westphal & Zajac, 2001) or a combination of both (Ansari, Fiss, & Zajac, 2010; Oliver, 1991). Accounts of decoupling have highlighted the antecedents and consequences (MacLean & Behnam, 2010; Elsbach & Sutton, 1992; Oliver, 1991), and are often based on an assumption of strategic, instrumental rationality, rather than the more collective notion of rationality that lies closer to the core of the institutionalism as originally intended by Meyer and Rowan (1977), Selznick (Selznick, 1949, 1957) and others (Lounsbury, 2008).

Most empirical work finds evidence of decoupling in organisations, however scholars also provide the caveat of a potential re-coupling of organisational structures and practices over time. For example Fiss and Zajac (2006) suggest that the choice between symbolic management and substantive management of institutional pressures may be more nuanced than a simple binary choice, and the consequences of symbolic management practices might lead to more substantive management over time (Fiss & Zajac, 2006). Hardy et al (2000) show how discourse that is grounded in symbols and metaphors can be used as a strategic resource to help

the enactment of particular strategies (Hardy, Palmer, & Phillips, 2000). Adoption of an environmental policy by top level management for symbolic reasons can provide agency to managers or serve as a resource for external stakeholder groups (Hirokawa & Schofer, 2002: 217). Edelman (1992) shows that laws and regulations with broad or ambiguous principles invite forms of organisational compliance that do not guarantee substantive results (Edelman, 1992: 1569). Nevertheless a shift to more substantive management might be possible in the long term, as employees who are hired into the formal structures created in response to institutional pressures may seek to fulfil their objectives (Edelman, 1992). Tilcsik (2010) shows a similar situation where the process of symbolically adopting new policies requires a new set of skills and professionalization that might ultimately lead to a recoupling of symbolic and substantive practices (Tilcsik, 2010). As institutional forces compel organisations to make structural changes, and external threats are internalised through hiring new types of personnel or creating new functional units, these in turn can become champions of the reforms (Hoffman, 2001; Scott, 2008: 433).

Most studies of university rankings and ratings emphasise tendencies towards coupling rather than decoupling between organisational practices and the institutional norms and values espoused by the rankings which are so popular in this field (Sauder, 2008; Sauder & Espeland, 2009). These studies of rankings are not based on assumptions of instrumental rationality, rather they emphasise organisational cognition as influenced by social categories and evaluative judgements. Various authors show how schools make sense of rankings by internalising the evaluation criteria upon which the ranking is based to such an extent that it shapes perceptions of organisational identity (Elsbach & Kramer, 1996; Martins, 2005). Rankings serve as tools to facilitate comparison between diverse

organisations, to signal status and reputation and as such form an important reference point for organisations (Wedlin, 2007: 26, 37). The disciplinary power of rankings changes the perceptions, expectation and behaviour of internal and external audiences to such an extent that they may become self-disciplining for the organisations being evaluated (Sauder & Espeland, 2009). Once organisations start to supply the information needed for evaluation, they can come to internalise the constituent elements of the measurement as performance variables (Power, Scheytt, Soin, & Sahlin, 2009). Public measures can thus come to shape organisational cognition and establish a norm of excellence to which all organisations must conform (Sauder & Espeland, 2009).

The concept of reactivity sums up the organisational response to being evaluated through the means of publicly available metrics such as rankings and ratings: individuals or organisations change their behaviour in reaction to being evaluated, observed or measured (Espeland & Sauder, 2007: 1). In the social sciences reactivity is considered a methodological problem, as it ‘modifies the phenomenon under study, which changes the very thing one is trying to measure’ (Campbell 1957, p 298 in Espeland and Sauder 2007). As a form of reflexivity, the ‘problem’ of reactivity can be said to permeate the social sciences as a whole, due to nature of the relationships between researchers and their subject matters (Ryan, 1970). The application of the concept of reactivity to the study of metrics however shows that reactivity could potentially be harnessed to achieve changes in organizational behaviour (Espeland & Sauder, 2007). It focuses the attention on the intended and unintended consequences of the rise in measures that hold organisations accountable, which are increasingly public in nature (Power, 1994; Porter, 1995). The connotation of the concept of reactivity with concerns of

methodological validity draws attention to questions of legitimacy of metrics and the activities of those involved in setting the standard for measurement. In this research the concept is used to examine the changes in organisational behaviour that are made in order to conform with, or even excel in, the evaluation as carried out by an external agency, such as those that provide information upon which the SRI indices are based.

Espeland and Sauder (2007) identify two mechanisms through which reactivity is channelled: self-fulfilling prophecy and commensuration (Espeland & Sauder, 2007). Measurement and evaluation can create self-fulfilling prophecies because they raise expectations and people change their behaviour in accordance with these expectations (Espeland & Sauder, 2007: 12). This mechanism is particularly salient when the outcome of measurement can change the actions of external audiences. In the case of law school rankings for example, lower ranked schools have lost cross-admitted students to higher ranked schools (Espeland & Sauder, 2007: 13). Organisations under evaluation might not agree with the measurement criteria, but when these are taken at face value by external audiences, they are forced to pay attention (Sauder, 2008). The other mechanism that channels reactivity is commensuration, or the transformation of different qualities into a common metric (Espeland & Stevens, 1998). This is a powerful mechanism in the case of quantitative measurement, as numbers are often seen as more authoritative and comparable than qualitative information (Porter, 1995). Commensuration is an important part of making things 'calculable', a concept which is explored further in section 2.5 below.

Reactivity may cause organisations to (re)allocate resources to activities that are included in the measurement (Espeland & Sauder, 2007; Power et al., 2009). In

the long term this can lead to a redefinition of organisational scripts and procedures, such as job descriptions; whilst it may also lead to 'gaming': 'efforts to improve ranking factors without improving the characteristics the factors are designed to measure' (Espeland & Sauder, 2007: 29). This gaming relates mostly to the way information that is gathered for the ranking impacts on wider school practices. For example Gioia and Corley report business schools 'putting some incoming students (especially international or minority students) into a special "pre-admission class" so their numbers do not count toward the final numbers tabulated and reported for the autumn MBA "entering class," admitting lower quality candidates into a masters of science program first and then transferring them to the MBA class after their first year, only reporting the average bonus for those receiving bonuses instead of reporting the average bonus for the whole class' in response to popular MBA rankings (Corley & Gioia, 2000; Gioia & Corley, 2002:113). As more organisations start to play the 'ranking game' however, not only become the rankings themselves more influential and institutionalised, the fear of too large discrepancies between substance and image might lead to improvements in substantive practices spurred by the rankings (Corley & Gioia, 2000).

In sum, the sensemaking perspective on metrics explores how the cognitive effects of reactivity lead to tight coupling between the metric and organisational behaviour (Sauder & Espeland, 2009). Viewed from an institutional perspective the effects of reactivity may range from a symbolic response that emphasises gaming strategies to a more substantive response that sees internalisation in organisational scripts and procedures. Little is known however about the organisational practices that mediate the tension between these two extremes (Ansari et al., 2010; Lounsbury, 2008). Whilst studies of metrics and reactivity have shown that the redistribution of

resources and reorganisation of work are consequences of reactivity (Espeland & Sauder, 2007; Sauder & Espeland, 2009; Power et al, 2009), these studies have not generally examined in detail the work that is needed to participate in ratings, or the work that the rating organisations undertake to engage rated organisations. But metrics, certainly in the area of CSR, often rely on what *can* be measured, which shows their reliance on the work of rated organisations to collect data and participate in the measurement. The concept of institutional work, introduced in the next section, will be used to provide more insights into these aspects of metrics.

2.4 The umbrella concept of institutional work

Despite the multitude of studies on decoupling and symbolic management, little is known about the practices that organisations deploy to mediate the tension between ceremonial and substantive management over time (Ansari et al., 2010; Lounsbury, 2008 but see Tilcsik, 2010 for an exception), nor about how these practices relate to the work of *other* actors and organisations that collectively create, maintain, change or oppose institutions. Institutional theorists traditionally have paid limited attention to the origin of institutions, as though they were conceived to just exist ‘out there’ (Lawrence & Suddaby, 2006). By looking at the end result of institutionalisation only, institutional theory has neglected to look at ‘the means through which a domain of action is conceived, rules of conduct, performance principles and devices of control are developed and forms of actorhood constituted’ (Hasselbladh & Kallinikos, 2000: 701). In focusing on the outcomes of institutionalisation, such as isomorphism, institutional scholars have neglected the processes in which institutionalisation occurs, and the work done by organisations in response to institutional pressures still represents a ‘black box’ (Suddaby et al., 2010).

A better understanding of how organisational practices and the creation of new institutions relate to each other requires research that encompasses different levels of analysis, and pays attention to both institutional features and micro-processes, including intra-organisational practices (Lounsbury, 2008). The umbrella concept of institutional work is a promising concept to advance this research agenda, as it aims to portray the purposive action of individuals and collective actors aimed at creating, maintaining or disrupting institutions (Lawrence et al., 2011; Lawrence & Suddaby, 2006; Lawrence et al., 2009). Developing out of the literature on institutional change and institutional entrepreneurship, recent studies of institutional work bring back the concept of agency, which is considered to be distributed amongst a wide variety of organisations and individuals involved in institutional work:

The study of institutional work takes as its point of departure an interest in work—the efforts of individuals and collective actors to cope with, keep up with, shore up, tear down, tinker with, transform, or create anew the institutional structures within which they live, work, and play, and which give them their roles, relationships, resources, and routines (Lawrence et al, 2011: p 53).

Lawrence et al (2011) argue that the influence of institutions on organisations is not absolute and that individual and collective actors have an interpretive agency which provides them a degree of choice and manoeuvre in their interactions with institutions (Lawrence et al., 2011). But rather than focussing on the heroic efforts of institutional entrepreneurs, the concept points to the potentially unsuccessful or unintended consequences of institutional work that equally need to be taking into account (Hokyu & Colyvas, 2011; Lawrence et al., 2011). As Selznick (1949) noted, institutions can acquire a 'life of their own' if they are co-opted by agents with particular commitments that go beyond the original technical requirements endorsed

by the institution. The unintended or unanticipated consequences of institutions have not received much attention by scholars of institutional change, but examining the consequences of the work involved with institutionalisation and the infusion of value beyond technical requirements (Selznick, 1949; 1957: 17) could tell us more about ‘what works’ in successful institutional work. It also highlights the distributed nature of this work as it shifts the focus away from the institution itself towards the various organisations involved in creating and maintaining it.

In their 2006 publication Lawrence and Suddaby survey the literature on institutional change and institutional entrepreneurship, and provide a typology of different types of institutional work aimed at creating, maintaining and disrupting institutions (Lawrence & Suddaby, 2006). Table 2.2 provides the institutional work that the authors have identified for the creation and maintenance of institutions, which is most relevant to the case-study of the FTSE4Good index, for which the creation and maintenance (but not the disruption) can be studied.

Institutional work is a relatively new umbrella concept, first provided by Lawrence and Suddaby (2006), even though before their publication institutionalists had already sought to address the paradox of embedded agency (Seo & Creed, 2002), or the manner in which institutions are created, transformed, and extinguished (Dacin, Goodstein, & Scott, 2002: 45). The umbrella concept of institutional work allows for a study of different types of work that draws in closely related theoretical perspectives, for example identity work (Creed, DeJordy, & Lok, 2010), discursive work (Schildt, Mantere, & Vaara, 2011), justification work (Patriotta, Gond, & Schultz, 2011), boundary work (Zietsma & Lawrence, 2010) and practice work (Jarzabkowski, Matthiesen, & van de Ven, 2009; Zietsma & McKnight, 2009).

Table 2.2: Institutional work related to the creation and maintenance of institutions

Institutional <i>creation</i> work:	Definition (Lawrence & Suddaby, 2006):
Advocacy	The mobilization of political and regulatory support through direct and deliberate techniques of social suasion.
Defining	The construction of rule systems that confer status or identity, define boundaries of membership or create status hierarchies within the field.
Vesting	The creation of rule structures that confer property rights.
Construction of identities	Defining the relationship between an actor and the field in which that actor operates.
Reformulating normative associations	Re-making the connections between sets of practices and the moral and cultural foundations of those practices.
Constructing normative networks	The inter-organisational connections through which practices become normatively sanctioned and which form the relevant peer group with respect to normative compliance, monitoring, and evaluation.
Mimicry	Associating new practices with existing sets of taken-for-granted practices, technologies and rules in order to ease adoption
Theorizing	The development and specialisation of abstract categories and the elaboration of chains of cause and effect
Educating	The educating of actors in skills and knowledge necessary to support the new institution
Institutional <i>maintenance</i> work:	Definition (Lawrence & Suddaby, 2006):
Enabling	The creation of rules that facilitate, supplement and support institutions
Policing	Ensuring compliance through enforcement, auditing and monitoring
Deterrence	The threat of coercion to inculcate the conscious obedience of institutional actors
Valorising and demonizing	Providing positive and negative examples that illustrates the normative foundations of an institution
Mythologizing	To preserve the normative underpinnings of the institution by mythologizing its history
Embedding and routinizing	Actively infusing the normative foundations of an institution into the participants' day to day routines and organisational practices

These seemingly diverse studies nevertheless share common themes, including constantly evolving institutions, a view of institutionalisation that emphasises non-linearity, and an exploration of the linkage between micro and macro levels of analysis. The stream of literature on institutional work harks back to themes that were at the forefront in ‘old’ institutionalism, such as the work of Selznick (1946, 1957, see e.g. Kraatz, 2011).⁷ In particular, the concern for microdynamics that was present in early institutional work also takes central place in many studies of institutional work, which often focuses on intra-organisational practices and considerations (Behnam & MacLean, 2011; Dacin, Munir, & Tracey, 2010; Tilcsik, 2010).

At the same time however, proponents of the concept of institutional work have equated this focus on microsociological processes to a relational perspective on human agency, which emphasises the work of individuals in interaction within the institutional environment (Battilana & D'Aunno, 2009). Individuals are ‘brought back in’ to organisation studies to account for the paradox of embedded agency (Seo & Creed, 2002). This increasing focus on the individual level of analysis is evidenced by Suddaby et al (2010), who critically note a rise in the use of the word ‘actor’ in recent institutional accounts, without a clear definition being given in most of this research. More importantly, this individual and relational perspective of agency risks glorifying individual human action at the expense of other attributes that co-constitute agency, such as material artefacts, sociotechnical infrastructures and collective, routine practices that help to circulate and enact institutionalised norms and values across micro and macro levels of analysis. Kaghan and Lounsbury suggest that ‘the important issue here is to ensure that analyses of the role of actors

⁷ For a discussion of the distinction between ‘old’ and ‘new’ institutionalism, see Powell and DiMaggio (1991); for a critical review see Selznick (1996).

are sensitive to the fact that actors are caught up in multiple social and technical structures at all levels (micro, meso, and macro) and affected by cross-cutting institutions' (Kaghan & Lounsbury, 2011: 76).

The relative flexibility of the 'umbrella concept' of institutional work allows for an integration of theoretical perspectives that pay more attention to the interaction between cognitive aspects of institutions, material objects and organisational practices. This integrative perspective links together various strands of literature, which together combine to overcome their individual weaknesses. For example, despite recent attention for organisational practices within organisation studies this work has sometimes failed to connect local practices to their external, institutional origins (Labatut, Aggeri, & Girard, 2012). Yet institutionalisation depends to a large extent on 'mundane administrative arrangements' and routine practices that can accommodate institutionalised norms and values (Kraatz, Ventresca, & Deng, 2010; Selznick, 1957). More research needs to explore the link between routine practices and institutionalisation. Similarly, artefacts and material objects have received relatively little attention in the literature on symbols and rituals in institutionalisation, which has relied in the main on the linguistic approaches to study symbolism (Zilber, 2006; Zilber, 2009). However institutions are material as well as symbolic and integrating a more nuanced perspective on artefacts will illuminate their interaction with institutionalised practices (Sillince & Barker, 2012)

The next sections will introduce the theoretical perspectives that are particularly relevant for the study of the institutional work involved with the creation and maintenance of SRI indices: social studies of finance (SSF) and dynamic organisational routines. SSF studies have paid close attention to the role of devices in financial markets that aid calculability. Section 2.5 will provide an overview of

this concept. Dynamic routine theory equally incorporates cognitive, practice and material elements. Section 2.6 will highlight how these elements may interact to create change in organisational practices in response to metrics.

2.5 Social studies of finance and calculability

Social studies of finance (SSF) apply social science disciplines such as anthropology and sociology to study financial markets. Out of the various social science disciplines, SSF has been particularly inspired by research on social science and technology (MacKenzie, 2009: 2). The main topic of interest is the construction (or, more relevant in recent years, the deconstruction) of markets for financial products. Institutional theory and SSF share underlying assumptions regarding rationality: generally, both perspectives reject the notion of the rational actor as portrayed in economic theory, in favour of a rationality that is socially and materially constructed. Institutional theorists draw on the notion of collective or institutional rationality to portray how organisational decision-making is influenced by commonly accepted norms and values in the institutional environment (DiMaggio & Powell, 1983; Lounsbury, 2008) whilst SSF draws attention to the fact that material objects, machines and technology also play an important role in this process (MacKenzie, 2009).

The interaction between cognitive and material aspects, which forms the centre of attention for SSF, is aptly demonstrated by the concept of calculability. Calculability is broadly defined as a process of ‘isolating objects from their context, grouping them in the same frame, establishing original relations between them, classifying them and summing them up’ (Cabantous & Gond, 2011; Callon & Muniesa, 2005: 1232). Calculability makes possible the assignment of numbers to

entities, an assignment which, in its turn, endows these entities with relative stability and makes their circulation throughout society possible (Vollmer et al., 2009: 623): 623). Power (2004) distinguishes between first order and second order measurement. First order measurement involves constructing the classifications that make counting possible by translating qualities into quantities. Second order measurement aggregates these quantities into ratios and indices that have a life of their own, separate from first order measurement (Power, 2004: 771-772).

Thus calculability does not only refer to the nature or content of mathematical calculations, but also to the human interaction, cognitive models and material objects needed to ensure the circulation of calculated numbers in markets. It is a constructivist, situated notion that acknowledges the truth of numbers is constructed in an interactive process, but that the efforts of the calculative work become invisible when numbers become are widely diffused and taken-for-granted (MacKenzie, 2009; Preda, 2009).

Calculability relies on cognitive mechanism such as commensuration (Preda, 2009; Vollmer et al., 2009). Commensuration is the measurement of characteristics normally represented by different units according to a common metric (Espeland & Stevens, 1998: 315). Commensuration facilitates comparison and decision-making processes, by taking qualitative aspects of organisational performance and aggregating these into a single number that can be compared across organisations. The aim of commensuration is not necessarily to precisely translate all pre-existing qualities into quantities, but rather to create a new, standardised metric that allows for comparability, which is in many instances preferred above accurateness of the measurement (Porter, 1995). Commensuration thus involves bringing together different political and moral attitudes and cognitive schemas, which need to be

reconciled for commensuration to be successful (Huault & Rainelli-Weiss, 2011).

Calculability also has a material dimension. Metrics are likely to become taken for granted as commensuration gets built into practical organisational structures of labour and resources (Espeland & Stevens, 1998: 329). Numbers need computer screens, telephones and other technical devices to circulate through markets (MacKenzie, 2009). SSF have studied the consequences of material objects used in financial markets such as stock tickers (Preda, 2006), trading screens (Knorr Cetina & Bruegger, 2002; Knorr Cetina & Preda, 2006) as well as intangible objects, including formulae such as the Black-Scholes model for option pricing (Mackenzie & Millo, 2003). SSF also draws attention to the groups involved in making entities commensurable, such as financial analysts (Beunza & Garud, 2007; Vollmer et al., 2009; Zuckerman, 1999; Zuckerman, 2000). The market devices they use not only help the calculated entities circulate throughout the financial system, but at the same time create new markets, strategies and products (Callon & Muniesa, 2005).

SSF have employed the notion of calculability mainly to analyse the functioning of different types of financial products and their respective markets. The concept is used here to explain the institutional work that is needed to create an SRI index, to examine the constitutive nature of this work and its consequences for the behaviour of organisations included in the index. Calculation in this case is distributed amongst various groups of participants, such as the index provider, rating agency, companies and third parties (see further chapter 4 and 5). Calculation is viewed as a type of institutional work that is distributed between individuals and organisations that co-operate in creating and maintaining a metric. This is a potentially powerful form of institutional work. Déjean et al (2004) attribute a central role to the organisation which sets the measurement criteria and undertakes

calculation based on the supplied information, because of its systemic power to set (and change) the categories and criteria for measurement. However, they also acknowledge that: 'measurement tools restructure and redefine what is to be measured in terms of what *can* be measured' (Déjean et al, 2004: 745). Therefore attention must also be paid to the work done by organisations that supply the information upon which a metric is based, as without their work no metric could exist. In the case of CSR metrics, this information is provided voluntarily by companies on websites, in reports and through direct dialogue with the rating agency. Often companies themselves need to undertake significant first-order measurement in order to be able to supply the information to external raters (Cabantous, Gond, & Johnson-Cramer, 2010).

Little is known however about the intra-organisational practices of calculability and how calculative routines are affected by external measurement tools. To shed more light on this part of institutional work, a routine theory is integrated in the theoretical framework. The next section describes the dynamic theory of organisational routines, a theoretical perspective that draws on notions similar to SSF with regards to the sociomateriality of organisational practices and processes of calculability.

2.6 Dynamic routines and sociomateriality

Studies of law and business school rankings have pointed to social mechanisms of reactivity (Espeland & Sauder, 2007; Sauder & Espeland, 2006); and the effects of metrics on organisational cognition and external stakeholder expectations (Espeland & Sauder, 2007; Sauder & Espeland, 2009). Whilst this focus on cognitive effects of reactivity has highlighted the potential for tight coupling between organisational

behaviour and metrics, it has failed to pay attention to the more routine aspects of reactivity and its materiality. Most studies neglect the activities and practices of the organisations that are subject to the evaluation and measurement criteria, and their need to have routines and systems in place to provide information to be evaluated by external metrics. From the section above it has become clear that calculability is a distributed activity, which requires calculative activities also by the organisations that are subject to evaluation and measurement. Paying attention to routine practices and material devices associated with organisational responses to metrics highlights two formerly ignored aspects of reactivity: its dynamics and sociomaterial presence. Both aspects are discussed in turn below.

Organisational routines were long considered a source of stability and inertia in organisations (Becker, 2004; Zbaracki & Bergen, 2010), and the institutional perspective on decoupling implicitly shares this idea of routine activity as static, resistant to change and immune from institutional pressure. However recent empirical studies of organisational routines suggest that they can also be a source of dynamic change in organisational behaviour (Feldman, 2000; Pentland & Feldman, 2005). Drawing on Latour (1986), Feldman and Pentland (2003) define routines as '*repetitive, recognizable patterns of interdependent actions, carried out by multiple actors*', consisting of artefacts, ostensive and performative elements (Feldman & Pentland, 2003: 95). The ostensive element relates to the 'idea' of the routine, the overarching structure and its pattern of activities; the performative element is the enactment of the routine through the performance of routine practices by organisational actors (Feldman & Pentland, 2003; Pentland & Feldman, 2005). A common example of the two elements is the routine related to hiring of staff. The ostensive aspect of the hiring routine commonly involves the concepts of attracting,

screening and choosing applicants. These concepts are patterned in this order, with the result being the successful or unsuccessful hiring of one or more employees. The ostensive aspect of routines allows organisational participants to create a complex set of activities into a pattern with a simple label ('hiring') (Pentland & Feldman, 2005: 796). But the performance of the routine is undertaken by specific people, for specific reasons, at specific times, in specific places (Pentland & Feldman, 2005: 795), and therefore are likely to be different each time they are performed. For instance, the hiring routine could sometimes involve telephone interviews, or the use of head-hunters, if required by the circumstances in which the routine is carried out. All these activities would still be summarised as 'hiring'.

The difference between the ostensive (abstract pattern) and performative (specific actions) creates dynamism. As performative routine activities often diverge from the ostensive routine structure this tension forms a source of endogenous change. Performative activities have the potential to create, modify or maintain ostensive routine structures. Vice versa, when performing a routine, organisational participants can draw on the ostensive routine to summarise, guide or account for their activities (Pentland & Feldman, 2005; Rerup & Feldman, 2011). The meaning of the ostensive patterns emerges through the performative elements of the routine (Rerup & Feldman, 2010). As routines by definition are carried out by multiple actors, they require the making of connections between the people who perform organisational tasks. These connections enable participants in the routine to transfer information and to create shared understandings about what needs to be done, both in the context of the routine and the wider context of organisational goals (Feldman & Rafaeli, 2002).

The dynamic perspective on routines allows for an exploration of activities

and patterns of organisational practices and how these respond to external pressures (Rerup & Feldman, 2011: 580). It provides a tool to deepen our understanding of the way institutional pressures may be integrated into formal performances of routine activities, and the extent to which those performances become coupled to ostensive patterns of action in which shared meanings and understandings are created. Viewed in this way, the routine practices that mediate between symbolic management of institutional pressure (through performative routine activity that might not be embedded into ostensive reactivity) and substantive management (where performative and ostensive elements are in balance and aligned) can be studied. This idea corresponds to a central theme of Selznick's theory of institutionalisation: that institutional norms and values need 'congenial social structures' in order to be sustained and embedded within organisations. These social structures include mundane administrative arrangements and day-to-day routines (Selznick, 1957, Kraatz et al, 2010).

The dynamic perspective of routine activity also points to another important element: the role of material artefacts mediating between ostensive and performative aspects of routines. The word 'artefact' comes from the Latin words *arte* (*ars*, art) and *factum* (*facere*, to make). Organisational artefacts can include a wide range of objects such as tools, codified procedures and rules, organisational charts; names and symbols (D'Adderio, 2008; Rafaeli & Pratt, 2006). A dynamic perspective on routines highlights the multiplicity of material and ideological structures that influence the patterns of action that participants create and recreate (Feldman, 2003; Howard-Grenville, 2005; Pentland & Feldman, 2008: 242). Viewing reactivity as constituted of performative, ostensive and material elements

allows the study of 'sociomateriality', by examining how materiality is intrinsic to everyday activities and relations (Orlikowski & Scott, 2008: 466):

While the significance of management instruments and canonical practices has been recognized in organization studies, attention has tended to focus on technological effects, occasions of change, or processes of sensemaking and interaction with little recognition of the deeply constitutive entanglement of humans and organizations with materiality. Yet, evidence from contemporary organizations suggests that work practices are constituted by an array of sociomaterial agencies, for example, space, devices, standards, categories, algorithms, expert judgements, physical mechanisms, and so on (Orlikowski and Scott 2008: 466)

In an organisational routine, artefacts are often used to try to ensure the reproduction of particular patterns of action (Pentland & Feldman, 2008), but they may also serve to prescribe, codify, enable or constrain routines as they are used at participants' discretion (Feldman & Pentland, 2005: 796). Artefacts serve both symbolic and instrumental roles: they can be used to articulate organisational practices as well as influencing them (Gioia, Thomas, Clark, & Chittipeddi, 1994; Vilnai-Yavetz & Rafaeli, 2006). The instrumentality of an artefact refers to its impact on the tasks or goals of people, groups or organisations. An artefact's symbolic role refers to the meanings or associations it elicits (Vilnai-Yavetz & Rafaeli, 2006: 12, 14). Viewed in this way, referring to external measurement criteria – a practice seen by institutionalists as a purely symbolic action to legitimise current practices (see e.g. Quin Trank & Washington, 2009) - through the display of SRI index logos for example, can also be a means for articulating the need for organisational change in line with the external measurement criteria (see further chapter 5).

Whilst institutional theorists increasingly pay attention to the role of rituals

and symbols in creating and maintaining institutions (Dacin et al., 2010; Friedland & Alford, 1991), the dual role and materiality of symbols are often ignored in favour of a narrative approach (e.g. Zilber, 2009). The integration of dynamic routine theory as part of the institutional work needed to create and maintain institutions, allows for an exploration of the role of artefacts in symbolic work, and the role of routines in the mediation between symbolic and substantive management of institutional pressures. Section 2.7 will bring together the theoretical perspectives described in previous section and integrates them into a framework that guides the research.

2.7 Institutional work for reactivity

The sections above have set out the context and recent developments in SRI and SRI indices, and have reviewed various theoretical perspectives that touch on different aspects of the relationship between metrics and organisational behaviour. Whilst the combination of these different theoretical perspectives may seem eclectic at first sight, they share common methodological and ontological assumptions that enable their integration into the theoretical framework. The assumption that rationality is constructed in situated action rather than given *a priori*, which is shared by the perspectives of institutional work, SSF and dynamic routine theory, has already been highlighted above. These three perspectives also share an interest in studying organisational practice. Such a practice-centred analysis provides a bridge between the institutional and sensemaking perspectives (Kaghan & Lounsbury, 2006: 260) on metrics, by focusing on patterns of activities undertaken by various groups of actors and organisations.

SSF and dynamic routine theory are both influenced by the science and

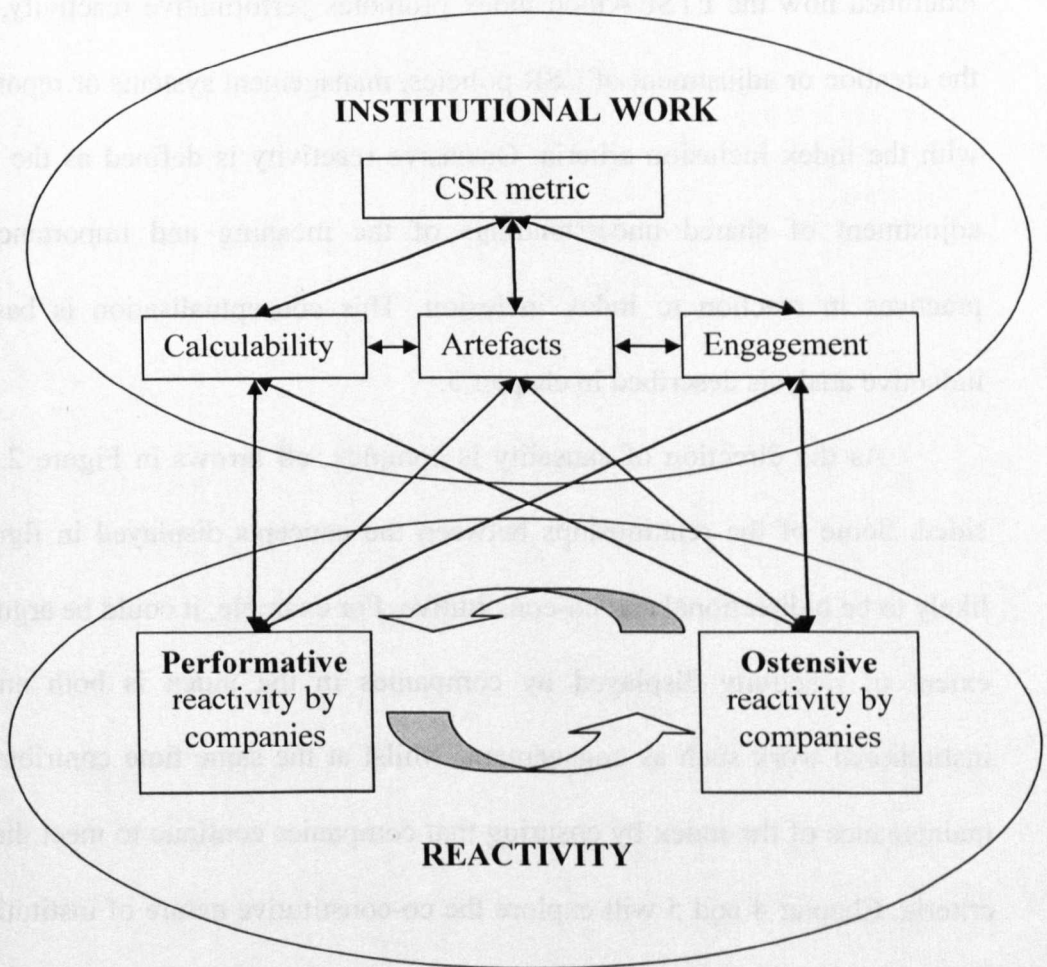
technology studies of Latour (1986) and Callon (Callon, 1998; Callon et al., 2007). These writings highlight the central role of co-constitutive networks of relationships established among objects and humans. An integration of the studies inspired by these writings ensures that the institutional work perspective is infused with attention for sociomateriality, rather than purely focussing on individual, human agency. Lastly, the acknowledgement of situated and distributed practices in all three perspectives allows unintended consequences and non-linear processes be taken into account, a central aim of scholars of institutional work (Suddaby et al, 2011). The three perspectives can be regarded as sharing the ontological position that understands the world as always in flux and that considers the seeds of new practice creation lie in the everyday activities of actors (Lounsbury, 2008:356).

Figure 2.1 shows how the different concepts highlighted in this chapter come together in the framework that guides the examination of the institutional work for reactivity that is induced by CSR metrics in the SRI market.

Three concepts are guiding the application of the framework to the case-study of the FTSe4Good index. First, the activities that are needed to achieve the calculability underlying the index formation, as undertaken by various organisations, including FTSE, companies and third parties. Second, the research will examine the engagement between FTSE and companies included in the index. FTSE engages in particular with companies that do not meet the inclusion criteria, in an effort to convince them to change their CSR practice to ensure continued inclusion. The process of dialogue between FTSE and included companies is likely to provide an important platform to create reactivity from the part of companies, as will be further discussed in chapters 4 and 5. Third, the role of artefacts will be examined. The artefacts referred to in figure 2.1 and throughout the research are twofold. First, the

FTSE4Good index itself can be regarded as an artefact, involving both first and second order measurement by FTSE to calculate responsible organisational behaviour and circulate the aggregate results in the form of the index. Second, the index brings forth material artefacts such as a logo and certificate of inclusion.

Figure 2.1: Institutional work for reactivity



Source: Author's own plus adapted from Feldman and Pentland (2005)(bottom half of the figure)

To examine the impact of institutional work on organisational behaviour the concept of reactivity provided by Espeland and Sauder (2007) is extended based on dynamic routine theory (D'Adderio, 2008; Feldman, 2003; Pentland & Feldman, 2005, 2008) as a way to connect cognitive work (reactivity that emphasises shared understandings and sensemaking) with behavioural changes (the actions taken to comply with the evaluation criteria of the metric) and material practices (the tools and artefacts needed for reactivity to occur). In the context of the case-study, it is examined how the FTSE4Good index promotes performative reactivity, defined as the creation or adjustment of CSR policies, management systems or reporting in line with the index inclusion criteria. Ostensive reactivity is defined as the creation or adjustment of shared understandings of the meaning and importance of CSR practices in reaction to index inclusion. This conceptualisation is based on the inductive analysis described in chapter 5.

As the direction of causality is complex, all arrows in Figure 2.1 are two-sided. Some of the relationships between the concepts displayed in figure 2.1 are likely to be bidirectional and co-constitutive. For example, it could be argued that the extent of reactivity displayed by companies in the index is both an effect of institutional work such as engagement, whilst at the same time contributing to the maintenance of the index by ensuring that companies continue to meet the inclusion criteria. Chapter 4 and 5 will explore the co-constitutive nature of institutional work further.

2.8 Conclusion

This chapter has introduced the concepts that guide the research, including engagement as an important current development in SRI, and the central role of

calculability in the SRI market. In addition, sociomateriality is integrated into the institutional work perspective to explore the activities related to the creation and maintenance of the FTSE4Good index and its impact on the organisational behaviour of companies. This complex question is likely to need multiple research methods that can accommodate different levels of analysis. The next chapter will outline the mixed method approach employed in the research.

3. Methodology

3.0 Chapter summary

The purpose of this chapter is to describe the research design of the study as well as its epistemological positioning. The research questions are effectively split into two parts, which require an inductive approach followed by a deductive approach. The chapter outlines the ontological and epistemological assumptions that guide this two-pronged approach and describes the various stages in the research design. The chapter concludes by outlining the key criteria that are used to determine the rigor of the approach.

3.1 Introduction

The previous chapter has developed the research questions on a conceptual level as being concerned with processes of calculation and institutionalisation of metrics, the impact of institutional work on organisational behaviour and sensemaking, and the sociomaterial aspects associated with these processes. A theoretical framework is developed to examine the institutional work related to the creation and maintenance of CSR metrics in the SRI market, and the implications for reactivity towards these metrics.

These concepts are examined empirically through a case-study of the FTSE4Good index. This SRI index has been provided by FTSE Group since 2001, and is managed on a day-to-day basis by the specialised team of FTSE staff members, named the Responsible Investment (RI) team, in collaboration with a number of third parties. The research aims to answer two sets of research questions.

The first set of questions focuses on the institutional work needed to create and maintain an SRI index. When it was launched, the FTSE4Good index was the only type of SRI index provided by FTSE amongst a suite of mainstream, traditional stock indices. For the creation of this SRI index specialised skills and knowledge were needed, in order to confront the issues surrounding commensurability and calculability of CSR that were discussed in the introduction. The first part of the research examines the activities that FTSE as an organisation undertook to acquire these skills and knowledge and the work that RI team members undertook to legitimise the index. The main question is how has FTSE managed to establish and maintain the FTSE4Good index? A number of sub-questions are asked: Which actors are involved in the creation and maintenance of the index and what activities do they undertake to support the institutional work? How are these activities contributed to the legitimacy of the index in the perception of the organisations involved? As institutional work is often distributed amongst various individuals and organisations, the case study will take into account the activities of a wide range of actors. A process model will be developed to account for the contribution of these institutional work activities towards the legitimacy of the index (see chapter 4).

The next set of research questions focuses on the impact of the institutional work on organisational behaviour. This part of the research examines to what extent the FTSE4Good index can drive companies towards improved CSR practices. The main question is how and to what extent does being included in the FTSE4Good Index impact on responsible corporate behaviour? Again a number of sub-questions are asked: What are the mechanisms whereby this impact may be channelled? Does being listed on SRI indices lead to the institutionalisation of responsible practices within corporations? What, if any, symbolic processes are in play in this

institutionalisation process? In this part of the research the direction of causality in the institutional work model will be explored and tested.

Before these questions can be answered the methodology and assumptions of the research need to be made explicit. The next section (3.2) will therefore describe the ontological and epistemological perspectives adopted in the research. The question of research paradigms is fundamental to mixed methods research, as different types of methodologies rely on different research paradigms. A pragmatic stance is taken in view of this debate.

Section 3.3 will introduce the motivations for case selection. This section serves mainly to clarify the nature of the researcher's relationship with the field, whilst the FTSE4Good index is further introduced in the next chapter (section 4.2)

Section 3.4 introduces the research design; the two parts of the research are introduced in section 3.4.1 and 3.4.2 respectively. These sections serve to provide a broad overview of data collection and analysis techniques. Further details will be presented in the chapters containing the empirical findings, as each chapter will be based on different data sources and analysis techniques.

Section 3.5 provides a brief description of the data collected. The research relies on unique access to multiple data sources: interview data, *in situ* observations, archival material from FTSE, several secondary data sources and database provided by research agency EIRIS. Each data source is described in turn.

Section 3.6 provides the rationale for using a mixed methods approach. The research design meets the objective of the study to develop and apply the model that explains the impact of measurement by external metrics on responsible corporate behaviour. The research design is justified on theoretical and pragmatic grounds.

Section 3.7 addresses the criteria for assessing the rigor of the research

design. In this section criteria for assessment of reliability, validity and transferability of the research are discussed, as well as the practical requirements that the research needs to fulfil. Lastly, section 3.8 concludes with a summary of the main points.

3.2 Research philosophy: ontology and epistemology

The question of mixing paradigms cannot be avoided in mixed method research designs (Greene & Caracelli, 2003: 95). A pragmatic stance is taken in this debate, which acknowledges that the different paradigmatic assumptions that guide inquiry activities all offer a valuable but partial lens on social phenomena. The different perspectives generated should be valued and used to generate better understanding of the phenomena under inquiry (Greene & Caracelli, 2003: 97). In this view, greater comprehension is gained from looking at phenomena from the point of view of different paradigmatic perspectives (Gioia & Pitre, 1990; Lewis & Grimes, 1999).

There are three reasons for choosing to employ a pluralistic epistemological approach. First, such an approach is well suited to study complex concepts such as CSR and SRI. It has the potential of moving CSR and SRI research beyond the dominant functionalist approach in the literature, which is mainly focussed on the business case for CSR and the financial performance of SRI (Gond & Matten, 2007; Scherer & Palazzo, 2007). Moving away from an over-reliance on this approach to a pluralist methodology provides a better opportunity to study the institutionalisation processes by which CSR and SRI measures are created, utilized and changed (Rowley & Berman, 2000: 415).

Second, a pluralist approach also allows for a 'hybridization of methodologies' (Gond & Matten, 2007) that is needed to explore institutional work

processes in-depth, whilst capturing variance in the consequences of this work on organisational behaviour. The multiple perspectives allow for a 'metatriangulation' across different theories and worldviews, not only to enhance accuracy of the findings, but also to facilitate a more comprehensive understanding of the phenomenon under study (Gioia & Prite, 1990). The combination of an inductive and deductive approach in the research enables the study of the outcomes of institutional work both as "objective" institutional entities as and mediums of "subjective" social construction processes (Lewis & Grimes, 1999: 679).

Third, a pluralist stance is especially effective in a collaborative research context such as in this CASE scholarship project (see further section 3.3). Leveraging different perspectives and competencies to coproduce knowledge about a complex phenomenon can help bridge the gap between theory and practice in the field of management (Van De Ven & Johnson, 2006: 803). A pragmatic epistemological stance enables the continuous assessment of research methods throughout the research, to ensure they capture the information needed to answer the research questions. This allows the flexibility to adjust methods to meet both academic demands for rigour and provide research that can have practical use within FTSE (see further sections 3.3 and 3.6).

Table 3.1 provides the pluralistic epistemological perspectives underlying the research. Constructionism is considered as the view that *all knowledge [...] is being constructed in and out of interaction between human beings and their world [...]* (Crotty, 1998: 42). Meaning is not discovered as an objective fact as in a positivist perspective, but constructed by human beings as they engage with the world they are interpreting (Crotty, 1998: 42-43). The focus on the activities undertaken by various actors as institutional work implies that meaning is created by and for these actors

both through their interaction with other organisations *and* through their interaction with objects and artefacts. The research aims to capture these meanings to explain the impacts of this institutional work and to ensure that the theoretical framework is grounded in both theory and data, capturing the perceptions of research participants.

Table 3.1: Epistemological perspectives

Chapter	Main approach	Epistemology	Questions posed regarding the nature of CSR*
Chapter 4	Unstructured, inductive	Constructivist	Understanding how the definition of CSR is socially constructed
Chapter 5	Semi-structured, inductive	Constructivist	Understanding how the definition of CSR is socially constructed
Chapter 6	Semi-structured, deductive	Positivist	Explaining CSR impact and CSR determinants
Chapter 7	Structured, deductive	Positivist	Explaining CSR impact and CSR determinants

* from Gond and Matten (2007)

The study then goes on to apply the conceptual framework to examine the impact of this institutional work on responsible corporate behaviour. Here the research takes a more realist ontological stance. To say that meaningful reality is socially constructed is not to say it is not real (Crotty, 1998: 63). The consequences of the institutional work undertaken by the various actors in the research setting can have real impact on organisational behaviour, which can be examined within the boundaries of the research setting. This requires a deductive, positivist perspective in the second part of the research.

The two parts of the research, with their different ontological and

epistemological standpoints also address different questions about the nature of CSR, as outlined by Gond and Matten (2007). The inductive, constructivist part of the research does not take the attributes of CSR as a given, but examines how these attributes are constructed through measurement activities and related tools and artefacts. The deductive, positivist part of the research takes CSR as the dependent variable, and examines its determinants in a systematic way (Gond & Matten, 2007). The next section will explain the main characteristics of the two parts in the research design.

3.3 Case selection

The creation of the FTSE4Good index series in 2001 can be seen as an extension of the general FTSE brand into the SRI market. The concept of institutional work is particularly suited to study the legitimization process that takes place when an organization wants to extend its activities to a new field (Durand & McGuire, 2005). The FTSE4Good index presents an ideal case to observe the emergence of an index and is a window on institutional work “in the making” due the objective to continuously develop new inclusion criteria to cover an increasingly wide array of aspects related to responsible corporate behavior (FTSE, 2006: 6). This effectively creates a moving target for included companies. It also means the index is almost constantly in flux, which provides a unique opportunity to study the dynamics of institutional work in practice. The engagement undertaken by the FTSE RI team is another distinguishing feature of the FTSE4Good index. These features of the index, and its relative longevity in the SRI market, presented significant research opportunities that made the FTSE4Good an ideal case for the case study.

The researcher’s access to the field was arranged through the ESRC CASE

studentship scheme, which promotes research projects carried out in collaboration with non-academic institutions. This meant that access to the FTSE4Good index and FTSE RI team was arranged before the research was started. The scheme also included a non-academic supervisor at the collaborating organisation, who provided advice and feedback through the different stages of the research, e.g. design, data collection and results. The non-academic supervisors were Will Oulton (former Director of the FTSE RI team) and David Harris (current Director of the FTSE RI team). The majority of the data (with the exception of the interviews with corporate managers and corporate documentation) was collected through extended visits of the headquarters of FTSE Group in London. The open-office lay-out of the FTSE offices provided opportunity for informal observation of, and conversation with FTSE RI team members during the intermittent spells of data collection (see below). All staff members were aware of the role of the researcher, kept informed about the nature of the research and keen to offer their insights. During these visits, the researcher was not directly involved in their activities, and care was taken to clarify the independent nature of the research with external research participants such as CSR consultants and corporate managers. Whilst the nature of arrangements provided an opportunity to verify emerging results with the research participants at FTSE, ultimate responsibility for data analysis and dissemination of results remained solely with the researcher.

3.4 Research design

To answer the two sets of research questions a mixed-method research design is employed in the case-study, along the lines of that outlined by Creswell and Plano Clark (2007) as an Exploratory Mixed Method design (Creswell & Plano Clark,

2007). This design is similar to that used by Elsbach in her study of the construction and effectiveness of verbal accounts in impression management (Elsbach, 1994). In this two-phase research design the researcher starts with qualitative data, which are used to explore a phenomenon and develop an instrument, taxonomy or framework. The quantitative phase builds upon the data and developments of the first phase. This design is particularly useful when there is no guiding framework or theory, or the researcher needs to identify variables to study quantitatively (Creswell and Plano Clark, 2007: 75). A case-study design is particularly suitable to address the complex set of questions in detail (Yin, 2009) and extrapolate findings based on a within-case comparison of the responses of a number of companies included in the FTSE4Good index

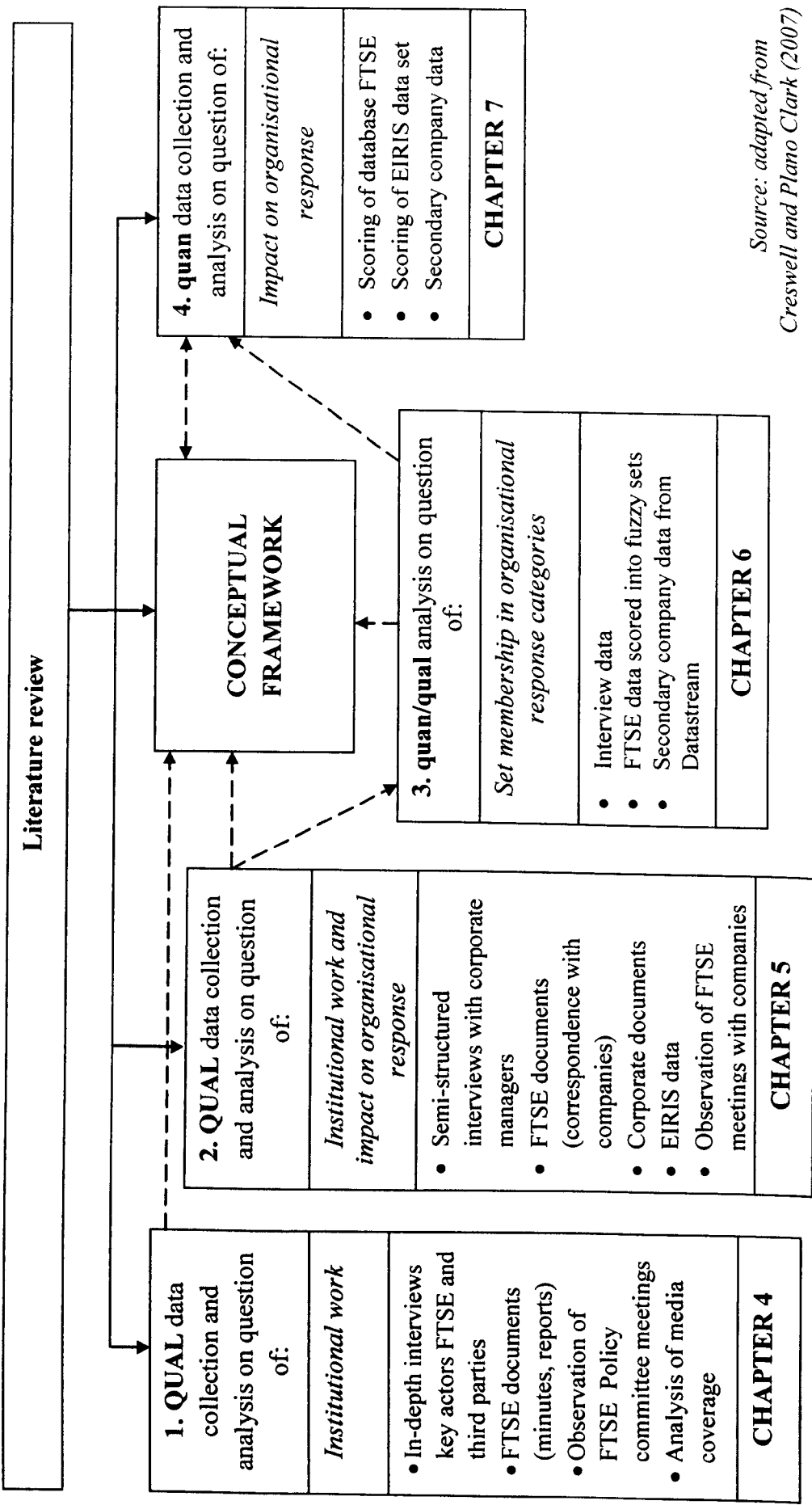
The mixed-method design is well suited to the two sets of research questions. The first set of research questions requires a qualitative study of actors' understanding of the context in which the FTSE4Good Index was created and continues to develop. This qualitative understanding will be used to develop and enhance the theoretical framework that is outlined in section 2.7, so that it is grounded in theory and data. The framework will then be tested in a larger sample of corporations listed on the FTSE4Good Index. To successfully achieve the combination of both methods, the quantitative phase needs to be firmly grounded in the qualitative phase: *'[...] quantitative data should reflect subjects' own ways of understanding the world [...] This position allows the researcher to collect quantitative data in terms of categories which are not alien to those to whom the data is supposed to refer. This standpoint means the researcher must have acquired some familiarity with the setting before the collection of quantitative data can get under way [...]'* (Bryman, 1992: 145).

Figure 3.1 provides a map of the research, outlining the various data collection and analysis techniques underlying the research. As can be seen from the figure, each part of the analysis answers a different set of questions, and each part of the analysis builds on the preceding stage. The QUAL→quan denotation is used to describe a sequential design in which the emphasis is placed on the qualitative phase. The qualitative and quantitative phases will be discussed in section 3.4.1 and 3.4.2 respectively.

3.4.1 Qualitative phase of the research

As can be seen in Figure 3.1 there are two rounds of qualitative data collection and analysis. The first set of data consists of open-ended interviews with key actors at FTSE and relevant third parties, and collection of archival data, consisting mainly of minutes of meetings and FTSE reports. The aim in this stage of the research is familiarisation with the research setting, in order to understand the main processes and activities taking place in the setting, and to elicit perspectives and viewpoints from the various research participants. In addition, an analysis of newspaper articles regarding the FTSE4Good index is undertaken to examine the role of the media in the institutional work. Whilst the data set is collected to get to know the research setting, it also provides an opportunity to discuss formulation of the research questions with FTSE RI team members (Jonker & Pennink, 2010), to share emerging insights and validate findings. The analysis of this first data set provides the main insights into the institutional work involved in the creation and maintenance of the index, which will be described in chapter 4.

Figure 3.1: Research map



Source: adapted from
Creswell and Plano Clark (2007)

The second set of data in phase one is collected after familiarisation with the research setting (but concurrent to analysis of the data already collected). The second data set focuses on the companies listed on the FTSE4Good index. A more structured approach to data collection and analysis is used for this data set compared to the first, by focussing on one group of actors involved with the index, the companies, and examining their usage of the index and the effects on their CSR policies and practices. This move from relatively unstructured to semi-structured data collection aims to facilitate the transition to the quantitative research phase (Bryman, 1992). As in the previous data set, archival data was used to validate the interview results. This archival data consists of correspondence (emails and letters) between companies that were part of the interview sample and the FTSE RI team. In addition, meetings between FTSE4Good listed companies and RI team members were observed. The second data set contributes to answering both sets of research questions. By focussing the listed companies, it contributes to the analysis of the institutional work that is undertaken by this group of actors. At the same time, the data set is used to examine the impact of index inclusion on responsible corporate behaviour. The analysis and findings from this dataset are described in chapter 5.

3.4.2 Quantitative phase of the research

The findings from the qualitative data sets are used to construct and ground the conceptual framework and to provide a set of testable hypotheses. Quantitative methods are used to apply the conceptual framework and further refine it. As in the qualitative phase, two rounds of analysis are undertaken. First, a fuzzy-set Qualitative Case Analysis (QCA) forms the 'bridge' between the qualitative and quantitative phase. This analysis is informed by the pattern of organisational responses to index inclusion derived from the second (QUAL) dataset, which shows

heterogeneity and causal complexity (Ragin, 2000). When causal complexity occurs, different combinations of variables may lead to the same outcome (Fiss, 2007; Ragin, 2000). In the fuzzy set approach, cases are analysed as configuration of several variables, which are called sets. Each company is scored on their membership in a set (for instance, the extent of engagement with the FTSE RI unit). The different combinations of sets may present necessary or sufficient conditions for the outcome⁸ (for instance, the extent of organisational change), based on an analysis using Boolean algebra. The fuzzy set approach will be used in chapter 6 to assess causal processes in the typology of organisational responses (Fiss, 2007) and explore the influence of organisational characteristics on the outcome of reactivity.

Second, the conceptual framework is applied to the analysis of panel data obtained from various sources regarding the FTSE4Good countering bribery criteria. The performance of companies with regards to the countering bribery criteria is examined as the dependent variable. The analysis tests the likelihood of good corporate practices with regards to countering bribery, based on explanatory variables derived from the qualitative phase, such as the extent of engagement, symbolic work and calculative routines. The analysis also controls for industry and financial performance effects. The nature of the data requires Tobit and ordinal choice regression models rather than linear regression models which assume a large, probabilistic normally distributed sample (Bazeley, 2003). This final analysis tests the significance of the mechanisms in the conceptual framework for a larger sample of companies, which will be described in chapter 7.

⁸ A necessary condition is displayed in all cases that show the relevant outcome; a sufficient condition means the condition can cause the relevant outcome. See further chapter 5.

3.5 Description of the data sources

The research relies on unique access to multiple data sources: interview data, longitudinal *in situ* observations, archival material from FTSE, several secondary data sources and a database provided by research agency EIRIS. Appendix B lists all the data sources.

Observations. The FTSE premises were visited several times a year in order to conduct *in vivo* observations of Policy Committee meetings, and to gather data. In total around 12 weeks were spent at the FTSE Group over a period of 3 years, during which frequent informal conversations with the FTSE RI team members confirmed many of the insights of the interviews and helped weigh the value of interviews and archival data during the data coding process. Ten formal meetings were observed in this period: eight Policy Committee meetings and two Criteria development committee meetings (see below). These formal meetings include FTSE RI team members and external advisors, and generally last four to six hours. Several more informal meetings between company representatives and FTSE RI team members were also observed. Notes were taken during these observations, as well as during the data collection as a whole, which served to contextualize the interview and archival data.

Interviews. Four categories of informants have been interviewed: those involved with day-to-day management of the index; those involved with the research underlying the index; external CSR consultants; and managers of companies included in the index. The RI team responsible for overseeing the day-to-day management of the index consisted of 3 to 6 people in the period studied. All the members of the FTSE RI team were interviewed concerning their responsibilities which ranged from overseeing the strategic direction of the index to daily

engagement with included companies. Several informal follow-up interviews were conducted throughout the research period with FTSE RI team members, to test and confirm emerging insights. In addition, interviews with four members of the Policy Committee, which oversees the governance of the index, and two interviews with EIRIS researchers were conducted.

Analysis of the interviews with FTSE staff highlighted the potentially important role of CSR consultants in enlisting companies onto the index. Accordingly, five UK-based CSR consultants were interviewed who had been selected from an attendance list for a FTSE workshop aimed at UK CSR consultancies. Finally, interviews were conducted with 30 corporate managers of companies that were, or had been, included in the FTSE4Good index in the period 2001-2010. These managers had responsibility for interaction with the FTSE RI team and were asked about their motivations for inclusion in the index. This sample was selected to reflect the range of industry sectors and geographical regions represented in the index, as well as the extent of dialogue the respective company managers had had with the FTSE RI team, and the specific inclusion criteria that companies were looking to meet. Where possible, interviews were conducted face-to-face. The majority of interviews with company managers were conducted by telephone, due to geographical spread of companies in the sample. All interviews, lasting about 50 minutes on average, were recorded and transcribed. A total of 47 interviews were conducted.

Archival Material. Four categories of archival material were consulted. First, publicly available information published by FTSE was consulted, including several progress reports and semi-annual updates of company exclusions and inclusions from the index. Second, the minutes and papers of the Policy Committee

meetings were reviewed. Papers proposing changes to the index criteria and its constituents are prepared by the RI team for assessment by the Policy Committee and voted upon in the semi-annual index review meetings. These materials were studied for the period from 2001 through to the end of 2010 (totaling over 650 pages). The Policy Committee meetings were observed from 2008 to 2011, to contextualize the archival material. Third, correspondence between the FTSE RI team and corporate managers was studied. This included 239 letters for the period from 2003 to 2010, and over 500 emails that were examined in detail. Fourth, a database was created that listed company scores on the inclusion criteria for the period 2001-2010. These data were gathered from FTSE, based on spreadsheets provided to FTSE by rating agency EIRIS twice a year.

Secondary Data. Secondary longitudinal data were gathered in the form of newspaper articles. The Nexis database was used to retrieve the articles mentioning ‘FTSE4Good’ (in various ways of spelling) over the period 2001-2010 from major English language news sources. This includes major UK and US newspapers and other online English language news sources. The same search was performed for the *Financial Times (FT)*, as a mainstream financial market publication; and *Ethical Corporation*, one of the main UK CSR publications, in order to compare and contrast their coverage of the index over the 2001-2010 period. Company CSR reports and web pages containing CSR information formed another source of secondary data. This information was reviewed for companies in the interview sample (n=30) and in the panel analysis (n=254), focusing specifically on whether and how the information mentioned the company’s inclusion in SRI indices.

EIRIS database. A database containing research on CSR performance of companies worldwide was purchased from research agency EIRIS. The database

represents an unbalanced panel of between 2300 to 2900 companies for the period 2003-2010. In addition to the research upon which the FTSE4Good index is based, this database contains information on a wide variety of other CSR issues. The information related specifically to corporate systems and policies for countering bribery and corruption was analysed in the final part of the research (see chapter 7). This data is gathered by EIRIS based on publicly available information from CSR reports and websites. After this information is gathered and summarized by EIRIS in a company specific profile, this profile is sent to the company contacts, who may provide additional information and comments. Most of the information provided in such as way must be evidenced. For example when a company states it has an environmental management policy, a copy of the policy needs to be publicly available or send to EIRIS, so that researchers can determine the quality of the policy in question. Quality judgments by EIRIS are based on the quantity and quality of the elements that are included in the corporate documents. An environmental policy document would be judged on elements such as: reference to key issues of energy and water consumption, emissions and waste; board level responsibility for the policy; commitment to objectives and targets; commitment to monitor and review impacts and risks; and commitment to public reporting. The more elements the policy includes, the higher the quality it is judged. Chapter 7 provides more information on the qualitative grades provided by EIRIS.

3.6 Rationale for a mixed methods approach

A QUAL→quan mixed-method design is often used to develop a model, framework or theory and then to test the theory. Whilst the second quantitative phase is deductive, the overall theoretical drive of the design is inductive (Morse, 2003).

According to Currall and Towler, the advantage of using mixed-methods is the achievement of both *discovery* of a new theory, application or construct and *justification* or confirmation of theory (Currall & Towler, 2003: 518). The research design meets the objective of the study to develop and apply a conceptual framework that could explain the impact of measurement by external metrics such as SRI indices on responsible corporate behaviour. The qualitative data collection and analysis techniques are used to explore the context of the research setting and to identify emerging mechanisms and variables. In the quantitative phase the prevalence of these mechanisms with different samples is subsequently examined (Creswell & Plano Clark, 2007).

An inductively developed framework, grounded in theory and data, which examines how SRI indices impact on responsible corporate behaviour will greatly contribute to the theoretical development of the academic literature on SRI. At the same time a mixed methods approach fits well with the main theoretical perspectives employed in the study. Institutional theory has been used in conjunction with a wide variety of methods in management and organisation research, often constructing a historical analysis of institutionalization processes. Some of these scholars use purely quantitative methods, such as event-history analysis or panel analysis (Edelman, 1992; Zajac & Westphal, 2004; Zuckerman, 1999). Others have used elaborate mixed-method designs in longitudinal case-studies, mixing content analysis of data sources such as documents, media articles and interviews with quantitative data and event history models (Anand & Watson, 2004; Haveman & Rao, 1997; Hoffman, 1999; Lounsbury, 2001). Again others have used qualitative case-studies based on multiple data sources (Boxenbaum, 2006; Durand & McGuire, 2005). The latter category includes the recent empirical studies on institutional work,

which mostly use longitudinal case-studies based on qualitative data, often employing a temporal bracketing technique (Langley, 1999) in the analysis of institutional work undertaken by various actors (see the studies in Lawrence, Suddaby & Leca, 2009).

The mixed methods approach employed in the study thus makes sense from a pragmatic perspective in answering the two sets of research questions and to fulfil the aims of the study. It also makes sense from the theoretical perspective, which calls for a longitudinal design that incorporates multiple data sources and in-depth perspectives with relatively large samples (Hoffman, 2001). The design however has certain limitations and challenges that need to be taken into account. First, there are a number of practical challenges associated with a mixed-method research design. Collecting and analysing the various data sets as described above takes a considerable amount of time and resources. In this case the qualitative data analysis has been facilitated by the use of software, as well as the availability of funds for the transcription of interview recordings, freeing up time for the analysis of the data. In addition, various data analysis techniques need to be mastered to allow for rigorous analysis of the various data sources.

Second, there are methodological concerns that need to be addressed in mixed-method research. The main strength of mixed methods designs can also be a weakness: what if the different phases lead to two different or even contradictory conclusions? According to Erzberger and Prein (1997) research findings can converge, which enhances their validity; they can form complementary insights; or they can lead to a falsification of prior theoretical assumptions (Erzberger & Prein, 1997: 146-147). Viewed in this perspective, divergent findings are valuable as they lead to a further refinement of the conceptual framework underlying the study

(Teddle & Tashakkori, 2003: 17). Conducting each phase of the research in a rigorous manner will ensure the likelihood of convergent or complementary findings, as the quantitative tests are firmly grounded in the data of the qualitative phase. The next section will address the criteria for assessing the rigor of the research.

3.7 Reliability, validity and transferability of the research

In this section various criteria for assessment of the reliability, validity and transferability of the research are discussed, as well as the practical requirements that the research needs to fulfil (Jonker & Pennink, 2010). A summary of the procedures used to ensure these criteria can be found in Table 3.2. Considering the emphasis on the qualitative data collection and analysis in the overall research design, this table addresses the requirements for rigorous research mainly from a qualitative methods perspective. Robustness tests for the quantitative phase of the research are discussed in chapter 7.

Reliability relates to the ‘quality control’ of the data collection and analysis techniques (Miles & Huberman, 1994: 278), so that the study could be repeated by another researcher with the same results (Yin, 2009). Good data management is essential in achieving reliable results, especially as multiple data sources and data types are being used in the research. In line with Yin’s recommendation, a protocol was developed for each stage of data collection. This protocol ensured similar data were collected for each participant. For instance in the case of the second round of qualitative data collection an interview guide was developed to ensure all relevant topics are discussed with interview participants. Main points from the interviews as well as from secondary data analysis (FTSE and corporate documents) are summarised in a case summary.

Table 3.2: Criteria and procedures for evaluation of rigour

Criteria	Procedures	Example
Reliability	<ul style="list-style-type: none">- Data collection according to ‘protocol’- Data management with OneNote software- Data analysis with Nvivo8	See chapter 5: the protocol for the company interviews was coded in case summaries, which were subsequently used for analysis in Nvivo8
Validity	<ul style="list-style-type: none">- Multiple informants and sources of secondary data- Review of preliminary and final findings by key informants- Moving from in-depth to (semi)structured data collection	See 4.4 - 4.6 for the use of multiple informants and data sources. See section 5.2 for a description of triangulation between different sources of data.
Transferability	<ul style="list-style-type: none">- Replication using multiple informants and secondary data- Development of conceptual framework with propositions- Quantitative testing of framework on larger sample	See chapter 6 and 7 for an application of the conceptual framework for reactivity applied to an intermediate (chapter 6) and a large sample (chapter 7)
Usability	<ul style="list-style-type: none">- Regular discussions with non-academic supervisor- Reviews of progress with non-academic supervisor	The FTSE 2011 report briefly describes the preliminary findings of the research

These case summaries, together with the memos that were written throughout the study, were stored together using OneNote software.⁹ Filing each stage of the data collection and analysis in this way provided overview as well as the possibility to easily navigate and link between the different data sets. The software was also used to keep a research journal, which provided an ‘audit trail’: describing for example

⁹ OneNote, part of the Microsoft Office suite, is a software programme that allows you to create electronic notebooks that can be organised into different sections, searched and linked to each other.

the planning of the research, various versions of coding lists as they developed, and memos written during data collection and analysis. All but two interviews were digitally recorded and transcribed *ad verbatim*. The resulting transcripts were coded using Nvivo8 qualitative data analysis software.

Validity concerns the truth value of the interpretations made by the researcher concerning the phenomena under study (Miles & Huberman, 1997: 278). Validity is based on an integral assessment of the extent to which empirical findings and theoretical considerations support the adequacy of the argumentation (Jonker & Pennink, 2010: 103). Multiple informants and data sources were used in three ways to achieve high validity. First, the results obtained from interviews were triangulated with those from the analysis of FTSE archival data and corporate documents. Second, to check against interview bias the interview results were compared against FTSE correspondence and emails. Third, to seek out rival explanations different groups of participants (e.g. FTSE team members, investors, consultants) were interviewed and external information sources (e.g. media articles) were consulted.

Efforts were made throughout the research to discuss preliminary findings with research participants through verbal and written progress reports, and sharing of draft manuscripts for comments and feedback. This ensured the findings made sense to those involved in the research setting (Miles & Huberman, 1997). Finally, the research moved from a relatively exploratory, unstructured approach in the early stages of the research to a more structured approach in later stages. This ensured that the constructs developed were grounded in data from the subsequent research stages, as well as in theory whilst the literature review continued. ‘Metatriangulation’ also underlies the sequential research design employed in the study as a whole, by using both quantitative and qualitative perspectives to study the impact of the index on

responsible behaviour.

Transferability deals with the larger importance of the conclusions of the study and whether they can be transferred to other research settings (Miles & Huberman, 1997:278). Replication in the research design is one method to allow for greater transferability (Yin, 2009). Replication within the study was achieved by phasing the data collection across cases and allowing for a continuous interaction between data analysis and further data collection. The conceptual framework thus developed puts forward propositions that can be used to test the emerging theory in different research settings, e.g. another SRI index or CSR ranking or rating system.

Lastly the practical requirement of the usability of the research findings carries particular weight, since the research is a CASE funded project, which aims to promote collaborative research between academia and private or public organisations. In regular discussions with the non-academic supervisor at FTSE the progress of the research was evaluated, the validity of preliminary findings tested and the aims and objectives of the overall research project reviewed on a continuous basis. In addition, the progress of the research was described in short, executive summary style research notes that are shared with the RI team and the FTSE4Good Policy Committee. This regular communication aimed to clarify commitments, roles and expectations with regards to the research, and allowed for updates on these issues as the research progressed (Van de Ven & Johnson, 2006).

3.8 Conclusion

This study adopts a sequential mixed-method approach, consisting of an inductive qualitative research part that aims to build a conceptual framework grounded in data and theory, followed by a quantitative research part that aims to test and further

refine the conceptual framework. This design is well suited to the two sets of research questions regarding the creation and maintenance of the FTSE4Good index and its impact on responsible corporate behaviour. Only a handful of studies on SRI have looked at the impact of indices on responsible corporate behaviour, most of them from a quantitative perspective. As will become clear in the following chapter, SRI indices are not ordinary financial indices, and the analysis in the next chapter highlights significant institutional work involved in the creation and maintenance of the FTSE4Good index.

4. The FTSE4Good index as a standard for responsible corporate behaviour

4.0 Chapter summary

In this chapter the institutional work employed in the creation and maintenance of the FTSE4Good index is studied through the analysis of longitudinal archival data and interview data. The research findings show how the FTSE4Good index emerged as a standard for socially responsible corporate behaviour. The results highlight how three types of institutional work - calculative framing, engaging and valorising - create and maintain an index that becomes seen as a standard for CSR. It also shows how institutional work is distributed amongst various actors, and how unintended consequences of this work can be recaptured to strengthen the reactivity induced by the index. In sum, the institutional work of creating and maintaining the FTSE4Good index is seen as an ongoing, recursive process that brings together various actors and symbolic artefacts, all of whom are implicated in creating reactivity.

4.1 Introduction

Studies of metrics in the field of higher education (Espeland & Sauder, 2007; Sauder & Espeland, 2006; Sauder & Espeland, 2009) have studied the *attributes* of rankings and ratings, and their effect on the behaviour of organisations under evaluation. These studies show that the framing of ratings, including the evaluation criteria and calculation methodologies, may have a strong impact on framing of organisational identity and templates in rated organisations (Elsbach & Kramer, 1996; Sauder & Espeland, 2009). Few studies however have studied the actual *activities* of the

organisations responsible for these ratings, or have linked these to the work done by the rated organisations. Only cursory references are made to the activities of *U.S. News & World Report* for example, the public media organisation responsible for the popular ratings of law schools in the U.S. (Sauder & Espeland, 2009). But metrics do not just come into existence from a neutral exercise of information gathering and calculation. Ideas about the objectives and aims for raters and rated organisations need to be reconciled, and expertise and knowledge needs to be sourced, often requiring assistance from third parties. All these activities require different types of institutional work to ensure the legitimacy of the metric amongst the organisations involved. The legitimacy of the metric does not depend solely on its methodology: the studies of law school rankings show that despite the recognizable flawed methodology of the *U.S. News* ratings, they nevertheless acquired a status of high significance within the field of legal education (Sauder, 2008).

This chapter studies the activities carried out by various organisations related to the FTSE4Good index. The findings show that over time the index has become seen as a de facto standard for good corporate social responsibility practices by included companies. The index is part of the structure of international accountability standards that have emerged in the social responsibility field (Waddock 2008a, 2008b), which are defined as ‘voluntary predefined rules, procedures, and methods to systematically assess, measure, audit and/or communicate the social and environmental behaviour and/or performance of firms’ (Gilbert, Rasche, & Waddock, 2011: 24). The analysis relies on interviews and unique access to archival data for exploring how various activities are combined and sustained over time by FTSE4Good actors, companies and third parties. The results show three types of work—*calculative framing*, *engaging* and *valorising*—that were deployed by

different actors at various points in time to design and legitimize the index, and to monitor the behaviour of included companies.

The chapter is structured as follows. The next section (4.2) introduces the case context in detail. It highlights the governance arrangements of the index and its increasing scope in terms of included companies. It also describes the work involved with an important attribute of the FTSE4Good index: the gradual ‘raising the bar’, by introducing more stringent inclusion criteria.

Section 4.3 describes the methods used in this part of the research. The overall research design and main data sources were introduced in chapter 3; this section further describes how the inductive analysis of the data was structured.

Section 4.4 and 4.5 provide the findings of the analysis of institutional work. Section 4.4 describes the three types of institutional work and the various activities that contribute to the institutional work of creation and maintenance of the index. Section 4.5 shows how the institutional work of index maintenance creates a recursive cycle of reactivity that ultimately changed the main aims of the index.

Section 4.6 briefly summarises the findings, and discusses the implications within the context of the current research, as well as the implications for future research on metrics and organisational behaviour.

4.2 The FTSE4Good index

The FTSE4Good index was launched in 2001, a period in which an increasing number of institutional investors and intermediaries became interested in SRI. In 2000 changes in the UK Pension’s Act meant the Act now included a new clause requiring institutional investors to disclose whether and how they were taking environmental, social and corporate governance considerations into account in their

investments. The clause did not pose an obligation on institutional investors; rather it was an example of a 'comply or explain' approach to regulation. It was expected that many pension funds would develop SRI policies in the wake of the new regulation (Solomon, Solomon, & Norton, 2002), especially as other European countries introduced regulations similar to that of the UK (Sparkes & Cowton, 2004). At the time, FTSE identified a market opportunity in serving these investors newly interested in SRI with a specialised index that would list companies which were screened against some of the main issues of concern for SRI. The index identifies companies that are suitable to invest in, and provides a benchmark against which the performance of responsible funds could be measured, and derivatives can be developed. At the same time the index forms part of FTSE's own corporate responsibility and philanthropy strategy, and the income derived from the index is donated to UNICEF.

The FTSE4Good index is in fact a series of indices, consisting of five benchmark indices (notably the Global, Europe, UK, US and Japan indices) and four tradable indices. The former include all eligible companies, the latter include only the largest 100 (Global, US) companies or largest 50 (European, UK) companies respectively. The term 'FTSE4Good index' as used here throughout the research, will refer to the series as a whole. All companies that are in the FTSE Global Equity Index Series (indices which cover all companies listed on stock exchanges in the developed world) are potentially eligible for inclusion, with the exception of companies in the tobacco and weapon industries.¹⁰ Those that meet the FTSE4Good index inclusion criteria are automatically included in the FTSE4Good index, subject to technical requirements related to free float (the proportion of corporate shares that

¹⁰ The formal exclusion criteria for the weapon industry is: Companies manufacturing either whole, strategic parts, or platforms for nuclear weapon systems; Companies manufacturing whole weapons systems (see FTSE, 2008).

are liquid, or held by investors willing to trade) and market capitalisation (the market value of all a company's outstanding shares). The number of companies that meet the criteria has steadily risen over the years, and between 850 and 900 companies have been included in the index in recent years.

The index inclusion criteria have changed since 2001 to include a number of new issue areas, and existing criteria have also been adjusted over the years. In table 4.1 the index inclusion criteria are listed¹¹ (see also Appendix C for a detailed overview of the criteria indicators and sector classifications for the countering bribery criteria as an example of how the FTSE4Good criteria are structured). For each issue area indicators need to be met for corporate policies, management systems and reporting. The criteria are sector-balanced, which means that companies with, for example, a higher environmental impact or companies facing a larger risk of human rights abuse need to meet stricter criteria for these issue areas. The data regarding company performance on the inclusion criteria are provided by the social research agency EIRIS. The information collected is based on company CSR reports, webpages and supplemented with information directly provided by companies in a research profile managed by EIRIS, and provided to FTSE in summarised form. Twice a year the index is reviewed to include or exclude companies based on their CSR performance related to the criteria.

¹¹ The full text of the main FTSE4Good inclusion criteria is available from:
http://www.ftse.com/Indices/FTSE4Good_Index_Series/Downloads/F4G_Criteria.pdf
The text of industry specific criteria (e.g. for uranium mining companies) can be found on
http://www.ftse.com/Indices/FTSE4Good_Index_Series/F4G_Download_Page.jsp

Table 4.1: Index inclusion criteria

Issue area*	Criteria indicators	Applies to	Introduced	Updated
Environment	policy, management systems & reporting	high, medium and low impact sectors	2001	2002
Human & labour rights	policy, management systems & reporting	high risk companies	2001	2003
Supply chain labour standards	policy, management systems & reporting	high risk companies	2004	
Countering bribery	policy, management systems & reporting	high risk companies	2006	
Climate change	policy, management systems, reporting & performance	high and medium impact companies	2007	
Uranium mining**	policy, management systems & reporting	Companies involved in the mining of uranium	2006	
Nuclear power**	policy, management systems, reporting & performance	Companies generating nuclear power	2010	
Breast-milk substitutes**	policy, lobbying, management systems, reporting, external verification	Companies marketing breast-milk substitutes in 'high risk countries'	2004	2010

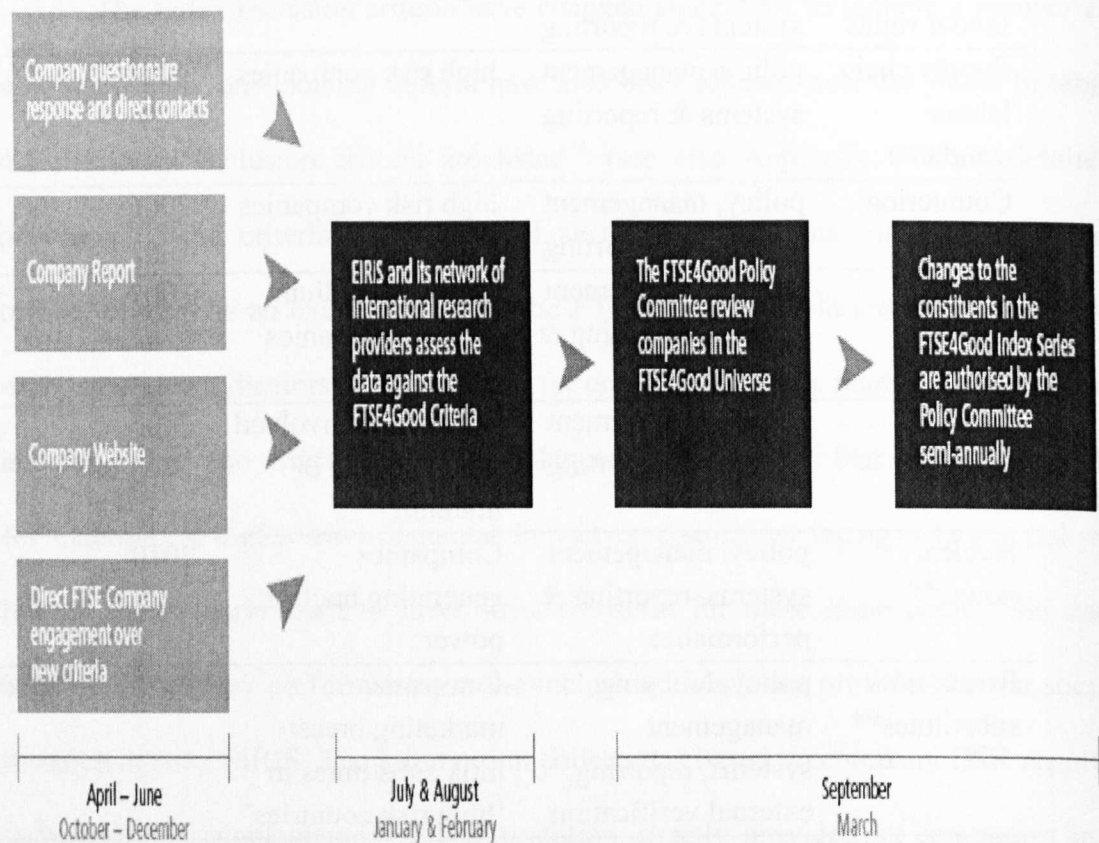
* The original 2001 inclusion criteria also included other social indicators such as corporate code of ethics and philanthropy. These indicators have been subsumed in the issue areas listed in the table in subsequent criteria updates.

** These criteria cover industry sectors that were originally excluded from the index and now have to meet sector-specific inclusion criteria

The FTSE RI team oversees the day-to-day management of the index, including correspondence with companies and preparing the development of new inclusion criteria. The FTSE4Good Policy Committee convenes twice a year to review the inclusions and exclusions, based on evidence provided by the FTSE RI team. The Committee also signs off any new inclusion criteria, which are developed through consultation overseen by a sub-committee (see section 4.4.2 below).

Another sub-committee exists to give advice on reviews of U.S. companies. Figure 4.1 depicts this cycle of the index review process.

Figure 4.1: Index review cycle



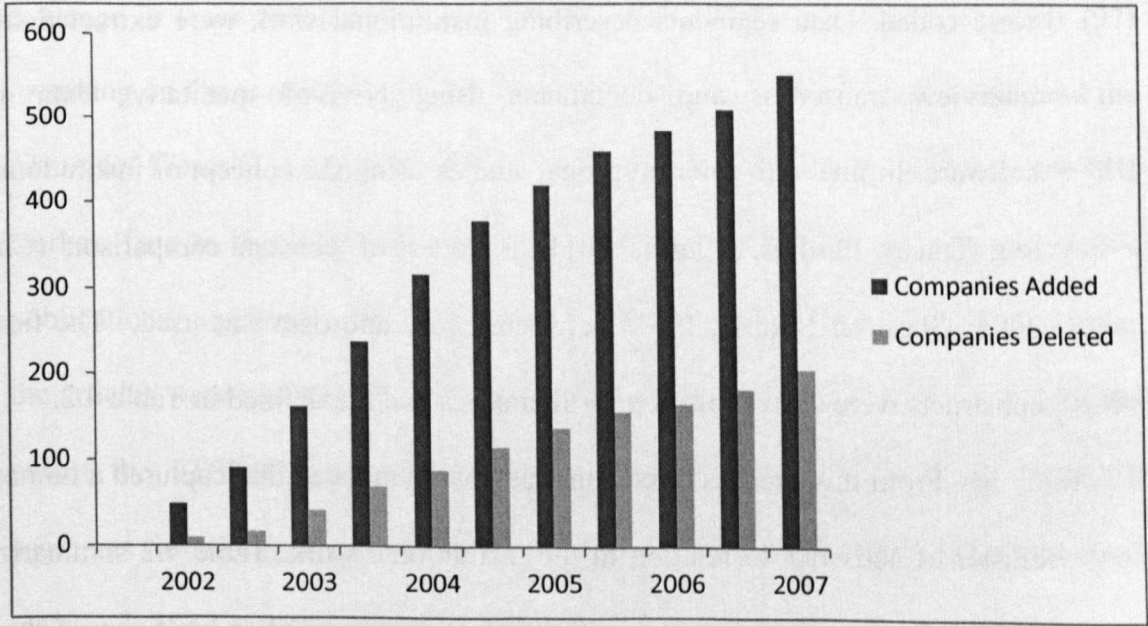
Source: FTSE4Good Index Series Inclusion Criteria (2010)

The introduction of new criteria means the turnover of companies in the index is potentially high, as companies in the index may be excluded for not meeting the new criteria. This poses a problem for passive investors and investors creating index tracker funds, for whom low turnover of the companies in the index is preferable. The FTSE RI team has been set up to provide information to companies regarding new criteria that are to be introduced, to warn them when they are not meeting the criteria, and to oversee a period of respite during which the company may provide evidence of working towards meeting the criteria through the

development of policies, management systems or reporting structures. The Policy Committee ultimately decides whether a company should be removed from the index after this period of dialogue and engagement.

Over the years, more companies have been added to the index than have been deleted, and even as the inclusion criteria have been strengthened, the number of companies meeting the criteria has increased since 2002, as can be seen in Figure 4.2. The high profile of the index is reflected in the intensity of media discourse focusing on SRI indices, and the FTSE4Good index in particular. It received coverage in over 200 newspaper articles in the year of its launch. The UK media, especially, highlighted the potential impact that an SRI index launched by a reputable organisation such as FTSE could make to the growth of SRI in mainstream financial markets (Sunday Telegraph, 21 October 2001).

Figure 4.2: Number of companies included and excluded from the index



Source: FTSE

4.3 Methods

The data sources are described in section 3.5 and Appendix B. The analysis of institutional work draws in particular on the interview data, the archival data consisting of Policy Committee minutes and papers, and the secondary data consisting of media articles.

The initial stages of the data analysis focused on the FTSE archival data to derive a narrative of main events, such as the introduction of new inclusion criteria or hiring of additional staff. The narrative was used to make sense of the overall development of the index, and as such served both as a data organisation device and as a validation tool (Langley, 1999). The narrative was written up and verified in a number of follow-up interviews with FTSE staff members, who provided additional information that strengthened the narrative, but did not introduce any major changes.

Next, the narrative served as an organisation device in coding the interview data. Working iteratively between the data and the literature on institutional work (e.g. Lawrence & Suddaby, 2006) the various activities undertaken by key actors were coded. Data segments describing institutional work were extracted from the interview transcripts and documents using N-vivo8 qualitative data analysis software. In line with prior empirical studies using the concept of institutional work (e.g. Tracey, Phillips, & Jarvis, 2011), a process of ‘constant comparison’ (Charmaz, 2006; Glaser & Strauss, 1967) between theory and data was used. The first order constructs were derived from prior literatures and are defined in Table 4.2.

From this process three constructs were induced that captured a homogenous cluster of activities in relation to the institutional work. Table 4.2 summarizes this process in showing how the second order constructs were built out of the coded activities that constituted the first order constructs. Essentially, different types of

institutional work as defined in the literature were compared to the activities commonly found in the interview and archival data related to the FTSE4Good index. The activities were then clustered according to their aim and the main actor undertaking the work. Tables 4.3, 4.4 and 4.5 provide illustrative data segments for each of the three constructs that were identified. The first construct of *calculative framing* captures the continuous activities related to measuring CSR and defining the inclusion criteria. The second construct, *engaging*, relates to activities undertaken to ensure eligible companies and third parties are participating in the index inclusion process. The third construct, *valorising*, refers to activities that support an 'infusion of normative value' (Selznick, 1957) beyond technical requirements. Each construct will be further defined in the findings section (4.4).

The emerging categories were further verified by an analysis of professional media, in order to see whether and how the emerging constructs were supported in both mainstream financial and specialized CSR forums. To that extent articles in the *Financial Times* and *Ethical Corporation* were searched.¹² As can be expected the coverage in these two publications differed, with *Ethical Corporation* reports (97) focussing on the company perspective of engaging in the FTSE4Good index and the *Financial Times* (115 articles) mainly focussing on impact of the index on the SRI market. Due to the disparate nature of the collected articles and their respective publications, no quantitative analysis of the media articles, was undertaken; rather the articles were analysed for evidence of reactivity towards index inclusion and the extent the FTSE4Good index was portrayed as a standard for CSR. Relevant segments describing the index, its aims and objectives and organisations involved were coded and collated within the Onenote software referred to in chapter 3.

¹² The search of *Financial Times* articles was undertaken using the media database Nexis. The search of *Ethical Corporation* articles was undertaken directly on the (subscription only) website of the publication.

Table 4.2: Process of construct coding, identification and refinement

First order construct	First order construct definition and conceptual sources	Main activities observed at the micro-level for first order construct	Main actors involved	Second order construct and definition
COMMENSURATING	Transforming different qualities into a common metric (Espeland and Stevens 1998)	<ul style="list-style-type: none">▪ Researching CSR performance of eligible companies▪ Categorizing companies in industry sectors according to risk factors	EIRIS FTSE RI team	
	Constructing a rule system that confers membership and status (Lawrence and Suddaby 2006)	<ul style="list-style-type: none">▪ Defining inclusion thresholds and criteria▪ Publicly naming included and excluded companies	FTSE RI team	
DEFINING				CALCULATIVE FRAMING Creation and calculation of the rules that frame the practices of adopters
MIMICKING	Imitating existing practices or templates in order to legitimise new practices or organisational forms (Lawrence and Suddaby 2006)	<ul style="list-style-type: none">▪ Selecting eligible universe of listed companies▪ Defining the technical rules regarding index calculation▪ Ensuring where possible stability of index members over time	FTSE RI team Policy Committee	
ANALOGICAL WORK	Directing attention to incongruence between the new emerging practice and its analogical source, in order to facilitate the acceptance of innovative practices (Etzion & Ferraro, 2010a)	<ul style="list-style-type: none">▪ Including RI and CSR experts in index governance committee▪ Establishment RI team with CSR experts▪ Defining the ‘Roadmap’ for the introduction of additional inclusion criteria over time	FTSE RI team Policy Committee	

Table 4.2: Process of construct coding, identification and refinement (cont.)

First order construct	First order construct definition and conceptual sources	Main activities observed at the micro-level for first order construct	Main actors involved	Second order construct and definition
CONVENING	Creating collaborative arrangements in order to solve a particular problem (Etzion & Ferraro, 2010a))	<ul style="list-style-type: none">▪ Consultation of experts and companies in criteria development process▪ Designing a process to deal with controversial corporate behaviour highlighted by external parties	FTSE RI team NGOs / Experts Consultants Companies	ENGAGING Creation of knowledge and expertise needed to legitimate the metric and monitor behaviour
		<ul style="list-style-type: none">▪ Providing information and advice about index criteria▪ ‘Good cop bad cop routine’ in dialogue with companies▪ Engaging with companies under threat of exclusion	Consultants FTSE RI team Companies	
SYMBOLIC WORK	The production and use of artefacts to underline to symbolic value of membership conferred by the standard (Glynn & Abzug, 2002)	<ul style="list-style-type: none">▪ Providing permission for logo display▪ Sending out annual certificates of inclusion▪ Display of FTSE4Good logo in corporate communication	FTSE RI team Companies	VALORISING Infusion of values beyond technical requirements of the metric
SHIFTING NORMATIVE ASSOCIATIONS	Re-making the connections between sets of practices and the moral and cultural foundations for those practices (Lawrence and Suddaby 2006)	<ul style="list-style-type: none">▪ Appealing the inclusion of individual companies in the index▪ Highlighting SRI indices as benchmarks for CSR	NGOs Experts Consultants	

Table 4.3: Illustrations of coding for calculative framing work

Calculative framing	Illustrative Quotes
COMMENSURATING	<p>‘The FTSE4Good indices bring different perspectives on CSR and SRI together to spotlight those companies with good records in this respect, and measure their share price performance’ (Minutes Committee meeting 2001)</p> <p>‘The new human rights criteria were announced in April 2003 and focused initially on the two highest risk groups: the global resource sector (GRS), which comprises upstream oil, gas and mining companies, and; companies with a significant presence in countries of major human rights concern’ (FTSE report 2004)</p> <p>‘Food retailer Tesco and the Royal Bank of Scotland were this week left desperately fighting to maintain their credentials as socially responsible companies after they failed to make it onto a stock market index of ethical organisations. Both companies said they were in talks to see why they had been left off the [FTSE4Good]’ (Guardian 14 July 2001)</p> <p>‘The standards we have set are not best practice, they are not leading edge, they are challenging but they are very achievable for companies’ (FTSE staff member C)</p>
DEFINING	
MIMICKING	<p>‘When FTSE4Good was launched last July environmental criteria were included but the system was less detailed. FTSE said at the time that it would review the criteria for inclusion annually, gradually raising the hurdle. Mark Makepeace, chief executive of FTSE, said he expected only a handful of companies would be dropped because of the changes. “FTSE4Good is first of all an index, so we want to keep some stability,” he said. “We are not trying to name and shame.”’ (Financial Times, 22 May 2002)</p> <p>‘The objectives were really to fill that gap in the market. There was no widely recognised benchmark for measuring companies’ corporate social responsibility practices and that’s what we wanted to do, is to provide that, that product.’ (FTSE staff member A)</p>
ANALOGICAL WORK	<p>‘The launch of the index certainly meant that there was a huge amount of media interest in it, a lot of NGOs saying ‘why is that company in the index’, or a company saying ‘why aren’t we included in the index’. FTSE didn’t really have to expertise on it, there was the committee and the researchers, but FTSE needed to take a position on it, and so we needed to set up a team’ (FTSE staff member B)</p> <p>‘Now that the initial criteria amendments committed to at the launch of the index series are almost complete, a roadmap detailing the next tranche of developments has been created. This roadmap is aligned to the ongoing evolution of responsible investment’ (FTSE Report 2006)</p>

Table 4.4: Illustrations of coding for engaging work

Engaging	Illustrative quote
CONVENING	<p>‘The FTSE4Good Climate Change Advisory Committee was established in March 2006 consisting of the Climate Group, Carbon Trust, Institutional Investors Group on Climate Change, Forum for the Future and World Wildlife Fund (WWF). The Group met several times to develop the proposed criteria, and FTSE hosted Focus Groups, bringing in companies and experts to comment on the draft criteria’ (FTSE Report 2006)</p> <p>‘We like to base the criteria as much as possible on existing standards. We are not a campaigner, so we need to link into things that are out there’ (FTSE staff member F)</p>
EDUCATING	<p>‘There is a three-way communication going on, so it’s not just us talking to the company. We talk to the company and say: ‘our research shows us that your human rights policy and implementation systems don’t meet our requirements, and a company will say: ‘this is our policy, have you not read it?’ And that’s where the researchers say: ‘well yes we have read it and it doesn’t meet’. And so we will then go back to the company and they’ll say: ‘well ok, right so what doesn’t it meet and what do we need to do to.’ (FTSE staff member B)</p> <p>‘We do advise our clients, if they are not in it, why they are not in it. And what changes they need to make to pass the criteria. Because a lot of them find the criteria quite opaque, depending on their understanding and their time to get to grips with them. Because I do understand, having worked on them, and I have the time to read all the updates and participate in the consultation process, I can understand and explain in simple terms: this is what you need to do’ (Consultant B)</p> <p>‘[FTSE] sent us a lot of the things: that we were actually in FTSE4Good the index, but unless we sort of redeveloped the reporting, that they were going to throw us out of it. So we worked with them, and actually that helped push some of our reporting. It was a good thing.’ (HS&E Manager Company 27)</p>

Table 4.5: Illustration of coding for valorising work

Valorising	Illustrative quote
SYMBOLIC WORK	<p>‘[The logo] would be on our website all the time and also Dow Jones [Sustainability Index logo]. We also put it in standard presentations on the company to groups, whoever they may be, university lectures, if we’re doing investor road shows, we also highlight it there.’ (CSR Manager Company 16)</p> <p>‘It’s not really an award but it’s just a certificate of membership but it’s also like you did well if you get this certificate, so that’s a very good thing I think.’ (CSR Director Company 19)</p>
SHIFTING NORMATIVE ASSOCIATIONS	<p>‘I mean the usage was originally investors, it was targeted at investors, but its evolved to be used by companies as a framework for developing corporate responsibility programmes internally, as a benchmark for companies themselves to be, you know to achieve compliance with the index criteria.’ (FTSE RI team Director)</p> <p>‘The FTSE4Good index was initially criticised by some for being too easy for companies to get into, but FTSE have shown that they intend to tighten the rules, and the index demonstrated its teeth and commitment to improvement by the removal of some companies a few months ago due to their environmental non-performance.’ (Ethical Corporation 9 June 2003)</p>

As can be seen from tables 4.4 to 4.6, multiple instances of the key constructs were found in each of the data sources, but with one qualification. Some corporate managers that were interviewed were uncertain about the impact of the FTSE4Good on their responsible behaviour. This may reflect the level at which the inclusion criteria have been set, as it is considered relatively ‘easy to get into’ the index by some of the companies who have been highly rated for their CSR efforts and are considered leaders in their industry sectors. These managers were nonetheless participating in valorising activities, in which they represented the index as a for CSR practices in their communication to external parties or colleagues. These activities are explored in the findings below, whilst chapter 5 further explores variation in the responses to index inclusion from a company perspective.

4.4 Institutional work for index creation and maintenance

In this section the institutional work of calculative framing, enlisting and valorising is described. The subsequent section (4.5) describes how that work produces and maintains the reactivity of the index in a dynamic way, as it becomes seen as a standard for CSR.

4.4.1 Calculative framing

The work of *calculative framing* involves defining and calculating the rules that frame the practices of eligible members of the index. The term ‘calculative frame’ was used by Beunza and Garud (2007) to identify material and cognitive elements in the frame-making of securities analysts in financial markets (Beunza & Garud, 2007: 26). According to Beunza and Garud (2007) calculative frames encompass the categories, metrics and analogies used to sustain actors’ calculative practices. In this

case four types of activities are identified that contribute to the institutional work of calculative framing: *commensurating*, *defining*, *mimicking* and *analogical work*. Table 4.3 provides illustrations of these activities analysed below.

The first step in calculative framing entails defining responsible business practices and commensurating the wide range of issue areas addressed by companies under this heading into a systematic standard of measurement. Commensuration, or the transformation of different qualities into a common metric, simplifies information and renders what is being measured relative and comparable (Espeland & Stevens, 1998; Power, 1997). FTSE enlists the services of EIRIS to research the CSR performance of major listed companies worldwide. Companies are categorized on the basis of their exposure to issues such as human rights violations, and their impact on the environment and stakeholders. The stated aim of the criteria development process is to set ‘challenging but achievable’ criteria at a level that would ensure enough eligible listed companies could be included in the index, whilst also representing good CSR practice: *‘The basic principle is that we want criteria that are challenging but achievable. My rule of thumb is about 30-40% of the companies can meet the criteria when they are introduced’* (FTSE staff member F).

At the launch of the index in 2001 the Policy Committee defined an ambitious agenda for criteria development that would strengthen the environmental and human rights criteria and the introduction of criteria on labour standards and countering bribery within the space of five years. FTSE staff members were confident that the index reflected the prominence given to CSR issues by companies as evidenced by the minutes of the first Policy Committee meeting in 2001:

‘Debates about responsibilities are gradually being distilled into agendas for business, and those agendas are being translated into expectations for action. [...] The

FTSE4Good indices aim to express consensus views on these matters.’ (Minutes from the 2001 Policy Committee meeting)

The topics for the inclusion criteria are set in accordance with the issues that are generally seen to reflect the concerns of SRI investors and companies, which are obtained through consultation exercises (see section 4.4.2). Once the topics of criteria are set, a lot of work needs to be done to translate these into measurable index inclusion criteria. In the early years of the index the criteria development process could partly rely on the information that was already available in the EIRIS database regarding CSR performance of companies. Later on, as additional inclusion criteria were defined, the research by EIRIS would often follow after the defining process. The defining and commensurating work undertaken by FTSE, supported by EIRIS, translates abstract international standards, such as the International Labour Organisation (ILO) standards, into detailed corporate responsibility standards that set specific indicators for corporate policies, management systems and reporting. International standards are often highly formalized and require ‘re-contextualization’ (Botzem & Quack, 2006). The FTSE4Good supply chain labour standards criteria that were introduced in 2004 for example, require companies to have a corporate policy that commits to the ILO core labour standards, sets five criteria for managing the policy, and requires companies to include the issue in their reporting.

Discourse and rhetoric play an important role in the process of justification of index inclusion criteria (Patriotta et al., 2011). The rhetorical strategies that were employed by FTSE aimed to reflect current debates on CSR, and connected these to mainstream financial markets, creating cognitive legitimacy for the ‘appropriateness’ of the index and the wider CSR agenda as whole (Green, 2004; Suddaby & Greenwood, 2005).

“The biggest impediment when we started were the views within the financial markets that regarded social responsibility as a 'good' thing to do and not necessarily something financially sound companies should do. Today that thinking has gone away with the debate focusing on how to integrate socially responsible investment analysis” This was a driver for us to create the FTSE4Good Series. (quote taken from FTSE 5 year review report (p4).

Mimicking and analogical work further contribute to this cognitive legitimacy. As the main purpose of the index in the early years was to provide institutional investors with a useful benchmark, FTSE set out to replicate regular financial indices. Accordingly, the basic principles of the index, including the governance structure, rules regarding liquidity of the equities and market capitalization were applied akin to FTSE's 'traditional' financial indices. This replication of templates already legitimized in the financial market confirms prior description of emerging institutions in the SRI field. For instance, Déjean et al. (2004) show how French social rating agencies that tried to legitimize SRI practices designed measurement tools that were closely aligned to mainstream financial logics of analysis and quantification (Déjean et al., 2004). Mimicking of pre-existing templates in the organisational field renders the new practices or standards more understandable (Lawrence & Suddaby, 2006).

Successful mimicry is often combined with analogical work that highlights conformity to existing templates but, over time, directs attention to incongruence between the new emerging practice and its analogical source, in order to facilitate the acceptance of innovative practices (Etzion & Ferraro, 2010b). FTSE's analogical work aimed to identify the innovations that were needed to create a credible index in the field of SRI. For example, rather than being composed of investors and financial experts only, the FTSE4Good Policy Committee members include representatives of NGOs and CSR experts. Whilst the main purpose of the index remained to provide a metric for SRI, FTSE used its profile in the financial market to 'contribute to the

debate about corporate social responsibility' (*Financial Times* 27 April 2001). Although not without criticism from some NGOs claiming the inclusion criteria were too weak, FTSE's expertise as an index provider was transferred to a metric in the field of RI and CSR:

'Institutions which want to make sure their investments are not going to attract headlines accusing them of destroying the rainforest or supporting oppressive regimes can now turn to FTSE4Good. The series of international indices, launched this week, provide benchmarks against which institutions can measure and market the performance of their ethical funds. But FTSE [...] hopes that they will have a wider effect than that. [...] FTSE calls the new indices "an aspirational framework for change" which it hopes will affect the way companies behave.' (*Financial Times* 3 March 2001)

Research on the history of statistics has shown that numbers are often seen as more authoritative than qualitative information (Desrosières, 1998; Porter, 1995). This was certainly recognized by companies looking for an independent and credible benchmark to communicate their CSR efforts. As FTSE proceeded to publicly name companies included in the index from 2001, the index proved to be an instant hit with companies, especially in the UK. FTSE received numerous requests from companies that wanted to be included. A Policy Committee member remembers:

'[Company X] made very quick strides to make sure it was in the index, the first time afterwards. But also was extremely professional. I remember them because they were the first company ever to contact me directly. The person that was responsible for CSR in the corporate headquarters called me and asked: why are we not in the index?' (Policy Committee member B)

Based on the analysis, it is argued that calculative framing constitutes an important part of the design of the index, as it encompasses the activities needed to create and calculate the rules that frame the practices of eligible companies. Rather than focusing on the technical activities of rule setting only (Perkmann & Spicer, 2007), the analysis highlights the material and cognitive aspects that go into

calculative framing work (see also Table 4.2 and 4.3). Thus, calculative framing requires more than pure defining and commensuration work, it also includes the activities that are needed to ensure efficient circulation of the index through the SRI market. This circulation requires activities that imbue the index with cognitive legitimacy. By highlighting resemblances with existing templates, this work not only contributes to the design of the index but also imbues the legitimacy needed to maintain the index over time (Elsbach, 1994; Suddaby & Greenwood, 2005). Several adjustments had to be made to the template of a traditional stock index to create an SRI index, as the institutional work moved from mimicry to a legitimised template in its own right (Etzion & Ferraro, 2010b; Sillince & Barker, 2012). However, as the next section will show, the deployment of additional work was needed to further strengthen the legitimacy of the newly designed index.

4.4.2 Engaging

Metrics created by private organisations lack formal authority, and their legitimacy often relies on perceived expertise and knowledge in the given issue area (Brunsson & Jacobsson, 2000). *Engaging* is summarized as work that serves to create the knowledge and expertise needed to legitimate the index and monitor the behaviour of the included companies. Two types of engaging work are identified: convening and educating. Table 4.4 provides illustrative quotes about these two types of work.

Convening refers to the creation of collaborative arrangements in order to solve a particular problem (Dorado, 2005). In this context convening work aims to create loose alliances with external third party experts. In order to achieve its objective to raise the bar for responsible business by introducing new criteria, FTSE actors increasingly consulted third party experts in the criteria development process.

The criteria were intended to build on international standards and regulations, and on work undertaken by NGO's, such as Transparency International, which developed guidelines regarding the issues of bribery and corruption. Convening involves convincing potential beneficiaries of collaboration (Dorado, 2005), and the external parties in the criteria development process needed to be engaged to work with FTSE. An FTSE4Good team member in charge of this process it is described as follows in an email exchange:

‘When we develop new criteria we work with experts to identify the key issues that companies should address. This is an iterative process as the experts get to know and understand FTSE4Good. A key understanding we build with them is that FTSE4Good criteria thresholds represent good practice for many companies rather than best practice for a few. The criteria need to be challenging but achievable, and that companies should not be deleted from the index for not meeting one very aspirational criteria indicator alone.’ (Email communication FTSE team member F)

As mentioned above the criteria development process relies on various forms of convening third parties, including through direct consultation of recognized experts, focus groups with investors, NGO's and companies, and through public consultation on the FTSE website (FTSE, 2006). The results of these consultations are discussed in the Criteria Development sub-committee and used to inform the defining of new inclusion criteria. In effect, the convening ensures that the inclusion criteria tap into the ongoing developments in the SRI market with regards to the main CSR issues of concern. In setting the final inclusion criteria the work of convening needs to be balanced against the data of EIRIS regarding CSR performance of eligible companies, so that the criteria are set at a level which will allow a significant portion of companies to remain included in the index.

Educating work serves to provide companies with the knowledge to comply with the index inclusion criteria. When the new, stricter environmental criteria were

introduced in 2003, over half of the companies of the index were threatened with exclusion for not meeting the new criteria. In these early years of the index, relatively little convening work was undertaken, and consultation exercises underlying the criteria development process were not yet fully developed. In effect, the new environmental criteria were set at a level that contravened one of the main objectives of the index (to include roughly 40% of eligible companies) and threatened the efficient continuity of the index. In response, FTSE created a dedicated RI team including additional staff members with experience in CSR issues. Their task is to identify which companies are willing to adapt their management systems and policies in order to meet the revised criteria and remain in the index. Drawing on the research undertaken by EIRIS, the RI team warns companies that do not meet the continuously changing inclusion criteria. This educating process has become a major component of the work undertaken to maintain the FTSE4Good index. The threat of exclusion presents a powerful incentive to cooperate with the RI team as highlighted by one manager who went through the experience:

‘When we received this note that said unless you do something you could be in danger of falling out of the index that certainly made people think do we want [that]? It would be a big concern if you fell out because you would have to justify why you were doing that. I think you would just be expected to be there and to be in it.’ (VP CR, company 30)

The FTSE RI team also offers to engage in dialogue with those companies that do not meet new criteria to explain the requirements and provide advice on implementation of new CSR policies. Companies are given an extension of the deadline if they are in dialogue with the RI team and if they can show that they are working towards and commit to meeting the criteria.

I tell them why they are in danger of deletion [from the index], and explain the criteria, why they have to meet the criteria, what are the requirements and general

guidelines that we can give. (FTSE team member E).

One of the strategies in the educating work is the ‘good cop bad cop’ routine as one FTSE RI team member calls it: whilst research agency EIRIS delivers a strict verdict on whether or not a company meets the criteria, the FTSE RI team provide information and guidance to help managers understand what they need to do to meet the criteria.

‘So we will say: ‘according to our researchers it appears that you may not meet these requirements, and that might be that our researchers haven’t got accurate or up to date information []. So firstly can we check if the information we have got from the researchers is correct and then secondly if it is correct and you are not meeting these criteria, this is the deadline and you need to be able to demonstrate you are meeting it by these points. We are happy to provide guidance and support along the way’. (FTSE RI team member B).

The engaging work thus provides knowledge to companies by providing information on the criteria and deadlines to managers to support them in meeting the inclusion criteria. CSR consultants, especially those based in the UK, provide advice to clients on their submission to EIRIS when needed, or help interpret the implications of new criteria, in some cases acting as intermediaries between the company and FTSE RI team. As such they support the educating activities of the FTSE RI team.

The picture then is of the RI team using a variety of strategies to aid the legitimacy of the index. It convenes third party experts to aid the criteria development by infusing expert knowledge into the criteria (Brunsson & Jacobsson, 2000). This expert knowledge is used to actively engage with the FTSE’s target audience (Power, 1997). At the same time, the engaging work also monitors the implementation of the index criteria by companies. The FTSE RI team is able to identify laggard companies and help them implement the practices needed to comply with the criteria, in effect ensuring the enforcement of its rules amongst the included

companies.

In sum, the engaging work serves the dual purpose of monitoring the behaviour of companies in the index and providing legitimacy to the index as a de facto accreditation standard of good CSR practices. As Durand and McGuire have shown in the case of accreditation standards, legitimacy is often co-constructed between the accreditation agency and accredited members in the field (Durand & McGuire, 2005). The next section will show how the index was valorized by its targeted members to become a standard for CSR.

4.4.3 Valorising

In his classic study of the Tennessee Valley Authority, Selznick shows that organisations may acquire a ‘life of their own’ as the result of intended or even unintended cooptation by third parties with a strong commitment to, or interest in, the organisational practices (Selznick, 1949). Over time this cooptation can lead to an infusion of value beyond technical requirements, a process at the heart of any institutionalisation process (Selznick, 1957; Selznick, 1996). This infusion of value, which is captured here under the label ‘valorising’, forms an important dynamic in the co-construction of the legitimacy of the FTSE4Good index. Valorising work builds on symbolic work engaged in by FTSE and included companies, and the associated shifts in the normative associations related to the index. Table 4.5 provides illustrations of these two clusters of activities that are analysed further below.

Symbolic work entails the production and use of artifacts to underline the symbolic value of membership of the index. FTSE has created various artifacts that increase the reputational value of being included in the index. Included companies receive an annual certificate of inclusion, and they are allowed to use the

FTSE4Good logo in their CSR communications. Index inclusion is used by companies to signal to external stakeholders, such as consumers or investors, that their CSR policies and programs have been found to measure up to an independent standard. Companies often use the logo to report on their membership, or even, as a RI team member recalls:

‘We have companies asking us if they can put the logo on their letter head, their business card, we had a Japanese company that is engraving it in their corporate headquarters in a big piece of stone!’ (FTSE staff member D)

Many companies use the artifacts to co-opt the index as a certification of good CSR practice. In their opinion, inclusion provides an independent ‘stamp of approval’ that can be used to communicate CSR efforts to external audiences. This is reinforced by CSR consultants, who would often describe the index criteria to clients as representing the indicators for investor demands on CSR. CSR managers also use the process of index inclusion to attract the attention of colleagues and senior management to CSR practices within the company. For instance, the indices can be used as an explanation to colleagues as to why they have to collect and monitor vast amounts of information, something which might take up valuable resources. As index inclusion status often forms part of their reporting to senior management, CSR managers can point to the requirements of the RI indices when trying to get CSR initiatives approved (this issue will be further explored in chapter 5).

Despite its popularity amongst companies, the index was not received that enthusiastically by a number of NGOs and CSR experts, who criticized it for setting its standards too low. Although it has never disappeared completely, this criticism diminished when the Committee started the process of introducing stricter inclusion criteria and as it became clear that companies would be deleted for not meeting these enhanced standards (The Observer, 2003). This changing opinion is reflected in the

CSR magazine *Ethical Corporation*, which had previously accused the index of supporting an ‘ethics light’ version:

‘The [FTSE’s] responsible business index was developed in 2001 to identify companies that managed their business risks responsibly. The results were aimed essentially at socially responsible investors but the Index has gained the respect of many for tightening rules for inclusion and is seen as a bell weather for the responsible business movement.’ (Ethical Corporation 16 January 2005)

Evidence of this shift in normative associations related to the index is also found in the activities of NGOs. Recognizing the importance companies attach to their index membership, various groups have started to appeal the inclusion of certain companies with the RI team and Committee, through public letters in media outlets and in direct dialogue with FTSE. One of these incidents concerned Human Rights Watch, an international human right NGO, which questioned the inclusion of Smithfield Food in the FTSE4Good index, in a series of public letters. Smithfield Foods, a US based meat processing company, had been found liable of violations of U.S. labour laws in 2006. In its first letter Human Rights Watch called upon FTSE to exclude the company from the index:

We believe that [the continued inclusion of the company] also undermines the credibility of FTSE4Good’s claim of highlighting companies “that meet globally recognised corporate responsibility standards.” Instead, it appears that companies like Smithfield may benefit from their association with FTSE4Good at the expense of the Index’s own goals and reputation. (Human Rights Watch 2007)

In the public response by FTSE, chief executive Mark Makepeace emphasized the engagement with the company: *‘We find it is more useful for a company to make changes to their management system and policies and meet the criteria, rather than deleted them and miss the opportunity to meet best practice’* (FTSE 2007, Ethical Performance, 2007). In order to respond to claims by watchdog organisations and NGOs, the RI team has devised a formal process that describes the actions to be

taken by the Policy Committee when the inclusion of a company in the FTSE4Good index is questioned based on a serious allegation of violating international standards. The actions of these groups can paradoxically enhance the strength of the metric (Sauder, 2008). After all, by appealing the inclusion of a 'bad' company, they implicitly recognize the 'good' characteristics of other included companies (Bowker & Star, 1999; Hedmo, Sahlin-Andersson, & Wedlin, 2006) and the index as a metric to identify those companies (Sauder, 2008).

The index has become part of the structure of international accountability standards that have emerged in the social responsibility field (Waddock, 2008a; Waddock, 2008b), which are defined as 'voluntary predefined rules, procedures, and methods to systematically assess, measure, audit and/or communicate the social and environmental behaviour and/or performance of firms' (Gilbert et al., 2011: 24). Over time the index has become seen as a de facto standard for good corporate social responsibility practices by included companies. The FTSE4Good index is now commonly referred to as a standard in the vocabulary of CSR actors more widely, as illustrated by the following quotes (emphasis added):

'This is the sort of low-level hurdle that has attracted the plus "Ethics Lite"'. But in fact this is precisely what the FTSE4Good index is supposed to be-a basic *standard* that most companies can meet with a little effort, and which moves those companies in the right direction.' (*Ethical Corporation* 2003)

'We help companies and organisations think about what good practice looks like. And so within that we would look at FTSE4Good and also the Dow Jones Sustainability Index, to be able to present clients with the information to say: well this is what internationally recognized *standards* and indices think good looks like, and this is where you can place yourself as a result.' (Consultant B, interview)

In sum, valorising work is an essential element of establishing the legitimacy of the index as a de facto standard for CSR practices, which is co-constructed through the work of FTSE actors, companies and third parties (Durand and McGuire 2005). Such valorising of the FTSE4Good index as a type of certification of 'good

CSR' aims to influence status and reputation (Graffin & Ward, 2010). It builds on substantive use of the artefacts associated with index inclusion. The combined institutional work has also shifted the normative associations of third parties, who increasingly see it as a standard in the field of CSR. In line with Selznick's theory of institutionalization (1949, 1957), Kraatz and Block (2008) argue that an 'institution is "infused with value" by its constituents and it is institutionalized only in so much as it becomes the vehicle through which these groups pursue their aspirations and their ideals' (Kraatz & Block, 2008: 252). Selznick (1949) referred to this process as cooptation. The different types of institutional work accommodated the infusion of value in the FTSE4Good index, which turned it from an SRI index into a measurement tool used for broader purposes, including a de facto standard for CSR by companies and a campaign tool for NGOs. Selznick (1949) warns of the dangers of cooptation, as organisational goals and objectives may be lost in the process. FTSE however has mobilised the process in order to enhance reactivity towards the index. The next section investigates how the three types of work theorized here – calculative framing, engaging and valorising- interplay to enhance the reactivity from the part of included companies in response to the index inclusion criteria.

4.5 Mobilizing the reactivity towards the index

The reaction of companies to the index inclusion criteria can be likened to a process of reactivity: individuals or organisations change their behaviour in reaction to being evaluated, observed or measured (Espeland & Sauder, 2007). The concept is use here to denote organisational changes (structural or otherwise) that are made in order to conform with, or even excel in, the evaluation of organisational practices as carried

out by EIRIS, in order to meet the new inclusion criteria set by FTSE. The reactivity created by the index is not, however, based solely on commensuration work and self-fulfilling prophecies, the two main mechanisms identified by Espeland and Sauder (2007). The results shows engaging work is also needed from the part of the organisation creating the metric, in combination with valorising work by the target organisations and a wider network of organisations providing normative legitimacy. The interaction of the calculative framing, engaging and valorising work by the different parties creates a dynamic that ensures the FTSE4Good index is seen as a standard for good CSR, which creates reactivity from the part of included companies. Managers see the criteria of SRI indices as indicators of what stakeholders, in particular investors, determine to be important issues which they should address within CSR policies and practices. Often, they keep close track of changes in questionnaire and profile used by EIRIS to measure their CSR performance. Managers try to be informed of imminent changes to criteria:

‘To know of any changes that are coming up, anything that I might need to be doing this year that I didn’t do last year to remain on the index. You know, what I don’t want to do is to find out next August that we’re not going to be on the index because I could have been doing something now in November of this year that would have been good for us.’ (HS&E Manager, Company 25)

The reaction of managers to the index requirements and to the engaging work has resulted in an increase in public disclosure and reporting on CSR practices by companies. This often means companies have to collect more internal data on CSR practices in order to prepare for disclosure, and the index criteria thus become incorporated into internal data collection practices. Managers also react to the engagement by (re-)drafting company policies, management systems or reporting in line with the index criteria (these issues will be further explored in chapter 5). Due to

the level at which the inclusion criteria for the FTSE4Good index are set, this effect is stronger for those which still have significant strides to make in order to perform well in the indices. As a manager of a 'leading' company in terms of CSR practices puts it:

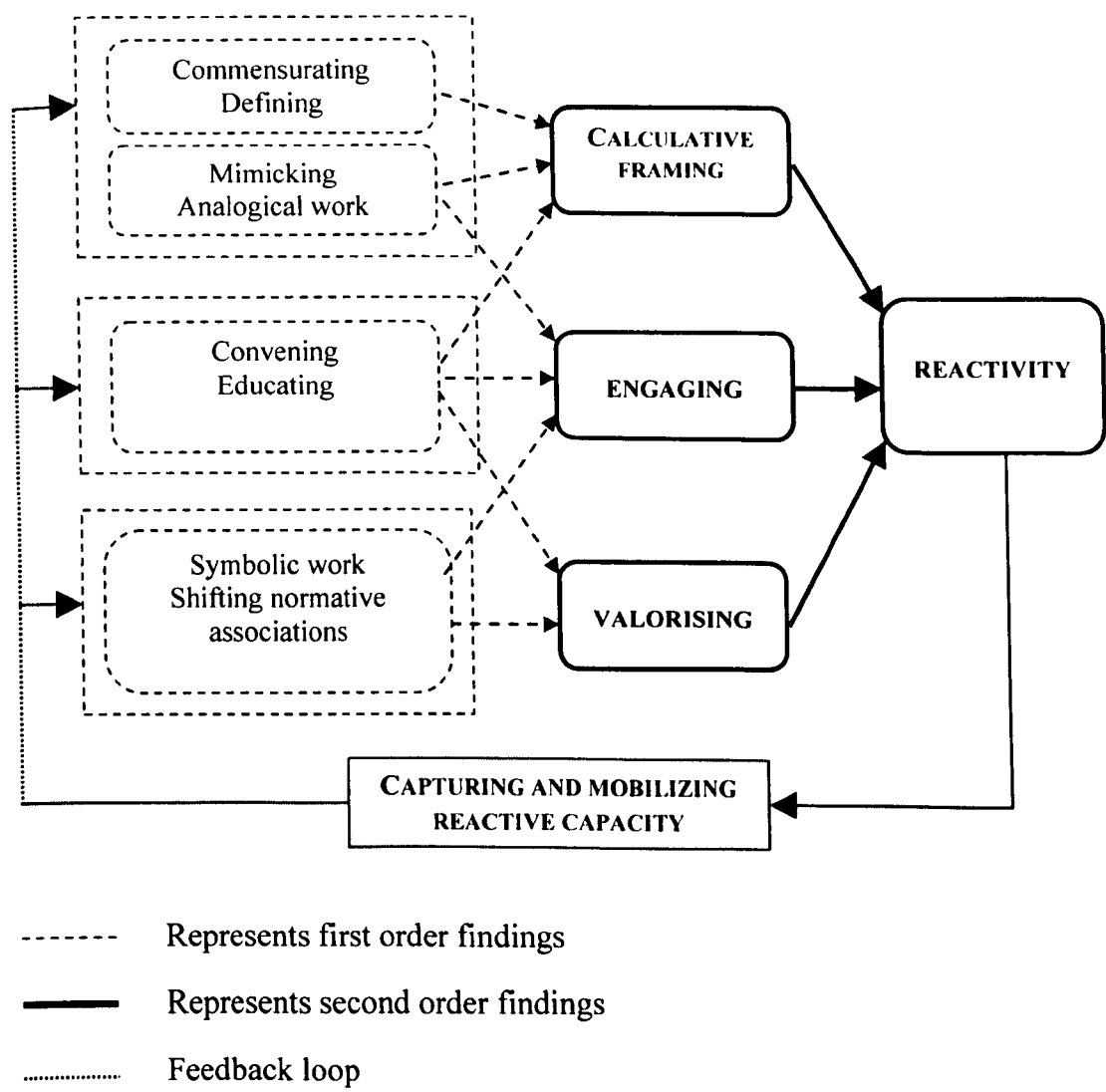
'If I was a smaller business that was earlier in the journey of sustainability and corporate responsibility then potentially I've a lot to gain by being listed and getting my rating in the top quartile. I think once your company has been listed and you're consistently in the top quartile, then it becomes an expectation and it becomes... but because it's expected that you're in there, as long as you're in there and you're not performing badly, it largely gets ignored.' (CSR Manager, Company 22)

Most of the institutional work simultaneously contributes to index creation as well as maintenance activities. Mimicking and analogical work both help to design the index and to create legitimizing templates. FTSE convenes experts and NGOs to provide expertise in the continuous re-designing of the index inclusion criteria, and this also contributes to the legitimation and monitoring of criteria implementation by companies. Likewise valorising work also serves the dual purpose of legitimizing and monitoring criteria implementation, especially through the activities of NGOs. Although their role is not officially designated, NGOs monitor company behaviour, highlighting controversial behaviour of included companies to the Policy Committee which, on a case-by-case basis, evaluates whether the inclusion criteria need to be adjusted.

Figure 4.3 shows how the work of calculative framing, engaging and valorising contributes to the reactivity towards the index and the potential for capturing and mobilizing the reactivity. Some of the institutional work activities take place sequentially: educating follows the design of new inclusion criteria. Other types of work are constant and require little purposive activity. For example, symbolic work remains prominent throughout the period under study, yet requires

little active effort from FTSE actors, once the artifacts to sustain the work have been created. The three types of institutional work are recurrent and intertwined with the activities of various actors, creating a dynamic process that is fluid and ongoing (Tracey et al., 2011). In this dynamic process the different types of work can have unforeseen consequences, which may be captured and mobilized as depicted by the feedback loop in figure 4.3.

Figure 4.3: Institutional work – reactivity dynamic



The valorising work by companies and consultants was an initially unanticipated consequence, which was quickly incorporated into the objectives of the index. Rather than merely reflecting the ‘consensus view’ on current CSR practices, as was the aim of the early work in the design stages, more attention was paid to the delicate balance required in developing inclusion criteria that were ‘challenging but achievable’ to sufficient companies for the index to remain attractive for investors, whilst still representing good CSR practices. This is also recognized by some of the CSR consultants:

‘When FTSE introduced new criteria like for countering bribery, that definitely encouraged some companies to look at that area where they hadn’t before to start developing policies in that area. And I think that the constant tightening of the criteria means that the companies realize that they have to be on their toes, and they can’t make a big effort and then stop for 5 years, they have to make a big effort and consider every year how they can do that.’ (CSR consultant B)

Capturing these unintended consequences can serve to strengthen the reactivity towards the index. FTSE actors have learned to use the dynamic interplay between the design, legitimization and monitoring to their advantage. As the former Director of the RI team recalls:

‘It wasn’t the intention of it originally, it was an investment tool. But it quickly became apparent that it was something that was influencing corporate disclosure initially and then corporate behaviour thereafter and that it would maintain that ability to influence companies, by raising the profile of the index and by engaging with companies. But also the general awareness of corporate social responsibility has helped over the last 8 or 9 years to do that.’ (FTSE staff member A)

As a consequence of the widened objectives of the index, the RI team has invested more resources in the educating work to give the companies an opportunity to remain on the index. This in turn enables FTSE to raise the bar continuously by introducing new and stricter inclusion criteria over time, in turn strengthening the reactivity towards the inclusion criteria. Thus, the initial step taken in 2003 to raise the bar by introducing stricter environmental management criteria triggered the need

for an elaborate programme of educating activities. Through the dialogue between companies and FTSE, the RI team members became aware that companies were willing to improve their CSR practices in order to remain included. The engaging work in turn facilitates the further introduction of new inclusion criteria, as evidenced in figure 4.2. In the recursive process the three types of institutional work sustain each other in creating reactivity from the part of included companies.

In sum, it is argued that the combination of the three types of institutional work over time has created an index that is regarded as a standard for CSR practices, which can control organisational behaviour by continuously raising the bar for inclusion. Hence, the three types of institutional work need to be deployed in combination and dynamically to enhance the reactivity towards the index. This dynamic process of institutional work is never completely finished, as it relies on constant innovation in criteria and the continuous interaction between the different types of work.

4.6 Conclusion

The analysis shows that a range of political, normative, cognitive, and material practices are involved in turning the index into a standard for responsible corporate behaviour. The work of calculative framing created a metric that was adopted by companies, and valorised as a benchmark for corporate social responsibility practices. In recurrent cycles of criteria development, FTSE was able to mobilize and capture this effect through its engaging work. They learned how to effectively raise the bar for inclusion in the index, which would encourage companies to change their corporate social responsibility practices in accordance with each set of newly introduced inclusion criteria.

Recent studies have shown how institutional work can have unintended effects and consequences. Quack (2007), for example, highlights how the ‘by-products’ of the activities of transnational law professionals evolve into non-binding legal rules that are subsequently integrated in the transnational law-making process (Quack, 2007). Similarly, in this case the valorising activities have become integrated into the index process. The index has been co-opted, first by companies, and gradually by consultants and NGOs, as a de facto certification for CSR, and as such has become infused with additional value beyond its technical requirements as an investor product (Selznick, 1949; 1957). Such valorising on the part of included companies of the FTSE4Good index as a type of certification of ‘good CSR’ aims to influence status and reputation (Graffin & Ward, 2010).

The results also reveal the role of intermediaries in institutional work by providing knowledge, expertise and a source of legitimacy. Intermediaries such as management consultants and NGOs play a crucial role, as the work carried out by these third parties both strengthens the expertise needed to legitimize the index in the SRI field and contributes to the monitoring of companies’ behaviour (Kerwer, 2005; Seidl, 2007). These third parties are not necessarily given a formal role in the index process, but their expertise is drawn on by FTSE and companies on an ad hoc basis. This means that FTSE need not possess all the skills required for the different types of institutional work (Perkmann & Spicer, 2007), but they can draw on the skills and activities of others to advance legitimization of the index.

Private organisations that set standards or design metrics need to be careful to avoid legitimacy traps that may arise in situations where current or old rules are enforced whilst new rules are simultaneously being created (Garud, Jain, & Kumaraswamy, 2002). An inclusive approach helps to avoid a loss of credibility

amongst included companies (Gilbert et al., 2011). This requires a careful balancing of calculative framing, engaging and valorising work. The greater the use of different types of institutional work, the greater the likelihood of diffusion and institutionalization (Perkmann & Spicer, 2007). The dynamic interaction between different types of institutional work carried out by various groups of actors means that institutional work can resemble a ‘process of continuous change’ (Pettigrew, Woodman, & Cameron, 2001) that is never completely finished.

Metrics that come to be seen as standards facilitate coordination by defining the appropriate attributes of the standardised subject, rendering these aspects visible to external inspection and opening up the possibility of sanctioning non-compliance (Brunsson & Jacobsson, 2000; Power, 1997). In doing so, standards provide their creators with ‘systemic power’ (Foucault, 1979), that is a form of power that is exerted through seemingly disinterested routines and practices (Déjean et al. 2004). Public metrics have the ability to ‘govern at a distance’ by making organisational performance visible and auditable (Power, 1997) and may exert a powerful discipline (Foucault, 1970) on organisational behaviour (Sauder & Espeland, 2009). The results show that not only the legitimacy of the index is co-constructed (Durand & McGuire, 2005) but, through the distributed nature of the institutional work, the reactivity towards the index also becomes co-constructed.

Whilst Sauder and Espeland (Espeland & Sauder, 2007; Sauder & Espeland, 2009) highlight the work that organisations undertake to comply with leading metrics in their field, they do not capture the work that goes into the making of these metrics beyond commensuration efforts. The analysis shows that turning metrics into standards requires various types of purposive activities beyond commensuration, including the creation of artifacts and the provision of knowledge and information, to

support implementation by targeted organisations. The results also show how this work might lead to reactivity from the part of included companies. It has however not been able to explore in detail the extent of reactivity by companies, and the internal and external factors that might explain variation in reactivity. The next chapter will explore these issues in more detail.

5. Dynamic reactivity and calculative routines

5.0 Chapter summary

Whereas the previous chapter explored the institutional work related to index creation and maintenance, in this chapter the reactivity towards the FTSE4Good index inclusion criteria is analysed from the perspective of companies included in the index. The analysis explores ideal typical responses to engagement and uses of the index in the promotion of CSR practices. The results show that managers engage in dialogue with the RI team in order to remain included, and that this may lead to a change in their CSR practices, including adjustments in the calculative routines in existence within the organisation. This leads to a dynamic conceptualisation of reactivity consisting of ostensive, performative and material elements. A typology of organisational responses is developed based on the nature of the reactivity, symbolic work and degree of resistance to engagement and index inclusion.

5.1 Introduction

From the results in the previous chapter it has become clear that engagement work is an important element in the dynamic process of reactivity towards the index on the part of companies. It also became clear that companies play an important role in the institutional work of index maintenance. Companies that are included in the index are not only the main target of the engagement work by the FTSE RI team, they also undertake important valorising activities. In this chapter the activities of companies that are - or were at one stage - included in the index are explored in more detail, in order to examine what role these valorising and engagement activities play in the

reactivity process. The interaction between institutional work and reactivity is analysed in this chapter from the viewpoint of companies included in the index. The focal point of the analysis thus moves from the activities of the index provider and affiliated organisations to the companies that are being rated. How does the institutional work described in chapter 4 interact with the reactivity from the part of companies included in the FTSE4Good index? The aim of the inductive analysis is to build a theorisation of reactivity that takes into account the institutional work undertaken by all parties involved with metrics. Several of the core concepts outlined in chapter 2 guide the analysis, including *calculability*, *engagement*, *reactivity* and *symbolic work*.

First calculability is explored from the viewpoint of rated organisations. In the social studies of finance the concept of calculability refers to the mathematical formulae, human interaction, cognitive models and material objects needed to ensure the circulation of calculated numbers in markets (Callon & Muniesa, 2005). Here, the concept is used to analyse the activities of companies in calculating their CSR performance and reporting this performance to external stakeholders, including the social rating agencies. In order for companies to be able to react to the FTSE4Good index inclusion criteria, they need to gather, summarize and report the data required by rating agency EIRIS. In effect companies need to undertake significant first order measurement (Power, 2004) so that calculative framing by FTSE and EIRIS can take place. Calculative routines refer to the recurrent pattern of activities, cognitive understandings and material artefacts used to measure CSR activities and communicate CSR performance to EIRIS and FTSE. The analysis explores the co-constitutive nature of this calculation, and the way a lack of fit between corporate calculative routines and the index inclusion criteria may lead to engagement.

Engaging work was defined in chapter 4 as creating the knowledge and expertise that legitimates the metric and monitors the behaviour of rated organisations. This shines light on the relational aspects of reactivity, including the dialogue between the rating organisation and the rated organisations. Participation in public metrics, such as the SRI indices, is voluntary. At same time the legitimacy of the metric relies to a large extent on the participation of the rated organisations. The analysis explores the engaging work from the viewpoint of companies included in the index, and examines the consequences of this work on reactivity.

The research on reactivity has mainly emphasised the cognitive aspects of reactivity and the role of metrics in organisational sensemaking (Elsbach & Kramer, 1996; Sauder & Espeland, 2009). The analysis of calculative routines and engaging shows that behavioural, cognitive and material aspects all play a role in reactivity. Guided by concepts developed in dynamic routine theory (D'Adderio, 2008; Pentland & Feldman, 2008), a more dynamic theorisation of reactivity is developed. Specifically, this theorisation of reactivity is comprised of continuous interaction between performative and ostensive elements and artefacts associated with the FTSE4Good index. Performative reactivity refers to the creation or adjustment of CSR policies, management systems or reporting practices that are in line with the inclusion criteria. Ostensive reactivity refers to the creation or adjustment of shared understandings of the meaning and importance of those CSR practices in reaction to index inclusion and engagement. Symbolic work refers to the different uses of the artefacts associated with index inclusion. The tension between these elements of institutional work creates a dynamic that allows the exploration of questions of decoupling and symbolic management (Boxenbaum & Jonsson, 2006; Tilcsik, 2010) in further detail, because it points to the practices that constitute reactivity over time

and their connection to cognitive ideas and material artefacts.

The chapter is structured as follows: the next section (5.2) describes the methods for data analysis for this part of the research. An inductive study was undertaken of 30 cases embedded within the overall case-study design (Yin, 2009). Similar to the analysis of institutional work in chapter 4, through constant comparison (Charmaz, 2006; Glaser & Strauss, 1967) a number of first order constructs were coded and aggregated in second order constructs.

Section 5.3 first provides the findings related to the nature of the calculative routines that are needed for index inclusion. It shows how index inclusion both relies on, and creates changes in, the organisational practices related to calculability of CSR. Section 5.4 explores the relationship between engagement and performative reactivity, as evidenced in improvements in EIRIS evaluations for CSR practices. It shows that this relationship is complex, and a more dynamic conceptualisation of reactivity is needed to examine organisational responses to index inclusion and engagement. Section 5.5 highlights the dynamics between ostensive and performative reactivity, and the dual role of artefacts. Five 'ideal types' of organisational response are sketched (these types will be further tested in chapter 6): indifferent, autonomous, reflexive, ceremonial, and integrative responses. These types differ in the way they participate in engagement activities, symbolic work and the nature of their reactivity towards the index.

Section 5.6 concludes with a brief discussion of the findings, pointing to implications for the study of SRI indices, engagement and symbolic versus substantive management of institutional pressure.

5.2 Data and methods

The research aims to connect institutional pressures with intra-organisational practices; therefore it relies on data sources covering both levels of analysis through a combination of archival data with interviews and secondary data (Lounsbury, 2008). Specifically, the data were collected through semi-structured interviews, archival material from the FTSE RI team, and secondary data (see appendix B for the list of data sources).

Semi-structured interviews: this part of the research draws on the interviews with 30 managers about the relevance and use of index inclusion for CSR practices within their respective companies. The sample was selected to include a variety of companies: from those who are considered CSR leaders to CSR laggards. This means respective corporate managers may have had limited dialogue with the FTSE RI team, having passed the evaluation with flying colours, whilst others had more extensive engagement due to not meeting specific inclusion criteria. Companies that had been in engagement to varying degrees for each of the FTSE4Good criteria (environment, human rights, supply chain labour standards, climate change and countering bribery) were selected. The final sample included companies from different geographic regions, industry sectors and number of years included in the index (see appendix B for interview participant details). Although interviewees had various roles and job titles, their remit of responsibility always included sustainability issues and liaison on these issues with SRI analysts, rating agencies, and the FTSE RI unit.

The interview protocol consisted of questions related to current priorities for CSR and internal management structures for CSR issues. Where relevant, interviewees were prompted to describe their interaction with EIRIS researchers and

the FTSE4Good RI team in their own words, and to indicate if and to what extent index inclusion and engagement had impacted on CSR practices. From piloting the interview protocol it became apparent that index inclusion also played a role in communication of CSR practices, both within the companies and to external audiences. Corporate communication regarding index inclusion was therefore incorporated in the interview protocol as a discussion point. In line with recommendations to mitigate retrospective bias (Golden, 1992, 1997), care was taken to select cases where relevant events such as engagement with the RI team had happened recently (not more than 2 years prior to the date of the interview), and all interview data were triangulated with archival and documentary data from various sources (see below). Most interviews were conducted by telephone, whilst two interviews were conducted face-to-face. All but one interview was recorded and transcribed.

Archival data: The interview data were triangulated with FTSE4Good archival data, consisting of correspondence (emails, letters) between corporate managers and the FTSE RI unit members and a database listing the compliance of eligible companies with the inclusion criteria for the period 2001-2010. The database was used to select the companies that had been in engagement with the RI team. The database of these index review spreadsheets was analysed to identify companies that had been in engagement for each of the five main index inclusion criteria. The correspondence (emails and letters) between these companies and the RI team was subsequently gathered to get a more complete picture of the length and extent of the dialogue between company managers and the FTSE4Good RI unit.

Secondary data: Two sources of secondary data were collected. First, for the group of companies that were included in the interview sample, information from

CSR reports and relevant corporate webpages was collected. This provided a rudimentary overview of CSR practices and priorities for each company. This information was saved in case summaries, which served as preparation for the semi-structured interview, as well as repositories for data segments from the various sources that seemed relevant, unexpected or worth exploring in depth. In addition, display of the FTSE4Good logo and any text related to RI indices was collected and stored in the case summaries.

The EIRIS database formed the second source of secondary data. The EIRIS database gives a text grade rating (e.g. no evidence, limited, intermediate, good, advanced) to a wide set of CSR indicators. The indicators are grouped per issue (environment, human rights, etc) and focus on corporate policies, management systems and reporting. The text grade ratings that corresponded to the FTSE4Good inclusion criteria were collected from the database for the 30 companies for the period of 2003 (when comparative data was first made available by EIRIS) to 2010.

The analysis of the interview data was developed inductively (Miles & Huberman, 1994). The first coding was based on the case summaries and developed a tentative list of codes describing the effect of index inclusion and engagement on different organisational practices related to CSR (data collection, reporting, training etc.). The coding list was then used to code the interview transcripts with N-Vivo 8 software, leading to the development of first-order codes. The interpretation of the data in this phase of the analysis focused specifically on the themes related to key issues of interest for the research, such as the institutional work (Lawrence & Suddaby, 2006) undertaken by companies, the engagement process, the nature of reactivity to the index, routinizing the index inclusion process etc. First-order codes include descriptions of practices, cognitive descriptions of ideas and shared

understandings, and descriptions of usage of material artefacts.

In a subsequent phase of analysis, a data structure was developed consisting of first-order and second-order concepts (see table 5.1). The data structure developed through a process of constant comparison (Charmaz, 2006; Glaser & Strauss, 1967) between theory and data. The first-order codes and constructs were categorized by juxtaposing them with concepts in the relevant literature (Suddaby, 2006). Five second-order constructs were developed: calculative routines, engagement, performative reactivity, ostensive reactivity, and symbolic work.¹³ Some of these second-order constructs emerged from the analysis, whilst labels already in use in the literature (including ‘ostensive’, ‘performative’, ‘calculability’) were used to capture part of the emerging constructs. Evidence to support the second-order constructs is provided throughout the text and in tables 5.2 and 5.4.

The data provided by rating agency EIRIS, the company secondary data and the FTSE archival data was used to triangulate the interview data. For example the construct of ‘performative reactivity builds on data related to the reported changes that were made to CSR practices, such as the introduction of an new environmental management system, adjustments in human rights policy or enhanced CSR reporting, as described in the interviews. This was triangulated with the information from the EIRIS database. Specifically, as an external source of data on CSR performance, the EIRIS data was analysed to find if the assigned scores for the relevant CSR policies, management systems or reporting had improved over the period that the company had been in engagement with the FTSE RI team.

¹³ The second-order constructs of engagement and symbolic work were also identified in chapter 4. Symbolic work forms a subset of the valorising work described in chapter 4. Engagement as described in chapter 4 is constituted of both educating work by consultants, FTSE and EIRIS; and convening work with third parties. In this chapter the focus is specifically on the symbolic work and engagement activities that take place between the FTSE RI team and companies included in the index.

Table 5.1: First order codes and second order constructs

First order codes	Description	Second order construct	Description
Calculability of CSR	The idea that CSR performance can and should be measured and calculated	Calculative routines	The recurrent pattern of activities, cognitive understandings and material artefacts used to measure CSR activities and communicate CSR performance to EIRIS and FTSE
Calculative practices	The calculative practices needed to provide the information needed for index inclusion to the relevant agencies		
Integration	Integration of calculability into wider organisational routines, particularly individual performance measurement		
Dialogue with the FTSE RI team	Exchange of views between managers and the FTSE4Good engagement team through emails, telephone conferences and meetings	Engagement	The process of interaction with the FTSE RI team
Providing information	Providing information not included in the evaluation by EIRIS in order to meet the criteria		
Keeping contact	Maintenance of regular contact in order to be informed of upcoming changes to the criteria		
Threat of exclusion	The risk of being excluded from the index as perceived by the interview participants	Symbolic work	The use of artefacts to communicate index inclusion (expressive symbolic work) or to use index inclusion as leverage (instrumental symbolic work)
FTSE4Good logo	The use of the FTSE4Good logo in CSR communication as well as other types of communication (presentations etc)		
Certificate	The use of the FTSE4Good annual certificate of inclusion		
Reference to inclusion	Reporting progress or current status related to index inclusion in senior management reports and meetings		

Table 5.1: First order codes and second order constructs (cont.)

First order codes	Description	Second order construct	Description
Benchmarking	Benchmarking CSR performance to peers or to previous performance	Ostensive reactivity*	The extent to which the understanding of the meaning of CSR practices is shared and/or influenced by index inclusion and engagement
Performance analysis	In-depth analysis of the evaluation of CSR performance as provided by external agencies		
Alignment with CSR priorities	The extent of shared understandings of CSR issues and practices between the FTSE4Good index and corporate CSR priorities		
Policies	New CSR policies are developed or adjustments are made in existing corporate policies in response to index inclusion	Performative reactivity	The adjustments in CSR practices (policies, management systems and reporting) in response to index inclusion and engagement
Management systems	New CSR management systems are developed or adjustments are made in existing systems in response to index inclusion		
Reporting	New CSR reporting systems are developed or adjustments are made in existing CSR reporting in response to index inclusion		

* Both ‘ostensive’ and ‘performative’ are defined here in a way that restricts their meaning to the process and practices of reactivity. In the definition of dynamic routine theory, which draws on Latour (1986), ‘performative actions are specific actions performed by specific individuals at specific times, and as they are performed over time, these actions make ostensive patterns’ (Rerup & Feldman, 2011: 579).

Limited variance was found between the two sources of data: the description of organisational changes reported by CSR managers were generally reflected by higher EIRIS scores.

Furthermore, the FTSE archival data was consulted to triangulate the interview data related to the 'engagement' construct. The number of emails sent by company managers was counted, their contents analysed, and summarised in the relevant company case summary document. Here, more variance between the interview data and the archival data was found, as some interview participants underreported the extent of dialogue with the FTSE RI team. This could be due to retrospective bias, as the discrepancy was most pertinent in cases where companies had been (temporarily) excluded from the index after engagement. This could mean that interview participants tried to rationalise this negative event by underreporting the engagement with the FTSE RI team. The use of the archival data and informal conversations with FTSE RI team members provided a more accurate picture of the nature and extent of engagement in these cases.

The findings are presented in three sections: first, the findings regarding calculative routines are presented (section 5.3); then the relationship between engagement and reactivity is explored (section 5.4); and finally the typology of organisational responses is presented (section 5.5).

5.3 Calculative routines

Calculative routines refer to the recurrent pattern of activities undertaken by managers to measure CSR activities and communicate CSR performance to external stakeholders. These routines are becoming more prevalent and more extensive within large companies, as the number of companies that produce CSR reports continues to

increase (see chapter 7 for a further discussion). The emphasis here is on the specific practices related to maintaining inclusion in SRI indices inclusion, which are embedded in wider accounting and reporting practices. Table 5.2 provides evidence for the coding categories that support the construct of calculative routines.

The coding highlighted in table 5.2 includes both cognitive ideas and organisational practices: the idea that CSR can be calculated or should be calculated to monitor and improve CSR performance; and the actual practices related to calculating CSR. The analysis shows that managers that were interviewed struggled to perform the aggregation and commensuration needed to arrive at numbers that were considered reliable within their companies:

It is difficult to make consolidated numbers. You cannot always take the same criteria everywhere for those kind of social issues. When you sell a property there is always a price, but to give a value for training hours is much more difficult. (HS&E Manager C23)

The analogy with financial reporting is made by managers to compare the relative underdevelopment of metrics for environmental and social performance (see A and B in table 5.2). The struggle with the calculability of CSR and repeated caveats to any numbers that could be produced does not mean that the idea of calculability is refuted. Rather, the necessity of measuring and monitoring performance is recognised as a tool for improving performance (see C and D in table 5.2).

Yeah, I mean people say don't they that you can't ... until you measure things, you can't monitor them and it's difficult to put things in place to improve them. (CSR Manager C7)

Table 5.2: Evidence for calculative routines

First order category	Supporting evidence
Calculability of CSR practices	<p>A. If you think about the financial part, it has been developed over hundreds of years, but the sustainability reporting standards are recent. And it's developing so quickly that it is a huge challenge for companies. And it's pretty difficult to measure because it involves everything companies do. (CSR Director C29)</p> <p>B. The difficult thing is to try and measure your performance in those issues against some targets and relate to those targets on how you did. Financially you can do that because it is a lot easier. And in terms of CSR issues, I find it's harder and harder. (IR Director C20)</p> <p>C. Honestly we're starting to put some [measurement systems] in place. When you measure things, it's true you spend more attention on them.(IR Director, C19)</p> <p>D. In terms of endorsing all these policies you know, the most important thing is to try and establish some monitoring. Once you can measure things, you can monitor them as well. So you have to bring up systems and supporting mechanisms in order to see a policy from the beginning and how it's implemented. (IR Director C20)</p>
Calculative practices	<p>E. I don't know closely these companies[FTSE and EIRIS] are working together, I just remember that [EIRIS] started sending these questionnaires and we respond to those and they mentioned that this is part of the FTSE4Good assessment as well (CSR Director C29)</p> <p>F. When we receive a questionnaire or questions from the FTSE4Good team I'm trying to delegate the questions out in the organisation. So if it is a HR question, which I'm not capable of answering, I will send it to my colleagues in HR. And similar with the environmental issues or other issues. So we're using quite a lot of resources to answer these kinds of questions and to make it as accurate as possible.(CSR Manager C10)</p> <p>G. Ones that we are very well aware of... like EIRIS is associated to all these companies, so we responded to that. And the larger ones, Domini, KLD, Risk Metrics, those are some of the larger players, we respond positive. There is a lot of smaller ones where we haven't responded or just sent them over something, saying here is a copy of the CSR report.(HS&E Manager C13)</p>

Table 5.2: Evidence for calculative routines (cont)

First order category	Supporting evidence
Calculative practices	H. So we have an online tool where we send out information request for example based on the Global Reporting Initiative for our sustainability report...Also when the Dow Jones Sustainability Index comes with their unique set of questions, this online tool actually helps us to take the original answers and format them into the DJSI questionnaire..That's the way we do it, it has actually become a lot more systematic than it was when we first kind of just did it sending emails out to people. Having that internal structure in place to gather the data is important. (VP CSR C24)
Integration	<p>I. It's on my job description. I don't specifically get any extra pay for that or any bonus but I would expect that if for some reason we didn't maintain our FTSE4Good accreditation, then my pay rise would not be as good as it would have been (HS&E Manager C14)</p> <p>J. We don't feel particularly confident that the process has been as robust or as relevant to us; to warrant us putting them [SRI indices] in a scorecard or making them part of our pay. (CSR Director C1)</p>

In recognition of the increasing demands for corporate disclosure on CSR performance, most managers indicated that their accounting and reporting systems were continuously improving. A few were confident that they had developed robust systems to measure certain aspects:

We created a mechanism within our audit tool that generates a score... that generates a critical standard rating. And within our database, we have a way of automating all that data, so we can generate reports easily. We can represent it graphically, just the kinds of things you would expect with normal business management data. I think it's important to be able to transfer those skills across in the way you manage all these audit findings (CSR Manager C29)

The calculative practices needed to maintain index inclusion are embedded in these internal accounting and disclosure systems. Inclusion in the FTSE4Good index relies on data regarding CSR practices that is provided by companies and evaluated by social rating agency EIRIS. On an annual basis managers are requested to

describe their corporate policies, reporting and management systems, as well as to provide evidence such as training modules, policy documents etc. This can be a time consuming process even with elaborate accounting systems in place (see table 5.2 E and F):

Not only is it filling in [the questionnaire], [also] collecting the information in order to fill it in. Because we are a multinational company, we do not have all the people I need to source the information off sitting in the same building. So I need to send information requests to the US, I need to send information requests to Australia, to New Zealand, I need to send them to Europe and France. Dealing a lot with time zones, so the more we can do in terms of early planning and having enough time to collect the information, synthesise it and then have internal reviews, the better (CSR Manager C21)

Often managers are asked to answer follow up questions where the researchers are unclear about the information provided. The questionnaire and follow-up expose managers to detailed questioning on a wide variety of topics, ranging from carbon emissions to labour standards and whistle-blowing policies. Again, for some managers, this process is more straightforward than for others:

‘A lot of what we were providing them was in the public domain anyway. It wasn’t really new information. It was just a matter of building the appropriate story around the information that was there to demonstrate to them why those numbers would actually meet those criteria.’ (CSR Manager C2)

Index inclusion thus relies strongly on the existing calculative routines within companies related to CSR issues and practices. If these routines are non-existent, managers struggle to produce the comprehensive information needed for the CSR evaluation and maintenance of index inclusion. For example, one of the companies in the sample was excluded from the index for not disclosing enough information on environmental indicators. The company did not disclose this information because data on the relevant indicators were not gathered and monitored internally. Its managers were not able to answer relevant questions from the rating agency, and the

company was eventually excluded from the index, despite efforts from the FTSE RI team to convince the company to monitor and disclose this information. Deletion from the FTSE4Good index however became an ‘influencing driver’ (IR Manager Case 19) in setting up a more comprehensive environmental management system that incorporated the FTSE4Good environmental management criteria.

The introduction of additional inclusion criteria on issues such as climate change or countering bribery by FTSE serves as a signal to companies that these issues are becoming of interest to the financial community. With the advent of an increasing number of indices and ranking lists, managers often focus on completing only a small number of questionnaires from social rating agencies. The questionnaires that are linked to SRI indices maintained by mainstream index providers, such as Dow Jones and FTSE, get privileged in this process (see G in table 5.1).

Over the years the calculative practices of answering questionnaires and questions from SRI rating agencies and SRI investors has become more structured (see H in table 5.2). In this process the SRI indices serve as artefacts that may become mutually constitutive of the calculative routines within companies, as internal data collection and external disclosure on CSR get structured around the SRI indices:

There has been a surge in the last few years in the amount of people asking for sustainability type data and questionnaires and profiles and things like that. A couple of years ago we did a bit of a stock take and said this is getting ridiculous. All these questionnaires are very thorough. You always get told it is going to take 5 minutes, but to actually answer it properly and responsible and transparently it actually takes a lot of effort. What we basically did was a bit of a stock take: we divided all the key surveys that we wanted to pursue, and we had a talk to make sure that we cover all the main sustainability issues and things that we think that most investors would be interested in, in our sustainability report (CSR Manager C2).

‘I started developing some questionnaires myself to gather the data that I was being asked for by FTSE. When I couldn’t find the answers, I suggested perhaps some new data we ought to be collecting to make sure that it would be easier for me in the

future...Doing the FTSE thing has developed some good disciplines that we've built into our business and now it's much easier, because it is giving you the discipline to establish procedures.' (Communications Manager C30)

As the process of maintaining index inclusions becomes routinized and calculative practices become more stable, they may become integrated into other organisational routines and practices. For instance inclusion in SRI indices can be incorporated as goals in company-wide CSR strategies or personal performance objectives, although this remains controversial for some companies (see I and J in table 5.2).

'It's certainly in my performance objectives to maintain my place on the FTSE[4Good] and on the Dow Jones [Sustainability Index]. If we get kicked out, I've got some explaining to do.'(CSR Manager C16)

By their nature, public metrics such as SRI indices necessarily simplify, rationalize and commensurate measures of performance. These measures are then re-imported by organisations for internal use, by linking external performance criteria linked strategic goals or even personal performance objective (Power et al., 2009). In order to facilitate this institutionalisation of the metrics within the organisation, companies first need to undertake significant first order measurement (Power, 2004) so that calculative framing by FTSE and EIRIS can take place. The analysis thus points to the co-constitutive nature of calculation between the rater and the rated, an aspect frequently overlooked in studies of reactivity (Espeland & Sauder, 2009). The picture is then, that the process of continuous scrutiny or surveillance (Foucault, 1979; Sauder & Espeland, 2009) which is constitutive of index inclusion has the potential to become integrated into corporate calculative practices.

Organisational responses to institutional pressures are likely to vary depending on their fit with the adopters' existing practices (Ansari et al., 2010). Where there is a lack of fit, calculative practices do not provide enough or the right

kind of information to meet the FTSE4Good index criteria. As described in chapter 4, managers then have the opportunity to enter into a dialogue with the FTSE RI unit. In this dialogue they can provide more information, or outline how they are working towards meeting the inclusion criteria. The next section will highlight the engagement and dialogue with the FTSE RI unit and the way this may influence performative reactivity from the part of companies.

5.4 Engagement and reactivity

The FTSE RI team engages mainly with companies that are included in the index, but that don't meet the index criteria, either because the criteria themselves are newly introduced or because of a company restructuring, for example a demerger, means the company needs to meet the criteria as a new entity. The following quote from a FTSE RI team member describes how companies are identified for the engagement process:

We have a spreadsheet that comes in with all of the companies and their assessments before the index review. And that will come with an EIRIS recommendation column, which highlights whether they do or they don't meet the criteria. And then we have an adjustment column, to say whether they stay in or don't stay in [...] we often have long debates and sometimes we agree to disagree [with EIRIS], but that is fine. It does mean that it makes it more complicated to manage the index reviews. Because we have to remember that so-and-so, EIRIS says should be out, but we don't think should be out. (FTSE staff member F)

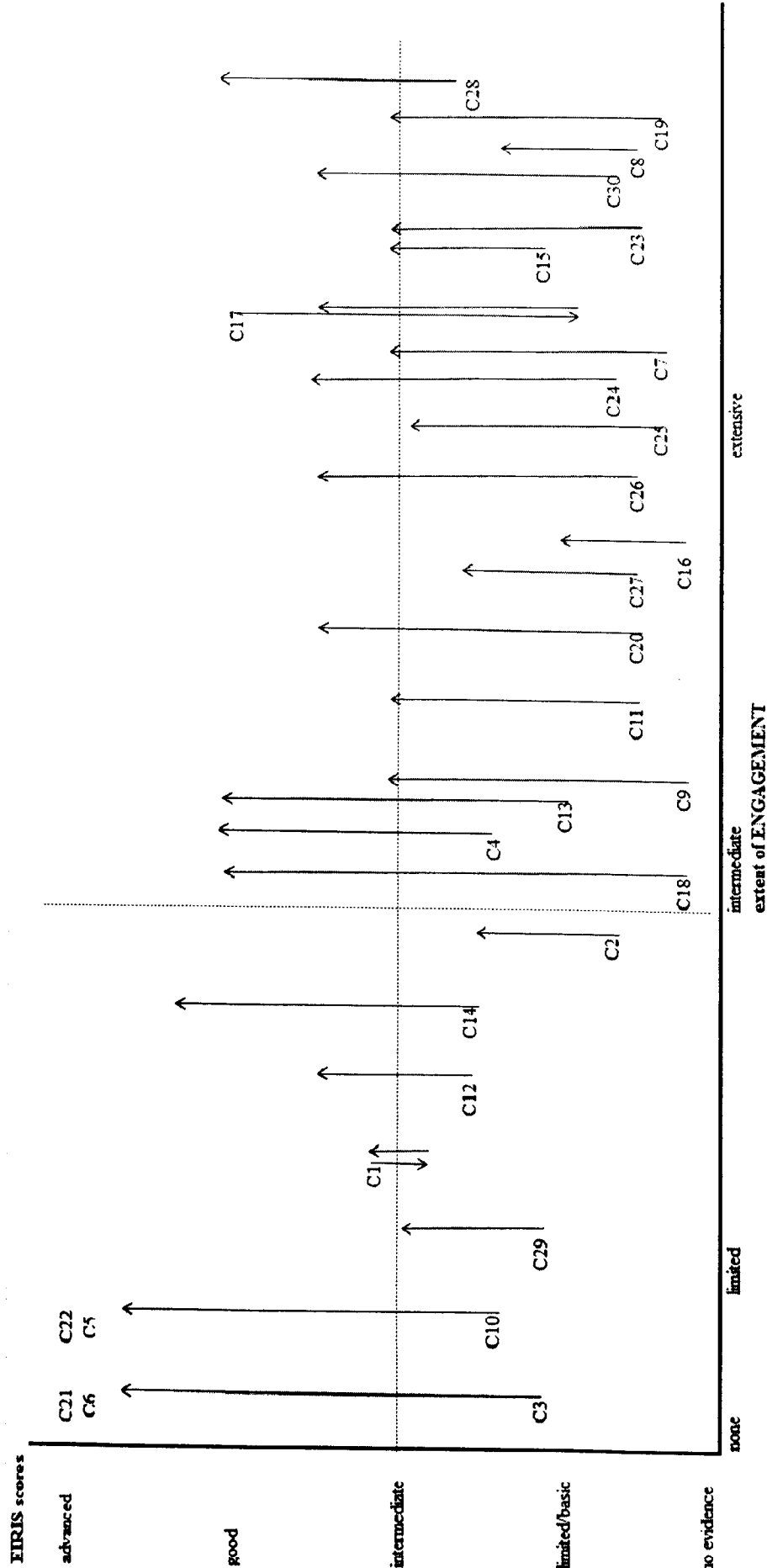
The companies thus identified for engagement are contacted by the FTSE RI team and asked to provide more information of CSR practices. Topics of engagement may range from providing more information on human rights policies in CSR reporting to providing evidence of training on countering bribery policies for example. Companies that are in engagement with the FTSE RI team may be granted

extensions to meet the index criteria, as long as they can evidence to the FTSE4Good Policy Committee to indicate that they are taking the index criteria into consideration. This may be done through a formal letter that is signed by the CEO or senior executive of the company, which indicates how the criteria are being addressed within the company. Often, these 'commitment letters' as they are referred to by the FTSE RI team, include statements such as the following:

Thank you for giving us the opportunity to highlight recent progress and objectives with reference to certain FTSE4Good criteria. [Our company] is proud to be member of the FTSE4Good index, recognising that it has been a key driver for improvements and policy development within the Group over the recent years, and to remain in the index is a key objective for us (Letter dated 17 February 2011 signed by the Vice-President for CSR of a company in engagement)

In order to explore trends and patterns in the data the evidence for the performative reactivity and engagement constructs were juxtaposed (see Figure 5.1). This was done through coding of the evidence for engagement (based on interviews and archival data) and coding of performative reactivity based on improvements in EIRIS evaluations of corporate CSR performance against the FTSE4Good index criteria. Each company (N=30) was coded as a case. Cases were coded no or limited engagement when there was no evidence of engagement between the company and the FTSE RI team, or engagement took place within six months (the time between each FTSE4Good index review). Limited engagement involved limited action from company managers (for example sending the latest CSR report). Intermediate to extensive engagement includes cases where engagement took place over longer periods of time (eight months to two years), involving more extensive actions from company managers (for example sending draft corporate policies to the RI team for review).

Figure S.1: Engagement and performative reactivity



In figure 5.1 engagement is juxtaposed against EIRIS scores for the FTSE4Good criteria that were the subject of the engagement in each case. The arrow represents the change in score given by EIRIS to the company after engagement by FTSE. Where companies were engaged for multiple criteria, average increases are depicted. For example in case 1, EIRIS scores dropped below the ‘intermediate’ mark and back up to this level after limited engagement, whereas in case 28 the score moved from below ‘intermediate’ to between ‘good’ and advanced’ on average after extensive engagement.

As can be seen in Figure 5.1, engagement has generally resulted in performative reactivity: more extensive engagement is linked to improvements in EIRIS scores, used here as a proxy for performative reactivity. But the pattern is by no means without exceptions: in some cases there is no engagement, but reactivity appears nonetheless, whereas in other cases there is extensive engagement, but limited performative reactivity. A more complete picture of organisational responses needs to take into account the dynamic between performative and ostensive aspects of reactivity, as well as the role of artefacts. The final part of the analysis therefore proceeded to explore the different aspects of reactivity as a result of the engagement process and index inclusion. The data analysis focused on separating and juxtaposing ostensive and performative reactivity and examining the levels of evidence found for the remaining second-order constructs in each ‘ideal type’ of organisational response. Section 5.5 discusses the ‘ideal types’ of organisational responses to index inclusion and engagement that were constructed based on a coding of the data.

5.5 Organisational responses to engagement and index inclusion

According to the dynamic perspective on routines, endogenous organisational change may result from the interaction between different parts of routine practices: the macro level of shared understandings of why practices are carried out, the micro level of repetitive performances of the actual practices, and the artefacts used in the process (Feldman & Pentland, 2003; Feldman & Rafaeli, 2002). In similar vein it is argued that the process of index inclusion and engagement by the FTSE RI team might lead to performative reactivity: changes in CSR practices, including policies, management systems or reporting, as these are adapted to fit the index inclusion criteria. It might also lead to ostensive reactivity when extensive engagement leads to a change in shared understandings of why CSR practices are carried out. Symbolic work that centres on the artefacts (both the index itself and its material aspects such as the logo and certificate) has a dual role that mediates between the ostensive and performative aspects of reactivity. Expressive symbolic work entails the use of the index artefacts to signal the quality of CSR practices to various audiences. Instrumental symbolic work entails using the fact of index inclusion to create leverage to change or improve CSR practices.

In the previous section patterns in organisational responses to index inclusion and engagement were found in the data, but the relationship between performative reactivity and engagement was shown to be complex. In this section the dynamic conceptualisation of reactivity is used to deduce ‘ideal types’ of organisational responses to index inclusion and engagement. In order to create the most parsimonious typology, all characteristics upon which the typology is based are coded binary. Table 5.3 outlines the five types of organisational responses. Evidence for engagement is based on the interview and archival data, and is coded ‘Yes’ if

limited to extensive engagement took place and ‘no’ otherwise. Evidence for performative reactivity is based on interview data and the EIRIS data. High performative reactivity was classified as an improvement in the EIRIS evaluation by 2 or more categories in the EIRIS database (e.g. from an evaluation of CSR practices as ‘basic’ to ‘good’) in response to engagement by the FTSE RI team, and classified as ‘low’ if there was less improvement or no change in the EIRIS evaluation. Ostensive reactivity was coded based on the interview data. Strong evidence of shared understandings of the importance of CSR practices was coded as ‘high’ ostensive reactivity, whereas limited shared understandings of the index criteria and corporate CSR practices was coded as ‘low’ ostensive reactivity. Symbolic work was based on the interview data and corporate documentation. Evidence of symbolic work was coded as ‘expressive’ if the use of artefacts such as the FTSE4Good logo served mainly to communicate inclusion to external stakeholders; and coded ‘instrumental’ if used to obtain leverage inside organisations for improved CSR practices. Table 5.4 provides further evidence for each of the types of response, and the different types of responses will be illustrated in turn in the rest of the section.

Table 5.3: Types of organisational responses to index inclusion and engagement

Type of response	Engagement	Performative reactivity	Ostensive reactivity	Symbolic work
Integrative	Yes	High	High	Expressive Instrumental
Ceremonial	Yes	High	Low	Expressive
Reflexive	Yes	Low	Low	Expressive
Autonomous	No	High	High	Expressive Instrumental
Indifferent	No	Low	Low	Expressive

Table 5.4: Evidence for types of organisational responses

Type of response	Performative reactivity	Ostensive reactivity	Symbolic work
Integrative	A. [FTSE] send us a lot of the things [to show] that we were actually in the index, but unless we redeveloped the reporting, that they were going to throw us out of it. So we worked with [them].and actually that helped push some of our reporting. It was a good thing. (HS&E Manager C9)	B. Our management discussed quite a lot [why we were excluded] and I presented them the background and the details of why this happened and why it is important. During the process the newer members of the group management team also gained some further knowledge on this area and the importance of it. (CSR Director, C25)	C. That is really one of the things that changed in sustainability over the last few years: the importance of those sustainability rankings for the executive committee. Because now [...]they consider that really of high value. We select a few, because it will be impossible to follow carefully all of them [and]the FTSE4Good is the first of them.(HS&E Manager C23)
	D. We to-d and fro-d with what we should put in the annual report to accommodate the concerns of the researchers and also to ensure that what we were saying was accurate and so on. And I think that we probably went through half a dozen iterations of about four or five lines of text. (Company Secretary C8).	E. [FTSE] set the criteria and the company either meets it or it doesn't. You know, they can't come inside the company and make us change our practices to meet the criteria. (CSR Manager, C16)	F. What's valuable about having the annual certificate and the logo, you can say very simply to a wide audience that we're listed on the FTSE4Good and that we meet their criteria for corporate responsibility .. And that's enough for that wide audience. (CSR Manager C28)

Table 5.4: Evidence for types of organisational responses (cont)

Type of response	Performative reactivity	Ostensive reactivity	Symbolic work
Reflexive	G. We never had any kind of environmental policy but we developed an environmental policy which really just stated our existing corporate philosophy on things, we just put it into a formal policy statement (IR Manager, C15)	H. One of the communication challenges that companies might face is because external readers might think that they are not doing anything and actually they are doing more than many other companies, which are giving promises. So that's the issue which needs to be understood by the rating organisations: that there might be more than meets the eye, so to say (Director CSR, C29)	I. I think at one point we had [the logo] on our website, but then we weren't really sure, with everything that we have been members of, we weren't really sure it was updated (HS&E Manager, C13)
Autonomous	J. So we developed our environmental policy in 2006 [..]So internally we've measured our carbon footprint and we took various steps then to address that [..]And we have a very good energy management business in place now and we've taken other smaller steps which will all have an impact on our footprint (CSR Manager C10)	K. If you are serious about your social responsibility it's very important to be listed in a list like FTSE4Good or Dow Jones. [..]We are proud of being accepted and secondly... it legitimises our CR work and it's a good symbol (CSR Manager C10)	L. Now that I'm in there [the index] I can't get out of it. They [executive management]wouldn't want to be dropping out again (CSR Director C3)

Table 5.4: Evidence for types of organisational responses (cont)

Type of response	Performative reactivity	Ostensive reactivity	Symbolic work
Indifferent	<p>H. We were informed that we would need to satisfy the climate change criteria and [it was] perceived that that would take us a very long time [...]. I satisfied those criteria in an afternoon. Because we already had those systems in place and they have been embedded for many years. That is not to say that is the experience of all organisations, I would be surprised if it was. It is an area that we have been focussing on for a very long time.(CSR Manager C21)</p>	<p>I. So the things that we're doing, we're doing them because it's good to do them. The fact that we're on the index is a nice bonus. .. We aren't doing things to be on the index, we're on the index because we're doing things.(HS&E Manager C14)</p>	<p>J. [Displaying the logo] is a way of highlighting the fact that we are members and we've met that benchmark (VP CSR C5)</p>

An *integrative* response represents cases where there is evidence of both ostensive and performative reactivity. In these cases the performative reactivity is instigated by the engagement with the FTSE RI team (such as in many of the cases moving into the top right quadrant of figure 5.1). In many of these cases there are limited corporate policies, management systems and reporting practices for the specific issue that companies have come under scrutiny for, such as countering bribery or protecting human rights. Limited to extensive engagement from FTSE brings EIRIS evaluations up to intermediate to good grades. The dialogue with the FTSE4Good team through emails, telephone calls and meetings creates opportunities to transfer information and to create shared understandings about what needs to be done, both in the context of index inclusion and the wider context of organisational goals (Feldman & Rafaeli, 2002).

We were prompted to take a look at CO2 and our emissions, [FTSE] pushed us to develop in fact a management system that would help us to collect data and to set goals and targets, manage the day-to-day of these things. [..]
We've come a long way from those early days when we really wanted to know 'what do we have to do to stay on this list'. I think that was our original goal, it was more reputational than anything else. But as we've got smarter at seeing the importance of these factors from a business standpoint, we progressed past that to how we think it is better. [..] But we really needed the initial prompt from FTSE4Good to even get us thinking about that (VP CSR C24)

Where the evaluation of CSR performance by EIRIS highlights significant gaps or weaknesses, the engagement by the FTSE RI team can serve as a catalyst for performative reactivity (see A in table 5.4). Index inclusion can also provide leverage for other CSR activities, as CSR managers can point to the requirements of the indices when trying to get new initiatives approved by senior management. The potential or actual risk of deletion from the index serves as a force to capture the attention of senior management (see B in table 5.4).

I think it was beginning of 2009, we had this big executive meeting..we actually did mention the fact that we were answering these type of questionnaires [..] You have

to explain a lot on the processes that these analysts ask and the link between these specific ethical analysts and [the index]. Because it's not something which is quite well-known, so we explain both the process dependencies and then the impact on our policies. (CSR Director C25)

RI indices can also be used educate colleagues as to why they have to collect and monitor vast amounts of information, which might take up valuable resources. In this process the FTSE4Good index, as well as other SRI indices are used in an expressive fashion as a symbol for good CSR practices, whilst they may also be used instrumentally to act as 'an impetus for influence and action' (Gioia et al., 1994: 378). This includes making the 'business case' for CSR practices internally towards colleagues and senior management, so that index inclusion and investment of resources in CSR practices are seen as linked (see C in table 5.4).

I am confident that the corporate governance systems we have in place are robust and that there is a clear management commitment to act responsibly. Therefore, I was very disappointed that we did not meet the criteria for inclusion in the FTSE4Good and DJSI indices in 2008. The criteria for inclusion are continually being raised and we are determined to get reinstated. (CEO C25, quote from 'Message from the CEO', CSR report 2008: p3).

Although such an announcement of exclusion from indices seems relatively rare, as companies tend to emphasise only the positive news related to CSR ratings and SRI indices (Scalet and Kelly 2009), it shows how symbolic work may be used instrumentally.

A *ceremonial* response represents cases where performative changes in CSR practices are not supported by changes in the ostensive understandings of the meaning of those practices. In these cases the pattern of response is similar to those found in Kostova and Roth (2002): *adoption of a practice .. for legitimacy reasons, without .. believing in its real value for the organisation* (Kostova & Roth, 2002: 220; Meyer & Rowan, 1977). A ceremonial response to index inclusion and engagement may include substantive performative reactivity (see D in table 5.4).

However this does not lead to an understanding of CSR practices that is shared between the index and the company (see E in table 5.4).

It's not really about us, it's about them. You know, it's actually a measure of somebody else's intention, not of what we do.....I don't control whether or not they award us that. (Communications Director, C4).

The index and its material artefacts are used symbolically to express good CSR practices, but rarely get used in an instrumental way in these cases (see F in table 5.4). A ceremonial pattern of organisational response is likely to occur when engagement is relatively light touch (for example for cases remaining in the lower left quadrant of figure 5.1), which provides relatively little opportunity to create shared understandings about the importance of CSR practices and measurement in accordance with the criteria set by FTSE. Whereas in the integrative response managers often indicate engagement as being a catalyst for making performative changes to CSR practices, in ceremonial cases it seems the performative reactivity as evidenced by an increase in EIRIS scores may also be capturing improvements in CSR practices that are instigated regardless of index inclusion.

Cases presenting a *reflexive* response to index inclusion and engagement show similar patterns of low ostensive reactivity and mostly expressive symbolic work (see H and I in table 5.4) to those in the ceremonial response. However contrast to the ceremonial response, there is little performative reactivity in reflexive cases, where changes to CSR practices often remain limited to changing wording in policy statements or reporting (see also G in table 5.4). A reflexive response to engagement by the FTSE RI team results in low performative reactivity (such as in many of the cases remaining in the lower right quadrant in figure 5.1). Like in the ceremonial

response, there is a disconnect between the understandings of CSR as promoted by the index and the meaning of CSR practices for the company.

Where they want to go, in terms of indexes and what they want people to respond to, is admirable but don't fully reflect at least our interests (IR Manager, C15)

In reflexive cases however managers take a more critical approach towards the scrutiny exerted by SRI indices. In some of these cases the managers have been in dialogue with the FTSE4Good index for extended periods, but resistance tempers the performative changes made to organisational CSR practices. Whilst almost all managers complain of the time-consuming nature of the *process* of collecting the necessary data, in the reflexive cases managers engage critically with the *content* of the index criteria and the measurement process, picking and choosing to incorporate only those criteria that are deemed material to their business. Managers question for example their company's classification in a specific industry sector (which determines the number of criteria that need to be met and the degree to which they need to raise their scores) or their classification as a company with a high impact on the environment or high risk of exposure to human rights abuses. Managers also have started to reflect more critically on the usage of the RI indices by the investment community, and want to see more direct evidence of investors taking index inclusion into account in their decisions:

I believe that investors look at key ratings agencies like FTSE4Good and take their findings on board. What I would like to find out from investors and from FTSE4Good is empirical evidence to support that. (CSR Director, C1)

Consequently, whilst material artefacts such as the index logo may be displayed in CSR reporting to some extent, these are not used instrumentally to influence senior management or employees. The information sharing within the organisation and externally with the RI unit does not lead to shared understandings of 'good CSR practices'.

The *autonomous* response represents companies which show both performative and ostensive reactivity, but have not been in engagement with the FTSE RI unit (see the cases moving into the upper left quadrant of figure 5.1). This includes companies that had recently been recently (re)included in FTSE4Good index, and therefore form a slight variation on integrative type of response described above. In a process of ‘anticipatory reactivity’ companies work on their CSR activities without engaging with the FTSE RI team extensively (see J in table 5.4). Although there have not been opportunities to develop shared understandings through the engagement process, managers do seem to share the ostensive understanding of calculating CSR with the index (see K in table 5.4). It could be that the interaction with the rating agency EIRIS in the preparation process for (re)-instatement provides the opportunity to develop shared understandings about CSR and CSR measurement. Managers are also engaged in instrumental symbolic work to legitimise newly improved CSR practices (see L in table 5.4)

We’ve got the okay from the FTSE4Good people and we’ve passed on the information to the rest of the business, to advise them. Our investment arm came back and said that this would be very useful and very helpful in terms of supporting their case when they went out to discuss business with various analysts. (CSR Director C3)

They use SRI indices to express their CSR practices to both external and internal stakeholders. Managers use the material artefacts associated with the index such the FTSE4Good logo and certificates of inclusion as a resource in accounting for their activities (Feldman & Pentland, 2005). SRI index logos may also be displayed when CSR managers are presenting their CSR practices to external audiences, such as during investor road shows. In addition, index inclusion is reported and displayed internally within companies through intranet sites, newsletters etc.

Cases presenting an *indifferent* response have not been in dialogue with the

FTSE RI unit, as their CSR practices are evaluated by EIRIS to be advanced relative to other companies (see e.g. the cases remaining in the top left quadrant in figure 5.1). In these cases there is limited evidence of ostensive or performative reactivity towards the index criteria (see M and N in table 5.4).

The analyst ratings are for the most part about good transparency, clear reporting, communicating with our stakeholders. It is less for us about insisting that we get a good mark in these ratings. It's more about demonstrating that we're good at these things.[...] Once you're up there, once you've got good ratings ..people tend to carry on doing things because you've changed the business for the better...those changes are usually quite systemic, so it's difficult to drop back from those in many ways (CSR Manager C6).

This pattern of response identified can be partly explained by the objective of the FTSE4Good index to set 'challenging but achievable' index criteria (FTSE, 2006), which are arguably easy to meet for companies who are generally considered CSR leaders. In these cases managers seemed to put more emphasis on the Dow Jones Sustainability index, which is considered by them to be 'harder to get into' (CSR Manager C6) and therefore a more prestigious index to express good CSR practices with. Significantly, the Dow Jones Sustainability index includes the top ten percent of companies with the highest evaluations of their CSR performance within each industry sector. Therefore it is specifically geared towards identifying CSR leaders. The methodology underlying the FTSE4Good index is more effective in raising standards for those companies that have less well developed CSR practices. In cases with an indifferent response managers nevertheless engage in symbolic work that serves to communicate their CSR practices by means of the SRI indices, indicating that both approaches have become institutionalised as standards for good CSR.

5.6 Conclusion

This chapter has developed an encompassing perspective on reactivity that takes into account both cognitive and material aspects of organisational behaviour and change processes. The results show how reactivity towards metrics should be viewed as a dynamic process of performative changes in organisational practices, ostensive changes in shared understandings about the meaning of those practices, and the role of artefacts associated with metrics. The findings show three factors that influence the potential of external metrics to influence organisational behaviour ‘from a distance’ (Latour, 1986; Miller & Rose, 1990).

First, inclusion in the FTSE4Good index establishes routine connections (Feldman & Rafaeli, 2002) between companies and the FTSE RI unit, as well as connections between different departments within the included companies, in order to collect and monitor data on CSR practices, and report to senior management on progress. The engagement work by the FTSE RI unit provides a platform for information exchange that leads to shared understandings about the importance of ‘good CSR’. FTSE has been comparatively forthcoming about its engagement work and the importance of this work for the index (FTSE 2006, 2011). Further research could explore the extent to which similar work might be hidden from sight in cases of other SRI indices and other public rankings and ratings, and whether this affects reactive responses. In addition, different forms of engaging with companies might be compared to explore their effectiveness.

Second, the chapter has shown that SRI indices, in stimulating the building or adaption of calculative routines, may permeate organisational boundaries over time (Vollmer et al., 2009) and create conditions that enable the adoption of new organisational behaviours aligned with the changing demands of the indices (Latour,

1986; Miller & Rose, 1990). The results show the co-constitutive effect of calculative routines on engagement work, and on the subsequent dynamic between ostensive and performative reactivity. Where existing organisational calculative routines for CSR fit the index criteria well the scrutiny exerted by SRI indices almost goes unnoticed, and no engagement is needed. Where there is lack of fit (Ansari et al., 2010) between index criteria and calculative routines, subsequent engagement provokes different types of organisational responses. In the reflexive and ceremonial adoption cases, calculative routines are mostly maintained, but not modified through the index inclusion process. Evidence of the creation or modification of calculative routines was most commonly found in cases of integrative and autonomous responses. Here, the modified calculative routines can be used to account for and legitimise CSR practices towards the external evaluators, whilst at the same time guiding CSR practices, in accordance with the axiom 'what gets measured gets managed'.

Third, the results point to role of symbolic work in mediating tension between ostensive and performative reactivity. The artefacts created by index inclusion, such as the FTSE4Good logo, can be used to refer and summarise complex patterns of behaviour as 'good CSR practices'. At the same time it legitimises those CSR practices, because index inclusion is granted by a reputable, independent external party. Referring to external metrics thus serves the dual function of revealing and concealing organisational practices (Gioia et al 1994).

Integration of the index criteria in calculative routines shows how artefacts may become mutually constitutive of organisational routines (D'Adderio, 2011). The findings emphasise the constitutive aspect of ceremonies and dynamic forms of reactivity related to measurement practices, and point to the neglected yet powerful

effects of measurement and calculation that are embedded in SRI demands on organisations (Callon, 1998; Callon & Muniesa, 2005; Porter, 1995). External demands for calculability not only enhance the legitimacy of new practices such as CSR or SRI (Déjean et al. 2004) but also create the need to establish within organisations a ‘calculative infrastructure’ (Cabantous et al., 2010; Waddock, 2008b) that may involve new routines or the transformation of existing routines. Such a dynamic perspective on calculability, which takes into account cognitive and material aspects, therefore holds great potential for studies of decoupling, reactivity and the diffusion of organisational practices.

The conceptualisation of the typology is grounded in theory and data. The typology is used as a heuristic device to conceptualise the dynamic between engagement, symbolic work and the nature of reactivity. The different types of responses may be used to classify cases and analyse organisational responses. At the same time it should be remembered these may change over time as interaction performative and ostensive elements of reactivity interact. The analysis has so far not examined whether organisational characteristics such as size or financial performance influence organisational responses to index inclusion. Neither has it systematically compared the response to the different criteria categories of the FTSE4Good index, based on the evidence found in the 30 cases. The next chapter will supplement the data used in this chapter with data on organisational characteristics to undertake a systematic analysis of the different types of responses to index inclusion.

6. Qualitative Case Analysis of reactivity and engagement

6.0 Chapter summary

In this chapter the pattern of organisational responses to index inclusion and engagement by the FTSE RI team is further examined through a comparative analysis of 30 companies. Three ‘paths’, or combinations of causal conditions, are found that lead to reactivity towards the FTSE4Good index inclusion criteria. Two paths are differentiated by an absence of reactivity. These combinations correspond broadly to the five ideal type responses to index inclusion and engagement – indifferent, autonomous, reflexive, ceremonial and integrative – conceptualised in chapter 5. The Qualitative Case Analysis (QCA) provides a systematic way to compare the causal mechanisms in each ideal type and determine its importance for the outcome of reactivity.

6.1 Introduction

The analysis in the previous chapter highlights different patterns of mechanisms such as engagement, symbolic work and calculative routines for the nature of reactivity. For example, companies that have been in engagement with the FTSE RI team show extensive reactivity (but not all), whilst some companies that have not been in engagement were also seen to respond strongly (but again not all). It seems the mechanism of engagement cannot solely explain the reactive outcome, and furthermore that the causal relationship between engagement and reactivity is complex. In the previous chapter an in-depth perspective of the different types of reactivity was developed to identify mechanisms that might mediate or moderate the

relationship between engagement and reactivity. Additional qualitative mechanisms were identified, including symbolic work and calculative routines, and a typology of organisational responses was developed that highlighted five ideal types of responses to index inclusion.

Typologies serve to reduce empirical complexity into a limited number of attributes or conditions (Fiss, 2011). To strengthen the typology developed in chapter 5, the analysis in this chapter further explores the combinations of mechanisms that might lead to reactivity. Through a systematic comparative approach the analysis is extended in two ways: first, it incorporates a limited number of other mechanisms that may play a role in the process of reactivity, specifically organisational characteristics such as length of inclusion in the index and risk exposure to specific CSR issues. Companies that have been included in the index for a relatively long time might be more attuned to the calculative framing by FTSE, and therefore display less reactivity towards new index inclusion criteria. On the other hand, the evidence in chapter 5 suggests that some companies that have been excluded from the index, work towards getting re-instated and therefore show considerable reactivity. These organisational characteristics are included to further explore the role of calculative routines. In addition, companies with high risk exposure to CSR issues such as human rights or climate change need to meet stricter inclusion criteria than companies with lower risk exposure, which could mean high risk companies need to work harder to meet the criteria and thus display more reactivity.

Second, in line with recommendations to study typologies comparatively (Fiss, 2007, 2011), QCA is used here to study the different configurations of the mechanisms, so that the importance of each of the mechanisms can be evaluated (Fiss, 2011). QCA is an approach that straddles qualitative and quantitative case

study research methods. The mechanisms of interest, which are labelled causal conditions in QCA, are operationalised in a way that emphasises quantitative comparison, as well as grounding in qualitative, substantive knowledge of the individual cases. In this way the analysis sits between the qualitative, inductive approach employed in chapters 4 and 5, and the econometric approach of chapter 7.

The current chapter proceeds as follows: the next section (6.2) will provide an introduction to the QCA method. First developed by Charles Ragin in 1987, QCA has become increasingly sophisticated, developing from analysing dichotomous ‘crisp’ variables to more intricate ‘fuzzy sets’. First an explanation of the basic concepts of QCA and its assumptions is provided. Section 6.2.1 outlines a step-wise procedure for undertaking QCA analysis (Ragin, 1987, 2008; Ragin, 2000; Rihoux & Ragin, 2009).

In section 6.3 the step-wise procedure is applied to the data regarding engagement and reactivity that was described in the previous chapter. Taking the sample of 30 companies, the companies are compared as cases displaying varying levels of performative reactivity, symbolic work and calculative routines. Other organisational characteristics that might play a role in reactivity are also quantified.

Section 6.4 will interpret the five combinations found in the QCA. The five combinations of causal conditions are connected to the ideal types conceptualised in chapter 5. For each combination the significance for the presence or absence of reactivity is examined and interpreted based on the substantive cases.

Section 6.5 concludes with a summary of the main findings of the QCA for the current case study and its implications for further research into typologies and institutional work.

6.2 Fuzzy set QCA

QCA is particularly suitable for examining the causal processes underlying typologies, especially when the data shows signs of causal complexity (Fiss, 2007, 2011), such as outlined in the introduction of this chapter regarding engagement. QCA examines each case as a configuration or combination of different mechanisms, called causal conditions, which might lead to the outcome under study. As a method it is well attenuated to data showing causal complexity, as it can deal with both equifinality and causal asymmetry. Equifinality refers to a situation where “a system can reach the same final state, from different initial conditions and by a variety of different paths” (Katz & Kahn, 1978: 30 in Fiss, 2007: 1181). Thus different combinations of causal conditions may all lead to the outcome under study. The systematic comparison of cases allows a researcher to ‘strip away’ conditions that are unrelated to the outcome (Fiss, 2011: 402), thus simplifying resultant typologies, which allows subsequent theorizing to be strengthened. Causal asymmetry arises when the causal conditions that lead to the outcome of interest are not similar and indeed might be quite different from those conditions leading to the absence of the outcome (Fiss, 2011; Ragin, 2008). Imagine for example, the conditions leading to high financial performance, which are likely to be different to those resulting in low financial performance (Fiss 2011).

QCA is advocated as an approach that can deal with causal complexity due to its assumptions of causality, which are different to those of correlation and regression research (Ragin, 2000; 2008; Rihoux & Ragin, 2009). In particular, it rejects the idea that each variable (or causal condition) has an independent impact on the outcome, in favour of a ‘conjunctural causation’ meaning that several conditions

combined may be present in the outcome (Rihoux & Ragin, 2009: 9).¹⁴ It also rejects the idea that causal effects are uniform, instead causal conditions may sometimes act in favour of the outcome and sometimes act against it, depending on the particular combination with the other causal conditions. Lastly, the idea of causal asymmetry underpinning CQA has already been discussed above.

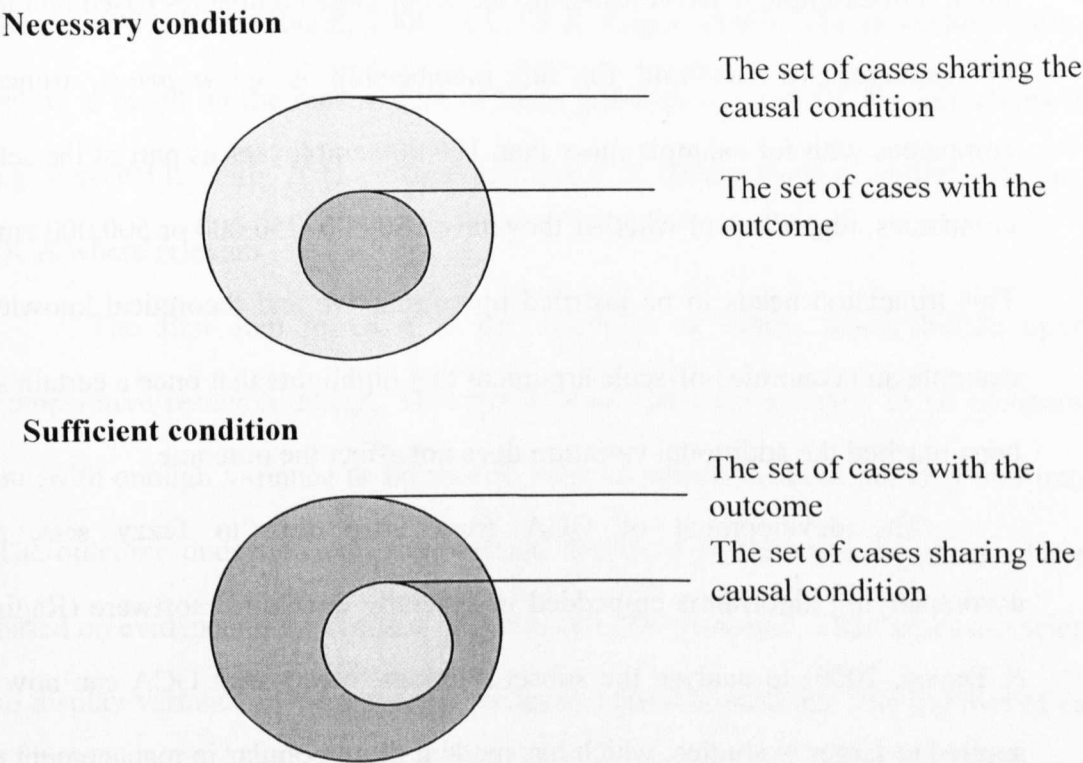
Seawright (2005) has pointed out that QCA remains grounded in strong assumptions regarding specification of the model, treatment of missing variables, and association being treated as causation (Seawright, 2005). Essentially, like regression analysis, the robustness of QCA depends on the right specification of the model, and inclusion of relevant causal conditions. Ragin (2005) stresses that causal inference based on statistical tests is not the goal of QCA, instead the emphasis is on the interpretation of the patterns of conditions and outcomes that may be found through the analysis (Ragin, 2005).

QCA is based on set theory, which considers cases as combinations of conditions that can be grouped into sets rather than variables. A set is made up of cases sharing characteristics or causal conditions, for example the set of rich countries, the set of large firms or the set of companies experiencing breakdown in calculative routines. QCA analysis essentially looks at two different types of subset relations. Studying cases in which a combination of causal conditions forms a subset of the cases displaying the outcome under study, means looking at sufficient conditions. Sufficient conditions may lead to the outcome, but other paths might also be possible. Studying cases which display the outcome to see which causal conditions they share, means looking at necessary conditions. Necessary conditions always need to be present for the outcome under study to be present, and form in

¹⁴ In regression analysis this idea can be modelled using interaction terms, including two-way and three-way interactions. Fiss (2007) argues one of the advantages of QCA is that more complicated interactions can be studied.

effect a superset of the outcome. Figure 6.1 presents the necessary and sufficient conditions argument with a Venn diagram.

Figure 6.1: Venn diagram of necessary and sufficient conditions



Source: Ragin (2008)

QCA was originally developed for small N, qualitative case-studies. The examination of necessary and sufficient conditions was seen as a way to formalise the theorizing in case study research. The early version of the method considered only ‘crisp sets’. Crisp sets are dichotomies: a case can be in or out of the set of cases. Cases are given membership scores: 0 represents non-membership, 1 signals membership. Crisp set analysis has recently been extended to ‘fuzzy set’ analysis, which designates membership scores between 0 and 1, to allow partial set membership. For example, a fuzzy set could assign membership scores of 0 meaning ‘fully out of the set’, 0.33 ‘more out than in’, 0.67 ‘more in than out’ and 1 ‘fully in

the set'. Fuzzy sets are not similar to ordinal scales however, because their calibration (see section 6.2.1) thresholds are informed by theoretical and substantive knowledge rather than relative dispersion around the mean or other quantitative thresholds (Rihoux & Ragin, 2009). Fuzzy sets allow irrelevant variation to be truncated by setting thresholds for non-membership, membership and the cross-over point. For example when considering the set of large companies based on the number of employees, a threshold for full membership is set *a priori*, truncating all companies with for example more than 100.000 employees as part of the set of large companies, regardless of whether they have 150.000, 250.000 or 500.000 employees. This truncation needs to be justified by substantive and theoretical knowledge, for example an economies-of-scale argument that highlights that once a certain scale has been reached the additional variation does not affect the outcome.

The development of QCA from crisp sets to fuzzy sets, and the accompanying algorithms embedded in specially developed software (Ragin, Drass & Davey, 2006) to analyse the subset relations, means that QCA can now also be applied to larger N studies, which has made it more popular in management research (see e.g. Crilly, 2011; Fiss, 2011). It remains a method that is 'half qualitative – half quantitative' (Ragin, 2000; 2008), because it analyses cases in their context, comparing different *kinds* of cases, rather than analysing variables in isolation of from the cases that they describe (Seawright, 2005; Ragin, 2000). As such, it is used here as a bridge between the qualitative and quantitative part of the research. It is particularly useful to analyse which qualitative mechanisms in the conceptual framework and typology are most relevant, and forms a first step in the operationalisation of these mechanisms so that they can be studied quantitatively in the subsequent chapter (see chapter 7). In addition, it allows for multi-level analysis,

connecting data at the organisational level with the meso level (e.g. regarding the FTSE4Good index) and macro level data (e.g. industry sector characteristics). As such the method fits well with the multi-level perspective employed in the research.

6.2.1 QCA step-wise procedure

QCA has been developed and extended by Charles Ragin in several publications (Ragin, 1987, 2008; Ragin, 2000; Rihoux & Ragin, 2009). The procedure outlined below is based on the most recent of these publications and QCA applications (see e.g. Fiss 2011, Crilly 2011), whilst incorporating descriptions of earlier versions of QCA where relevant.

The first step in QCA is the selection of cases, which builds upon a comparative research design. This means that cases are selected to be comparable but with enough variance to be able to infer conclusions about patterns and trends. The outcome under study is first defined and used to delineate the group of cases, based on evidence of an absence or presence of the outcome. Then cases are selected to display variance in their characteristics or causal conditions. The number of cases selected needs to allow for relative in-depth familiarity with each individual case. In turn, the number of causal conditions that can be examined is limited by the number of cases; otherwise it is difficult to find parsimonious explanations that apply across cases (Crilly, 2011).

The second step is calibration of the case characteristics into sets. For each set, the thresholds of full membership, non-membership and fuzzy sets cross-over points need to be made explicit. A combination of crisp and fuzzy sets may be used. Cases are coded in line with the calibration thresholds and this raw data is then sorted into a truth table with 2^k rows, where k is the number of causal conditions used in the analysis (Fiss, 2011). Each row of the truth table lists a different

combination of causal conditions.

In a third step the truth table is analysed to determine subset relations, based on the *number* of cases in each combination and the *consistency* of the combinations in displaying the outcome. The threshold of the number of cases to be considered as an indication of a subset relation is set by the researcher based on the nature of the case study. This decision takes into account the total number of cases and conditions, the degree of precision in calibration etc (Rihoux & Ragin, 2009: 107). The minimum recommended threshold is at least one case with membership scores that are greater than 0.5 in the combination. Consistency assesses the degree to which one set (the set of causal conditions) is contained within another (the set of the outcome; or vice versa). In fuzzy set QCA, larger penalties are given for larger inconsistencies, i.e. large discrepancies between outcome and condition scores.¹⁵ The minimum recommended threshold for consistency is 0.75, but often consistency thresholds are determined by examining the truth table to see where a natural gap between consistency scores of various combinations occurs (see section 6.4).

The next step recommended by Rihoux and Ragin (2009) is the identification of necessary conditions: those conditions that must be present for the outcome to occur. Necessary conditions are relatively rare in social science research, which often shows causal complexity. Thus the next step is the examination of the truth table for sufficient conditions, by reducing it to simplified combinations using

¹⁵ This measure of consistency is based on the following fuzzy-set reasoning: a sufficient condition exists when membership scores in (a combination of) causal conditions are less than or equal to their corresponding membership scores in the outcome. A necessary condition exists when membership scores in the outcome are less than or equal to membership scores in the causal condition. Consistency is then calculated as:

$$\text{Consistency } (X_i \leq Y_i) = \sum (\min (X_i, Y_i)) / \sum (X_i) \text{ for a sufficient condition}$$

$$\text{Consistency } (Y_i \leq X_i) = \sum (\min (X_i, Y_i)) / \sum (Y_i) \text{ for a necessary condition}$$

Where X represents the membership scores for causal conditions, Y the membership scores for the outcome, and 'min' indicates the selection of the lower of the two scores (Ragin 2006).

Boolean algebra and algorithms embedded in the software developed for fuzzy set QCA (Ragin, Drass & Davey, 2006). Table 6.1 outlines the basic Boolean algebra terms used in fuzzy set QCA. The simplification of the combinations of conditions is based on the Boolean logic that when two combinations differ in only one causal condition but display the same outcome, then the causal condition that distinguishes the two combinations can be considered irrelevant and may be dropped from the expression that is used to describe subset relationships (Ragin, 1987: 93).¹⁶

Table 6.1: Boolean algebra terms

Term	Sign	Description	Example
Negation	~	Reverse of membership score: $\sim A = 1 - A$	The negation of the set of large companies (A) is the set of 'not large' companies ($\sim A$)
Logical AND	*	Set intersection: two or more sets are combined by taking the minimum score of each set in the combination	The combination of the set of large companies and of the set of companies based in Europe ($A*B$)
Logical OR	+	Set union: two or more sets are combined by taking the maximum score of each set in the combination	The combination of the set of large companies or the set of companies based in Europe ($A+B$)
Connection	→	The connection between the conditions and the outcome	$A + \sim A*B \rightarrow C$ Large companies or 'not large' companies based in Europe display the outcome C

Source: based on Rihoux and Ragin (2009).

Minimisation procedures in the QCA software also allow for the possibility to take into account logical remainders: combinations of conditions that are logically possible, but not populated with cases. These unobserved cases may be used to

¹⁶ In Boolean terms, the logic of this minimisation procedure is expressed as follows:
if $A * B * C + A * B * \sim C \rightarrow D$ then $A * B \rightarrow D$

minimise the Boolean expression, based on an assumption of their relevance for the outcome. The software enables three solutions to be generated. First, in the complex solution no assumptions are made (i.e. they are not used to minimise the expression because there is no empirical evidence to suggest if they could be dropped or included). Second, in the parsimonious solution all logical remainders are used to simplify the expression (i.e. an assumption is made that all could be dropped or included if empirical evidence existed). Third, in the intermediate solution the researcher examines the logical remainder cases and determines whether to use them in the minimisation based on substantive and theoretical knowledge regarding their link with the outcome.¹⁷ Whilst the inclusion of logical remainders has drawn criticism (Seawright, 2005), the inclusion of some logical remainders is advocated to make the final combinations more parsimonious and therefore easier to interpret. Each remainder should be considered on its theoretical and substantive merit. In the current application, the assumptions made regarding logical remainders relied on substantive knowledge that was validated by tests of necessity (see section 6.4)

The next step requires the evaluation of the consistency and the coverage of the combinations found to be sufficient or necessary for the outcome. Coverage assesses the empirical relevance of the combinations found, so that their relative importance can be determined. When there are several combinations leading to the outcome, the coverage of any given combination may be small (Ragin, 2006). Raw coverage relates to the percentage of cases displaying *both* the outcome and the combination of causal conditions. Cases can display several combinations of conditions, and the unique coverage relates to cases that display *only* the given

¹⁷ Fiss (2011) explains this as follows: consider the case when empirical evidence for $A * B * \sim C \rightarrow D$ exist, but C is not observed in the study. When C is linked to the outcome based on theoretical knowledge, it may be used to simplify the expression to $A * B \rightarrow D$ because whether it is absent and present has no effect on the outcome.

combination and no other. The coverage and consistency scores are used to provide an interpretation of the relative importance of the different combinations leading to the outcome. The combinations of causal conditions that constitute the Boolean expression derived with the software are then interpreted based on the knowledge of the cases (see section 6.5). This constitutes the main aim of the QCA.

In a final step causal asymmetry is analysed by negating the outcome, and the same step-wise procedure is followed to examine the subset relationships (necessary or sufficient) that might lead to an absence of the outcome. In the next section the step-wise procedure is applied to the reactivity and engagement data that were described in the previous chapter.

6.3 Application of QCA to the reactivity data

Whilst the research is in effect a single case study of the FTSE4Good index, the companies that are included in the index and have been in the engagement process with the FTSE RI team can be considered as embedded cases (Yin, 2009). QCA is applied to the data regarding the 30 companies that were selected for interviews which were introduced in the previous chapter. The selection of companies in the interview sample follows the recommendations for good practice for QCA provided by Rihoux and Ragin (2009): there is variance in the outcome (the reactivity of companies towards the index), variance in the conditions (some companies have been in the engagement process, others have not etc), whilst ensuring core comparability (all companies are or have been at one point included in the FTSE4Good index, indicating they are all medium to large size listed companies). Lastly, selecting a maximum of 30 cases ensures that familiarity with the characteristics of each individual case can be retained.

The outcome under study is the extent of performative reactivity towards the FTSE4Good index inclusion criteria. To be able to code this outcome consistently across the 30 cases, the EIRIS data for the FTSE4Good index inclusion criteria (environmental management, protection of human rights, supply chain labour standards, countering bribery and mitigating climate change) were examined.¹⁸ Each of these criteria is divided into three elements: corporate policies, management systems and reporting. EIRIS provides text gradings (for example no evidence, limited/basic, moderate, good, advanced) for each of these elements. The EIRIS text gradings were converted into numerical scores of zero to four. The difference between the earliest available score (mostly consisting of data for the year 2003, but later for some companies and criteria categories) and the latest score (2010) was summed and divided by the number of criteria each company had to meet. The outcome thus represents the average improvement of company scores on the FTSE4Good index criteria. It was decided to average improvement in the QCA because some companies need to meet more FTSE4Good criteria due to the sector or countries they operate in, and using total improvement scores would have skewed the scores towards large companies classified as higher risk for relevant CSR issues. Table 6.2 provides an overview of the calibration of the outcome measure and the causal conditions.

¹⁸ Because of the longstanding partnership between FTSE and Eiris, the FTSE4Good index inclusion criteria and EIRIS database overlap to some extent: when FTSE develops new criteria, Eiris is involved in the criteria design process, as well undertaking the research on the indicators of good practice in the criteria. Whilst the EIRIS database contains information on a broader set of criteria, the FTSE4Good index inclusion criteria can be identified from within this dataset. In total, 16 indicators for the five criteria categories were examined. The indicator for environmental performance was not examined because it is not currently part of the FTSE4Good index inclusion criteria.

Table 6.2: Calibration measures

Set	Description	Data source	Fuzzy set level 0 (no membership)	Fuzzy set level 0.33 (partial membership)	Fuzzy set level 0.67 (partial membership)	Fuzzy set level 1 (full membership)
Outcome:						
Reactivity (REACT)	Average improvement in scores on the FTSE4Good criteria	EIRIS	Improvement score $0 < 0.25$	Improvement score $0.25 < 1$	Improvement score $1 < 2$	Improvement score > 2
Causal conditions:						
Engagement (ENG)	Length (number of months) plus intensity (number of company actions) of engagement with FTSE RI team	FTSE	Engagement score 0	Engagement score $1 < 12$	Engagement score $12 < 18$	Engagement score > 18
Age	Number of years of index inclusion	FTSE	< 3	$3 < 4$	$4 < 7$	> 7
Exclusion (EXCL)	The company has been excluded from the FTSE4Good index for a period of longer than 6 months	FTSE e	The company has not been excluded			The company has been excluded
Symbolic work (SW)	The company communicates on FTSE4Good index inclusion	Corporate documents	The company does not communicate inclusion			The company communicates inclusion
Risk	Impact of the company operations on CSR issue areas based on the FTSE4Good risk classification	FTSE	Classified as low risk for the majority (>3) of criteria			Classified as medium or high risk for the majority (>3) of the criteria

The outcome was calibrated into a set as follows (see also table 6.2):

- A company was coded 0, or fully out of the set, if the average improvement was nonexistent or negligible ($0 > 0.25$ grade improvement in scores).¹⁹
- A company was coded 0.33, or more out than in the set, if the average improvement was limited ($0.25 < 1$ grade improvement in scores, representing a move from an average grading between basic and moderate to moderate for example).
- A company was coded 0.67, or more in than out of the set, if the average improvement was good ($1 < 2$ grade improvement in scores, representing a move from moderate to good for example).
- A company was coded 1, or fully in the set, if the average improvement was extensive (an improvement of 2 grades or more, representing a move from moderate to advanced for example).

In a first run of the analysis, various conditions were coded based on the literature regarding Corporate Social Performance (CSP) and financial performance, such as firm visibility based on media articles mentioning the company (Brammer & Millington, 2008; Brammer & Millington, 2006; Patten, 2002) and organisational size. Larger companies may have more resources to devote to ensuring index inclusion, and many studies identify organisational size as a factor in CSR practices (Crilly, 2011). It is likely that companies which have more visible CSR practices will experience more reputational damage if they are deleted from the index, which is increasingly seen as a standard for good CSR. This makes it more likely that these companies show greater reactivity towards the index criteria in order to remain

¹⁹ Please note the outcome of interest here is the *change* in scores, not absolute scores. Well performing companies considered CSR leaders may be coded into this set if they have not significantly improved their (high) scores).

included. As the number of conditions that can be included in an intermediate N case study with 30 cases is limited (Rihoux & Ragin, 2009), it was decided to focus on the mechanisms described in the previous chapter. This keeps the model as parsimonious as possible.²⁰ Organisational size is implicitly taken into account in the QCA as companies included in the FTSE4Good index tend to be large listed companies. Visibility of CSR practices is incorporated through the analysis of the symbolic work that serves to communicate FTSE4Good inclusion as a certification of good CSR practices (see below). Table 6.2 lists the five causal conditions included in the QCA of the performative reactivity from the part of companies in response to index inclusion and engagement.

The engagement data includes the FTSE archival data, consisting of emails and correspondence between companies and the FTSE RI team, and interview segments related to the engagement process. The FTSE RI team initiates the engagement process when a company that is a constituent of the index does not meet the criteria, due to technical reasons such as company restructuring or because new criteria are introduced. An engagement score was created by counting the number of months from the initiation of the engagement process by FTSE to the company being assessed as meeting the criteria in question; and adding to this score the number of company actions within this period. Company actions consists of actions that company managers take to engage with the FTSE RI team, such as requesting a meeting, providing additional information, or explaining current work in progress. The data were calibrated into a fuzzy set in line with the analysis in the previous chapter: those companies which had not been in engagement were fully out of the

²⁰ Chapter 7 will return to the CSP-financial performance literature, and the logit/tobit analysis employed there will enable the inclusion of control variables such as organisational size. It should also be noted that the move from theoretically informed sets, such as firm visibility, size and location to sets substantively informed by the qualitative analysis in chapter 5 increased coverage scores by 60%.

set, those with extensive engagement over a period of more than 18 months or with a high number of emails or correspondence, were included in the set. Table 6.2 provides the thresholds for calibration into a fuzzy set.

Two proxies were used for the existence of calculative routines within the company, which were described in the previous chapter as the routine practices related to the collection, measurement and aggregation of the data needed for index inclusion. The first proxy, age, refers to the number of years the company has been included in the index. This condition is included in the analysis to examine whether those companies that have been in the index for a longer period of time need to make relatively little improvements in their CSR practices, and their routine practices to maintain index inclusion are stable. For instance, the length of inclusion in the index could have generated learning effects that allows them to effectively accommodate any request for information from the rating agency EIRIS. The thresholds for fuzzy set membership were set at four years (more in than out) and seven years (full membership).

The second proxy for calculative routines, exclusion, refers to the set of companies excluded from the index for longer than six months between 2003 and 2010. Whilst these companies have been excluded first and foremost for not meeting the index criteria, the qualitative analysis shows that one of the underlying reasons for exclusion to occur is a breakdown in calculative routines or a failure to address misfit between calculative routines and the inclusion criteria. In these cases, companies cannot comply with the information request of rating agency EIRIS, because the requested data is not collected internally. This leads to low evaluations by EIRIS, and pressure from FTSE for an improvement in scores, which might lead to exclusion. In all but one case of exclusion the relevant companies regained

inclusion in the index after one to three years, having improved their scores (see the findings in section 6.4).

The use of the FTSE4Good artefacts was coded in the condition labelled symbolic work. Data on the corporate communication regarding FTSE4Good index inclusion and display of the FTSE4Good logo on websites and in CSR reports were gathered in the case summaries that were used as a basis for analysis throughout the research. The companies that consistently displayed the logo or mentioned inclusion in their description of CSR practices, including it in all their CSR reports that were publicly available, were coded as in the set of companies undertaking symbolic work.

Lastly, CSR practices are likely to vary amongst different industry sectors (Jackson & Apostolakou, 2010) and reactivity towards the index might also differ across industries with different risk exposures to issues such as human rights or climate change. The last condition is based on the FTSE4Good risk classifications, which categorises companies based on their risk and exposure to each of the CSR issues addressed in the inclusion criteria. This ensures for example that oil & gas companies need to meet stricter environmental management and human rights criteria than companies in relatively low impact industries such as the financial sector. The FTSE4Good risk categories are based on industry sector, countries of main operations and (for the countering bribery criteria) dealing with government contracts. The condition 'risk' is coded by examining the risk categories assigned by FTSE to each company; when the majority of these categories assigned are for 'high risk', the condition is coded as 1.

Table 6.3 provides an overview of the condition and outcome values for each of the 30 cases.

Table 6.3: Case coding into the sets

Company	Reactivity	Engage ment	Age	Exclu sion	Symbolic work	Risk
1.	1	0.33	1	0	0	1
2.	0.67	0.67	0.33	0	1	0
3.	1	0	0	1	1	0
4.	0.67	0.67	1	0	1	0
5.	0.33	0.33	1	0	1	1
6.	0	0	1	0	1	0
7.	0.33	1	1	0	0	0
8.	1	1	1	0	1	1
9.	0.67	0.67	0.67	0	1	0
10.	1	0.33	0.33	1	1	0
11.	1	0.67	1	0	1	1
12.	0.67	0.33	0.33	1	1	1
13.	0.33	0.67	1	0	0	0
14.	0.67	0.33	0.67	0	1	0
15.	0.33	1	1	0	0	0
16.	0.67	1	0.67	0	1	1
17.	0	1	0.67	1	0	1
18.	1	0.67	0.33	0	1	0
19.	1	1	0.67	1	0	1
20.	1	1	1	0	1	0
21.	0	0	0.33	0	1	1
22.	0	0	1	0	1	1
23.	1	1	0.67	0	1	1
24.	1	1	1	0	1	0
25.	0.67	1	0.67	1	1	0
26.	1	1	0.67	0	1	1
27.	0.33	0.67	0.67	0	0	1
28.	0.33	1	1	0	1	0
29.	0.67	0.33	0	0	1	1
30.	0.67	1	0.67	0	1	1

The data in table 6.3 was transferred into the fuzzy set QCA software to analyse the necessary and sufficient conditions for reactivity to occur. Necessary conditions (those conditions that need to be present for the outcome to occur) are examined first. Both engagement (consistency 0.80; coverage 0.76) and symbolic work (consistency 0.84 and coverage 0.68) can be seen as necessary conditions for the outcome to occur. The scores of these conditions are only just above the threshold for consistency (0.75), therefore other conditions need to be examined.

Both conditions were included in the simplifying assumptions regarding logical remainders as needing to be present for the intermediate solution to be derived. The QCA software was used to derive the truth table with all possible combinations of conditions. In line with recommendations for intermediate N case studies, thresholds to examine sufficiency were set at 1 case displaying the combination. The threshold for consistency was set at 0.87, which is above the minimum threshold of 0.75, and where a natural gap in consistency scores occurred (the next combination achieved a 0.66 score). The software was used to derive the intermediate solution reported in table 6.4, based on the two simplifying assumptions: that the presence of engagement and symbolic work, based on substantive knowledge derived from the analysis in chapter 5 and their necessity scores, are linked to the presence of reactivity. Three combinations were found to be sufficient for reactivity to occur as displayed in table 6.4. Overall coverage (0.80) and consistency (0.90) are high for the solution and the individual combinations, and remain well above the recommended thresholds.

Lastly, causal asymmetry was tested by negating reactivity, thus examining the conditions that lead to an absence of reactivity. No assumptions regarding the presence or absence of conditions were made for this analysis, due to limited substantive or theoretical knowledge upon which these assumptions could be based. Two combinations were found, as presented in table 6.5. Whilst the consistency was still above the recommended threshold (0.81), the coverage was relatively low (0.65). Section 6.5 will discuss the findings and interpret the significance of each of the combinations found.

Table 6.4: Sufficient conditions for the presence of reactivity

	Combination	Raw coverage	Unique coverage	Consistency	Type	No of Cases	Cases
1	Engagement * Symbolic work * ~ Exclusion	0.59	0.29	0.89	Integrative / Ceremonial	13	C2, C4, C8, C9, C11, C16, C19, C20, C23, C24, C26, C28, C30,
2	Engagement * Symbolic work * Risk	0.36	0.02	1.00	Integrative / Ceremonial	7	C8, C11, C16, C23, C25, C26, C30
3	Symbolic work * Exclusion * ~ Age	0.14	0.11	0.95	Autonomous	3	C3, C10, C12

Solution coverage: 0.75

Solution consistency: 0.89

Table 6.5: Sufficient conditions for the absence of reactivity

	Combination	Raw coverage	Unique coverage	Consistency	Type	No of cases	Cases
4	~ Engagement * Symbolic work * ~ Exclusion * Age	0.38	0.38	0.81	Indifferent	4	C5, C6, C22, C14
5	Engagement * ~ Symbolic Work * ~ Exclusion * Age	0.27	0.27	0.82	Reflexive	4	C7, C13, C15, C27

Solution coverage: 0.65

Solution consistency: 0.81

6.4 Discussion of findings

In this section the combinations of causal conditions found in the QCA are explained. First the combinations for the presence of reactivity are interpreted, and then the combinations for the absence of reactivity are discussed. Lastly, the

combinations are matched to the ideal types conceptualised through the qualitative analysis described in chapter 5.

The first combination in table 6.4 shows companies that have been in engagement, undertake symbolic work, have not been excluded from the index, and display reactivity. This combination covers the majority of cases (0.59 raw and 0.29 unique coverage) and is therefore the most important combination for reactivity to occur. This corresponds to the findings in Cobb et al (2007) which highlighted that it is mainly the *threat* of exclusion from the index that sparks changes in CSR practices (Collison et al., 2009). Indeed, it is this potential exclusion that is highlighted by the FTSE RI team when they start the engagement process, as the segment below excerpted from a formal letter sent by FTSE to a company shows:

We are delighted to confirm that [company X] is a valued constituent in the FTSE4Good Index, which is calculated by FTSE Group for investors looking to identify companies who manage their social and environmental risks to internationally recognized good practice standards. [] I am pleased to be able to advise you that, according to our research providers at EIRIS, [company X] has already met some of the supply chain labour standards requirements. However, we have not yet received a reply from your company and still need some further information to make sure that your company meets the deadline requirements and remains in the FTSE4Good Index. This letter is intended to be a timely reminder and request to convene dialogue. (*Letter dated 11-11-2005 from FTSE RI team member F to company X*).

This excerpt from a typical letter sent out by the FTSE RI team to companies which are found not to meet the inclusion criteria in the semi-annual index reviews, shows that the ultimate aim of the engagement process is to keep companies included in the index. This type of request for dialogue is common after new criteria are introduced. Whereas companies who respond positively to requests for more information and discussion are usually granted extended deadlines to meet the criteria, those who do not respond are ultimately excluded. This diplomatically worded threat is generally contained in each official request for dialogue as send out by the FTSE RI team.

Symbolic work, which refers here to the communication of index inclusion by companies through display of the FTSE4Good logo, is likely to strengthen the effect of engagement on reactivity in this combination. Symbolic work makes inclusion more visible to stakeholders, and therefore heightens the reputational damage of potential exclusion.

Combination 2 should be read as: companies that have been in engagement, undertake symbolic work, are in high risk industries, and display reactivity. This combination has an overlap with Combination 1 but highlights that companies classified as high risk in terms of exposure to the issues addressed in the FTSE4Good criteria display reactivity. This corresponds with findings of studies that show the increased risk these companies face with regards to CSR leads them to develop more extensive policies, management systems and reporting (Jackson & Apostolakou, 2010). The risk categorisations developed by FTSE are generally based on data and research of knowledgeable third parties. For instance risk categorisation for the human rights criteria is partly based on a company's operations in what is termed 'countries of concern', including Afghanistan, Burma and Congo, amongst many others. Serious human rights violations are more likely to occur in these countries, which are identified based on data provided by human rights activist groups including Freedom House, Amnesty International and Human Rights Watch (FTSE, 2011). In turn, these categorisations are used by companies to identify high-risk markets:

[FTSE] identify the so-called high risk markets where they think that the companies who operate in these markets need to be providing special attention and additional information on how the [CSR] issues are addressed in these markets. That's clear to me, what the expectations are. And I think it's aligned with our own focus as well because we work with the local risks and opportunities as well (CSR Director C25).

Combination 3 in table 6.4 can be read as: companies that undertake symbolic work, that have been excluded from the index at some point in time, and – due to that exclusion- have not been included in the index for very long (less than four years in total for the period of observation). This combination of characteristics points to the case of companies that have been working towards meeting the inclusion criteria without being supported by the FTSE RI team through the engagement process. This combination of causal conditions shows the interaction between calculative routines and index inclusion. The fact that these companies have not been included in the index for very long could be interpreted as an indication that their calculative routines have not yet been stabilised. A misfit between corporate calculative routines and the index criteria would have led to exclusion in the early years of the index. The calculative routines have to be developed to such an extent that data on relevant CSR practices were collected, commensurated and provided to EIRIS on a regular basis, before these companies could gain re-inclusion:

[The company] was originally part of the FTSE4Good index back in 2003, 2004. And the FTSE indicated a list of issues to be covered in order to stay part of the index. Since in that period the company was reorganising [...] the company exit from the index. But this was due because the company as a whole was reengineering according to this new sustainability model. So the [new] sustainability model started in 2006, and since then the company targeted the FTSE4Good index as well the Dow Jones Sustainability Index (IR Manager C12)

The presence of the outcome of reactivity in these cases shows that these companies are improving their policies, management systems and reporting on the FTSE4Good criteria, as evaluated by EIRIS. Indeed, in all but one case included in the analysis the companies that have been excluded for not meeting the criteria regained entry after a few years. Symbolic work in this case seems to support this move towards reactivity. Exclusion captures the attention of senior management and often sets in motion a process of improvement that is geared towards reinstatement.

The companies that had been excluded from SRI indices reported extensive internal discussions taking place regarding the reasons for exclusion, an event which often drew the attention of senior management. Often this also enabled an increase in subsequent investments to improve relevant CSR practices. This shows the different effects of symbolic work and calculative routines in the absence and presence of engagement.

The raw coverage (all cases that display this combination of conditions) of this type is 0.14 and the unique coverage (the cases that only display this combination and no other) is 0.11, therefore it is clear only a limited number of cases (3) falls into this type. Nevertheless, it shows that whilst the *threat* of exclusion is an effective incentive for reactivity in most cases, for some companies actual exclusion might also work as a catalyst towards improvement in order to regain entry.

In table 6.5 the combinations of conditions that correspond with an absence of engagement are described. Combination 4 should be read as companies that have not been in engagement, which undertake symbolic work, have never been excluded and have been included in the index for a long time. This combination is characterised by an absence of many of the causal conditions of interest in this study. The coverage of this combination (0.38) implies four cases in the sample can be classified as showing no or low engagement and reactivity:

If they [FTSE] said to us ‘Look, we think you’re going to be delisted’, we would obviously have greater dialogue with them around whatever issue it was. So that we could make sure it wasn’t just an omission or a misunderstanding. But assuming we’re pretty comfortable and everything’s going along okay, we wouldn’t really see the need for too much engagement.’ (VP CSR C5)

Lastly, combination 5 can be read as: companies that have been in engagement, undertake no symbolic work, have never been excluded and have been

included in the index for a relatively long period of time. This combination is differentiated from combinations 1 and 2 by cases of engagement that have *not* led to reactivity. This could be interpreted as being caused by the resistance to adapt calculative routines in line with the changing index criteria, which subsequently leads to limited reactivity. Chapter 5 outlined three sources of resistance: the amount of time it takes to engage with every SRI index (a complaint shared by most companies); a perceived misfit between corporate calculative routines and the index criteria or the assigned risk classifications; and a perceived limited use of SRI indices by investors (a complaint less frequently made):

It's not so much that what they're talking about [that] we disagree with; it's a matter of formalising a policy around it. Because a lot of the work has been done, but we just don't have a formal policy to enforce that stuff and there really hasn't been a demand to do that. [] So it's definitely moved us down the road in thinking about it but it's still not a high priority because we don't see much on the shareholder side where people are really looking for that so much. (IR Manager, C15).

Again coverage is relatively high (0.27) but this has been interchanged with relatively low consistency in membership scores in the outcome. Causal asymmetry may account for the lower coverage and consistency scores for the two combinations that correspond with the absence of reactivity. This would mean that the absence of reactivity corresponds to additional causal conditions that are different from those that correspond to the presence of reactivity. These conditions are not identified in the current analysis.

Table 6.4 and 6.5 list the ideal type of organisational response that corresponds with each of the combinations found. In chapter 5 five types of organisational responses were conceptualised: *indifferent*, *autonomous*, *ceremonial*, *reflexive* and *integrative*. Both combination 1 and 2 are broadly aligned with the integrative and ceremonial response type. In the QCA, no distinction can be made

between the two types, because the reactivity measured relates to performative reactivity: changes in CSR policies, management systems, or reporting, as these are adapted to fit the index inclusion criteria. Ostensive reactivity has not been captured here. The integrative and ceremonial types are classified in chapter 5 as displaying high performative reactivity in response to engagement, which corresponds with the first two combinations (1 and 2 in table 6.4) of causal conditions found in the QCA. The majority of companies can be classified into these two types, as is evidenced by the high coverage found for both combinations. The analysis also shows an overlap in the substantive cases covered by each combination: five companies correspond to combination 1 and 2. This finding confirms it is difficult to distinguish integrative from ceremonial responses to index inclusion without an idea of the extent to which shared understandings, or what is labelled ostensive reactivity in chapter 5, are being formed. Combination 3 in table 6.4 corresponds with the autonomous response to index inclusion, which is characterised by an absence of engagement and high performative reactivity. The combination also shows the importance of symbolic work for these companies and shows that the autonomous response may be triggered by index exclusion.

Combination 4 in table 6.5 corresponds to the indifferent type of response to index inclusion, which is characterised by an absence of reactivity and engagement. The indifferent response was conceptualised in chapter 5 to correspond companies that are considered CSR leaders, for which the FTSE4Good criteria were relatively straightforward to meet. This means these companies do not need to engage with the FTSE RI team regarding the inclusion criteria. The QCA shows that these companies nevertheless undertaken symbolic work. Combination 5 corresponds to the reflexive type in chapter 5, which is characterised by a lack of reactivity despite engagement.

The findings show that resistance towards the criteria and engagement efforts temper reactivity in these cases. As shown in combination 5, it also makes these companies more hesitant about the symbolic work associated with index inclusion.

The intermediate number of cases included in the analysis prohibits the use of some of the alternative methods that are recommended by Fiss (2011) and Rihoux and Ragin (2009) to check for robustness of the analysis. Some sensitivity checks can nevertheless be undertaken by recoding the fuzzy sets. Specifically, the sets were recoded from fuzzy to crisp sets by merging the 0.33 into 0 or non-membership and 0.67 into full membership. For example, companies included in the index for longer than three years would be allocated full membership, and those included for shorter periods of time would be allocated no membership. The use of crisp sets lowered coverage and consistency scores somewhat, but did not change the main combinations found or the cases that were classified as corresponding to the combination.

6.5 Conclusion

The QCA analysis of corporate responses towards the FTSE4Good index inclusion process and the engagement by the FTSE RI team shows different configurations of causal conditions that lead to the absence and presence of reactivity. In particular the results show that companies that have been in engagement and communicate on their inclusion in the index account for the largest portion of companies that display reactivity by improving their average scores on the FTSE4Good criteria. However, other paths towards reactivity and the absence of reactivity exist, which broadly correspond with the ideal types developed in chapter 5.

The results confirm that engagement, symbolic work and calculability are

important elements of the institutional work that maintain the index as a standard for good CSR. The reactivity that the index creates is most prevalent for companies that have been in engagement and undertake the symbolic work associated with being included in the index, such as display of the FTSE4Good logo. The comparative case analysis employed here substantiates the different types of institutional work, such as engagement and symbolic work, and connects these directly to processes of institutionalisation and diffusion. As such it is able to identify patterns of institutional work and generalise their meaning across cases embedded within the overall case study of the FTSE4Good index. The QCA also provides a methodology to analyse the interaction between different types of work and the effect of this interaction on the presence or absence of reactivity. It highlights causal complexity is an important aspect of the study of institutional work, as each the different types of work undertaken do not have linear effects, but interact with each other to create intended and unintended consequences.

The analysis reveals a dynamic over time, as performative reactivity is seen to be higher in cases where the inclusion in the index is relatively new. The dynamic identified shines a different light on two-stage models of adoption of new practices by organisations, according to which early adopters seek technical gains from adoption, but later adopters are primarily interested in the social benefits of appearing legitimate (Kennedy & Fiss, 2009; Tolbert & Zucker, 1983: 879; Westphal, Gulati, & Shortell, 1997). This two-stage model has drawn criticism, as it might not always be possible to empirically or substantively separate economic/technical motivations and social motivations for adoption (Kennedy & Fiss, 2009). In a study that examines decisions of adoption and implementation of new practices over time, Tilcsik (2010) points out that professionalization and

routinisation might lead to tighter coupling of organisational practices over time (Tilcsik, 2010). In the current case early adopters (those companies included in the index for more than seven years) are seen to be less reactive to the index criteria and engagement activities. Early adopters are likely to have in place more extensive and stable calculative routines, as this enables their early entry into the index. This could indicate that performative reactivity gives way to ostensive reactivity over time, as the continued index inclusion provides opportunity to create more stable understandings of the importance of CSR through calculative routines. However it was not possible to capture ostensive reactivity in the QCA, as it is difficult to quantify this cognitive construct in a meaningful way.

The analysis has successfully operationalised various other qualitative mechanisms found in chapter 5 into a mix of qualitative and quantitative proxies to test the typology. At the same time, this operationalisation has also pointed to one of the limitations of QCA when applied to intermediate N case studies: the restriction that is placed on the number of conditions that can be studied. The next chapter will address this issue through a larger N study that is able to control for a number of additional organisational characteristics, such as financial performance and organisational size.

7. Reactivity towards the Countering Bribery criteria

7.0 Chapter summary

In this chapter the reactivity of companies towards the one of the FTSE4Good criteria categories, namely the countering bribery criteria, is examined. Two multivariate models are operationalised to test the effect of engagement by the FTSE RI team, the effect of the symbolic work by companies; and the effect of corporate calculative routines, on the corporate practices for countering bribery and corruption as measured by EIRIS. The findings show that, even when controlling for various aspects of firm financial performance and other confounding variables, engagement, symbolic work and calculative routines increase the likelihood of high quality corporate practice for countering bribery and corruption. The chapter provides a novel analysis of the impact of engagement, based on quantitative methods.

7.1 Introduction

The analysis in this chapter switches from an inductive to a deductive approach, as it proceeds to test hypotheses derived from the conceptual framework developed in chapters 4, 5 and 6. In chapter 4 it was found that a complex set of activities is needed to sustain the FTSE4Good index, which can be summarised as calculative framing, engagement and valorising. In chapter 4 the main unit of analysis was formed by the activities of FTSE Group and their collaborating partners in the design and maintenance of the index. Chapter 5 focused on the activities of companies included in the index as the main unit of analysis. It found that the reactions of companies towards the index differed on the basis of their engagement with the

FTSE RI team, as engagement provides an opportunity to develop deeper reactivity, based on both performative and ostensive elements. The analysis also highlighted the different uses of symbolic work by companies, and the importance of fit between corporate calculative routines and the calculative framing done by FTSE. The typology of reactions to index inclusion and engagement was confirmed in the QCA analysis in chapter 6. The QCA also provided an opportunity to operationalise and test the concepts of engagement, symbolic work and performative reactivity in a ‘half-conceptual, half-verbal’ way (Ragin, 2008; Ragin, 2000).

The analysis in the current chapter builds on the concepts developed in chapters 4 and 5, and extends the operationalisation of chapter 6 in two ways. First, compared to the QCA, the larger sample employed here enables the inclusion of an important set of control variables as specified in the literature on Corporate Social Performance (CSP). For example, it is likely that organisational characteristics such as size, financial performance and risk exposure of firms in different industries influence CSP (Orlitzky et al., 2003). These variables can be included in the analysis through the econometric models employed in this chapter. Second, CSP is a multifaceted concept (Carroll, 1979, 1991; Carroll, 2000), which has been captured in the empirical literature in different ways (see section 7.2.1 below for the different ways of capturing CSP as commonly used in the literature). In this chapter the analysis is concentrated on corporate policies and practices designed and implemented to counter bribery and corruption, for example through corporate policies restricting facilitation payments or whistle-blowing procedures. Company performance on this issue is thus treated as a subset of CSP, as countering bribery practices become a part of the global CSR agenda (Osuji, 2011).

The chapter is organised as follows: section 7.2 will provide a brief overview

of the two relevant sets of literature on CSP and corruption. The extensive field of work on the relationship between CSP and financial performance has been reviewed in several meta-analyses. Section 7.2.1 will focus on the main findings of the meta-analyses (rather than the studies upon which they are based) and their implications for the current analysis.

Section 7.2.2 provides an overview of studies that have linked bribery and corruption to CSR. Compared to the literature on CSP, this set of literature is relatively underdeveloped and disconnected, owing to the differences in dominant theoretical perspectives used.

Section 7.3 outlines the model tested in the analysis. The qualitative work on engagement, symbolic work and calculative routines is restated into formal hypotheses regarding their impact on countering bribery practices.

Section 7.4 describes the methods employed in the study. Whilst Ordinary Least Squares (OLS) regression is often employed in CSP analysis, the nature of the data on CSP often means Tobit and ordinal choice models are more suitable. These models can handle censored and ordinal data respectively.

Section 7.5 provides the findings. A Tobit model is first estimated for an aggregate score for countering bribery practices. Then, a logit model estimates the scores for policies, management systems and reporting respectively. The findings show the significance of index inclusion, engagement, symbolic work and calculative routines.

Lastly, a brief conclusion is provided in section 7.6, outlining the implications for the current case study and further research.

7.2 Measuring Corporate Social Performance and corruption

The literature on CSP is characterised by empirical and theoretical models that aim to capture and define CSR so that it can be measured, and so that CSP can be effectively compared across different units of analysis, such as companies, industries or countries. In effect, most of the debate on CSP has focused on trying to find definitions and proxies that allow the commensuration of different aspects of CSR into the single concept of CSP. For example, in one of the most widely cited and comprehensive models, Wood (Wood, 1991; Wood, 2010) defines CSP as a configuration of principles of social responsibility, processes of social responsiveness, and policies, programs and observable outcomes as they relate to the firm's societal relationships (Wood, 1991: 693).

The empirical studies of CSP have mainly focused on the relationship between CSP and financial performance (Wood, 2010). The literature examining the form and extent of this relationship is vast and ever growing. Margolis and Walsh (2003) found 127 studies published between 1972 and 2002, Orlitzky et al (2003) reviewed 52 studies, Alouche and Laroche (2005) 82 studies, and finally Margolis et al (2007) reviewed 167 studies (Alouche & Laroche, 2005; Margolis et al., 2007; Margolis & Walsh, 2003; Orlitzky et al., 2003). The findings of these meta-analyses are reviewed in section 7.2.1. Subsequently in section 7.2.2 a review is provided of recent attempts to integrate the literature on CSP and corruption.

7.2.1 Corporate Social Performance in empirical research

Whilst empirical studies of the relationship between CSP and financial performance have found positive, negative and indifferent findings, the most recent meta-analyses (Margolis et al., 2007; Orlitzky et al., 2003) find evidence to suggest a positive correlation between CSP and subsequent financial performance on the whole. The

meta-analyses also point to various issues related to the econometric models employed in the empirical studies. The first issue that the meta-analyses bring up is the direction of causality between CSP and financial performance. The second issue concerns the operationalisation of the concepts of CSP and financial performance. The third concern is the presence of confounding variables.

The direction of causality between financial performance and CSP can be explained by two opposing theoretical arguments. The 'slack resources argument' considers that firms with good financial performance have the funds available to engage in CSP (McGuire, Sundgren, & Schneeweis, 1988; Waddock & Graves, 1997). The 'good management argument' on the other hand considers firms with good CSP have high quality management, which may lead to comparative advantage and higher financial performance (Waddock & Graves, 1997). The meta-analyses provide evidence to support a bidirectional relationship (Alouche & Laroche, 2005; Margolis et al., 2007; Margolis & Walsh, 2003; Orlitzky et al., 2003). Nevertheless, most empirical studies treat CSP as an independent variable, predicting financial performance (Margolis & Walsh, 2003).

Operationalisation of both financial performance and CSP measures varies widely in the empirical literature. Both market-based measures (such as share price appreciation) and accounting-based measures (such as return on assets or equity) are used to measure financial performance. Whilst CSP appears to be more highly correlated with accounting-based measures than market-based measures, attention must also be paid to appropriate theoretical matching between the CSP and financial performance measure (Wood & Jones, 1995). As Orlitzky et al (2003) explain: Accounting returns are subject to managers' discretionary allocations of funds to different projects and policy choices, and thus reflect internal decision-making

capabilities and managerial performance rather than external market responses to organisational (non-market) actions (Orlitzky et al, 2003: 408). Following this logic, externally focused CSP measures should be matched with external financial performance measures and vice versa.

Not surprisingly considering the debates regarding the (in)commensuration of CSR and CSP, an even greater number of measures exist to capture CSP. Margolis et al (2007) distinguish nine categories representing specific dimensions of CSP and different approaches for capturing CSP. Some studies isolate specific aspects of CSP, such as charitable donations (Brammer & Millington, 2005; Brammer, Pavelin, & Porter, 2009), environmental performance (Chatterji & Toffel, 2010) or the existence of CSR policies or reporting. In addition, different data sources are used to capture CSP, such as surveys, ratings and third party assessments. With regards to the latter two categories, it appears that the use of the ratings compiled by *Fortune* Magazine has given away to an increasing use of the Socrates database of assessments compiled by (what was formerly) Kinder Lydenberg and Domini (KLD). Of the 167 studies identified by Margolis et al (2007), which were published between 1972 and 2007, 15 used the *Fortune* ratings to construct CSP measures, whilst 23 used KLD data. Notably, in this meta-analysis only one study was identified that used the EIRIS database (Brammer, Brooks, & Pavelin, 2006).

The third issue identified in the meta-analyses is the presence of moderator variables that influence the relationship between CSP and financial performance. Four confounding variables have been identified: organisational size, financial risk, industry sector and innovation. Firm size may be a confounding variable because larger firms may have greater resources for CSP, attract greater pressure to engage in

CSP, or conversely, have more difficulty coordinating efficient CSP (Wu, 2006). The meta-analyses have found little evidence of a decreased correlation between CSP and financial performance when size was controlled for (Allouche & Laroche, 2005; Margolis et al., 2007; Wu, 2006), suggesting both small and large firms may benefit from CSP (Orlitzky, 2008). CSP has also been linked to lower financial risk, decreasing the fluctuations in financial performance over time (Orlitzky & Benjamin, 2001). The causality between risk and financial performance is likely to be bidirectional, and more strongly correlated with market-based measures of risk (Orlitzky & Benjamin, 2001). CSP is likely to vary across industries as they face different impacts, growth rates, scrutiny and regulation (Griffin & Mahon, 1997; Margolis et al., 2007). Lastly, the relationship between CSP and financial performance may be confounded by the level of innovation and wherever possible, investments in R&D should be controlled for (McWilliams & Siegel, 2000; McWilliams & Siegel, 2001).

Corporate practices regarding countering bribery and corruption form a subset of CSP, and should not be mistaken for the whole (Carroll, 2000). The relationship examined here is not one in which financial performance is the dependent variable, to be explained by CSP. Rather the analysis examines the reactivity towards the FTSE4Good criteria as the dependent variable, to be explained by the institutional work that constitutes the index. Nevertheless, it is likely that the confounding variables in the CSP-financial performance relationship also influence the relationship and outcome examined here. Therefore the analysis includes a number of control variables that aim to address the issues raised above (see further section 7.4).

7.2.2 Bribery and corruption

Government corruption and its risks for multinational companies have been studied extensively in the field of international business studies, specifically in recent decades of globalisation and the opening up of new markets and economies (Rodriguez, Siegel, Hillman, & Eden, 2006). Researchers have tried to identify causes of government corruption and examined the consequences for the inflow of Foreign Direct Investment (FDI) (Rodriguez et al., 2006; Wei, 2000). Another strand of literature in this field identifies firm level strategies for dealing with corrupt governments, especially upon entering a new market, such as avoidance, adjusting entry modes or developing codes of conduct to deal with issues of corruption and bribery (Doh, Rodriguez, Uhlenbruck, Collins, & Eden, 2003).

As international attention to the problems of government corruption increases, data on country level corruption has become more widely available. The World Bank has been collecting data regarding governance issues, including the control of corruption, in its Worldwide Governance Indicators since 1996. Transparency International, an international non-profit network, launched the Corruption Perceptions Index (CPI) in 1995. The CPI ranks almost 200 countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys. Compared to country-level data, firm level data on corruption is more difficult to gather. To collect this data researchers often rely on surveys of managers' perception of doing business in particular countries and environments. The World Bank surveys measure firms' perceptions of, and their experiences with corruption. But the use of these surveys has been criticised for not taking into account nonresponse or false responses to the politically sensitive questions around corruption (Jensen, Li, & Rahman, 2010).

Whilst the study of corruption in the field of international business is maturing, limited progress has been made to connect this research to the literature on CSR and CSP. Some early work within business ethics discussed bribery from a philosophical stance (see e.g. D'Andrade, 1985; Jonsson, 1985). Effective integration of the literature on business ethics and business studies seems hampered by significant differences in conceptual and empirical frameworks employed (Doh, Husted, Matten, & Santoro, 2010a). Despite various calls for integration of the streams of literature (see special issues for the *Journal of International Business Studies* (2006, vol. 37) and the *Journal of Business Research* (in press), effective integration of CSP concepts and firm strategies to counter corruption seems difficult to achieve. Only one of the studies published in these special issues explicitly links corruption and CSP, the latter being defined as comprising of charitable contributions and corporate ethical codes of conduct (Luo, 2006). Based on a sample of companies operating in China, Luo concludes that multinationals that have ethical codes in place tend to use arm's length bargaining to deal with the government, whereas those without codes have a greater propensity to use social connections to deal with governments (Luo, 2006).

The limited progress made in the integration of CSR research and research on countering corruption might be explained by the conceptualisation of CSR as 'actions that appear to further some social good, beyond the interests of the firm and that which is required by law' (McWilliams & Siegel, 2001), which has generally dominated in research on CSR (Gond, Kang, & Moon, 2011). In this view countering corruption and bribery would fall within the spectrum of activities that are regulated rather than voluntary, and should therefore not be considered to be part of CSR. Indeed, a number of national regulations exist to combat corruption, such as

the Foreign Corrupt Practices Act in the US and the newly introduced Bribery Act in the UK. International conventions include the OECD Anti-Bribery Convention and the United Nation Convention against Corruption. At the same time, numerous 'soft' regulation instruments have also been developed in recent years, including the Global Compact principles (principle 10 refers to corruption), the World Economic Forum Partnering against Corruption Initiative, the World Bank's Voluntary Disclosure Programme and others.

The development of these types of corporate self-regulation in the area of corruption and bribery has ensured that 'corporate involvement in foreign official corruption has clearly emerged as a component of the CSR debate and agenda' (Osuji, 2011; Doh et al, 2010a) and many multinational corporations have developed codes of conduct, policies for training staff and extensive remedy procedures such as whistle blowing policies. The FTSE4Good Countering Bribery criteria were developed in light of these developments (FTSE, 2006) (and conversely are also cited as evidence of the self-regulatory instruments that integrate corruption into the CSR agenda (see Osuji, 2011: 49). An examination of the effects of the introduction of the FTSE4Good criteria in 2006 for companies with high risk of exposure to corruption thus provides an opportunity to explore this emerging element of the CSR and CSP agenda further.

7.3 Conceptual framework

The empirical analysis in this chapter integrates the literature on corruption, CSR and CSP in a novel way. Building on the analysis in previous chapters, the reaction of European companies towards the FTSE4Good countering bribery criteria is examined based on the EIRIS scores for countering bribery practices. This section

outlines the hypotheses that are being tested regarding engagement, symbolic work and calculative routines.

7.3.1 Engagement

Compared to screening approaches to SRI, engagement by SRI investors with corporate managers is a more recent phenomenon, and the literature on engagement by SRI investors is still underdeveloped (Vandekerckhove, Leys, & Van Braeckel, 2007). Investor engagement concerns the exercise of ‘voice’, through dialogue with management, rather than ‘exit’, the sale of company shares when concerns arise (Hirschmann, 1970). Whilst engagement may escalate into shareholder activism, such as filing shareholder proxies, most engagement takes place behind closed doors in discussions with management (e.g. see Southwood, 2003). A few case studies have described the processes and strategies used by investors in the engagement process (Gond & Piani, forthcoming; Vandekerckhove et al., 2007). Most of this work is linked to the stakeholder salience model outlined by Mitchell et al (1997), which defines power, legitimacy and salience as essential attributes of stakeholders (Mitchell, Agle, & Wood, 1997). Investors that have these attributes are more likely to be taken seriously by corporate managers (Mitchell et al, 1997). Whilst individual investors might not have enough salience to influence corporate management, collective action by investors, such as that encouraged by the PRI in its ‘Engagement Clearinghouse’ is designed to overcome collective action problems and strengthen the impact of engagement on corporate management (Gond & Piani, forthcoming).

The FTSE RI team can use the salience of SRI investors and their capital indirectly, as exclusion from the FTSE4Good index would lead to divestment of the relevant companies by index tracker funds. However, since this capital is dispersed among many different companies, the main salience of the engagement process by

the FTSE RI team is focused on the damage to corporate reputation that might result from an exclusion from the index. In a study of the Calvert Index, Doh et al (2010) found that whilst the addition of firms to an SRI index can generally be viewed as conferring an external endorsement of CSP, the reputational effect of exclusion is particularly significant (Doh et al., 2010b). A survey of firms included in the FTSE4Good index also confirmed the fear of being excluded as a motive for improvements in CSP (Collison et al., 2009).

Furthermore, the engagement process by the FTSE RI team is designed to keep the index stable by diminishing the turnover of included companies. New criteria for index inclusion are announced one to two years in advance. Those companies that have not met the criteria by the stated deadline are subsequently drawn into the engagement process. The FTSE RI team engages in dialogue with companies that are under threat of being excluded, in order to provide advice and guidance with regards to the criteria. In the dialogue corporate managers are given an opportunity to provide further information regarding the state of corporate practices on countering bribery. Firms that are able to provide evidence that they are working on the issue, for example by providing training modules that are in development, are usually given extra time to meet the inclusion criteria. Conversely, after a certain amount of time those firms that are non-responsive to the dialogue are excluded from the index. Thus, the engagement process is designed to improve corporate practices up to the standard that allows continuous index inclusion. As a result, it is predicted that:

Hypothesis 1: Companies that have been in engagement by the FTSE4Good RI team are more likely to have better countering bribery practices than those who have not been in engagement.

7.3.2 Symbolic work

The relationship between symbolic work and CSR is complex, echoing aspects of impression management, signalling, reputation and framing. Fiss & Zajac's (2004) study of German firms' orientation to shareholder value found that firms that proclaim to have a shareholder value orientation might in fact be less likely to implement structural changes commensurate with such an orientation, compared to firms who don't make such announcements (Fiss & Zajac, 2004). Other studies suggest that the public announcements of corporate governance actions, such as stock repurchase programmes or long-term incentive plans, were frequently decoupled from implementation (Westphal & Zajac, 1994; Westphal & Zajac, 2001).

On the other hand, the studies that examine the effects of rankings, rather than voluntary corporate actions such as those described by Westphal, Fiss and Zajac, show that reactivity towards rankings is closely related with reputation, perceptions of organisational identity and communication of status (Sauder, 2006, 2008a). The discipline exerted by external metrics such as rankings is strengthened through their ubiquitous nature in organisational communications. These studies also show that the organisations which are on the top of most rankings make less use of rankings, league tables and other sources of status, such as accreditation, in their communications, compared to those organisations ranked lower in the league tables (Quin Trank & Washington, 2009). Communication regarding SRI indices serves the role of signalling the accreditation or certification of good CSR practices to various audiences, including, but not limited to investors (Doh et al, 2010b). The analysis in chapter 4 highlighted how the symbolic work of companies and the normative associations of NGOs and consultants converged to valorise the index as a CSR standard. With regards to two US based CSR ratings, Scalet and Kelly (2009) find

that most firms don't communicate about negative events that lead to an exclusion from ratings, which they interpret to mean that ratings do not encourage firms to acknowledge and address negative CSR events (Scalet & Kelly, 2009). This interpretation seems to be a bit of a stretch of their findings based on a small sample media study. Studying exclusions from ratings and indices also doesn't take into account the potential effects of the engagement work that takes place before exclusion as highlighted above.

FTSE has encouraged the symbolic work of included companies by designing a specific logo for the index and giving companies permission to use this logo in their communications. All such communications using the logo need to be approved by FTSE to ensure they are appropriate. The logo is widely used in annual CSR communications such as CSR reports: in the sample it was observed for 288 out of 494 observations of companies that were included in the index. It is hypothesised that this communication strengthens the reputation effect of index inclusion, to the extent that companies which undertake symbolic work are more likely to react to changing index inclusion criteria, in order to avoid exclusion. In sum, it is predicted that:

Hypothesis 2: Companies that undertake symbolic work are more likely to have better countering bribery practices than companies who don't undertake this work.

7.3.3 Calculative routines

The reaction of companies to the introduction of new index inclusion criteria is likely to be moderated by the existence of calculative routines: the routine practices that allow a company to gather data from its various departments and subsidiaries, aggregate this data and report on the relevant issue in a format that is compatible

with the rating agency's request in a timely fashion. Calculative routines are related to CSR reporting practices, but differ in the sense that a calculative routine relates to the practices and tools used in the process of information gathering and calculation, rather than the content of the actual reporting itself.

The number of companies that publicly report on CSR issues has increased in recent years: it is reported that of the 250 largest global companies, 95 percent now report on their CSR activities, representing an increase of more than 14 percent compared to 2008 (KPMG 2011), as stakeholders, including SRI investors, want to know more about company practices with regards to CSR (Doh et al, 2010b). Hockerts and Moir (2004) document how the majority of detailed CSR information is exchanged through the questionnaires of rating agencies (Hockerts & Moir, 2004). Their qualitative study of 22 companies shows how Investor Relations departments can act as boundary spanners between different departments to gather the information. The questionnaires are also used to point out gaps in current CSR policies and programmes as identified by the rating agencies, and to scan the horizon for emergent issues that SRI investors are concerned about (Hockerts & Moir, 2004). Gond and Herrbach argue that the design and implementation of corporate social reporting procedures may lead to dynamic organisational changes through learning processes (Gond & Herrbach, 2006). Wood (2010) refers to this as 'environment scanning': the gathering of the information needed to understand and analyze the firm's social, political, legal, and ethical environments, in order to anticipate emerging issues and improve subsequent CSP (Wood, 2010: 54). It is hypothesised that stable calculative routines of good quality facilitate the information exchange between firms and rating agencies, leading to higher ratings on CSP. Thus, it is predicted that:

Hypothesis 3a: Companies that have calculative routines in place are more likely to have better countering bribery practices than companies who don't have such routines in place.

On the other hand, there are no mandated standards for CSR reporting. As companies are free to report what they like, the increase in reporting does not necessarily facilitate calculative routines that fit with the information requests from SRI investors and rating agencies. In fact, Chatterji and Toffel (2010) show that firms who have an initial poor rating on environmental performance, increase their performance more than firms who are highly rated (Chatterji & Toffel, 2010). This could mean that firms who have an initial poor rating have failed to communicate effectively with rating agencies, and subsequently work harder to improve both calculative routines and CSP. This corresponds with the findings of the QCA in chapter 6, which found companies experiencing a breakdown in calculative routines showed extensive reactivity towards the FTSE4Good criteria as they worked towards getting reinstated in the index. Similarly, Terlaak (2007) argues that lower performing companies will obtain greater efficiency gains from codified management standards, whilst higher performing companies will obtain gains from the certification attached to codified management standards (Terlaak, 2007). Whilst the FTSE4Good index is not a certified management standards, the research results presented in previous chapters show it is often treated in similar ways by CSR managers. Thus, it predicted that:

Hypothesis 3b: Companies that don't calculative routines in place are more likely to have better countering bribery practices than companies who do have such routines in place.

7.4 Methods

The FTSE4Good Countering Bribery criteria were introduced in 2006. All companies that face a potentially high risk of being drawn into bribery to some degree need to meet the criteria to be included in the index. A company is considered to be at high risk when it is operating in industry sectors such as oil & gas production, mining or pharmaceuticals, operating in countries with a high (perceived) risk of bribery as determined by the Transparency International Corruption Perceptions Index and the World Bank Governance Indicators, and if it is involved in any way with public contracts or needs a government licence to operate (FTSE, 2010). Appendix C lists the high risk categorisation and criteria indicators in full. To meet the criteria, companies need to have a policy that prohibits giving or receiving bribes, commits to obeying all relevant laws and addresses facilitation payments, giving and receiving gifts. Companies also have to have a management system that includes communication of the policy to employees, training of relevant employees, compliance mechanisms (e.g. audits), internal reporting mechanisms (e.g. hotline or whistle-blowing procedures) and procedures to remedy non-compliance. Finally, both the policy and compliance mechanisms need to be publicly disclosed. The deadlines to meet these three elements of the criteria were spread out between July 2006 and January 2008.

For this study's sample, all European companies that were categorised as high risk for the countering bribery criteria were selected. Forty percent of companies in the sample were included in the FTSE4Good in the observation period; for the sixty percent that were not included, data regarding countering bribery practices could still be gathered from the EIRIS database, and these companies act as

the control group.²¹ The selected companies represent a variety of industries within the high risk category. The panel is unbalanced due to mergers, acquisitions etc. The total sample includes 254 companies and 789 observations. The observation period began in 2007 and ended in 2010. Table 7.1 summarises the measures used in the study.

Table 7.1: Measures used in the study

Dependent variable	Description	Data source
Countering Bribery score total	Summed score for quality of policy, management system, reporting	EIRIS
Countering Bribery policy score	Ordinal score for the quality of the policy	EIRIS
Countering Bribery management system score	Ordinal score for the quality of the management system	EIRIS
Countering Bribery reporting score	Ordinal score for the quality of the reporting	EIRIS
Independent variables		
Engagement (binary)	The company is in dialogue with FTSE RI team about its countering bribery practices	FTSE
Engagement (ordinal)	The intensity of the engagement with the FTSE RI team	FTSE
Symbolic Work	The company communicates its inclusion in the FTSE4Good index	Corporate documentation
Calculative Routines	The company uses the GRI to report on CSR practices	GRI Database
Control variables		
Size	Log employees	Datastream
Financial Performance	Return on Assets	Datastream
Risk	Long-term Debt/Total Assets	Datastream
Intangibles	Intangible assets/ Total Assets	Datastream
Industry	ICB classification (supersector)	FTSE/EIRIS
UK	Dummy variable indicating a company is listed in the UK	FTSE/EIRIS

²¹ These companies are in the eligible universe to be included in the index, but do not meet either the technical criteria (free float, market cap); the other FTSE4Good inclusion criteria; or the exclusion criteria (e.g. companies involved in production of weapon systems). They are classified by EIRIS as operating in environment with high risk for corruption and bribery

7.4.1 Measures

Dependent variable. The aim of the study is to test the reactivity of companies towards to FTSE4Good countering bribery criteria. The dependent variable is the quality of corporate countering bribery practices, as rated by EIRIS. Whilst the EIRIS database is used less frequently compared to the KLD Socrates database it can be used here to track reactivity towards the FTSE4Good criteria because of the co-development of the FTSE4Good criteria and EIRIS ratings. Data regarding new Countering Bribery criteria started to be collected by EIRIS from 2006 onwards, and data exists for most companies categorised as high risk from 2007. The data for 2007 is therefore taken as a baseline in the study. The data covers anti-bribery policies, management systems and reporting, corresponding to the FTSE4Good criteria elements. These three elements are rated by text grades: no evidence, limited, intermediate, good and advanced. In line with previous use of the EIRIS database by Brammer and Millington (2008), the text gradings are converted into numerical scores (Brammer & Millington, 2008). Because the number of companies rated good is low (N=10 for policy, N=9 for management systems), the categories of good and advanced are merged into one. As companies need to meet 'intermediate' grade in order to be included in the FTSE4Good index, this still provides enough information for the analysis.

The analysis first employs a summed score of the scores for policy, management system and reporting, and subsequently the disaggregate scores. Subsuming CSP into one aggregate score has been criticised as theoretically and empirically unsound (Griffin & Mahon, 1997). Here the aggregated score is less problematic because it measures only one aspect of CSP. Furthermore, based on their survey Cobb et al suggested that the main impact of the FTSE4Good index

concerned transparency through increased reporting by companies (Collison et al., 2009). The disaggregate scores are examined to determine if there is a difference in the reactivity towards the criteria elements of policy, management system or reporting.

Independent variables. Two measures of *engagement* are created from various FTSE archival sources. First, data regarding the compliance (meet/not meet) of European companies with the countering bribery criteria were extracted from the FTSE archives. As highlighted above, companies are not automatically deleted from the index when they do not meet the countering bribery criteria by the stated deadline. Instead, they have the opportunity to enter into engagement with the FTSE RI team. Only if a company is not responsive to the opportunity for discussion, or it is clear that it cannot or does not want to meet the criteria, it will be deleted. As the index is updated twice a year, two data points from the FTSE archives exist for each year in the period of observation. A company is coded 1, 'in engagement', if at one or two of these data points it does not meet the countering bribery criteria, but continues to be included in the index. It is coded 0 otherwise.

The second measure is an ordinal measure of the intensity of engagement, which is based on the FTSE archive of correspondence with companies regarding the countering bribery criteria. The number of months the company is in engagement and the number of company actions (e.g. sending more information, requesting a meeting etc) are counted and summed. Engagement is coded 'low' for the 1st quartile (≤ 6); 'medium' for the 2nd quartile ($7 \leq 15$), and 'high' for the 3rd and 4th quartile (>15) of the scores generated by coding the correspondence. This coding makes sense substantively: for example a 'low' engagement score means the engagement lasted less than six months, which is the time between two index reviews, and the

company undertook relatively little action. The ordinal measure reflects the fact that more intensive engagement can be characterised by a flurry of company actions, a prolonged period in which engagement takes place, or both.

The measure of *symbolic work* was created by examining the CSR reports of the companies in the sample that were included in the FTSE4Good index. Stand-alone CSR reports and, where no stand-alone CSR report was published, sections of annual reports reporting on CSP were examined for the period between 2006 and 2010 were examined. Symbolic work was coded 1 if the company included the name or logo of the FTSE4Good index in its reporting, and 0 otherwise.

Data regarding *calculative routines* were collected from the Global Reporting Initiative (GRI) Sustainability Disclosure database. The GRI Sustainability Reporting Guidelines have become the de-facto standard for meaningful, high quality CSR reporting (Etzion and Ferraro 2010). First introduced in 1999, the guidelines have gone through various updates and consist of detailed, industry specific guidelines for reporting on CSR indicators. Version 3.1 of the Guidelines includes recommendations for disclosure on bribery and corruption. Therefore, companies using the GRI criteria are considered to have high quality calculative routines in place. In 2011, approximately 790 companies worldwide have reported the use of the GRI Guidelines to the GRI Secretariat. The most current database of GRI users²² was downloaded from the GRI website. A company is coded 1 if it has reported to use the GRI, and 0 otherwise, for each of the years in the observation period.

Control variables. The reactivity of companies towards the FTSE4Good countering bribery criteria may also be influenced by firm characteristics, such as

²² Dated 12 October 2011. For downloads see <http://database.globalreporting.org/>

organisational size, financial performance, industry sector, financial risk and firm investments in R&D or branding. Table 7.1 summarises the control measures used in the study. Financial data were taken from Datastream. Organisational size was controlled for by taking the natural logarithm of the number of employees. An accounting-based measure of financial performance, return on assets, was used to match this internal, managerial measure of financial performance with the corporate countering bribery practices, which are also essentially based on managerial discretion (see the discussion in Orlitzky et al, 2003 referred to above). The long-term debt to total assets ratio was taken as a proxy for financial risk (Waddock & Graves, 1997). Data on intangible assets, including goodwill, patents, copyright etc, was also collected from Datastream to control for R&D expenditures, as recommended by McWilliams and Siegel (2001).

The industry sectors represented in the sample were restricted to those considered high risk for encountering bribery and corruption as per the FTSE classification (see appendix C). The number of industry sectors represented in the sample was coded following the Industry Classification Benchmark, which is used by FTSE. Two industry sectors (finance and consumer services) represented less than 5% of the sample, and were dropped after the Transparency International Bribe Payers index results for industry sectors were examined (Transparency International, 2011). The financial and consumer services sector had above average scores in the Bribe Payers index, according to which companies in these two sectors are less likely to pay bribes. The selected control group, the technology sector, also has above average scores in the Bribe Payers index. Thus, the two industry sectors that were dropped were at relatively lower risk for encountering corruption and bribery, and the remaining sectors in the analysis were at high risk compared to the control group.

Lastly, a dummy variable was created to control for companies based in the UK. Within Europe, the UK can be considered to have the most advance regulation regarding corruption and bribery in the form of the UK Bribery Act (Osuji, 2011). Section 7 of the Act introduces a preventative duty and criminalizes failure to prevent bribe payments by associated persons unless a commercial organisation proves the existence of adequate procedures. Whilst the introduction of the UK Bribery Act was delayed and it only came into force in 2011, consultations regarding the act first started in 2002 and 2005. Therefore, companies in the UK could have improved their countering bribery practices in anticipation of the forthcoming regulation.

7.4.2 Analysis

Two models are estimated: the first model aims to measure the impact of the independent variables on the quality of countering bribery practices as a whole, and the second model breaks down the countering bribery practices into its three constitutive elements. The total Countering Bribery score is censored in the sense that it can only have values between zero and nine, and cannot take negative values. This means a censored regression technique is necessitated since ordinary least squares (OLS) estimation can provide both biased and inconsistent parameter estimates (Greene, 2008; Greene & Hensher, 2010). The most commonly adopted solution to these types of data is to estimate a Tobit model by maximum-likelihood. The Tobit model is suitable when the dependent variable is zero for a nontrivial proportion of the sample, and roughly continuously distributed over the positive values (Greene, 2008). Here a pooled Tobit was estimated for the first model. A pooled model effectively ignores individual effects to explore situations in which the main interest is in the effect of an intervention (the introduction of the Countering

Bribery criteria), the cases do not constitute a random sample of the population and the panel is unbalanced (Fiss & Zajac, 2006; Hsiao, 1985: 1182-1183; Petersen, 1993).

The second model looks at disaggregated scores to examine the impact of engagement, symbolic work and calculative routines on the separate elements of corporate policy, management system and reporting. The disaggregation of the different dimensions is considered good practice in research on CSP, because the multidimensionality of the concept presents difficulties for the aggregation into a single variable (Griffin & Mahon, 1997). The Tobit analysis in model 1 aggregates scores related to just one dimension of CSP, countering bribery practices, and therefore the potential for bias is likely to be small. Nevertheless, an analysis of the disaggregated scores is undertaken to examine the extent to which the separate elements of the scores are affected. For example, this model allows an examination of the separate effects of engagement on policy, management systems and reporting. As companies need to address these three elements separately to be included in the index, an examination of disaggregated scores also makes senses substantively.

The disaggregated countering bribery scores represent ordinal scales, and therefore an ordinal choice model is estimated in model two. Ordinal choice models are particularly suitable to analyse data that consist of ratings, which can be ordered from low to high, such as the EIRIS data. Ordinal choice models map an underlying, naturally ordered scale to a discrete, ordered observed outcome (Greene & Hensher, 2010). In this case, the EIRIS text gradings are taken to map the unobserved continuous outcome of the quality of countering bribery practices by assigning fixed scale ratings (from basic to advanced) to observable outcomes. The most commonly used ordered choice models are based on a standard normal distributions (the probit

model) or a standardised logistic distribution (the logit model). The logit model is estimated here because its interpretation is more straightforward than the probit model.²³

As the data contain repeated observations of firms, year effects were included in both models, and they were estimated with robust standard errors. Finally, all independent and control variables were lagged by one year in order to avoid reverse causality. This also makes sense substantively as the results of engagement, symbolic work and calculative routines are likely to lead to improved scores in the next (yearly) research cycle as undertaken by EIRIS.

7.5 Empirical results

The models were estimated using Stata 11. The descriptive statistics are provided in table 7.2, including the correlations between all variables used in both models. Table 7.3 provides the results of the Tobit model predicting total countering bribery scores. The results support the view that engagement, symbolic work and calculative routines are positively correlated with the quality of corporate countering bribery practices. Model 1a includes the binary engagement variable, which indicates whether a company is in engagement or not. Model 1b and 1c include the ordinal engagement variable that indicates the intensity of engagement.

²³ Probit models were also estimated, leading to similar results. Whilst coefficients in the logit model are roughly 1.8 times as large as in the probit model, these differences can be diminished by examining partial effects (Greene & Hensher, 2010). Exponentiated logit coefficients can be interpreted as odds ratios (see further section 5.3), which is not the case in the probit model. Therefore the results of the logit model are presented here.

Table 7.2: Descriptive statistics

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1.Countering bribery total score	3.93	2.25												
2.Countering Bribery policy	1.72	0.95	0.92***											
3.Countering Bribery Management system	1.45	0.92	0.93***	0.8***										
4.Countering Bribery reporting	0.75	0.65	0.79***	0.59***	0.62***									
5.Engagement (binary)	0.09	0.29	-0.01	0.05	0.03	-0.13***								
6.Engagement (ordinal)	0.16	0.58	-0.02	0.04	0.02	-0.15***	0.9***							
7.Calculative routines	0.33	0.47	0.39***	0.33***	0.36***	0.35***	-0.04	-0.04						
8.Symbolic work	0.24	0.43	0.38***	0.32***	0.39***	0.28***	0.18***	0.17***	0.28***					
9.UK-based	0.38	0.48	-0.15***	-0.1***	-0.14***	-0.16***	0.04	0.02	-0.31***	-0.09***				
10. Size	9.59	1.69	0.44***	0.43***	0.42***	0.3***	-0.04	-0.05	0.32***	0.17***	-0.39***			
11. Intangibles	0.74	0.92	0.10**	0.07*	0.13***	0.05	0.01	0.00	0.15***	0.12***	0.02	0.04		
12. Risk	0.76	1.13	0.07**	0.04	0.07**	0.06*	0.07**	0.04	0.1***	0.13***	-0.1***	-0.06***	0.13***	
13. ROA	7.37	10	0.05	0.04	0.07*	0.02	0.01	0.02	-0.03	0.05	0	0.07**	-0.03	-0.06***

legend: * p<0.05; ** p<0.01; *** p<0.001

Table 7.3: Tobit regression analysis predicting total countering bribery scores

	Model 1a	Model 1b	Model 1c
Engagement (binary)	0.65*** (0.20)		
Engagement low		0.48 (0.29)	
Engagement medium		1.23*** (0.35)	1.18*** (0.35)
Engagement high			0.43 (0.29)
Calculative routines	0.96*** (0.16)	0.93*** (0.16)	0.95*** (0.16)
Symbolic work	1.31*** (0.17)	1.31*** (0.17)	1.34*** (0.17)
UK	0.49** (0.16)	0.45** (0.16)	0.48** (0.16)
Size	0.63*** (0.05)	0.63*** (0.05)	0.63*** (0.05)
Intangibles	0.14* (0.07)	0.14* (0.07)	0.14* (0.07)
Risk	0.03 (0.07)	0.04 (0.07)	0.05 (0.07)
ROA	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Oil & Gas	1.26*** (0.32)	1.31*** (0.32)	1.26*** (0.33)
Basic Materials	-0.04 (0.32)	0.00 (0.32)	-0.03 (0.32)
Industrials	0.57* (0.29)	0.61* (0.29)	0.57 (0.29)
Consumer goods	-0.38 (0.35)	-0.34 (0.35)	-0.36 (0.36)
Health care	1.63*** (0.35)	1.66*** (0.35)	1.61*** (0.35)
Telecommunications	-0.31 (0.33)	-0.17 (0.33)	-0.28 (0.34)
Utilities	1.11** (0.38)	1.17** (0.38)	1.14** (0.38)
2008	1.25*** (0.22)	1.25*** (0.23)	1.29*** (0.22)
2009	1.63*** (0.22)	1.64*** (0.22)	1.65*** (0.22)
2010	1.73*** (0.22)	1.74*** (0.22)	1.73*** (0.22)
N	806	806	806
pseudo-likelihood	-1551.17	-1550.68	-1551.34
Pseudo R2:			
McFadden	0.13	0.13	0.13
McKelvey & Zavoina's	0.46	0.46	0.45

* p<0.05, ** p<0.01, *** p<0.001

Consistent with Hypothesis 1, the findings show that index included companies that have been in engagement are more likely to have better countering bribery practices, than those companies not included in the index. The results support the view that the FTSE RI team is able to successfully convince companies to improve their CSP after the introduction of new index inclusion criteria. Model 1b and Model 1c show the results for the ordinal engagement variable, which measured the intensity of engagement. It shows the effect of medium engagement is the strongest, whereas at a lower and higher level of engagement the effect becomes weaker and drops below the significance level. This makes sense substantively, as companies in engagement are likely to need time to implement policies, adjust management systems or improve reporting, in order to meet the criteria. Those that are in protracted dialogues are less likely to ultimately improve their practices. This suggests there is an optimum period of effective engagement (between 7 to 15 months), after which the dialogue is less likely to lead improved CSP practices regarding bribery and corruption

The results also confirm significant coefficients for the symbolic work of communicating index inclusion, supporting Hypothesis 2. Companies that undertake symbolic work, by communicating about their inclusion in the index, are more likely to have better countering bribery practices than those are not included and don't undertake this work. The finding supports the idea that the index is used as a de-facto certification of good CSR practices as discussed in chapter 4 and 5 (see also Doh et al, 2010b). The symbolic work strengthens the reputation damage that would ensue from being excluded from the index. At the same time, when FTSE introduced new criteria, this is taken as a signal that the relevant issue has become part of the CSR agenda and needs to be addressed accordingly.

Regarding calculative routines, support is found for Hypothesis 3a, as companies that have calculative routines in place, as measured by the use of GRI, are more likely to have high quality countering bribery practices. Care should be taken in interpreting the proxy used for calculative routines in this analysis, as the GRI standard is an open standard that might be used in various ways. In addition, companies might develop their own high quality reporting routines if they feel the GRI standard does not accommodate their needs. In chapter 6 it was found that companies that have been included in the index for a long time, show limited reactivity towards the inclusion criteria. The results from the Tobit analysis shine more light on this dynamic: it shows that if good calculative routines are in place, information regarding new index inclusion criteria is more easily gathered and reported to the rating agency, resulting in higher scores. In other words, companies with developed calculative routines based on GRI are more prepared for the introduction of new inclusion criteria. The finding shows that using standardized templates for transparency and reporting on CSR lead to higher evaluations by external rating agencies. This suggests the quality of calculative routines is an important variable impacting CSP, and should be taken into account in models concerning CSP in general.

Lastly, the results show that within the industries at high risk for countering bribery there are differences in the responsiveness towards the countering bribery criteria, with significant effects found for the oil & gas and healthcare sectors, and the utilities and industrial sectors to a lesser, but still significant extent. In addition, larger firms with greater intangible assets, such as strong branding or R&D, are more likely to improve their countering bribery practices. Companies based in the UK are more likely to have high quality countering bribery practices compared to their

European counterparts. All year effects are significant and increasing (albeit at a diminishing rate), suggesting that companies are more likely to have better countering bribery practices in the years following the introduction of the new inclusion criteria by FTSE. Two measures of pseudo R^2 are reported: McFadden's pseudo R^2 and McKelvey & Zavoina's R^2 . These have no connection to the proportion of variation explained (as in OLS regressions), because the independent variable in the model is unobserved, but are reported as indicators of the comparative strength of the model specifications.

Table 7.4 reports the results of the ordinal choice model that examines the effect on the disaggregated countering bribery scores for the quality of relevant corporate policies, management systems and reporting practices. Overall, the results are similar to model 1, and support the view that engagement, symbolic work and calculative routines increase the likelihood of better countering bribery practices and reactivity towards the FTSE4Good index. The significant effects broadly correspond with those found for countering bribery practices overall, with the exception of the effect of engagement on reporting of countering bribery practices. This can be explained by the fact that the reporting requirements for the FTSE4Good countering bribery criteria consist only of two indicators: both the relevant corporate policy and compliance mechanisms (e.g. audits) need to be publicly disclosed. Companies with more extensive reporting, which includes for example reporting on the training of employees, disclosure of details of risk assessments or reporting on the systems for the appointment and remuneration of agents, receive higher scores for reporting practices. But as the FTSE4Good requirements cover the basic level of reporting only, the results show that companies in engagement are not more likely to have good or advanced scores for reporting.

Table 7.4: Ordinal logit analysis predicting disaggregate scores

	Model 2a (Policy)	Model 2b (Man. Systems)	Model 2c (Reporting)
Engagement (binary)	0.50* (0.21)	0.74*** (0.21)	0.21 (0.23)
Symbolic work	1.09*** (0.19)	1.53*** (0.20)	1.20*** (0.20)
Calculative routines	0.84*** (0.18)	0.82*** (0.18)	1.18*** (0.21)
UK	0.66*** (0.17)	0.49** (0.17)	0.34 (0.19)
Size	0.60*** (0.05)	0.54*** (0.05)	0.55*** (0.07)
Intangibles	-0.01 (0.08)	0.10 (0.08)	0.22* (0.09)
Risk	0.01 (0.06)	0.04 (0.06)	0.14 (0.08)
ROA	-0.00 (0.01)	0.01 (0.01)	0.00 (0.01)
Oil & Gas	0.69* (0.31)	0.46 (0.33)	2.52*** (0.32)
Basic Materials	-0.41 (0.27)	-0.14 (0.31)	0.44 (0.32)
Industrials	0.33 (0.26)	0.23 (0.30)	0.34 (0.32)
Consumer goods	-0.32 (0.30)	-0.60 (0.33)	0.11 (0.41)
Health care	1.19*** (0.32)	1.32*** (0.39)	2.01*** (0.40)
Telecommunications	-0.32 (0.34)	0.06 (0.36)	-1.65*** (0.38)
Utilities	0.81* (0.36)	0.62 (0.36)	1.20** (0.39)
2008	1.00*** (0.22)	0.71*** (0.21)	1.33*** (0.24)
2009	1.29*** (0.22)	1.03*** (0.21)	1.75*** (0.23)
2010	1.37*** (0.22)	1.16*** (0.21)	1.86*** (0.24)
N	806	806	806
pseudo-likelihood	-835.45	-832.83	-590.61
McFadden R-square	0.18	0.19	0.26
Count R-square	0.53	0.52	0.69

* p<0.05, ** p<0.01, *** p<0.001

As in the Tobit model, there are differences between scores for industry sectors. In the ordinal choice model these are mainly significant for the reporting of

countering bribery practices, indicating that companies in the oil & gas, healthcare, telecommunication and utilities industries have more extensive reporting on countering bribery practices (but don't necessarily have better policies or management systems). Finally, large companies are more likely to have high quality countering bribery policies, management systems and reporting. The pseudo R^2 are reported here to examine the fit of the model are McFadden's pseudo R^2 and the Count R^2 . The latter can be used in ordinal choice models to examine whether the model predicts the correct outcome category.

The interpretation of the coefficients in table 7.4 is more complicated than in OLS or Tobit models. There is no functional mean and the outcome variable is unobserved. Neither the sign nor the magnitude of coefficients is informative (Greene & Hensher, 2010). Instead, odds ratios can be calculated holding the other variables in the model constant. Table 7.5 lists the odds ratios for the significant variables in table 7.4.

Table 7.5: Odds ratios

Variable	Countering Bribery Policy Odds Ratio	Countering Bribery Management systems Odds Ratio	Countering Bribery Reporting Odds Ratio
Engagement (binary)	1.61	2.13	
Calculative routines	2.26	2.14	2.96
Symbolic work	2.97	4.40	2.97
UK-based	1.95	1.76	1.65
Size	1.74	1.49	1.34
Intangibles		1.19	1.40
Risk			1.14

Table 7.5 show the odds for companies obtaining good to advanced scores versus basic to intermediate scores. For example, the odds for companies in engagement to have higher vs. lower scores on management systems is 2.13 times greater, holding the other variables constant. The engagement effect is strongest for scores on management systems. The results also show the relatively high odds of obtaining high scores for companies with calculative routines and undertaking symbolic work across all criteria elements, whilst the effect of the control variables is less strong.

Various additional analyses were carried out to support the robustness of the approach. First, an analysis of endogenous variables was carried out. Both engagement and symbolic work depend on index inclusion: if a company is not included in the index it cannot communicate its inclusion nor will it be engaged into dialogue with the FTSE RI team. Instrumental two-stage regression analysis was carried out to control for potential endogeneity, which estimated the effect of index inclusion in the first stage regression. The coefficients of this estimation were subsequently included in the second stage analysis. The results of the two-stage regression were similar to the results presented here in terms of significance of variables, whilst the effect of engagement was stronger in the two-stage model.

Second, the lag structure was changed to examine the possibility that the effect of engagement, calculative routines and symbolic work on countering bribery practices might take a longer time and found similar results with a two year lag between the dependent and independent variables.

Finally, a modification of the EIRIS ratings was tested, by recoding the text gradings of 'no evidence' and 'limited' as 0, and the grading 'intermediate', 'good/advanced' as 1, creating a dichotomous variable measuring the quality of

countering bribery practices. A binary logit model was used to examine the recoded independent variables of policy, management systems and reporting, which found broadly similar results. This recoding affects the engagement variable to the extent that the effect on policy scores becomes more significant ($p:0.001$), and the effect on reporting becomes negative and significant ($p:0.05$). Again, this can be explained by the requirements of the FTSE4Good criteria for reporting countering bribery practices, where in effect a 'limited' score is required. The results of the robustness tests are reported in Appendix D.

7.6 Conclusion

The effect of the introduction of the FTSE4Good countering bribery criteria in 2006 is estimated for all European (including UK) companies categorized as high risk for encountering bribery and corruption. The findings show that, even when controlling for various aspects of firm financial performance, engagement is significant and positively correlated with the quality of corporate practices for countering bribery and corruption as evaluated by EIRIS. Companies which have been in engagement, communicate about their inclusion in the index, and have calculative routines in place, are more likely to have better practices for countering bribery and corruption. These effects are strongest for engagement that has a medium level of intensity, taking place over a period of 7-15 months. An examination of the scores for the separate elements of the countering bribery criteria shows engagement has a significant positive effect on management systems, a less strong but still significant positive effect on corporate policies, but no effect on reporting regarding bribery and corruption.

Building on the operationalisation of measures for engagement, symbolic

work and reactivity developed in chapter 6, this chapter successfully applies the model of reactivity developed in previous chapters on a larger sample of companies. To date, no studies have systematically evaluated the impact of SRI engagement on responsible corporate practices through large N studies. SRI engagement is a relatively recent phenomenon, compared to the traditional screening approaches to SRI. In addition, data on the impact of engagement is difficult to obtain. The sensitive and non-public nature of most engagement processes prohibits effective data gathering and measurement of impact by researchers. The analysis presented here is based on unique access to the FTSE4Good engagement archives. It shows an engagement approach has the potential to improve responsible corporate behaviour. Further research could examine the impact of engagement on a wider scope of CSP measures, including issues such as environmental management or the work of companies in the protection of human rights in countries where they operate. The significant effect of engagement on responsible behaviour found in the current study strengthens the call for research on SRI that extends beyond questions of financial performance, towards an examination of the antecedents of CSP as well as the outcomes of SRI approaches on society as a whole (for a further discussion see chapter 8).

The analysis also signals the crucial role of calculative routines and their material dimension, which is examined here as the communication of index inclusion through display of the FTSE4Good logo. Companies with high quality calculative routines find it easier to comply with requests for information regarding new index inclusion criteria. Well developed internal structures and processes allow for efficient data gathering and commensuration, which is needed to answer any new questions posed by rating agencies. Upcoming issues are also more easily integrated

in existing structures. The significant effect of the symbolic work associated with index inclusion on countering bribery practices reinforces the view that valorising from the part of companies forms an integral part of the institutional work that turns the index into a de facto standard for good CSR. It also serves as a reminder that the material dimension of institutional work should not be neglected, but should be incorporated in further analysis of institutionalisation and institutional work.

A number of limitations to the current analysis are acknowledged. For example, the relatively short time span of the observation period (2007-2010) tells us little about incremental changes that might occur in the wake of engagement. Future work could analyse responses to index inclusion and engagement over longer periods of time. More importantly, the analysis in chapter 6 indicated the presence of causal complexity in the model of institutional work for reactivity. In the regression analyses interaction effects are not taken into account. Instead, the effect of each of the types of work is studied separately, whilst holding the other variables constant. Future research could incorporate interaction effects through QCA with larger samples, as QCA is better able to handle complex interaction effects (Ragin, 2008).

Countering bribery practices form only one part of the spectrum of activities, processes and structures that make up good CSP. Further work needs to be done before the findings might be generalised to other areas of CSR. For example, what is the role of regulation and voluntary initiatives in areas such as the protection of human rights or labour standards in the supply chain? The current analysis also isolated the companies identified as being at high risk for encountering bribery and corruption. FTSE4Good index criteria, such as the environmental management criteria and human rights criteria, also identify low or medium risk companies. Further research could identify whether the companies which face lower risk are

more or less likely to respond to index inclusion and engagement.

Lastly, the current analysis examined only performative reactivity towards the FTSE4Good index criteria, as measured by higher EIRIS evaluation for corporate policies, management systems or reporting practices. In chapter 6 it was highlighted that it is difficult to distinguish between symbolic and integrative responses to index inclusion based on performative reactivity. The ostensive element of reactivity, as evidenced in shared understandings of the importance of CSR, also needs to be examined in order to differentiate the two responses. Symbolic responses by companies which do not walk the talk are most likely to be evidenced in improved scores on 'talk': corporate policies and reporting practices. The analysis however found the most significant effect of engagement related to improved management systems. This suggests, in accordance with the previous analysis in chapters 5 and 6, that engagement has the potential to generate more substantive responses to the index.

8. SRI indices and responsible corporate behaviour: conclusion and discussion

8.0 Chapter summary

This chapter provides a summary of the research findings, and highlights their significance with regards to the institutional work for reactivity and its impact on organisational behaviour. The contributions of the research to the literature on SRI and CSR, reactivity and institutional work are discussed. Furthermore, implications of the research are identified for the management of the SRI indices and the governing of responsible corporate behaviour through metrics. Lastly, the limitations of the research are discussed and suggestions for the further study of metrics are provided.

8.1 Introduction

Whilst engagement has become a more popular strategy for responsible investors in recent years, there is limited academic research on the impact of engagement on organisational behaviour. In addition, little is known about how metrics for responsible investment, such as SRI indices, are used within companies to achieve organisational change. The research has filled these gaps in the literature through a mixed-methods case-study of the FTSE4Good index.

The research shows how the FTSE4Good index has become an integral part of international accountability standards that have emerged in the CSR field (Waddock, 2008a, 2008b). Three types of activities underpin this trend: first, the work by FTSE and EIRIS to frame the criteria and measure compliance; second, the

engagement activities with companies and third parties (e.g. NGOs) by the FTSE RI team; and third, the valorising by companies and third parties of the index as a de facto CSR standard. As the bar for inclusion in the index is continuously raised, companies react by adjusting their behaviour in line with the index criteria. Reactivity may take place at the performative level, as evidenced in adjustments in corporate policies, management systems or reporting regarding CSR. Reactivity may also take place at more substantive levels, when a deeper shared understanding of important CSR issues is created through index inclusion and engagement. This deeper understanding is referred to as ostensive reactivity. This conceptualisation of reactivity is dynamic, and organisational response may range from indifferent (showing limited reactivity) to integrative (showing extensive performative and ostensive reactivity), and various types of response in between these two extremes. The engagement dialogue between the FTSE RI team and included companies is the main mechanism to create reactivity. Other mechanisms are the extent of corporate calculative routines, and the use of the symbols, such as the FTSE4Good logo, to communicate inclusion to external and internal stakeholders.

In this chapter the research findings briefly summarised above will be further discussed and related to the current state of literature and research on SRI, institutional work and metrics. As set out in the Introduction to this study, the research has two aims: first, to develop and apply a conceptual framework that articulates the mechanisms whereby SRI indices influence responsible corporate behaviour; and second, to identify how the effect of metrics may be captured and used in a positive way to guide and improve CSR practices. Both aims will be addressed in the discussion of the research findings (section 8.2 and 8.3) and the implications of the findings for practitioners and further research (section 8.4).

The chapter is structured as follows: the next section (8.2) provides a summary of the main research findings. This section shows how an integrative perspective on the institutional work for reactivity work may be used to examine the impact of SRI indices on responsible corporate behaviour.

Section 8.3 relates the findings to the different strands of literature that were touched upon in the research. Section 8.3.1 discusses the findings in the light of the current theoretical developments in the literature on SRI, and its implications for the study of Corporate Social Performance (CSP), which partly overlaps with the current discussion in the research on SRI. Section 8.3.2 discusses how the research findings may be used to further the research on metrics and reactivity outside of the context of SRI and CSR. Section 8.3.3 discusses how the institutional work perspective may be broadened to include an emphasis on micro-practices that are connected to macro institutional processes through different forms of agency.

Section 8.4 draws out the implications of the research for practice and further research. Section 8.4.1 discusses how SRI indices may effectively be used to improve the responsible behaviour of companies. Lastly, section 8.4.2 discusses the limitations of the approach used in the study and considers how these might be overcome in further research.

8.2 Discussion of the research findings

The research set out to answer two core research questions: first, what is the institutional work that is needed from all involved parties to create and maintain the FTSE4Good index, and second, how and to what extent does this institutional work channel reactive organisational responses to the index? In this section the research

findings related to these two questions are discussed, following the order in which they were presented in the empirical chapters 4-7.

8.2.1 The institutional work of index creation and maintenance

The analysis of the institutional work of index creation and maintenance shows that a wide range of political, normative, cognitive, and material practices are involved in turning the FTSE4Good index into a standard for responsible corporate behaviour. These practices are clustered into three types of institutional work: calculative framing, engaging, and valorising. These types of institutional work are grounded in theory, as outlined in Figure 2.1, and in data, as exemplified in table 4.2 to 4.5.

Calculative framing relates to the creation and calculation of the rules that frame the practices of adopters, in this case the companies included on the FTSE4Good index. It entails defining the appropriate attributes of 'good CSR', rendering these aspects visible to external inspection and opening up the possibility of sanctioning non-compliance (Brunsson & Jacobsson, 2000; Power, 1997). In doing so, this type of work comes close to what has been identified as 'systemic power' (Foucault, 1979), that is a form of power that is exerted through seemingly disinterested routines and practices (Déjean et al., 2004; Leca & Naccache 2006). The research shows that calculative framing is constituted by both cognitive and material practices such as mimicking of existing templates and converting analogies into new templates, as well as defining and commensurating various measurement categories and qualitative data into one metric. This complex work required new skills and knowledge. As an established index provider, FTSE had previously relied on second-order measurement: taking existing calculations (e.g. share prices) and aggregating these into measures such as stock indices (Power 2004). The creation of the FTSE4Good index required much more extensive first-order measurement, in

terms of classifying relevant CSR practices and creating the rules that would translate qualitative information into quantities.

The development of these skills and knowledge acquired through the calculative framing work provided FTSE with the opportunity to actively shape the behaviour of companies included in the index. The calculative framing work created a ‘programme’ (Miller & Rose, 2008): the idea that corporations could be incentivised to behave in accordance with CSR norms through the means of index inclusion. The FTSE4Good index became the corresponding ‘technology’, the instrument that was used to examine, assess and reward good CSR practices. The research findings show how a system of measurement can play a key role in institutionalisation processes (Hasselbladh & Kallinikos, 2000). By building on existing international standards regarding aspects of CSR such as human rights or labour standards, the FTSE4Good index standardised and diffused prevailing norms regarding what constitutes responsible corporate behaviour in the international domain. At the same time, the reputation of FTSE as an established organisation in the financial market helped develop the legitimacy of the SRI market, especially in the UK.

The calculative framing undertaken by FTSE needs to retain the balance between incentivising improvements in responsible corporate behaviour through raising the bar for index inclusion, and keeping the index stable and attractive for investors by minimising the turnover of included companies. This balance is partly achieved through framing any new index criteria so that they are ‘challenging but achievable’ for approximately 40% of the companies eligible for index inclusion. This is achieved through careful categorisation of companies according to risk and impact, and identification of the number and scope of criteria indicators for these

categories. But calculative framing also needs additional types of institutional work in order to be successful: engaging work plays an important role in maintaining the balance between the two objectives of the programme.

Engaging work refers to work that serves to create the knowledge and expertise needed to legitimate the index and monitor the behaviour of the included companies. Both the literature on standardisation (e.g. Brunsson & Jacobson, 2000) and governmentality (Rose & Miller, 2008) stress the importance of expertise in legitimising the work of standard setters and rating organisations. The engaging work is constituted of the work of acquiring expertise on subject matters related to CSR, here labeled convening, as well as the work needed to disseminate the acquired knowledge to the companies in the index, here labeled educating. Convening serves to create collaborative arrangements (Dorado, 2005) with third party organisations that have expertise in issue areas related to CSR, such as countering bribery and corruption, or protection of human rights. Successful convening work triggers the creation of new practices, technologies, and rules that diffuse beyond the boundaries of a given collaboration (Dorado, 2005; Lawrence, Hardy, & Phillips, 2002: 282). Working with expert third parties to develop new FTSE4Good index criteria ensures that the inclusion criteria effectively translate ongoing concerns regarding CSR into calculative measures for the SRI market. Because these concerns and issues are complex and multi-faceted, convening is an appropriate way to define institutional arrangements that aim to contribute towards solving these problems (Dorado, 2005).

Educating work serves to provide the knowledge gathered through calculative framing and convening to the companies included in the index. This work was originally aimed at simply communicating the introduction of new inclusion criteria. However with the introduction of the new environmental management

criteria in 2003 it became clear that more work needed to be done to ensure enough companies could comply with the new criteria and remain in the index. Educating serves to counteract the idiosyncrasies of calculative framing, as the framing is to a large extent prospective, and its outcomes unforeseen at the time of introduction of new criteria. The interaction between the FTSE RI team and companies ensures that circumstances which may be unanticipated at the time of framing can be taken into account in the subsequent evaluation of company performance against the criteria. These circumstances may include differences in national regulation that obstruct or hamper compliance with international standards, for example the restrictions on freedom of association and collective bargaining in China. The latter are core ILO labour standards and included in the FTSE4Good human and labour rights criteria. Through the educating work knowledge can be provided to companies on how to deal with these complex situations.

The engaging work serves an important role in the institutionalisation of new CSR practices that are framed through the index, as it provides companies with the resources and support that are needed to implement new practices (Lounsbury 2001). Institutional accounts of the diffusion of new practices often focus on the role of the state, professional organisations or social movements (Edelman, 1992; Lounsbury, 2001, 2002). The research findings confirm that organisations which create metrics may also aid diffusion processes (Wedlin, 2007; Sauder, 2008). However, the findings also point to the fact that calculative framing needs to be accompanied by engagement work in order to be successful. Intermediaries such as NGOs and CSR consultants are drawn in through engaging work and provide knowledge, expertise and a source of legitimacy to the index. The work carried out by these intermediaries enhances the aura of expertise that legitimises the index in the SRI field and

contributes to the monitoring of companies' behaviour at the same time (Kerwer, 2005; Seidl, 2007).

Valorising is the third type of institutional work identified, and refers to the infusion of values beyond the technical requirements (Selznick, 1949; 1957) of the index. The normative associations of third parties and companies have shifted from regarding the index as purely an instrument for SRI to it also being a standard for good CSR. The index has been co-opted, first by companies, and gradually by consultants and NGOs, as a *de facto* certification for CSR, and as such has become infused with additional value beyond its technical requirements as a product for investors (Selznick, 1949; 1957). In subject areas where assessment of capabilities is complex and uncertain, third party signaling conferred through accreditations, certifications and ratings influence the assessment of what it means to be a capable organisation with regards to the given area, and therefore influence the reputation of organisations in this field (Graffin & Ward, 2010; Rao, 1994).

Of those various groups of actors involved in valorising work, companies in particular welcomed the creation of SRI indices such as the FTSE4Good and the Dow Jones Sustainability Index. They recognised that the SRI indices would be able to provide signals to investors regarding the quality of CSR practices, an area in which corporate capabilities are hard to evaluate and company self-assessment is often regarded as not credible. As such, the SRI indices have become part of the assortment of codes, standards and governance initiatives that Gilbert et al (2011) refer to as 'international accountability standards': voluntary predefined rules, procedures and methods to systematically assess, measure, audit and/or communicate the social and environmental behaviour and/or performance of firms (Gilbert et al., 2011: 25). Even though SRI indices are not explicitly included in their

taxonomy of these standards, the definition clearly includes the functions and actions performed by SRI indices, and the research shows how indices are increasingly used by companies and third parties as forming part of this international accountability infrastructure.

The shift in normative associations related to the FTSE4Good index is supported and encouraged through the creation and circulation of artefacts such as the FTSE4Good logo and certificate of inclusion. These artefacts are simultaneously material and symbolic (Friedland & Alford, 1991): they provide a material proof of inclusion in the index, but, when displayed in CSR reports, also infuse meaning into the quality of CSR practices for a given company. Symbolic work in institutional accounts has mainly been studied from a discursive perspective (e.g. see Zilber, 2002; Zilber, 2009). This strand of institutional theory holds that institutions are build upon, and supported by, discourses that create shared systems of meaning (Philips, Lawrence, & Hardy, 2004; Zilber, 2009). The research findings show the supporting role of material artefacts in symbolic work and highlight that symbols may be used not just to represent commonly shared meanings, but also to influence patterns of action (Gioia et al., 1994; Vilnai-Yavetz & Rafaeli, 2006).

As a regularly occurring and relatively stable practice, symbolic work is an important part of institutional maintenance work (Dacin et al., 2010; Zilber, 2009). Institutional maintenance work has generally received less attention than the work needed to create or change institutions, although it is acknowledged that most institutions require maintenance work to some degree (Lawrence & Suddaby, 2006; Dacin et al, 2010; Patriotta et al 2011). Jarzabkowski et al (2009) show how maintenance of existing institutions requires ongoing active work (Jarzabkowski et al., 2009). The research findings show that multiple types of institutional work are

needed in the creation stages as well as the maintenance stages. This is particularly pertinent in the case of the FTSE4Good index due its objective to continuously raise the bar for inclusion. This means institutional maintenance work not only relies on the valorising work, but calculative framing and engaging work also need to be undertaken in recurrent cycles. Maintenance work should therefore not be confused with the absence of change, but rather should be considered as considerable effort to achieve stability between different types of activities in an ever changing context (Lawrence & Suddaby, 2006; Patriotta et al, 2011). The dynamic created by the different types of institutional work shapes the reactivity of companies included in the index. This dynamic process of institutional work is never completely finished, as it relies on constant innovation in criteria and the continuous interaction between the different types of work (Tracey et al., 2011). As such, participation in the institutional work on the part of companies will also be dynamic. The next section discusses the findings related to corporate participation in the institutional work and the impact of this participation on the reactivity towards the index inclusion criteria.

8.2.2 Organisational responses to index inclusion and engagement

The research shows that whilst the institutional work of calculative framing requires significant resources on the part of FTSE and involved third parties, it is also dependent on the calculative work undertaken by companies with regards to measuring and reporting their CSR performance. This calculative work relates to the routine intra-organisational practices of collecting relevant information, aggregating it in accordance with commonly accepted metrics and reporting the results to interested parties both within and outside of the company. The calculative work that precedes the reporting may be largely hidden from view, but may nevertheless be

shaped by, and respond to, external calculative framing such as that underlying the FTSE4Good index. External metrics create the need to establish within organisations a ‘calculative infrastructure’ (Cabantous et al., 2010; Waddock, 2008b) that may involve new routines or the transformation of existing routines for calculation. This powerful effect has been referred to as ‘action at a distance’ in governmentality studies (Latour, 1986; Miller & Rose, 1990): a form of action that is brought about through seemingly mundane practices such as calculation, which allows information to be gathered through intricate networks of participating organisations and individuals. Participation in these networks relies neither on brute force nor on persuasion, but on the gradual alignment of interests through the use of shared frames of reference, metrics and language amongst participants (Callon, 1998; Callon et al., 2007; Latour, 1986; Miller & Rose, 2008).

The research findings show how inclusion in the FTSE4Good index requires routine connections (Feldman & Rafaeli, 2002) between companies, FTSE and rating agency EIRIS, as well as connections between different departments within the included companies, in order to collect and monitor data on CSR practices. These routine connections may be firmly embedded within corporate systems and structures in some cases, to the extent that they become integrated in other organisational routines such as personal performance measurement. In other cases, the lack of fit (Ansari et al, 2010) between existing corporate calculative routines and the calculative framing of the index triggers responses ranging from adaption of corporate practices to highly resistant and reflexive attitudes. The potential for (mis)fit between organisational calculative practices and the external framing of the index is dynamic (Ansari et al, 2010), in that it may change over time due to learning effects, and may vary across the specific areas that are being measured, for instance

calculations of environmental performance versus social areas of concern.

The different responses to the institutional work of calculative framing show that organisational responses to ratings, metrics and certification are not as homogenous as often is assumed (Graffin & Ward, 2010). Calculative framing is not the only type of institutional work that may be contested or interpreted in various ways. Symbolic work may be equally ambiguous, as artefacts and their associated practices may carry multiple meanings and may be used for various goals (Friedland & Alford, 1991; Rerup & Feldman, 2011; Gioia et al, 1994). The artefacts created by index inclusion, such as the FTSE4Good logo, may be used simply to summarise CSR practices and signal its quality, or may be used more extensively and instrumentally to achieve fit between corporate practices and the index inclusion criteria. The third type of institutional work that emerges from the research findings, engaging work, mediates between the calculative framing of the index and corporate calculative practices, whilst actively encouraging reactivity towards the index criteria. FTSE's engaging work provides an opportunity for dialogue and discussion regarding the index criteria with third parties and companies included in the index. The dialogue with companies is instigated by the threat of their exclusion from the index, and provides an opportunity for all parties to come to deeper shared understandings about the relevance of CSR practices and their measurement.

The heterogeneous corporate responses to the institutional work of the FTSE4Good index signify that reactivity is a dynamic process, rather than a stable, constant organisational response that is automatically triggered by the event of being rated, ranked and evaluated (Sauder & Espeland, 2007). The research results show how reactivity towards metrics should be viewed as a dynamic process of performative adjustments in organisational practices, ostensive changes in shared

understandings about the meaning of those practices, and the role of artefacts associated with metrics. This conceptualisation of reactivity borrows from Feldman and Pentland's dynamic theory of organisational routines (D'Adderio, 2008, 2011; Feldman & Pentland, 2003; Pentland & Feldman, 2005). Dynamic routine theory was developed in response to common perceptions of organisational routines as sources of stability or inertia (Feldman, 2003), and highlights how organisational routines can be an endogenous source of organisational change, as differences between performative and ostensive elements of routines may or may not become embedded in organisational structures (Howard-Grenville, 2005). The research builds on dynamic routine theory to show how organisational routines (in this case those related to calculating CSR performance) may also be changed by exogenous factors such as external metrics.

Furthermore, Feldman and Pentland's conceptualisation of the interaction between artefacts, performative action and the ostensive meaning of those actions is used to derive a heterogeneous view of reactivity towards the FTSE4Good index. Based on this dynamic conceptualisation of reactivity, five different types of corporate responses to index inclusion and engagement can be distinguished. Two types of response are common in cases where there has been no engagement between the FTSE RI team and companies. The *indifferent* response to index inclusion occurs where extensive corporate calculative routines preclude the need for engagement with the FTSE RI team, and limited performative or ostensive reactivity takes place. The symbolic work undertaken by these companies serves mainly to signal the quality of CSR practices to external stakeholders. The *autonomous* response is also characterised by a lack of engagement, but refers to those companies that work towards meeting the index inclusion criteria so that they can be included in the

index. As such, these cases show high levels of performative and ostensive reactivity, and index inclusion is often an explicit goal or objective within CSR strategies.

The next three types of organisational response are characterised by different reactions to engagement. The *reflexive* response occurs in cases where companies show limited reactivity, even when they are engaged in dialogue with the FTSE RI team. Whilst almost all managers complain of the time-consuming nature of the process of collecting the necessary data for index inclusion, in the reflexive cases managers engage critically with the content of the index criteria, the measurement process, and the use of the index by the investment community. The *ceremonial* response is characterised by high levels of performative reactivity, but limited ostensive reactivity in response to engagement. In this more superficial ‘box-ticking’ approach to index inclusion, limited shared understandings of the importance of CSR issues are established between FTSE and companies. Lastly, an *integrative* response occurs when engagement leads to both forms of reactivity. The introduction of new index inclusion criteria often serves as a catalyst to improve policies, reporting or management systems in these cases. Symbolic work serves both an expressive and instrumental use in these cases, as managers use the artefacts associated with index inclusion to obtain leverage for the approval of CSR initiatives.

This typology of organisational responses to the pressures exerted by external metrics relies on the dynamic interaction between intra-organisational patterns of practices, shared understandings regarding those practices and material artefacts. Some of the elements identified correspond with Oliver’s typology of organisational responses to institutional pressure (Oliver, 1991), including the potential for resisting, buffering or ignoring the pressures exerted. However Oliver’s typology

relies on a conceptual separation of the technical environment and the institutional environment, which counterposes technical rationality and institutional beliefs (Lounsbury, 2007). This separation is grounded in early institutional theory (e.g. Meyer & Rowan, 1977), but recently institutional theorists have argued that it is difficult to disentangle both environments empirically and conceptually (Lounsbury, 2008; Cabantous et al, 2010). For example Lounsbury (2007) shows how technical considerations such as performance and efficiency are often institutionally embedded, as opposed to decoupled from broader institutional beliefs (Lounsbury, 2007: 302). Considering the way metrics shape action at a distance reminds us that the technical environment may to a large degree be determined by, and intertwined with, the practices of institutional work, through the network of mundane, routine activities that tie together participants and co-constitute their actions, meanings and belief systems. When external evaluation criteria become internalised into corporate goals and performance objectives (Power et al, 2009), the technical and institutional environment become increasingly difficult to separate. Jamali's (2010) application of Oliver's typology (1991) to the responses of multinational corporations regarding various international accountability standards, equally fails to account for the way internal organisational practices and their rationality may be co-constituted by standards from a distance (Jamali, 2010). The following section discusses the application of the typology and conceptual model of institutional work for reactivity.

8.2.3 Applying the conceptual model of institutional work for reactivity

A comparative analysis of corporate responses to index inclusion and engagement was undertaken in chapter 6 to examine the relative importance of the different types of responses that were conceptualised. The results confirm that engagement,

symbolic work and calculative routines are important elements of the institutional work that maintain the index as a standard for good CSR. The reactivity towards the index inclusion criteria is most prevalent for companies that have been in engagement and undertake the symbolic work that is associated with being included in the index, such as display of the FTSE4Good logo. However, other paths towards both reactivity and the absence of reactivity exist, indicating the existence of causal complexity (Rihoux & Ragin, 2009). This means the different types of institutional work dynamically interact with each other to shape outcomes that may be different for each actor or organisation undertaking the work. For example the lack of engagement leads to reactivity if it is accompanied by symbolic work in the case of autonomous responders, whereas engagement without symbolic work leads to an absence of reactivity in the case of reflexive responders.

The use of QCA in chapter 6 reminds us that the context of each case is important and may contribute to shape the outcome. It also highlights that it is difficult to isolate the effect of one type of activity, and that more attention should be paid to study how interaction between different types of work affect diffusion and institutionalisation processes. Tracey et al (2010) have shown how institutional work interacts at multiple levels of analysis (individual, organisational, institutional) and that the work at each level is interrelated in a non-linear way (Tracey et al, 2010). In the case of the FTSE4Good index a complex intertwining of types of work was found not only between the organisational and meta-organisational level, but also within the organisational level, as different types of work are employed to mitigate and manage institutional pressures, leading to outcomes that are not necessarily unilateral (Tracey et al., 2011; Zietsma & McKnight, 2009).

The comparative analysis in chapter 6 also reveals a dynamic over time, as

performative reactivity is higher in cases where index inclusion is relatively new. The dynamic identified shines a different light on two-stage models of adoption of new practices by organisations, according to which early adopters seek technical gains from adoption, but later adopters are primarily interested in the social benefits of appearing legitimate (Tolbert & Zucker, 1983, Westphal et al, 1997, Kennedy & Fiss, 2009: 897). But just as in the case of Oliver's (1991) typology, the separation between technical motivations and institutional motivations for adoption has been criticised for being empirically difficult to substantiate, as concerns regarding legitimacy and efficiency are often co-constituted (Kennedy & Fiss, 2009). Over time, processes of routinisation and professionalization aid the implementation of adopted practices and their coupling to formal practices and structures (Edelman, 1992; Fiss & Zajac, 2006; Tilcsik, 2010). Paying attention to the intra-organisational practices that mediate between substantive and symbolic adoption of new practices, including changes in routines and organisational members' use of symbolic artefacts in the implementation process, substantiates the potential for a move from performative to ostensive management of institutional pressures.

The findings of the comparative case analysis in chapter 6 and the model of institutional work for reactivity can be used to identify overall patterns in the reactivity for companies included in the index. In chapter 7 the reactivity towards the index inclusion criteria, and the three mechanisms that mediate this reactivity, including engagement, symbolic work and calculative routines, were examined for a group of companies classified as being at high risk for encountering bribery and corruption in their operations. The findings show that, even when controlling for various aspects of firm financial performance, engagement significantly increases the likelihood of high quality corporate practices for countering bribery and corruption,

including corporate policies, management systems and reporting. Those companies that have been in engagement with the FTSE RI team, those that undertake symbolic work to signal inclusion to stakeholders, and those that have high quality reporting practices, are more likely to have better practices for countering bribery and corruption.

The results show it takes time before engagement results in better quality corporate responsibility systems and practices, and that engagement that takes place over an extended time period is more likely to result in changes in organisational behaviour. Westphal and Zajac have shown how formal organisational initiatives such as long-term incentive plans may be announced to shareholders without actually being implemented (Westphal & Zajac, 1994, 1998; Westphal & Zajac, 2001; Zajac & Westphal, 2004). MacLean and Behnam (2010) argue that whilst decoupling of formal systems from actual practices may lead to external legitimacy in the short term, such a 'legitimacy façade' facilitates the noncompliance of insiders with the organisational initiatives in question, creating a latent threat for subsequent external legitimacy (MacLean & Behnam, 2010). Prolonged engagement may be used to overcome similar problems related to the symbolic management of ratings, whereby companies aim to improve their evaluation without attempting to improve the underlying CSR practices (Espeland & Sauder, 2007). Symbolic responses by companies which do not walk the talk are most likely to be evidenced in improved scores on 'talk': corporate policies and reporting practices. The analysis however found the most significant effect of engagement related to improved management systems for countering bribery and corruption. This suggests that engagement has the potential to generate more substantive responses to the index, as corporate managers have the opportunity to create shared understandings about the

implementation of CSR practices through dialogue with the FTSE RI team and through dialogue within the company. These perceptions and understandings of formal CSR programmes are vital for their effectiveness (Behnam & MacLean, 2011; Weaver, Trevino, & Cochran, 1999).

Whilst the typology of organisational responses to index inclusion acknowledges the possibility of both ceremonial and integrative responses to index inclusion, engagement presents an important mechanism to counteract purely ceremonial responses. The results also confirm that index inclusion is aided by high quality calculative routines. Companies with high quality calculative routines find it easier to comply with requests for information regarding new index inclusion criteria. Well developed corporate calculative structures and processes allow for efficient data gathering and commensuration, which is needed to answer any new questions posed by rating agencies. Upcoming issues are also more easily integrated in existing structures. The results show how institutionalisation processes depend to a large extent on 'mundane administrative arrangements' and routine practices that can accommodate institutionalised norms and values (Selznick 1957; Kraatz et al, 2010). The significant effect of the symbolic work associated with index inclusion on countering bribery practices reinforces the view that valorising from the part of companies also forms an integral part of the institutional work that turns the index into a de facto standard for good CSR. Lamerz and Huegens (2009) show that symbolic work, especially inter-organisational symbolism, is constructed and reproduced in relation with its various audiences (Lamertz & Huegens, 2009). The results presented here show that the symbols produced by FTSE are widely used by companies to signal index inclusion to various external stakeholders, and that those companies are likely to have better quality CSR practices. As such these companies

reinforce the idea that the index represents a standard for good CSR.

8.3 Contributions to the literature

The preceding sections have summarised the findings of the research and presented them in the order in which the analysis was undertaken. The following section will draw out the main contributions of the research to the literature. Three areas of literature that are of relevance for the research are identified: the literature on SRI and CSR, on reactivity and metrics, and on institutional work. The contributions to each of these sets of literature will be outlined respectively.

8.3.1 Literature on SRI

The main literature on SRI is situated in the domain of studies that examine the relationship between CSR and financial performance, be it by examining the performance of SRI funds and portfolios (Cox, Brammer, & Millington, 2008; Cox et al., 2004) or through modelling the relationship between corporate social performance and financial performance (see the meta-analyses by Orlitzky et al., 2003, Margolis and Walsh 2007). Only recently have scholars started to examine the development of SRI markets and common practices of responsible investors in their institutional context (Arjaliès, 2010; Déjean et al., 2004; Louche & Lydenberg, 2006). The study makes three contributions to this literature: first, it provides an empirical study of the impact of engagement on CSR; second, it addresses questions of heterogeneity in SRI markets; and third, it provides a fresh perspective on the measurement of CSR by highlighting the sociological elements involved in measurement processes.

Institutional investors in the SRI market increasingly favour an engagement approach, which emphasizes dialogue between institutional investors and company

management, rather than exclusion from SRI portfolios. This process and its impact on responsible corporate behaviour have so far been understudied in the literature on SRI, where SRI is often still equated solely with screening approaches (e.g. see Benson, Brailsford, & Humphrey, 2006; Colle & York, 2009). Little is known about how engagement is undertaken by investors (Gond & Piani, forthcoming), and whether it is a successful approach to changing responsible corporate behaviour. Beyond anecdotal evidence, a limited number of empirical studies exist that examine the impact of engagement on responsible corporate behaviour. Carleton et al (1998) provide a rare insight into the private side of investor activism by analyzing the engagement of major US-based public pension fund TIAA-CREF with companies on issues related to corporate governance. The authors show how pension fund managers negotiate with corporate managers regarding issues of concern before they file shareholder resolutions (Carleton, Nelson, & Weisbach, 1998). The study shows that significant engagement takes place before shareholder resolutions are filed, and that the effects of this engagement are missed by looking only at filed shareholder resolutions (e.g. Proffitt & Spicer, 2006; Reid & Toffel, 2009). The study of the FTSE4Good index shows that similar engagement activities to that of SRI investors underlie effective index construction, including sending formal letters to start the engagement, and subsequent dialogue between members of the FTSE RI team and corporate managers. As in the study by Carleton et al (1998), the practices of engagement can be traced through examining archival data, including correspondence. As SRI engagement becomes more prevalent, it is pertinent that researchers track the impacts of this development on responsible corporate behaviour through the careful analysis of longitudinal datasets.

Reid and Toffel (2009) follow den Hond and de Bakker (2007) in arguing

that shareholder activism elicits changes in companies' perceptions of CSR by changing the dominant 'field frames', consisting of commonly accepted standards and norms that govern behaviour in industry sectors (den Hond & de Bakker, 2007; Reid & Toffel, 2009). Studies of French social rating agency ARESE similarly shows how the framing of CSP is reduced to its measurable dimensions (Leca & Naccache, 2006). The study of the FTSE4Good index shows that calculative framing, understood as creation and calculation of the rules that frame the practices of adopters, indeed plays an important role in eliciting change in corporate practices. The engagement work undertaken by the FTSE RI team serves to educate companies about the relevant framing of CSR as codified in the index inclusion criteria. Through raising the bar for index inclusion by introducing new criteria, companies continuously learn about new frames for emerging CSR issues. The study is unique in that it manages to capture both the practices of engagement as undertaken by the FTSE RI team, and the impact of this engagement on responsible corporate behaviour of a significant number of companies.

The framing of CSR as encapsulated in the FTSE4Good index is but one of the many different types of framing promoted to companies and investors, as the number of SRI indices, ratings, rankings and other metrics that are being developed continues to rise. At first glance this trend seems to promulgate the heterogeneity of SRI markets (Sandberg et al., 2009), which some argue presents a substantive barrier to SRI becoming part of mainstream financial markets (Amaeshi, 2010). Indeed, there is some evidence to suggest that companies pick and choose amongst SRI indices that present them in the most favourable light. For example companies that are generally considered to have high quality CSR practices tend to emphasise the Dow Jones Sustainability Index because it uses a best-in-class approach to selecting

companies for inclusion. On the other hand, the implicit aim of the FTSE4Good index is to 'bring up the rest of the pack' to a higher standard of CSR practices by raising the bar for index inclusion. The FTSE4Good index inclusion criteria are based on international global standards, such as the ILO labour standards, and build on the activities of other global governance initiatives such as the Global Compact, the Ethical Trading Initiative, Transparency International etc. Taken together these global governance initiatives form an increasingly dense network of soft law regulation for CSR (Perez, 2011). A new initiative, the Global Initiative for Sustainability Ratings, is aiming to further promote convergence amongst ratings and indices by drawing up a common rating framework (GISR, 2011). It seems that the measurement tools developed for the SRI market have helped corporate convergence to global standards for CSR, which will reduce a major source of heterogeneity in the SRI market.

The research has also provided insights for research aiming to measure CSR and CSP, by providing a fresh perspective based on a sociological model of measurement and its effects. Attempts to formulate a model to measure CSP date back to the 1950s (see Mitnick, 2000 and Wood, 2010 for an overview). Many of the studies in this well developed stream of literature employ an instrumental perspective in the sense that they are trying to find an objective measurement of CSP, in order to perform correlations with financial performance. In one of the most widely cited models, Wood (1991, 2010) separates principles, processes and outcomes of CSR, but laments the availability of good data that can be used to measure these components empirically. Mitnick (2000) has provided a critical examination of the underlying logics of measuring CSP from the firm's perspective. Gond and Matten (2008) have similarly called for more attention to issues of

calculability in CSP research (Gond & Crane, 2008). This study has answered this call by providing a model of the process of measurement, and specifically its effects on CSP, based on insights from organisational and economic sociology. It shows that not only are Wood's elements of CSP closely related to each other, but the actual process of measuring each element will have an impact on their interrelationship, and the measurement may become constitutive of the CSR practices it is aiming to measure. It also reinforces the view of Mitnick (2000) that it does not matter whether metrics such as SRI indices effectively measure CSR, but what is important is that they are credible measures, that need to be valorized as setting a standard for good CSR. At the same time, the research results present calculability as co-constituted between the calculative framing of metrics and corporate calculative routines. Studies of social accounting could take up this theme to further explore the co-constituted nature of intra-organisational practices related to measurement and calculability.

8.3.2 Literature on metrics and reactivity

The literature on metrics has in the main employed a sensemaking perspective to study reactivity, considering that *'most generally, rankings are reactive because they change how people make sense of situations'* (Espeland & Sauder, 2007: 10). Espeland and Sauder find self-fulfilling prophecies, commensuration and discipline (Foucault, 1970) are important mechanisms that channel reactivity towards law school rankings (Espeland & Sauder 2007; Sauder & Espeland, 2009). Elsbach and Kramer (1996) and Martins (2005) show that business school rankings threaten perceptions of organisational identity. In a similar argument Wedlin (2007) argues that rankings provide a template for business schools that diffuses throughout the field and influences sensemaking. All these studies deal with reactivity, its

antecedents and its consequences to varying degrees. The study presented here builds on this work, but employs a practice perspective to examine the work that is needed to create and maintain reactivity from all parties involved. The study of the institutional work for reactivity makes three contributions to the literature on metrics: first, it shows that the institutional work of different actors and organisations is interrelated and interactive; second, using the institutional work perspective accommodates dynamism and explores how differences in organisational responses are constituted; third, it theorises the influence of material artefacts on reactivity, highlighting a gap in current studies of metrics.

The results show that organisations that are being rated, in this case the companies that are included in the index, play an active role in the maintenance of the metric that is being constituted through the institutional work. Trank and Washington (2009) show that legitimating organisations, such as those providing certification or accreditation to other organisations, need to work hard to maintain their own legitimacy (Quin Trank & Washington, 2009). The research results show that rated organisations are not just passive receptors of the legitimating work of rating organisations, but are actively involved in shaping the information that is needed for the evaluation, maintaining the routine connections needed to effectively participate in the evaluation process, and as such are co-constituting the legitimacy of the outcome of the evaluation (Durand & McGuire, 2005) by maintaining the index as a symbol for good CSR.

Whilst studies of metrics and reactivity have shown that the redistribution of resources and reorganisation of work are consequences of reactivity (Espeland & Sauder, 2007; Sauder & Espeland, 2009; Power et al, 2009), these studies have not generally examined the work that is needed to participate in ratings in detail, or the

work that the rating organisations undertake to engage rated organisations. The research findings presented here show that both types of work are closely interrelated, as one cannot exist without the other. A closer examination of this dynamic shows that not just the legitimacy of metrics is co-constituted by all parties involved, but that the actual work of the rater and rated organisation is also co-constituted by their cooperation. This infuses studies of reactivity with an agency perspective: whilst cognitive work remains important (in this case for example as part of the calculative framing and valorising), an agency perspective also emphasises other types of work, such as engaging, in which organisations and individuals play an active role. This work may be particularly important when multiple metrics exist in the organisational field, creating an ambiguity about relative status of organisations and worth of metrics (Sauder, 2006). Through institutional work such as engaging the organisation promoting the metric has the opportunity to shape the direction of the disciplining power of the metric more directly in its favour, whilst engaging might also be used to counter organisational responses characterised by gaming.

This dynamism in organisational responses to metrics that are imposed from outside the organisation may be captured in the examination of intra-organisational practices related to ostensive reactivity, performative reactivity and artefacts associated with metrics. Sauder and Espeland (2007) highlight that the mechanisms that produce reactivity may interact, but the results here show that the elements of reactivity itself may also interact to create dynamic patterns of types of reactivity. In effect, the concept of performative reactivity captures the institutional and organisational context in which organisational action takes place (Labatut et al., 2012; Pentland & Feldman, 2005), and shows how this action is being shaped by

metrics, whilst ostensive reactivity links this action to interpretations, shared meanings and understandings about what is being measured, in this case organisational performance on measures for CSR. Feldman and Rerup (2011) show how ostensive routines contribute to shared meanings within organisations through trial-and-error learning, as organisations act to solve problems in routines and these performative actions become embedded in ostensive routines (Rerup & Feldman, 2011). Similarly, in the case of the FTSE4Good index some companies undertake performative reactivity to counter the threat of exclusion from the index, and subsequently embed these performative actions into ostensive routines. In other cases a disconnect between performative and ostensive reactivity remains. The dynamic interaction between ostensive and performative reactivity thus tells us more about variation in organisational responses to external metrics. Employing a dynamic perspective on reactivity allows for a deeper examination of the different elements that constitute the range of organisational responses to metrics, from gaming strategies to disciplined responses (Espeland & Sauder, 2007; Sauder & Espeland, 2009). Thus, variation in organisational responses to metrics may be constituted by reactivity dynamics, in addition to institutional and technical factors (Casile & Davis-Blake, 2002) and the features of the metric itself (Espeland & Sauder, 2007).

The variation in organisational responses due to interaction between performative and ostensive reactivity is also evidenced in the use of artefacts associated with metrics. These artefacts may be used to articulate organisational practices as well as influencing them (Gioia et al. 1994; Vilnai-Yavetz & Rafaeli, 2006). Lamerz and Huegens (2009) show that symbolic work is undertaken in a recursive relationship with the institutional environment, as organisations reproduce the symbolism that is expected of them. Yet the authors show that this reproduction

of symbolism may also form a platform for incremental changes in the use of symbols (Lamertz & Huegens, 2009). The study of the FTSE4Good index shows how symbolic work may serve to express good CSR practices to internal and external audiences, and how performative reactivity ensures that this symbolic work can be maintained as companies remained included in the index. It is also shown that symbolic work may serve to translate performative reactivity into ostensive reactivity by changing the importance and value of the CSR practices associated with the artefacts of index inclusion. The research shows how organisational members may draw on the artefacts related to FTSE4Good index inclusion to mediate tension between performative reactivity and ostensive reactivity. Studying the sociomaterial practices of reactivity, including the use of artefacts, provides a methodological approach to a richer understanding of dynamic reactivity in the study of metrics.

8.3.3. Institutional work literature

The 'new' institutional theory perspective was developed in the late 1970s to study the processes through which institutions shape and govern organisational action (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). As the institutional perspective became more popular in organisation studies, the emphasis in institutional accounts shifted towards studying the outcomes of institutionalisation and diffusion (Mizruchi & Fein, 1999). This is partly related to the emphasis on quantitative research methods in institutional studies, which provide excellent instruments for identifying patterns of diffusion, but are not as apt at describing the processes of interaction between institutions and organisations (Suddaby, 2010). The study of institutional work significantly alters the premises under which institutions are examined, by switching from studying how institutions affect action to asking how action affects institutions (Lawrence et al., 2009).

The paradox of embedded agency (Seo & Creed, 2002) is central to studying institutional work, as one of its core premises rests on the idea that the actions of individuals and organisations are shaped by institutions, and these actions may at the same time shape institutions, as individuals and organisations work to create, maintain or disrupt institutions (Battilana & D'Aunno, 2009; Leca & Naccache, 2006; Powell & DiMaggio, 1991). Studies of institutional work as such represent a view of institutions 'from the ground up' (Powell & Colyvas, 2006), as they try to unpick how the activities of various organisational constituents are related to meta-organisational dynamics. This view of agency brings institutional work scholars back to some of the classic themes of the 'old institutionalism', and its view of agency as consisting of micro-sociological processes within organisations that are shaped by, and responding to, institutional pressures (Selznick, 1949; 1957). The case study presented here contributes to the understanding of embedded agency and its relationship with institutional change in two ways: first, by highlighting the interaction effects between different types of institutional work; and second, by reconceptualising agency to include sociomaterial artefacts.

Recent empirical studies that employ a bottom-up view of embedded agency show that the results of institutional work are messy, complex, and to a considerable extent uncoordinated. This work does away with a linear view of institutionalisation as flowing from the institution to organisational action and back again in recurrent fashion. Rather these studies show that creation, maintenance and disruption work may run in parallel, different types of work may interaction with each other and across organisational boundaries, with sometimes unintended consequences and heterogeneous effects (Hargrave & van de Ven, 2009; Tracey et al., 2011; Zietsma & Lawrence, 2010). Institutional contradictions and pluralism in the institutional

environment have been recognised as the main sources of institutional change (Seo & Creed, 2002, Hargrave & van der Ven, 2009). The case study presented here shows that interaction between different types of institutional work may also change the course and direction of the cumulative work over time, thus providing an endogenous source of institutional change that lies within the institutional work itself. The study suggests that this institutional work is continuous, frequently involves multiple actors and organisations, and therefore institutional change may emerge gradually through interaction between actors' objectives, activities and understandings. This is a far cry from the image of institutional change achieved by hypermuscular institutional entrepreneurs (Lawrence et al, 2009: 1)

The dimensions of effort and intentionality provide boundary conditions to the study of institutional work (Lawrence et al, 2009). If the extreme view is taken that all work, either intended towards institutional change or not, and work that is effortless as well as effortful, may potentially constitute institutional work, the boundaries between agency and institution become increasingly fuzzy. The study of metrics and measurement tools such as SRI indices shows their propensity to travel across organisational boundaries to affect action at a distance and at multiple levels of analysis, to the extent that agency and institution become mutually constitutive and closely entangled.

When addressing the paradox of embedded agency, recent studies of institutional work have emphasized human agency, arguing that the influence of institutions can be transcended at the individual level (Lawrence et al., 2011). This approach to the study of institutional work risks neglecting the fact that 'actors are caught up in multiple social and technical structures at all levels (micro, meso, and macro) and affected by cross-cutting institutions' (Kaghan & Lounsbury, 2011: 76).

In short, the study of institutional work needs to go one step further and recognise not only human agency in the institutional environment, but also the role of technology, objects and sociomateriality in general (Orlikowski & Scott, 2008). Scholars of institutional work have successfully argued that individuals and organisations are not ‘cultural dopes trapped by institutional arrangements’ (Lawrence et al, 2009:1). But, in their haste to do away with the emphasis on the cultural-cognitive ‘taken-for-granted’ conceptualisation of institutions, sociomateriality has got lost. Instead of veering between institutional accounts that emphasise either cultural-cognitive structures (Bacharach, Bamberger, & Sonnenstuhl, 1996; Lounsbury, Ventresca, & Hirsch, 2003; Townley, 2002) or strategic action (Oliver, 1991; Westphal & Zajac, 1998; Westphal & Zajac, 2001), the umbrella concept of institutional work provides an opportunity to account for cognitive and material practices and to study their entanglement and interaction. Orlikowski and Scott (2008) argue that this is increasingly important in an era where technology is becoming ubiquitous: *‘Work practices are inherently sociomaterial, and so to understand work, we must understand its sociomaterial (re)configurations. The implications for organizations are particularly important; these practices don’t just mediate work, they perform organizational realities’* (Orlikowski & Scott, 2008: 467). Institutional work that incorporates sociomateriality effectively should recognise that the entanglement between work and material is fleeting and dynamic (Orlikowski, 2007).

Although a narrative approach to institutional work has more attention for the symbolic aspects of organisational practices, and the use of stories and narratives in institutional change (Zilber 2006; 2009), material aspects are still ‘missing in action’ (Orlikowski & Scott, 2008), as no account is given of how artefacts may be used in

the narratives that are the subject of study. The conceptualisation of the entanglement between performative, ostensive and material elements of action, borrowed from dynamic routine theory (D'Adderio, 2011; Feldman & Pentland, 2003; Pentland & Feldman, 2005), provides a useful approach to incorporate sociomateriality in institutional work. Artefacts may be entangled in narratives (Pentland & Feldman, 2007, 2008), but the main focus of this type of research should be on the interaction between institutional work that is performative, ostensive and material. Pentland and Feldman (2005) conceptualised the three elements to understand how routines may change over time in the absence of exogenous shocks. In the context of institutional work it may be used to study the inherent dynamics between different types of institutional work, including performative practices, their material presence in the form of technology, metrics, tools, texts and documents, and ostensive meaning of those practices. This will broaden the study of institutional work and provide a fuller conceptualisation of embedded agency.

8.4 Implications

The above has highlighted the contributions of the research to the different streams of literature to which it speaks. The research also has a 'practical character' in the sense that the institutional work for reactivity has implications for organisations that have created metrics. The next section (8.4.1) will review the implications of the research for the maintenance of SRI indices and other metrics for CSR. The final section (8.4.2) will review the limitations of the research and discuss its implications for further research.

8.4.1 Implications for the governance of CSR metrics

Previous studies of metrics, such as law and business school rankings, have often emphasised the negative effects of rankings on organisational practices, such as gaming strategies (e.g. see Gioia & Corley, 2002). In contrast, rather than emphasising only the constraints exerted by metrics, this study has focussed on the way the disciplining force of metrics may be used as a force for good (Labatut et al., 2012). The results show how metrics such as SRI indices may be used to incentivise and encourage responsible corporate behaviour. Using measures to drive improvements in organisational performance is increasingly common in different areas of public life. For instance, in the UK healthcare sector performance is commonly measured by key metrics and targets such as those related to waiting times (Bevan & Hood, 2006).

Several caveats need to be taken into account by organisations and public policy makers seeking to make more use of metrics in governing organisational behaviour. The study shows creating and maintaining a metric is not a simple task. It requires the careful balancing of different types of activities and their consequences for governing behaviour. For example, to ensure effective governing of organisational behaviour, the calculative framing of the metric might need to be offset by significant investment in engaging affected organisations. Governing by metrics should therefore not be mistaken for a 'hands-off' approach.

There also needs to be a degree of congruence between the calculative techniques and the governing programmes they are designed to instrumentalise (Rose & Miller, 2008: 38). This points to a significant feature of governing by metrics that is likely to remain a source of tension and conflict: the fact that the credibility of the metric relies on the participation of the organisations being

measured, and is therefore often reliant on what *can* be measured as much as what *ought* to be measured. Significant investment in resources and time is needed to ensure that the balance is struck in a way that encourages meaningful improvement in organisational behaviour. This is particularly relevant for metrics in the area of CSR, where what *can* be measured is still very much determined at the discretion of companies. Close scrutiny needs to be exerted with regard to the quality of data that informs the measurement. At the same time, the study shows that SRI indices play an important role in improving internal data collection and measurement practices within companies, leading to greater transparency and improved reporting practices. Given the co-constitutive nature of the calculative framing of the metric and calculative practices within companies, governing by metrics should take a longitudinal approach, which encourages incremental movements from what *can* to what *should* be measured.

The research findings also point to the need to pay attention to symbolic aspects of metrics. The use of trademarks, certifications and symbols is a popular method to signal the quality of CSR products and practices to various audiences, including consumers, employees and investors. The research findings show that SRI indices are increasingly used in this way by included companies. The implication is that this symbolic work of companies should be encouraged as it plays an important role in the legitimisation of the metric as well as in the reactivity the metric induces. At the same time, symbolic work such as the display of logos should be carefully monitored by SRI index providers to minimise the dangers of complete cooptation by companies of SRI indices into a marketing tools. Whilst the investment of resources needed to start symbolic work (e.g. the design of logos) will be relatively light, the investment in these ongoing monitoring efforts will need to be more

extensive.

Lastly, the increasing number of ratings, rankings and indices in the area of CSR forms proof of their popularity amongst various stakeholders. This trend also reveals the paradox inherent in situations where a multitude of metrics exist: on the one hand this may reinforce the idea that measurement of CSR is meaningful and effective. On the other hand every metric is likely to employ a different methodology to differentiate itself from its competitor metrics, and this will lead to ambiguity and questions about the validity of metrics and quantitative measurement in general (Sauder, 2006). In light of this paradox, efforts to standardise ratings in the area of CSR in accordance with one common framework, such as those undertaken by the Global Initiative for Sustainability Ratings, should be applauded. Whether these efforts will be successful remains to be seen, as commercial incentives to diversify rating methodologies continue to exist.

In the meantime, the paradox that arises from plurality in CSR metrics also has implications for the transparency provided by index providers regarding their objectives and methodology. Some CSR metrics providers have provided limited transparency on rating methodologies out of fear of triggering gaming responses from companies (Sustainability, 2010: 7). On the other hand, the FTSE4Good methodology shows that transparency about the introduction of new criteria for example will encourage more companies to improve their behaviour. Being transparent also includes addressing any potential conflict that might arise when data collection and engagement are undertaken by the same organisation, one of the issues flagged up by a recent study on SRI metrics (Sustainability, 2011). The majority of CSR metric providers offer paid services to rated companies, for example assessment reports, which introduces the potential for bias in company

assessments. In case of the FTSE4Good index these functions are undertaken by separate organisations (in fact the 'good cop - bad cop routine between the FTSE RI team and EIRIS reinforces this separation). Lastly, transparency from the part of CSR metric providers should also be extended to include disclosure of the use of these metrics, for example the number of clients using a SRI index or number of funds tracking the index. The research findings show that this transparency would go a long way in placating the resistance to SRI indices shown in the reflexive organisational response.

8.4.2 Limitations and implications for further research

The research employs a mixed-method case study approach (Yin, 2009), which examines the creation and maintenance of the FTSE4Good index as well as its impact on multiple companies included in the index. This methodological approach has several advantages. It allows for in-depth examination of institutional work as well as a comparative analysis of organisational responses to index inclusion. The mixed method methodology facilitates the grounding of the conceptual framework in theory and data, and subsequent application of the framework to a larger population of companies. The research shows that an integration of inductive and deductive methodologies can be highly useful to organisation studies (Lee, 1991), and specifically to an institutional perspective in organisation studies. Mixed methods research is able to accommodate the central concerns of institutional theory, by linking in-depth examination of process and practice, with generalised patterns of diffusion and institutionalisation (Lounsbury, 2008).

Recent empirical studies of institutional work have mainly employed in-depth case studies. The use of QCA analysis (Ragin, 2008; Rihoux & Ragin, 2009) could extend the findings of single case-studies to compare patterns of institutional

work across multiple settings, without the risk of losing the empirical richness that is provided by an intimate knowledge of the context of the cases under examination. This suggests that although QCA analysis has recently been extended to accommodate large N-studies (e.g. see Crilly, 2011; Fiss, 2011), the application of QCA to the study of institutional work is more likely to benefit from small to intermediate N-studies, in which the combination of causal conditions can be meaningfully explained based on the empirical context (Ragin, 2005).

Whilst the drawbacks of inductive and deductive methodological approaches can be overcome to a degree by effective integration of the respective methodologies, limitations to the research nevertheless remain. One of the main limitations of mixed-methods research concerns the reconciliation of the different types of knowledge created. For instance, whilst the inductive, constructivist phase of the research pointed to the need to distinguish between performative and ostensive reactivity, and the complex interactions between different types of institutional work, the deductive, positivist phase focused primarily on patterns of performative reactivity and examined each type of institutional work in isolation. The different types of knowledge, though interrelated, are not completely commensurate because of the underlying paradigmatic assumptions associated with the different research methods (Hassard 1991; Burrell & Morgan, 1979). The pragmatic stance taken in the research with regards to ontological and epistemological assumptions has generated a pluralist perspective that provides heterogeneous knowledge on the different facets of metrics and organisational behaviour. This multi-paradigm perspective did not accommodate other perspectives that bear relevance to the study of metrics. For instance, although the research referred to the systemic power exerted by organisations that create metrics, the concept of power was not explored in-depth. A

critical perspective may be used in future research to study systemic power and its consequences for the governmentality of CSR through indirect means such as metrics (Valentin & Murillo, 2012).

A number of additional limitations can be identified for the study as whole. First, the conceptual framework developed in the research is grounded in the findings from a single case study of the FTSE4Good index. Further comparative research needs to be undertaken to strengthen the framework and accommodate characteristics that are specific to other SRI indices. For example, it is unclear to what extent the engagement approach employed by the FTSE RI unit is unique to the FTSE4Good index, or shared by other SRI indices. FTSE has been comparatively forthcoming about its engagement work and the importance of this work for the index (FTSE 2006, 2011). Further research could explore the extent to which similar work might be hidden from sight in cases of other SRI indices and other public rankings and ratings, and whether this affects reactive responses. In addition, different forms of engaging with companies might be compared to explore their effectiveness.

Second, by looking at the FTSE4Good index in isolation, the research has not accounted for the way metrics may become instrumentalised in wider decision-making processes and patterns of action. Recent research on consumer credit metrics has shown that the embeddedness of such metrics in market transactions beyond those that they were originally designed for has potentially devastating effects (Poon, 2009). This became all too clear in the recent financial crisis. The research has not explored the use of SRI indices by organisations other than those involved directly with the creation and maintenance of the FTSE4Good index. Further research could explore the use of SRI indices and other tools that measure CSR by investors

operating in the SRI market, to explore their usage as 'market devices' (Callon et al., 2007; Callon & Muniesa, 2005).

Third, by focusing on a comparative analysis of organisational responses, some of the aspects of the individual behaviour of managers and employees in organisations, which are better captured by a more in-depth analysis, have not been explored in this research. The data collected in the research relied on the organisational viewpoint of the manager in charge of the liaison with the FTSE4Good index and other SRI indices, substantiated by archival data and corporate documentation. As such, the research has not explored some of the issues that require more in-depth analysis of the viewpoints of multiple organisational constituents, for example issues related to organisation identity and CSR (Brickson, 2007). As studies of metrics suggest, organisational identity perceptions may impact on the reactivity towards metrics (Elsbach & Kramer, 1992; Martins, 2008). Further research could explore the impact of CSR metrics on organisational identity.

In addition, the research could further explore issues of professionalization of organisational members. New standards may be used by organisational constituents to obtain leverage in ways that further their professionalization and relative standing within organisations (Lawrence, 1999; Lounsbury, 2001). In a similar vein the research findings provide evidence of CSR managers using external metrics as leverage within intra-organisational negotiations over the allocation of resources to CSR departments, and as external proof of worth of CSR practices in general. Further research could examine in more depth the ways in which metrics and standards in the area of CSR may contribute to a professionalization of CSR managers. This type of research could explore how metrics affect the identities and discourses of CSR managers as well as their calculative practices. Some interviewees

related to SRI indices as ‘having to prepare for an exam’. Further research could address questions of power between the raters and the rated, and the use of symbolic resources such as metaphors in this process (Patriotta & Brown, 2011).

In sum, the research has shown that SRI indices may be used to improve the responsible behaviour of companies. It has provided a unique analysis of the impact of calculability, symbolic work and engagement by an SRI index on responsible corporate behaviour. The study has drawn attention to the institutional work required in order for reactivity towards index inclusion criteria to occur. It has provided a dynamic concept of reactivity that includes organisational action, cognition and material practices, which may be used to study external metrics outside the context of CSR. In this respect, it has shown how metrics designed to measure CSR may be used as force for good, opening up important avenues for future research regarding the boundary spanning effects of metrics, institutional work and CSR.

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Appendix A Overview of the main SRI indices

Name	FTSE4Good Index Series	Dow Jones Sustainability Indexes	Ethibel Sustainability Index	ASPI Eurozone	MSCI ESG Indices	Jantzi Social Index
Index management	FTSE Group	Dow Jones and SAM	Forum ETHIBEL & Vigeo (since 2005)	Vigeo, IEM Finance, STOXX Limited	MSCI (formerly by KLD)	Sustainalytics & Dow Jones
Research provider	EIRIS	SAM	Vigeo	Vigeo	MSCI	Sustainalytics
Launch date	2001	1999	2002	2001	n.a.*	2000
Size	Variable (around 850 companies)	Variable (around 340 companies)	Variable (200 in Europe index)	120 companies	variable	60
Target market capitalisation **	40%	15%	25%	n.a.	50%	n.a.
Region / countries covered	Global (incl Israel and Korea), UK, Europe, US, Japan	European, Eurozone, Nordic, North American, US, Asia Pacific, Korean	Europe, North America and Asia Pacific	Europe	World, USA	Canada
Relative or absolute ***	Absolute	Relative	Absolute (world), Relative (Europe)	Relative	Absolute	Relative

Appendix A Overview of the main SRI indices (cont.)

Name	FTSE4Good Index Series	Dow Jones Sustainability Indexes	Ethibel Sustainability Index	ASPI Eurozone	MSCI ESG Indices	Jantzi Social Index
Main criteria	Environment, Human rights, Supply chain labour standards, Countering bribery, Climate change	Climate change, Energy consumption, HR, Knowledge management, Stakeholder relations Corporate governance	Human Rights, Human Resources, Environment, Business Behaviour, Corporate Governance, Community Involvement	Environment, Human rights, Human resources, Community involvement, Business behaviour, Corporate governance	Environment, Community and Society, Employees and Supply Chain, Customers, Governance and Ethics	Aboriginal Community Relations, Diversity, Employee relations, Environmental management, Corporate Governance
Excluded (screens)	Tobacco, weapons	Optional: Alcohol, tobacco, gambling, weapons, adult entertainment.	Armament, gambling, tobacco and nuclear energy	Companies that are rated 0 in one of the criteria categories	None	Nuclear power, tobacco, weapons-related contracting

* The former KLD indices have been rebranded by MCSI in the period between 2010 and 211

** This means whether the index operates with explicit or implicit targets to include a set percentage of all companies in the eligible universe. These targets do not apply for indices with that cap the number of companies (ASPI Eurozone and Jantzi)

*** Indices setting an absolute benchmark include all companies that meet the benchmark; inclusion in indices with relative benchmarks depends on the relative performance of companies (which effectively amounts to best-in-class screening)

Appendix B Overview of the dataset

DATASET/ Description				
INTERVIEWS				
No.	Participant	Country	Industry/ company	Index years
1.	Former FTSE RI team Director	UK	FTSE	
2.	FTSE RI team Director	UK	FTSE	
3.	FTSE staff member C	UK	FTSE	
4.	FTSE staff member D	UK	FTSE	
5.	FTSE staff member E	UK	FTSE	
6.	FTSE staff member F	UK	FTSE	
7.	Policy Committee member A	UK	Financial Services	
8.	Policy Committee member B	UK	Financial Services	
9.	US Advisory committee member A	USA	Industry Association	
10.	US Advisory committee member B	USA	Academic	
11.	CSR consultant A	UK	Consultancy	
12.	CSR consultant B	UK	Consultancy	
13.	CSR consultant C	UK	Consultancy	
14.	CSR consultant D	UK	Consultancy	
15.	CSR consultant E	UK	Consultancy	
16.	EIRIS researcher	USA	EIRIS	
17.	EIRIS researcher	Japan	EIRIS	
C1	CSR Director	Switzerland	Engineering	9
C2	CSR Manager	Australia	Utilities	3
C3	CSR Director	Ireland	Finance	2+0.5*
C4	Communications Director	UK	Logistics	9
C5	VP CSR	Australia	Mining	7.5
C6	CSR Manager	UK	Communication	9
C7	CSR Manager	UK	Communication	9
C8	Company Secretary	UK	Services	9
C9	Communications Director	USA	Engineering	3.5
C10	CSR Manager	Denmark	Finance	2.5 +1*
C11	IR Director	Germany	Logistics	6.5
C12	IR Manager	Italy	Mining	1+3.5*
C13	HS&E Manager	USA	Retail	9
C14	HS&E Manager	UK	Engineering	5.5
C15	IR Manager	USA	Finance	9
C16	CSR Manager	Switzerland	Construction	5.5
C17	IR Manager	USA	Pharmaceutical	4.5**
C18	CSR Manager	France	Engineering	2.5

C19	IR Director	France	Retail	5.5+1*
C20	IR Director	Greece	Finance	9
C21	CSR Manager	Australia	Mining	2.5
C22	IR Manager	Switzerland	Pharmaceutical	8
C23	HS&E Manager	Switzerland	Chemical	6
C24	CSR Director	USA	Finance	9
C25	CSR Director	Sweden	Communication	5.5+0.5
C26	CSR Director	Germany	Tourism	6
C27	CSR Manager	Austria	Utilities	9
C28	CSR Manager	New Zealand	Retail	9
C29	Director CSR	Finland	Engineering	2
C30	Communications Manager	Norway	Chemical	5

DATASET/ Description

OBSERVATIONS

6 Policy Committee meetings (lasting app.5 hours each); 1 Criteria Development committee; 2 meetings with companies were observed. In addition, the archival data was mostly gathered at a computer situated within the group of desks of the FTSE RI team, allowing for numerous informal conversations over a period of about 12 weeks in total.

ARCHIVAL DATA

FTSE Reports	<i>Criteria Development and Company Engagement Programme 2003-2004</i> <i>Impact of New Criteria & Future Direction 2004-2005</i> <i>Adding values to your investment- 5 year review</i>
FTSE minutes and papers	Bi-annual FTSE4Good Policy Committee meeting minutes and papers for 2001-2010, 671 pages
Correspondence	500+ emails; 239 letters between 2001-2010
FTSE database	Unbalanced panel of companies meeting/not meeting inclusion criteria, 2001-2010, n= 1700 to 2300 per year

SECONDARY DATA

Media analysis	Nexis® major English news sources 2001-2007, 492 articles <i>Financial Times</i> , 2001-2007, 115 articles <i>Ethical Corporation</i> , 2001-2007, 97 articles
Corporate CSR communication	Corporate communication on CSR in reports and web pages, 2001-2010, where available for the 30 companies selected for interviews
EIRIS database	Unbalanced panel of companies scores on a wide variety of CSR issues, 2003-2010, n=2300 to 2900 per year

* Company has been excluded from index and regained entry

** In March 2010 company was not included in the index.

Appendix C The FTSE4Good Countering Bribery criteria

The following provides key information related to the FTSE4Good Countering Bribery criteria. For the full text please refer to the FTSE4Good Index Series Inclusion Criteria²⁴

The FTSE4Good Criteria for Countering Bribery take the Transparency International Business Principles for Countering Bribery as a starting point. Bribery is defined as “an offer or receipt of any gift, loan, fee, reward or other advantage to or from any person as an inducement to do something which is dishonest, illegal or a breach of trust in the conduct of the enterprise's business.”

It is FTSE's declared intention to require all companies to address bribery in the future. To begin with, these criteria first apply only to companies that have been identified as having the highest levels of exposure to risk of engaging in bribery.

The process used to identify companies as high risk has three filters:

- *Sector*
- *Country*
- *Public contracts*

A company found to be high risk in all three filters is identified as a company that is high risk overall in the area of bribery.

See table 1 and 2 for the risk categorisation and criteria

²⁴ Available at:
http://www.ftse.com/Indices/FTSE4Good_Index_Series/Downloads/F4G_Criteria.pdf

Table 1 High risk company categorisation

High risk companies - ALL three filters must apply to each company before they are designated ‘High Risk’	
Sector	<p>Companies from the following ICB (Industry Classification Benchmark) sectors and sub-sectors⁴ are considered more likely to have the highest levels of exposure to risk of engaging in bribery:</p> <ul style="list-style-type: none"> • Oil & Gas Producers; Oil Equipment, Services, & Distribution; Chemicals; Industrial Metals; Mining; Construction & Materials; Aerospace & Defense; General Industrials; Electronic & Electrical Equipment; Industrial Engineering; Support Services; Electricity; Gas, Water, & Multi-Utilities. • Pharmaceuticals; Hotels; Fixed Line Telecommunications; Mobile Telecommunications; Software & Computer Services; Technology Hardware & Equipment.
Countries	<p>Companies operating in countries that are deemed to have the highest risk, or perceived risk of, levels of bribery:</p> <ul style="list-style-type: none"> • Countries scoring 4 or less on the Transparency International Corruption Perceptions Index. • Countries scoring 0 or less (negative) on the World Bank Governance Indicators list.
Public contracts	<p>Companies that are involved in any way with government/public contracts, or where a government licence is critical to the operation of their business, are considered as having the highest levels of exposure to risk of engaging in bribery.</p>

Table 2 Countering bribery criteria for high risk companies

Area	Indicator
Policy	<ul style="list-style-type: none">• Prohibits giving and receiving bribes (companies that are signatories to the UN Global Compact may be considered committed to this criteria indicator)• Commits to obeying all relevant laws• Commits to restricting and controls facilitation payments• Commits to restricting giving and receiving gifts• Policy is publicly available
Management	<ul style="list-style-type: none">• Communicates policy to employees• Trains relevant employees• Compliance mechanisms (e.g. assurance, audits, monitoring, board reports)• Provides secure communication channels for employees to seek advice or voice concerns (e.g., hotlines, advice lines, whistle-blowing procedures for protection, internal reporting mechanism)• Procedures to remedy non-compliance*
Reporting	<ul style="list-style-type: none">• Policy is publicly disclosed• Compliance mechanisms are publicly disclosed

*Where there is a significant and credible controversy/allegation that a company, its business partners, including suppliers, contractors or agents are committing bribery, the company must have taken visible, demonstrable or quantifiable steps to prove it has investigated these allegations effectively and in a timely manner.

Appendix D Robustness checks

Table 1. Tobit Instrumental Variable analysis predicting total countering bribery scores

Total Countering Bribery scores ¹	
Engagement (binary)	5.79*** (0.82)
Calculative routines	1.49*** (0.25)
Symbolic work	1.01*** (0.28)
UK	0.79** (0.25)
Oil & Gas	2.45*** (0.45)
Basic Materials	0.21 (0.41)
Industrials	0.82* (0.39)
Consumer goods	0.05 (0.49)
Health care	2.95*** (0.53)
Telecommunications	-0.60 (0.55)
Utilities	1.35** (0.51)
2008	0.70* (0.32)
2009	1.25*** (0.31)
2010	1.81*** (0.30)
Size	0.86*** (0.08)
Intangibles	0.23 (0.14)
Risk	-0.05 (0.11)
ROA	0.01 (0.01)
constant	-7.86*** (0.86)
N	806
Wald chi2(18)	441.15
Prob > chi2	0.0000
Wald test of exogeneity:	79.48***
* p<0.05, ** p<0.01, *** p<0.001	

¹ The results of the first step of the instrumental variable analysis are omitted. The estimates of the first step are incorporated into the results reported.

Table 2. Tobit analysis with adjusted lag structure

----- Total countering bribery scores -----	
Engagement (Binary) ¹	0.66** (0.20)
Calculative routines ¹	1.12*** (0.16)
Symbolic work ¹	1.06*** (0.18)
UK	0.34* (0.17)
Size	0.55*** (0.05)
Intangibles	0.15* (0.07)
Risk	0.05 (0.06)
ROA	0.00 (0.01)
Oil & Gas	1.42*** (0.34)
Basic Materials	0.40 (0.35)
Industrials	0.86** (0.32)
Consumer goods	0.11 (0.37)
Health care	1.73*** (0.39)
Telecommunications	-0.18 (0.36)
Utilities	1.57*** (0.39)
constant	-2.79*** (0.58)

N	602
pseudo-likelihood	-1151.65
Pseudo R2:	
McFadden	0.12
McKelvey & Zavoina's	0.40

* p<0.05, ** p<0.01, *** p<0.001

¹ variables are double lagged

Table 3. Binary logit analysis of recoded EIRIS scores

	Policy ¹	Man. Systems ¹	Reporting ¹
Engagement (binary)	1.36*** (0.41)	1.36*** (0.38)	-0.96* (0.48)
Symbolic work	1.63*** (0.31)	1.82*** (0.26)	0.95*** (0.26)
Calculative routines	1.15*** (0.26)	1.03*** (0.22)	1.14*** (0.26)
UK	-0.02 (0.20)	-0.04 (0.20)	0.79** (0.26)
Size	0.63*** (0.08)	0.54*** (0.07)	0.46*** (0.11)
Intangibles	0.05 (0.13)	0.13 (0.13)	-0.20 (0.17)
Risk	0.09 (0.10)	0.10 (0.09)	0.23* (0.10)
ROA	-0.01 (0.01)	0.00 (0.01)	-0.00 (0.02)
Oil&Gas	0.38 (0.37)	0.98* (0.38)	1.24* (0.62)
Basic Materials	-0.29 (0.33)	0.29 (0.35)	0.80 (0.60)
Industrials	0.38 (0.32)	0.54 (0.34)	0.45 (0.62)
Consumer goods	-0.21 (0.34)	-0.25 (0.40)	0.08 (0.83)
Health care	1.72*** (0.46)	2.31*** (0.47)	2.06*** (0.62)
Telecommunications	0.19 (0.64)	1.57** (0.57)	-2.72* (1.32)
Utilities	1.02 (0.54)	0.70 (0.44)	0.97 (0.67)
2008	0.76** (0.27)	0.44 (0.26)	0.44 (0.37)
2009	1.00*** (0.28)	0.91*** (0.26)	0.52 (0.36)
2010	1.02*** (0.28)	0.89*** (0.27)	0.68 (0.37)
N	820	820	820
pseudo-likelihood	-351.80	-390.22	-258.00
McFadden R-square	0.22	0.30	0.32
Count R-square	0.87	0.77	0.81

* p<0.05, ** p<0.01, *** p<0.001

¹ Scores assigned by EIRIS for countering bribery policy, management system and reporting are recoded into binary (0/1) scores