

Uncovering the Two Faces: Drivers, Contexts, and Outcomes of Corporate Social Inconsistency

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A thesis submitted to The University of Adelaide Business School in fulfillment of the requirement for the degree of

Doctor of Philosophy (Business)

April 2017

TABLE OF CONTENTS

TABLE OF CONTENTS	I
LIST OF TABLES	IV
LIST OF FIGURES	V
LIST OF GLOSSARY	VI
ABSTRACT	VII
THESIS DECLARATION	IX
ACKNOWLEDGEMENTS	X
CHAPTER 1	1
OVERVIEW OF THE THESIS	1
1 INTRODUCTION	2
1.1 Motivation	
1.2 Aims and Objectives	
2 LITERATURE REVIEW	
2.1 Instrumental Stakeholder Theory	
3 OVERVIEW OF THE PAPERS	12
3.1 Paper 1: Why Are Some Firms So Two-Faced? Toward a Theory of Corporate Soc	
Consistency and Inconsistency (Chapter 2)	
and Within-Firm Variability in Corporate Social Responsibility Practices (Chapter 3)	
3.3 Paper 3: Exploring the Curvilinear Relationship Between Corporate Social	
Inconsistency and Risk (Chapter 4)	
4 RESEARCH METHODS	18
5 STRUCTURE OF THE THESIS	20
REFERENCES	21
CHAPTER 2	25
PAPER 1—WHY ARE SOME FIRMS SO TWO-FACED? TOWARD A THEOR CORPORATE SOCIAL CONSISTENCY AND INCONSISTENCY	
ABSTRACT	27
1 INTRODUCTION	28
2 CORPORATE SOCIAL (IN)CONSISTENCY	
2.1 Understanding Inconsistency	
2.2 Defining Corporate Social Inconsistency	
3 CSI AND INSTRUMENTAL STAKEHOLDER THEORY	
4 THE DRIVERS OF (IN)CONSISTENCY IN CSR AND CSIR	
4.1 Stakeholder Fressure	
4.3 Stakeholder Pressures, Resource Endowments, and Strategic Postures	
5 DISCUSSION	53

5.1 Theoretical Implications	
5.2 Practical Implications	
5.3 Future Research Directions	
5.4 Conclusion	57
REFERENCES	58
CHAPTER 3	65
PAPER 2—A CROSS-COUNTRY MULTILEVEL INVESTIGATION OF	
MARKET OPENNESS, AND WITHIN-FIRM VARIABILITY IN CORPORATE	
RESPONSIBILITY PRACTICES	
ABSTRACT	67
2 THEORY AND HYPOTHESES	
2.1 What is CSI?	
2.2 Evolutionary Economics, Institutional Economics and Strategic Management.	
2.3 Why can R&D Promote Variability in ESG Practices?2.4 Institutions, Selection, and CSI.	
3 METHODS	
3.1 Data Sources and Sample	
3.2 Dependent Variable	
3.3 Independent and Moderator Variables	
3.4 Control Variables	
4 RESULTS	
4.1 Robustness Tests	97
5 DISCUSSION	97
5.1 Implications for Theory and Practice	98
5.2 Limitations and Future Research	100
5.3 Conclusion	101
REFERENCES	103
CHAPTER 4	100
PAPER 3—EXPLORING THE CURVILINEAR RELATIONSHIP BE	
CORPORATE SOCIAL INCONSISTENCY AND RISK	109
ABSTRACT	112
1 INTRODUCTION	113
2 THEORY AND HYPOTHESES	
2.2 The Conceptual Anchors of Our Theoretical Exploration	
2.3 The Moderating Role of Innovation in the CSI-Risk Relationship	
· ·	
3 METHODS	
3.1 Data Sources and Sample	
3.2 Dependent Variable	
3.4 Control Variables	
3.5 Analysis	
A DESILITS	133
A RESULTS	1.7.7

4.1	Robustness Tests	140
	4.1.1 Robustness Test of U-shaped Relationship	140
	4.1.2 Robustness Test of Moderation	
	4.1.3 Additional Robustness Tests of the Model	143
5	DISCUSSION	143
5.1		
5.2		
5.3	Conclusion	147
REFI	ERENCES	149
APPI	ENDIX	155
СНА	PTER 5	159
SUM	MARY AND CONCLUSIONS	159
1	INTRODUCTION	160
2	FINDINGS	164
2.1		
2.2	Context of CSI	165
2.3	Outcomes of CSI	166
2.4	Conclusions in Combination	167
3	CONTRIBUTIONS AND IMPLICATIONS	169
3.1	Theoretical Contributions and Implications	169
3.2	Practical Contributions and Implications	171
4	LIMITATIONS AND FUTURE RESEARCH DIRECTIONS	173
5	CONCLUSION	176
REFI	ERENCES	178
ETIT I	DEFEDENCELICT	101

LIST OF TABLES

Table 3.1 Descriptive data and correlation matrix	91
Table 3.2 Descriptive statistics by country	92
Table 3.3 Results of MLM analyses on CSI	93
Table 4.1 Descriptive statistics	133
Table 4.2 Correlation matrix	134
Table 4.3 Regression coefficient estimates for risk	135
Table 4.4 Marginal effects of corporate social inconsistency on risk	137
Table 4.5 Test of a U-shaped relationship between CSI and risk	140
Table A4.1 U-shape robustness test (cubic model)	155
Table A4.2 Curvature moderation test	156
Table A4.3 Robustness test results	157
Table 5.1 Comparison of Paper 1-3	162

LIST OF FIGURES

Figure 1.1 Overall conceptual model of CSI	13
Figure 2.1 Conceptual model of CSI	35
Figure 2.2 Strategic postures: (In)consistency in CSR, CSiR, and legal compliance	45
Figure 3.1 Conceptual model of R&D, market openness and CSI	82
Figure 3.2 The effect of R&D on CSI at varying levels of market openness	96
Figure 4.1 The curvilinear relationship between corporate social inconsistency (CSI) and risk	.138
Figure 4.2 The curvilinear CSI-risk relationship at varying levels of innovation	.139

LIST OF GLOSSARY

CSI corporate social inconsistency

CSR corporate social responsibility

CSP corporate social performance

CSiR corporate social irresponsibility

ESG environmental, social, corporate governance

IST instrumental stakeholder theory

RBT resource-based theory

RDT resource dependence theory

R&D research and development

Uncovering the Two Faces: The Drivers, Contexts, and Outcomes of Corporate Social Inconsistency

ABSTRACT

This thesis examines firms' internal inconsistencies with regard to corporate social responsibility (CSR), or more specifically the within-firm variability in corporate environmental, social, and governance (ESG) practices. The data for this thesis were collected from multiple databases. The empirical results were drawn from a panel data of 863 firms for the period of 2008 to 2012. This thesis follows a PhD by publication format and comprises three interrelated papers that are contained in Chapters 2, 3, and 4, respectively.

The first paper (Chapter 2) is a theoretical exploration of why firms are consistent or inconsistent in their social practices. This study conceptualizes within-firm corporate social inconsistency (CSI) essentially as tradeoffs among stakeholders. Drawing predominantly on instrumental stakeholder theory and resource dependence theory, this paper proposes a conceptual framework to explain why firms are consistent or inconsistent in their ESG practices. The central argument of this paper is that the balance of stakeholder pressures and organizational resource endowments jointly explain CSI, as well as other closely related strategic postures, such as legal compliance, consistent CSR, and consistent corporate social irresponsibility (CSiR).

The second paper (Chapter 3) is an empirical investigation of research and development (R&D) as a specific type of resource that might affect firms' consistency or inconsistency in ESG practices. In addition, this study examines the contextual contingency impact of market openness on the association between R&D and CSI. Drawing on evolutionary economics, this study proposes that R&D is positively related to CSI because the complementarity between R&D and CSI can create important synergies between a firm's market and

nonmarket strategies. This paper also hypothesizes that high market openness positively moderates the relationship between R&D and CSI because high selection pressure from open markets reinforces the strategic-instrumental necessity of bundling R&D and CSI.

The third paper (Chapter 4) examines the effects of CSI on corporate risk. Drawing on instrumental stakeholder theory and the resource-based theory (RBT) of the firm, this study hypothesizes a U-shaped relationship based on the latent benefits of CSI and its exponential costs. The results suggest that CSI is inversely related to corporate risk at low and moderate levels. Beyond that point, excessive CSI enhances risk. However, the risk-enhancing characteristics of CSI can largely be avoided by pairing CSI with innovation.

The findings of the three papers lead to the overarching conclusion that CSI is essentially a resource management strategy in firms' strategic tradeoffs. It can enhance the effectiveness and efficiency of resources as a response to external environments. R&D and innovation merit special attention in this resource management process because of their synergy with ESG practices. CSI in moderation can be a beneficial nonmarket strategy that reduces corporate risk. However, excessive CSI is also shown to be disadvantageous. The findings of the thesis make an important theoretical contribution to the literatures on CSR and strategic management. Practical implications can also be drawn from the thesis for managers, investors, and policy makers.

THESIS DECLARATION

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IX

ACKNOWLEDGEMENTS

This thesis carries millions of thanks and enormous gratitude. Firstly, I would like to express my sincere gratitude to my supervisor Assoc. Prof. Dirk Boehe and Prof. Marc Orlitzky for their constant support of my PhD study and for their immense knowledge, great insights, continuous motivation, and enormous patience. Their guidance helped me in all the time of research and writing of this thesis. I could not have imagined having better supervisors and mentors for my PhD study.

What is the most valuable in my PhD study is what I have learned from my supervisors: the passion, vision, work ethics, and positive attitudes towards life. I always bear in mind what my principal supervisor suggested on the first day of my PhD study: be resilient and navigate the uncertainties. This advice has not only guided me throughout my study, but also helped me overcome all the difficulties and setbacks in my life over the last three years. Under their positive influence, I strongly believe that there is nothing that one cannot achieve by investing passion, vision, and efforts in one's work and life.

I am grateful to my friends for sharing my happiness and sorrows and offering the kindest help. I also thank my friends who work in industry, whose business wisdom of intellectual depth and rigor has challenged and enlightened me in my research. In particular, I thank those friends who always remind me of being a socially responsible researcher and address societal problems with knowledge and humanity.

Last but not the least, I would like to thank my family for constantly supporting me throughout my life. Beyond words, I am extremely grateful to my parents, whose personal sacrifices gave me the amazing gift of a wonderful education.

CHAPTER 1

OVERVIEW OF THE THESIS

1 INTRODUCTION

1.1 Motivation

This thesis was motivated by the observation that many firms behave inconsistently with respect to various different corporate environmental, social, and governance (ESG) issues (see also Strike, Gao, & Bansal, 2006). The same company may be considered exemplary in one issue, but very poor in another (Allen, 2013; Kan, 2013). In the most inconsistent case, a firm may be regarded as both responsible and irresponsible (Strike et al., 2006). The coexistence of corporate social responsibility (CSR) and corporate social irresponsibility (CSiR) in different ESG issues suggests that a firm's social performance can vary in the extent to which it addresses nonmarket issues, principally reflected in corporate environmental, social, and corporate governance (ESG) practices (Cheng, Ioannou, & Serafeim, 2014; Ioannou & Serafeim, 2012).

However, the extant literature on CSR does not provide sufficient insight into this phenomenon. Employing an aggregate approach to CSR without looking at the within-firm inconsistency still prevails the field of CSR. The peril of this approach is that it not only masks the within-firm tradeoffs among ESG issues and stakeholders (Oikonomou, Brooks, & Pavelin, 2012), but also obscures the important differences in firms' social strategies in their selection of ESG issues (Mazutis, 2010). This loss of information can misrepresent a firm's true social performance because a firm's high score in corporate social performance (CSP)¹ does not necessarily imply that this firm is responsible in *all* major ESG practices.

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¹ Note. In strict sense, CSR and CSP are two slightly different concepts. CSR is a comprehensive concept that includes principles, processes, and actions that are related to socially responsible practices. CSP mainly refers to the outcome of CSR. However, due to the minuscule differences, CSR and CSP are often used interchangeably in literature. In my thesis, CSR is predominantly used in theorization, while CSP is mainly used as a control variable in empirical models.

Consequently, the lack of accurate reflection of this organizational reality can result in misleading findings. Some findings may provide an overly generic picture in which the antecedents and outcomes of CSR are seen as positive or negative, although they are only relevant to a specific stakeholder or ESG practice. Therefore, the results of the previous studies could be misleading. Hence, without looking at the within-firm inconsistency in CSR, our understanding of firms' social performance and their social strategies is limited.

Although a few studies have hinted at inconsistency (Tang et al., 2012; Wang & Choi, 2013), they did not theorize this phenomenon systematically. Rather, they simply assert that consistency in high levels of CSR in ESG practices is preferred because it can strengthen the financial return from CSR. By suggesting consistency, this argument implicitly assumes that firms have a great deal of resources and the discretion to be consistent in high CSR levels. Yet, in reality this assumption can hardly stand (Jensen, 2002). In fact, firms face resource constraints of different kinds and degrees (Jensen, 2002; Penrose, 1959; Rumelt, 2011). Because CSR activities require resources, which sometimes can even incur disproportionately high costs (Campbell, 2007; King, 2007), the adoption of high CSR levels in all ESG practices can handicap a firm in the competition for survival (Campbell, 2007; Jensen, 2002). Realistically, tradeoffs among ESG dimensions cannot be avoided (Devinney, 2009).

Moreover, the support for consistency defies the strategic appeal implied by inconsistency, which suggests selection of social issues and strategic resource allocation. Akin to other business activities, investing in CSR is a resource commitment that requires strategic allocation among social issues and stakeholder groups (Mazutis, 2010; Perez-Batres, Doh, Miller, & Pisani, 2012; Porter & Kramer, 2011; Porter & Kramer, 2006). Inconsistency denotes that the focal firm pays more attention to certain social issues and stakeholder groups

than others (Porter & Kramer, 2011; Porter & Kramer, 2006; Wang & Choi, 2013). More details about this literature follow in the next literature review section.

Thus, it is evident that, in this research area, greater progress is possible because of the current major gaps in understanding (Capelle-Blancard and Petit, 2015; Mazutis, 2010). In order to fill these knowledge gaps, researchers in this field of inquiry must identify conceptually and methodologically valid ways of studying this within-firm variability in ESG practices. Apparently, this concept must go beyond the aggregate, or average, level of CSR that a firm exhibits (see also Orlitzky, Louche, Gond, & Chapple, 2015). My inquiry into the inconsistency in CSR is in this spirit.

My thesis was also motivated by considerations of practical relevance. Without accurate knowledge of the firm's consistency and inconsistency, stakeholders and investors may be misled. Due to their cognitive limits, stakeholders and investors may not be able to objectively assess a firm's CSR in the presence of inconsistent information (Barnett, 2012). When information about a firm's CSR cannot be objectively interpreted, investors are unlikely to be able to distinguish the true and false market signals of CSR. The proliferation of the mixed information can create market noise that further increases stock price volatility (Orlitzky, 2013).

1.2 Aims and Objectives

This thesis aims to conceptualize the inconsistency in CSR and initiate a closer examination of this phenomenon. In this study, this phenomenon is captured by the concept of *corporate social inconsistency* (CSI). Firms are *consistent* at a particular point in time when their corporate social performance is at similar level in the three CSR domains (the aforementioned ESG practices). In contrast, I view a firm as *inconsistent* if it is socially

responsible in some domains, but not so responsible in others at the same time. Thus, my concept captures "interdomain inconsistency" (i.e. "consistency in a firm's treatment of its different stakeholder groups"), but not "temporal inconsistency" (i.e., "the reliability of a firm's treatment of its stakeholders over time"), as defined by Wang and Choi (2013, p. 418). I acknowledge that this distinctive categorization represents ideal types, which are useful as contrasting frames of reference (Bailey, 1994; Swanson, 1999; Weber, 1914/1947). In practice, CSI is more of a continuum ranging from low to high. In addition, despite the possible normative or instrumental connotations of the terms *consistent* and *inconsistent*, I do not intend to convey any such evaluative judgments.

Further, as the starting point of this inquiry, this thesis aims to address three interrelated research questions surrounding CSI:

- 1. Why do firms engage in socially consistent and inconsistent CSR and/or CSiR?
- 2. How and in what contexts does R&D affect firms' CSI?
- 3. How does CSI affect a firm's market risk?

In pursuit of these research questions, the central objective of this thesis is to advance the frontier of CSR literature. Aligned with my definition of CSI as value-neutral, I take a strategic approach in my inquiry, which rests upon the assumption that CSR can contribute to a firm's profitability and competitive advantage (Garriga & Melé, 2004; Perez-Batres et al., 2012; Windsor, 2006). Guided by this approach, I employ a resource-based theoretic reasoning and build the central arguments surrounding CSI on firms' strategic resource management under different conditions, in different contexts, and with different outcomes. With the support of quantitative empirical tests, this thesis intends to resolve some tensions and debates in the prior CSR literature and provide suggestions for future research.

In addressing the three research questions, this thesis aims to make contributions to

theory and practice. First, adding CSI into the field of CSR can inform a more accurate understanding of CSR. The concept of CSI advances the literature on CSR by challenging the conventional wisdom that assumes CSR is a unidimensional concept (Deckop, Merriman, & Gupta, 2006; Waldman, Siegel, & Javidan, 2006). This study contributes to this field by advocating that researchers no longer employ an aggregate approach to regard overall CSR as the basis of research. The use of CSI can further illuminate more reliable results in the study of the determinants, contexts, and outcomes of firms' CSR.

Second, the empirical results (from chapters 3 and 4) can inform the persistent debate in the strategic management literature about being consistent or inconsistent in ESG practices. CSI implies strategic selection of ESG issues and tradeoffs among stakeholders, which can serve as a favorable strategic posture (Porter & Kramer, 2006, 2011). This view challenges the institutionalized "manage-for-stakeholders" approach that prefers consistency over inconsistency (Freeman, Harrison, Wicks, Parmar, & De Colle, 2010; Wang & Choi, 2013). Nevertheless, my thesis does not intend to declare CSI as an "ultimate victor" in the debate. Further, stressing that CSI can (sometimes) be a favorable strategy, especially if bundled with R&D, also contributes to strategic management by underscoring *how* resources are managed in combination—not only *what* resources firms possess.

Practically, my thesis offers insights to managers, investors, analysts, and policy makers. To obtain a more comprehensive understanding of a firm's CSR, investment analysts and managers should also be cautious about the manner in which they assess it. Managers may be able to use CSI in moderation as a strategic focus, contingent on their organization's resource stock and the level of different stakeholder pressures. However, managers should still monitor CSI to avoid its possible negative outcomes.

2 LITERATURE REVIEW

Scholars have studied corporate social responsibility (CSR) for many decades through different disciplinary and conceptual lenses in such fields as organizational theory, strategy, organizational behavior, human resource management, and marketing, among others. As a result, there is an extensive amount of literature on CSR from different perspectives and approaches examining the predictors, outcomes, mediators, and moderators at different levels (Aguinis & Glavas, 2012).

Studies at the organizational levels of CSR focus more on instrumental motives and theories related to instrumental stakeholder theory and resource-based theory (Aguinis & Glavas, 2012). A common theme that runs through these two theories is stakeholder management, which points to the discussion about consistency. In order to outline the theoretical foundations of consistency and inconsistency in CSR, this section reviews these two theories.

2.1 Instrumental Stakeholder Theory

Instrumental stakeholder theory (IST) suggests that firms attend to their stakeholders because their interests align with and contribute to firms' goals, such as profitability or growth (Freeman, 1984). By making this assertion, IST connects firms' objectives and stakeholder management (Donaldson & Preston, 1995; Jones, 1995). Stakeholder satisfaction is thus seen as critical to a firm's ultimate objective (i.e., market success), according to some interpretations (Greenwood, 2007; Jawahar & McLaughlin, 2001). Freeman's (1984) theory also suggests that firms allocate resources to stakeholders in proportion to their importance to corporate goals. Thus, the problem of stakeholder management becomes one of resource

allocation, in exchange for enhanced value (Greenwood, 2007; Harrison, Bosse, & Phillips, 2010).

Firms' allocation of resources to stakeholders are influenced greatly by the salience of stakeholders (Mitchell, Agle, & Wood, 1997), also known as issue salience (Bundy, Shropshire, & Buchholtz, 2013). This focus on stakeholder salience advanced IST by proposing three criteria for stakeholder prioritization: stakeholder legitimacy, power, and urgency (Mitchell et al., 1997). This stream of IST has specified how firms allocate resources to stakeholders in proportion to their importance to corporate goals. The implications of Mitchell et al.'s (1997) theory for CSI are easy to grasp in the context of CSI: likely differences in stakeholder legitimacy, power, and urgency explain why firms are inconsistent with regard to different stakeholders.

Furthermore, Jawahar and McLaughlin (2001) suggested potential tradeoffs between multiple stakeholders. They proposed that firms are likely to attend to the most important stakeholders which are critical to the firm's survival in the presence of competitive threats, while denying responsibility for, or even defending against, other stakeholders.

By contrast, if a firm is consistent in high CSR levels with regard to all stakeholders irrespective of their importance to firms, it may risk overinvesting (Sisodia, Wolfe, & Sheth, 2003). A substantial investment in a stakeholder that does not bear a significant interest to a firm is not as effective as investing in a primary stakeholder (Garcia-Castro & Francoeur, 2016). According to this view, overinvestment is not only unnecessary, but also unrealistic. Given the fact that firms' resources are limited (Jensen, 2002; Penrose, 1959; Rumelt, 2011), consistently high CSR levels can harm the local firm in competition for survival because consistently high CSR levels may have shifted resources away from core business activities (Jensen, 2002). Thus, being consistent in high CSR with respect to all stakeholders is unlikely

to be a better strategy than being selective (i.e., internally inconsistent) with respect to CSR with only the most significant stakeholders (Garcia-Castro & Francoeur, 2016). However, according to the same scholars, consistency in low commitment to CSR is not a good choice, either, especially because firms depend on primary stakeholders for resources (Garcia-Castro & Francoeur, 2016; Jawahar & McLaughlin, 2001).

2.2 Resource-based Theory

Another important theoretical insight to the understanding of consistency and inconsistency in CSR is provided by resource-based theory (RBT) (Barney & Clark, 2007). This theory provides a foundation for understanding the importance of stakeholders in terms of the resources and capabilities controlled by them. In the context of RBT, CSR can improve firm–stakeholder relationships and enhance the firm's reputation among customers, employees, regulators, and suppliers (Barnett, 2007; Brammer & Millington, 2008). This theory suggests that these resources, like reputation, good stakeholder relationships etc., are socially complex and difficult to imitate, thus conferring higher potential to create competitive advantage.

In light of this view, it should follow that the more consistent a firm is, especially in high CSR levels, the stronger its competitive advantage. Thus, some previous studies have suggested that consistency in relationships with stakeholders can be replicated by competitors only with great difficulty. They found that consistency in high CSR levels with respect to different stakeholders can strengthen the relationship between CSR and corporate financial performance (Tang, Hull, & Rothenberg, 2012; Wang & Choi, 2013). Hence, both the theory and empirical results seem to prefer consistency over inconsistency.

However, this conclusion should be interpreted with caution. One critical implication of this theory is that not all organizational resources are equally important for creating a sustainable competitive advantage (Barney & Clark, 2007). It is certainly true that a good stakeholder relationship is a valuable resource to the focal firm (Barney & Clark, 2007; McWilliams & Siegel, 2010). However, given that stakeholders differ in their importance and salience (Mitchell et al., 1997), it is reasonable to assume that the value created through different stakeholder relationships varies by their importance to the focal firm.

More specifically, given that some stakeholders (e.g., shareholders, suppliers, employees) are more critical to a firm's survival, good relationships with these stakeholders are more valuable to the firm than relationships with other stakeholders (e.g., media, environmental groups) (Garcia-Castro & Francoeur, 2016). In addition, as some stakeholders (e.g., shareholders, creditors) are crucial throughout a firm's life cycle (Jawahar & McLaughlin, 2001), their relationships are more likely to be mutually embedded in a historical social context with a long-term orientation (O'Brien & David, 2014). The long-term continuity underlying the relationships with these key stakeholders are likely to enhance trust building and stakeholder reciprocity (Barnett, 2007; Barney & Clark, 2007; O'Brien & David, 2014). For instance, some firms tend to develop close and long-term relationships with a small set of core suppliers than other stakeholders, because the norms of reciprocity generated in the relationships can confer greater value in their economic exchange (Jawahar & McLaughlin, 2001; O'Brien & David, 2014). Such long-term reciprocal relationships are firm-specific assets that competitors may not be able to replicate these relationships in the short term (Barney & Clark, 2007; O'Brien & David, 2014). By contrast, relationships with other distantly related stakeholders do not confer as much value because their role is not critical; they are not in the best position to build a long history with the focal firm (Garcia-Castro &

Francoeur, 2016). Thus, the resources obtained from the relationships with key stakeholders are more historically complex and difficult to replicate and therefore create more advantage-conferring value (Garcia-Castro & Francoeur, 2016).

Therefore, albeit that consistency in high CSR levels may confer more value in total, notably, the relationships with distantly related stakeholders do not confer as much value as key stakeholders. However, the focal firm that is consistent in high CSR levels still has to invest substantially to make its CSR strategy effective and visible to all stakeholders, so it can elicit positive responses from stakeholders and appropriate the relational value (Dubé, Hitsch, & Manchanda, 2005; Dyer & Singh, 1998; Wang & Qian, 2011). Thus, a cost-benefit analysis suggests that being equally high in CSR with respect to these stakeholders is neither resource effective nor efficient; rather, it can be detrimental to a firm's performance (Garcia-Castro & Francoeur, 2016). In line with my arguments on the discussion of instrumental stakeholder theory above, investing in all stakeholders seeking to enhance consistent stakeholder relationships seems to be neither realistic nor necessary (Garcia-Castro & Francoeur, 2016; Jensen, 2002).

In summary, synthesizing the two theoretical perspectives raises a central question: Does this fact of widespread CSI imply the strategic or organizational utility thereof? If it does, the aforementioned preference for consistency in previous studies (based on instrumental stakeholder theory and resource-based theory) could be questioned (e.g., Tang, Hull, & Rothenberg, 2012; Wang & Choi, 2013). Hence, the potential, theory-based CSI needs to be more carefully conceptualized and explored. This will allow us to discern under which conditions and in what contexts organizations may trade off value creation for some stakeholders by substituting some ESG practices for others. In turn, this expands our

understanding of when consistent or inconsistent ESG practices are either favorable or detrimental to enhancing organizational effectiveness.

3 OVERVIEW OF THE PAPERS

This thesis follows a PhD by publication format and consists of three related, but self-contained papers. Each paper addresses one research question. The thesis format requires the papers in the thesis to be ready for publication, but not necessarily to have been published in journals.

Figure 1.1 summarizes the conceptual model of CSI in this thesis, which illustrates the central inquiry of this thesis and the interrelations among the papers. The remaining part of this section contains a detailed summary of each paper. The contribution made by the PhD candidate is 80% for Paper 1, 85% for Paper 2, and 82% for Paper 3, all of which were coauthored with the PhD candidate's supervisors and colleagues.

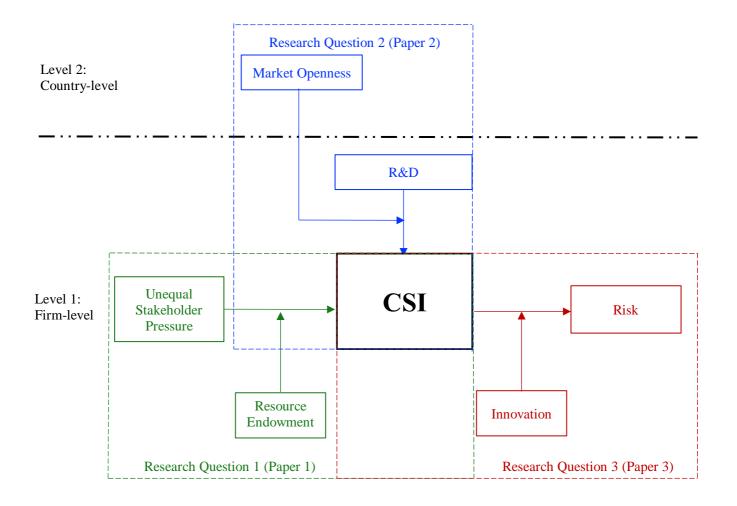


Figure 1.1 Overall conceptual model of CSI

It is worth noting that Paper 1 uses a slightly different definition of CSI from that in Papers 2 and 3. There are two changes of the definition. First, following Wang and Choi (2013), Paper 1 uses stakeholders as the reference point, while Papers 2 and 3 use social issues as the reference point of CSI. This change is made because of two considerations: a) social issue is a more realistic benchmark because different stakeholders may represent the same claim on the same social issue. For instance, although government, local community, environmental activists, etc. are different stakeholder groups, they may exert pressure on firms for the same social issue—environmental protection (Baron, 2001; Kassinis & Vafeas,

2006). The other consideration b), for the same reason as a), is that the operationalization of CSI by social issues is more feasible to implement than by stakeholders. In addition, stakeholders of a focal firm can change due to different events arising, while social issues are relatively more stable (Bundy et al., 2013; Mitchell et al., 1997).

The second change of the definition is the unit that constitutes CSI. Paper 1 defines CSI as "simultaneous CSR and CSiR". The purpose is to study CSI in the most inconsistent case in order to maximize the within-firm tension. This contrasting frame of reference can help parsimoniously theorize the drivers of CSI (Bailey, 1994; Swanson, 1999; Weber, 1914/1947). In Papers 2 and 3, the concept of CSI is changed to "within-firm variability in performance in ESG practices." The reason behind this change is that "simultaneous CSR and CSiR" narrows CSI down to only two opposite extremes (i.e., CSR and CSiR). Changing to "within-firm variability in performance in ESG practices" broadens the concept with a wider range of practices including CSR (at high, medium or low levels), CSiR and compliance. One more advantage of this change is that this broader definition can avoid the controversies of the definition of CSiR due to the lack of consensus on CSiR in literature. With this change, CSI in Papers 2 and 3 is more value-neutral and thus easier to capture empirically.

3.1 Paper 1: Why Are Some Firms So Two-Faced? Toward a Theory of Corporate Social Consistency and Inconsistency (Chapter 2)

This theoretical paper addresses the unresolved question of why some firms are consistent or inconsistent in their CSR. I introduce the concept of *corporate social inconsistency (CSI)* to describe organizations' varying and uneven treatment of stakeholders by simultaneously engaging in corporate social responsibility (CSR) and corporate social

irresponsibility (CSiR).

Drawing on instrumental stakeholder theory (IST) (Donaldson & Preston, 1995; Jones, 1995) and resource dependence theory (Pfeffer & Salancik, 1978), this paper argues that any given strategic posture—corporate social consistency or inconsistency—results from the balance of stakeholder pressures moderated by a firm's resource endowments. This argument is further expanded into a novel conceptual framework that explains strategic postures ranging from consistent CSR to legal compliance to CSI to consistent CSiR.

This paper contributes to IST by acknowledging and theorizing on pervasive stakeholder tradeoffs in firms' ESG practices. Importantly, this paper adds to IST with an explanation of the tradeoffs that result from stakeholder pressures and internal resource endowment. As opposed to the assertion that stakeholder interests tend to converge with corporate goals and can be easily reconciled (Freeman, 1984; Freeman et al., 2010), recognizing CSI suggests that stakeholder interests can be in conflict with each other, so that firms resort to trading off some stakeholders for others. This view challenges the implicit assumption underlying the conventional view that firms can easily and cost-effectively reconcile divergent stakeholder interests (Freeman, 1984; Freeman et al., 2010). Further, this paper initiates an important debate over the costs and benefits of CSI for business and society.

3.2 Paper 2: A Cross-Country Multilevel Investigation of R&D, Market Openness, and Within-Firm Variability in Corporate Social Responsibility Practices (Chapter 3)

This empirical paper investigates the impact of R&D on corporate social inconsistency (CSI), the within-firm variability of a firm's effectiveness in addressing different environmental, social, and governance (ESG) practices. The prior literature has largely

emphasized the positive effects of R&D in firms' overall CSR with the implicit assumption that R&D can be related to all ESG practices (Padgett & Galan, 2010; Surroca, Tribó, & Waddock, 2010). However, the literature is still inconclusive because other studies imply that R&D may lead to a lower level of CSR. Implicitly assuming R&D is distantly related to ESG practices, these studies suggest that ESG practices can shift resources away from R&D (Hull & Rothenberg, 2008; O'Brien & David, 2014; Tang et al., 2012).

This paper reconciles the opposing assumptions on the strength of the link between R&D and CSR in the strategic CSR literature (see, e.g., Orlitzky, Siegel, & Waldman, 2011). This study argues that the effects of R&D on ESG practices are subject to the complementarities between R&D and ESG practices and external contingencies. In this paper, R&D (as a capability) is viewed as a search routine (Nelson & Winter, 1982). Building on evolutionary economics, this study proposes that R&D is positively related to CSI because the complementarity between R&D and CSI can create synergies between a firm's market and nonmarket strategies. A firm's within-firm variability in ESG practices, typical of CSI, can also emerge from the path-dependent nature of R&D and bounded rationality. Because country-specific institutional environments shape organizational innovation and ESG practices (Ioannou & Serafeim, 2012; Matten & Moon, 2008), I hypothesize that the selection pressure resulting from more market-supporting institutions (market openness) positively moderates the relationship between R&D and CSI. This happens because selection pressure reinforces incentives for synergies by bundling R&D and CSI. The hypotheses are empirically supported using multilevel data of 863 firms from 30 countries between 2008 and 2012.

Examining the within-firm variability in ESG practices addresses the inconclusiveness of the prior literature that R&D may either enhance or undermine CSR (Gallego-Álvarez,

Prado-Lorenzo, & García-Sánchez, 2011; Hull & Rothenberg, 2008; McWilliams & Siegel, 2001; Padgett & Galan, 2010; Tang et al., 2012). Moreover, this paper emphasizes the contextual factors that are not examined in the R&D-CSR studies. Overall, this study contributes to evolutionary economics by integrating institutional contingencies that affect selection pressures in the market, especially how firms adapt to the pressure with nonmarket strategizing and, more specifically, the variability of ESG practices. In short, this paper highlights the significance of open markets in selecting firms with efficient bundles of R&D and CSI.

3.3 Paper 3: Exploring the Curvilinear Relationship Between Corporate Social Inconsistency and Risk (Chapter 4)

This paper empirically explores the relationship between firms' corporate social inconsistency (CSI) and corporate risk. Integrating instrumental stakeholder theory (Donaldson & Preston, 1995; Jones, 1995) and resource-based theory (Barney, Ketchen, & Wright, 2011; Branco & Rodrigues, 2006; Kraaijenbrink, Spender, & Groen, 2010), this paper hypothesizes a U-shaped relationship based on the latent benefits of CSI as well as its exponential costs. Consistent with this hypothesis, low and moderate levels of CSI are shown to be inversely related with corporate risk. However, beyond a certain point, CSI has a positive association with risk at high levels of inconsistency. Further, the pairing of CSI and innovation can largely mitigate the risk-enhancing characteristics of CSI. The hypotheses were tested on a panel dataset of 863 firms over 5 years.

This paper challenges the extant CSR literature by showing that CSI may be beneficial from a risk management perspective—at least up to a point. The results show that responding to a wide range of ESG issues (i.e., a firm "spreading itself too thin" on CSR) is not always

advantageous from a financial perspective. This paper also extends these theories and proposes strategic insights regarding more effective risk management, if managers choose to pursue CSR with greater strategic focus than the wide lens on CSR that institutional theory would typically suggest (Brammer, Jackson, & Matten, 2012; Campbell, 2007; Nikolaeva & Bicho, 2011).

4 RESEARCH METHODS

This thesis employs quantitative methods to address the three research questions. A unique dataset was developed by combining multiple data sources. Primarily, the dataset was constructed from the Thomson Reuter ASSET4ESG database, which specializes in providing objective, relevant, auditable, and systematic environmental, social, corporate governance (ESG) and economic information. ASSET4ESG covers more than 4,300 companies around the world that are listed on various stock indices, including S&P 500, NASDAQ 100, MSCI World, STOXX600, Russell 1000, FTSE 100, ASX 300, and MSCI Emerging Market (Thomson Reuters, 2012). Typical data sources include stock exchange filings, CSR and annual reports, nongovernmental organizations' websites, and various news sources. After gathering the ESG data, the analysts transform it into consistent units (0-100) to allow quantitative analysis of the qualitative raw data.

Due to missing values resulting from a lack of complete reports from firms, I collected data on 3,653 companies in 1,205 ESG indicators for the period of 2002 to 2013, resulting in a dataset with 43,836 firm-year observations in 57 countries and 10 industrial sectors. However, among the 1,205 ESG indicators, only 159 met the criteria for my study: a) indicators that capture the outcome of firms' social performance; and, b) indicators that are

standardized in order to readily allow for quantitative analysis. Other indicators were: a) the future-oriented driver indicators that measure whether firms have policies, implementation process, monitoring process and objectives to improve their ESG practices; b) indicators that contain the raw data linked to public data sources. Most of these indicators are categorical indicators with the data being dichotomous (*Yes* or *No*). Because my primary inquiry was about the outcome of firms' ESG practices that could be used to perform quantitative analysis, I filtered out other indicators that were not within the field of interest. For example, the driver indicators describe companies' intentions for the future practices: "Does the company have a policy to protect customer health and safety?" The data of such indicators are almost universally *Yes* for all firms; however, these indicators do not provide any outcome information (Thomson Reuters, 2012).

Because of the high number of missing values (85%) in years 2002 to 2007, I removed the missing values, leaving the years 2008 to 2012. However, there were still a large number of missing values in different ESG indicators in the time period between 2008 and 2012. In order to construct a dataset with a minimum number of missing values and complete information on ESG indicators, I removed those indicators with most missing values. The removal of all the missing values left me with 8,290 firm-year observations with 86 ESG indicators based on a sample of 1,658 firms from the years 2008 to 2012.

I collected accounting data and other related company-level data (e.g., number of employees, R&D expenditures) from *WorldScope* (years 2002 to 2015), stock market data from *OSIRIS* (years 2004 to 2013), country regulation data from the World Bank (years 1990 to 2014), and market openness data from the Heritage Foundation (years 1995 to 2016).

I matched the data from different sources by each firm's International Securities Identification number (ISIN), by year, and by country headquarters, respectively. All data

were managed and analyzed via *Stata* version 13, using various analytic techniques, including fixed-effects regressions and multilevel linear modeling (MLM).

5 STRUCTURE OF THE THESIS

The three papers are self-contained and are presented in the second, third, and fourth chapters of the thesis, respectively. Each chapter provides a reference list at the end of the chapter. A full reference list containing all references used in all chapters is supplied at the end of the thesis.

The concluding chapter (Chapter 5) summarizes the findings of the thesis and draws the studies together to provide theoretical and practical contributions of the research overall. The concluding chapter also discusses the limitations of the studies and directions for future research.

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CHAPTER 2

PAPER 1—WHY ARE SOME FIRMS SO TWO-FACED? TOWARD A THEORY OF CORPORATE SOCIAL CONSISTENCY AND INCONSISTENCY

Conference presentation

This paper was accepted and presented at the 75th Annual Meeting of Academy of Management, Vancouver, Canada, August 11, 2015.

An abridged version of this paper was accepted and presented at 2016 Strategic Management Society Annual Conference, Berlin, Germany, September 20, 2016.

Paper Development Workshop (PDW)

This paper was selected to Paper Development Workshop with competitive enrolment procedure, Academy of Management Meeting (AoM), Vancouver, Canada, August 9, 2015.

Title of Paper	Why Are Some Firms So Two-F Inconsistency	Why Are Some Firms So Two-Faced? Toward a Theory of Corporate Social Consistency and Inconsistency	
Publication Status	☐ Published	C Accepted for Publication	
	Submitted for Publication	Unpublished and Unsubmitted work written in manuscript style	
Publication Details		9	
Principal Author			
Name of Principal Author (Candidate)	Limin Fu		
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ABSTRACT

This paper addresses the unresolved question of why some firms exhibit consistency or inconsistency in their environmental, social, and governance practices. We introduce the concept of *corporate social inconsistency (CSI)* to describe organizations' varying and uneven treatment of stakeholders by simultaneously engaging in corporate social responsibility (CSR) and corporate social irresponsibility (CSiR). We argue that any given strategic posture—be it consistency or inconsistency—results from the balance of stakeholder pressures moderated by a firm's resource endowments. We expand this argument into a novel conceptual framework that explains strategic postures ranging from consistent CSR to legal compliance to CSI to consistent CSiR. We contribute to instrumental stakeholder theory by emphasizing pervasive stakeholder tradeoffs and resource extraction in conceptualizing firms' CSI.

Keywords: corporate social inconsistency (CSI), corporate social irresponsibility (CSiR), corporate social responsibility (CSR), instrumental stakeholder theory (IST), organizational resources.

1 INTRODUCTION

Contemporary business events indicate that many firms well known for their commitment to corporate social responsibility (CSR) also score high in corporate social irresponsibility (CSiR). For example, ASUS, an electronics manufacturer, is generally regarded as an "environmental pioneer," "responsible electronic manufacturer," and a "top 10 CSR company" (Allen, 2013). At the same time, the company has been accused of taking advantage of employees by illegally using child labor and coercively arranging overtime work (Kan, 2013). Similarly, Walmart's widely acknowledged weaknesses in labor practices have occurred against the backdrop of its widely publicized environmental sustainability campaign in recent years (Plambeck and Denend, 2008).

This anecdotal evidence hints at the considerable conceptual complexity surrounding the issue of CSR and CSiR. Rather than being either responsible or irresponsible in social and environmental practices, many firms behave inconsistently (see also Strike, Gao, & Bansal, 2006). We refer to firms' simultaneous engagement in CSR and CSiR as *corporate social inconsistency* (CSI). CSI may make stakeholders skeptical about the credibility of corporate claims of CSR. For instance, eight percent of Walmart's consumers stopped shopping at Walmart following its highly publicized, problematic labor practices, which were inconsistent with its socially responsible image in environmental sustainability (Gogoi, 2006; Plambeck and Denend, 2008). Thus, CSI can increase the likelihood of damaging a firm's reputation and its market performance in spite of substantial spending on CSR in other domains (Wagner, Lutz and Weitz, 2009). In addition, socially responsible investors may sell the shares of socially inconsistent firms (Orlitzky, 2013), as did the Australian National University (ANU) in 2014 with seven natural resource companies (Costello, 2014; McHugh, 2014). While these mining companies had some positives in their overall CSR, they typically

fell short on the environmental side. Despite these pervasive inconsistencies, recent empirical evidence indicated that consistency in CSR was positively associated with financial performance (Wang and Choi, 2013).

Although CSI often presents considerable economic risk, good reasons may exist for a firm to be socially inconsistent. The literature on core competencies and corporate diversification has long argued that firms cannot excel in all areas and should therefore focus their efforts on those activities where they have the strongest resources and capabilities (Hamel and Prahalad, 1990; Rumelt, 2011). Furthermore, corporate executives and investors may consider it inefficient if their firm addresses the demands of weak, noncritical stakeholders (Atkinson, Waterhouse and Wells, 1997). Hence, some practitioners and observers may regard CSI as a distinctly utilitarian strategic posture that, cognizant of the company's opportunity costs, seeks to optimize resource allocation and on key performance areas (Husted and de Jesus Salazar, 2006). Sometimes, CSiR may be seen as a strategic posture to yield financial gains from extracting resources from *some* stakeholders (Windsor, 2013).

Thus, business executives face a managerial dilemma that resembles the familiar risk—return tradeoff (Lundblad, 2007; Pástor, Sinha and Swaminathan, 2008): CSI may be a risky, yet sometimes suitable strategic posture to enhance corporate performance. Given this managerial dilemma and unresolved puzzle about the causes of consistent and inconsistent CSR and CSiR, this theoretical paper addresses the following question: *Why do firms engage in socially consistent or inconsistent in CSR and CSiR?* Drawing on instrumental stakeholder theory (Donaldson and Preston, 1995; Jones, 1995) and resource dependence theory (Hillman, Withers and Collins, 2009; Pfeffer and Salancik, 1978), we develop a novel conceptual framework to explain different strategic postures in corporate social practices as a function of

the balance of stakeholder pressures and organizations' resource endowments. Specifically, by comparing and contrasting different strategic postures, we argue that, amongst others, CSI is a function of unequal stakeholder pressures when resource endowments are limited because this strategic posture is likely to make tradeoffs salient in the resource allocations to different key stakeholders.

This paper makes three theoretical contributions. First, the concept of CSI advances the literature on CSR and CSiR by challenging the conventional wisdom that assumes CSR is a unidimensional concept (Deckop, Merriman and Gupta, 2006; Waldman, Siegel and Javidan, 2006). We contribute to this field by advocating that researchers no longer regard CSR as a monolithic construct. Instead, our study indicates how and why responsible and irresponsible practices may emerge in practice—often simultaneously. Furthermore, our conceptualization of CSI, together with other strategic postures, adds to the literature of social responsiveness through examining firms' different strategic responses, or postures, to different stakeholders. We acknowledge that these strategic postures in our theory represent ideal types, which are useful as contrasting frames of reference (Bailey, 1994; Swanson, 1999; Weber, 1914/1947). In practice, of course, CSI is more of a continuum ranging from low to high than a distinct type of nonmarket strategy.

Second, our novel framework contributes to existing debates on the drivers of CSR and CSiR (Brower and Mahajan, 2013; Lockett, Moon and Visser, 2006; Orlitzky, Louche, Gond and Chapple, 2015; Smith, 2008; Swanson, 2008). For example, past research has identified resource constraints both as drivers (Côté, Booth and Louis, 2006; Lovins, Lovins and Hawken, 1999) and as inhibitors of CSR (Campbell, 2007). Similarly, we can infer from theory on slack resources that abundant resources do not necessarily explain CSR (Levinthal and March, 1993; Nohria and Gulati, 1996). In a similar vein, past research raised the issue of

complex resource allocation decisions to multiple stakeholders under resource constraints (Crilly, 2013; Greenley and Foxall, 1997). We therefore advance past research by conceptually exploring different combinations of resource endowments and stakeholder pressures in our framework.

Finally, this paper contributes to the development of instrumental stakeholder theory (IST) because our conceptualization of, and theorizing about, CSI illuminates previously underanalyzed tradeoffs (between different stakeholder groups) in stakeholder theory (Friedman and Miles, 2002; Orlitzky and Shen, 2013). Although prior studies have significantly advanced instrumental stakeholder theory by addressing stakeholder prioritization as well as social responsiveness types (Jawahar and McLaughlin, 2001; Mitchell, Agle and Wood, 1997; Wartick and Cochran, 1985), none of them has explicitly addressed stakeholder tradeoffs and the strategic implications of resource allocation to and extraction from some stakeholders. Thus, this paper theorizes firms' inconsistent responses to different stakeholders and seeks to extend IST by accommodating CSI in firms' stakeholder management practices.

The paper is structured as follows. First, we conceptualize and define CSI, drawing on previous studies on CSR and CSiR as well as organization theory. Second, we briefly review IST to uncover the assumptions and rationale underpinning our arguments on tradeoffs in stakeholder prioritization and CSI. Finally, we investigate the drivers of consistency and inconsistency in CSR and CSiR by developing propositions centered on stakeholder pressures and organizational resource endowments as our core constructs.

2 CORPORATE SOCIAL (IN)CONSISTENCY

2.1 Understanding Inconsistency

Many philosophers of science deem consistency an ideal level of rationality since it implies certainty and completeness (Rescher, 1987). In contrast, inconsistency is often seen to entail incompatibility and disagreement. Thus, as a set of contradictory claims and clashes of perspectives, inconsistency is viewed by science and philosophy as the breakdown of logic and reason (Carnielli, Coniglio and Marcos, 2007; Meheus, 2002). Hence, in many ways, science and philosophy try to avoid and evade inconsistency (Rescher, 1987; Vickers, 2013). More specifically, from the perspective of the social and organizational sciences, inconsistency can sometimes harm organizations (Lee, Edmondson, Thomke and Worline, 2004): it creates cognitive uncertainty (Rescher, 1987) and results in suspicion and mistrust of social actors—be they managers, investors, or consumers (Staw, Sandelands and Dutton, 1981). Inconsistency with regard to social practices may convey a propensity to treat social practices arbitrarily (Basu and Palazzo, 2008). Consistency, in turn, signals fit among different attributes and, thus, reaffirms the evaluation of social practices (Donaldson, 1987; Lee et al., 2004; Rescher, 1987). It constitutes the basis for the emergence of trusting and reciprocal relationships (Basu and Palazzo, 2008). Hence, in philosophy, science, and organizational studies, consistency is typically preferable to inconsistency.

2.2 Defining Corporate Social Inconsistency

Consistency in social/environmental practices refers to a high level of uniformity in either responsible or irresponsible stakeholder management (Wang and Choi, 2013). In contrast, when a firm aids *and* harms different stakeholders *simultaneously* its strategic

posture with respect to social and environmental practices is said to be inconsistent. This paper takes stakeholders as the analytical reference point for consistent and inconsistent social practices because a firm's relationships with different stakeholders embody its various strategic postures in social and environmental practices (Aguinis and Glavas, 2012; Carroll, 1991; Clarkson, 1995; Freeman, 1984). Following Freeman's (1984) conceptualization, a stakeholder is any group or individual who affects or is affected by—or can affect or can be affected by—a firm's activities. At this point, it ought to be noted that other types of inconsistencies in corporate social practices may occur. For instance, firms may behave inconsistently over time with respect to a particular stakeholder group (Wang & Choi, 2013). This paper exclusively focuses on explaining interdomain inconsistency.

In this paper, we conceptualize CSI drawing on the definitions of CSR and CSiR. According to reviews by Carroll (1999) and Dahlsrud (2008), the various definitions of CSR have six dimensions in common: environmental, social, economic, corporate governance, stakeholders, and voluntariness. Building on these reviews, CSR is a set of voluntary business practices that (a) exceed legal obligations and contribute to a specific aspect of environmental sustainability or social welfare and (b) respond to the expectations and demands of stakeholders and benefit stakeholders (Clarkson, 1995; McWilliams and Siegel, 2001). In contrast, CSiR refers to business practices that (a) harm a specific aspect of environmental sustainability or social welfare and (b) negatively affect stakeholders' legitimate interests. Thus, the threshold between CSR and CSiR is whether firms benefit or harm stakeholders (Arora and Dharwadkar, 2011; Campbell, 2007; Jones, Bowd and Tench, 2009; Strike, Gao and Bansal, 2006; Windsor, 2013).

In terms of the definition of CSiR, the literature mainly emphasizes its harmfulness. Although this criterion is widely acknowledged in the literature (Armstrong, 1977; Campbell,

2007; Lange and Washburn, 2012; Strike et al., 2006; Windsor, 2013), it is not universally applicable in practice. For example, some socially detrimental practices may be merely accidental (Lange and Washburn, 2012). Thus, merely emphasizing the harmfulness of firms' social practices without taking into account other attributes of CSiR may result in misjudging some firms as irresponsible. Therefore, in the sense of the aforementioned definitions, we conceptualize CSiR as the intentional infliction of harm on at least one stakeholder group (Armstrong, 1977; Campbell, 2007). In this context, the persistence of harmful practices over time may signify intentionality (Strike et al., 2006). In sum, CSiR in our conceptualization has three attributes: harmfulness, causality, and intentionality.

Building on our definitions of CSR and CSiR, we define *corporate social inconsistency* (CSI) as firms' simultaneous engagement in CSR and CSiR by proactively benefiting some stakeholders while intentionally harming other stakeholder interests at the same time. In other words, when firms intentionally engage in CSI they do good and bad regarding different stakeholders simultaneously, as illustrated in Figure 2.1. For expositional purposes, this diagram is highly stylized and simplified, assuming only two stakeholders. In the next section, we discuss the relationship between IST and corporate social practices with particular emphasis on CSI.

Because CSR is an intentional action to improve society (Lawrence and Weber, 2014) and CSiR is an intentional harm, our definition of CSI implies that CSI is also an intentional act. Shell may be a case in point of intentional CSI. This multinational oil company has been engaging in CSiR in Niger Delta since its first major oil spill in 1970 (Frynas, 2000; Vaughan, 2011), and the environmental destruction in Niger Delta has persisted for over forty years without any substantive clean-up (Macalister, 2004; Nossiter, 2010; Pendleton, McClenaghan, Melamed, Bunn and Graymore, 2004). The recent court documents confirmed that Shell was

aware of the problem for years, but did not address it (Allen, 2015). At the same time, Shell launched many community development programs aligned with its commitment to enhance "integrity and respect for people." (Pendleton et al., 2004, p. 23). These activities mainly targeted communities in which Shell already operated or hoped to expand its operations (Pendleton et al., 2004), seeking to obtain the communities' support by proactively addressing their concerns.

Stakeholder B treatment

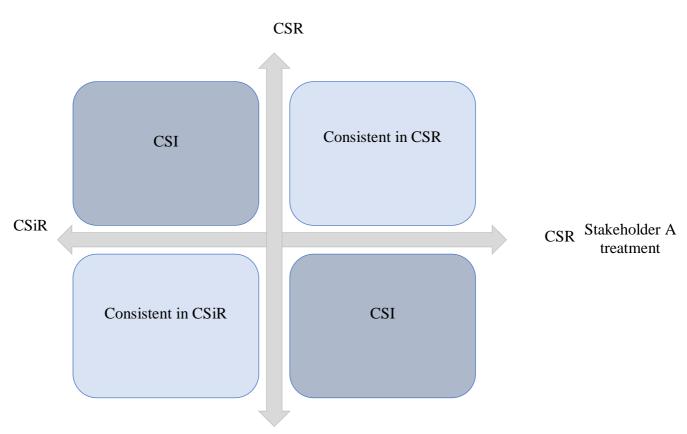


Figure 2.1 Conceptual model of CSI

3 CSI AND INSTRUMENTAL STAKEHOLDER THEORY

Drawing on instrumental stakeholder theory—more specifically, theories of stakeholder prioritization and social responsiveness, we suggest a theoretical extension to explain multi-stakeholder tradeoffs. Tradeoffs involve a loss in at least one stakeholder's interest to gain a benefit for at least one other stakeholder (Armstrong, 1977; Byggeth and Hochschorner, 2006; Hahn, Figge, Pinkse and Preuss, 2010; Halpern et al., 2013). As tradeoffs among multiple stakeholders are the underpinnings of CSI, their understanding creates the backdrop of the following section on the drivers for distinct corporate social postures.

Instrumental stakeholder theory (IST) links means and ends in order to connect firms' objectives (profitability, growth) and stakeholder management (Donaldson and Preston, 1995; Jones, 1995). Grounded in utilitarianism (Key, 1999), IST follows the rationale that consequences count (Freeman, 1999) and, according to some interpretations, implicitly assumes that any business company's ultimate objective is market success (Jawahar and McLaughlin, 2001). Stakeholder satisfaction is seen as a means to that end (Donaldson and Preston, 1995; Greenwood, 2007). Freeman's (1984) theory also suggests that firms allocate resources to stakeholders in proportion to their importance to corporate goals.

Subsequent studies developed IST by evoking stakeholder prioritization and corporate responsiveness. For instance, Wartick and Cochran (1985) characterized firms' social responsiveness to deal with stakeholders as proactive, accommodative, defensive, and reactive. Stakeholder salience theory proposed three criteria for stakeholder prioritization: legitimacy, power, and urgency (Mitchell et al., 1997). This entire stream of IST focuses on how firms allocate resources to stakeholders in proportion to their importance to corporate goals. In this sense, stakeholder prioritization merely suggests CSR (by allocating resources) and CSR-neutral social practices (by not allocating resources to different stakeholders). So,

arguably, IST has not adequately incorporated stakeholder tradeoffs, resource extraction, harm, and thus CSiR.

Stakeholder prioritization without avoiding harm to particular stakeholders is likely to result in stakeholder tradeoffs. Jawahar and McLaughlin (2001) suggested potential tradeoffs between multiple stakeholders. They proposed that firms are likely to attend to the most important stakeholders that are critical to firms' survival in the presence of competitive threats, while denying responsibility or even defending against other stakeholders. This seems to imply that inconsistency may sometimes be a desirable consequence of stakeholder prioritization because addressing the concerns of stakeholders with the largest potential influence on corporate success may assist firms in managing their resources more prudently and efficiently. This view stands in contrast to the aforementioned scientific and philosophical preference for consistency.

Given this debate, we need to conceptualize more carefully the drivers of consistency and inconsistency in CSR as well as CSiR. This will allow us to discern under which conditions organizations may trade off some stakeholders against others and under which conditions they merely prioritize some stakeholders over others. In turn, we may deepen our understanding of when consistent or inconsistent corporate social practices are either favorable for or detrimental to firm performance.

4 THE DRIVERS OF (IN)CONSISTENCY IN CSR AND CSIR

Building on IST, this section addresses the drivers of CSI. Although several studies have examined the drivers of CSR or CSiR (Campbell, 2007; Perez-Batres, Doh, Miller and Pisani, 2012; Surroca, Tribo and Zahra, 2013), to the best of our knowledge no paper has so far

explained the possible drivers of CSI. We therefore integrate CSI with CSR and CSiR in a comprehensive conceptual framework explaining consistency and inconsistency in corporate social practices. Our conceptualization rests on two foundations: (a) stakeholder pressure, and (b) organizational resource endowment.

4.1 Stakeholder Pressure

Stakeholder pressure refers to the power and ability of stakeholders to affect organizational decisions (Fassin and Van Rossem, 2009; Helmig, Spraul and Ingenhoff, 2013; Kassinis and Vafeas, 2006) and can be classified by direction and intensity. The *direction* of stakeholder pressure may be positive (e.g., cooperative opportunities) or negative (e.g., customer boycotts). Positive stakeholder pressures reward firms for doing good while negative stakeholder pressures punish firms for doing bad (Barnett, 2012; Kassinis and Vafeas, 2006). Hence, firms are *forced* to address these stakeholders to avoid punishment and potential failure (Perez-Batres et al., 2012). Negative stakeholder pressures present competitive threats, which affect a firm's survival and prevent a firm from achieving its strategic objectives (Freeman, 1984).

The *intensity* of stakeholder pressure varies, depending on stakeholders' legitimacy, power, and urgency (Mitchell et al., 1997). Drawing on stakeholder salience theory (Mitchell et al., 1997), one source of unequal stakeholder pressure rests in institutional complexity with multiple and diverse formal or informal institutional forces supporting the interests of different stakeholders to different degrees (Campbell, 2007; Marano and Kostova, 2015). Formal labor-friendly laws and regulations, for example, may strengthen a labor union's ability to exert pressure on the firm. As another example, informal institutions may encompass social norms that favor environmental protection or recycling as well as cultural

values that encourage human beings to live in harmony with their natural environment.

Another source of unequal stakeholder pressure lies in interorganizational power relationships (Pfeffer and Salancik, 1978). The greater the focal firm's dependence on the resources controlled by a stakeholder and the lower the stakeholder's dependence on the focal firm's resources, the greater the stakeholder's power and ability to exert pressure on the firm (Kassinis and Vafeas, 2006; Oliver, 1991; Pfeffer and Salancik, 1978). Since the resources controlled by stakeholders are unequally distributed (Barney and Clark, 2007; Pfeffer and Salancik, 1978), a firm's resource dependence also varies from stakeholder to stakeholder. Thus, different stakeholders are expected to exert different pressures on firms proportional to their power over the firm. In addition to power, drawing on Mitchell et al. (1997) theory on stakeholder salience, we acknowledge that urgency is also an antecedent of the intensity of stakeholder pressure. An urgent stakeholder claim on a firm can place great time pressures on the firm to take immediate actions to avoid more considerable consequences (Bundy, Shropshire, & Buchholtz, 2013; Mitchell et al., 1997).

It is important to note that stakeholder pressures do not present in a direct fashion as to relate to the stakeholder that raises the issue or exerts the pressure. Rather, stakeholder pressures can be indirectly exerted by other stakeholders. This is because that stakeholders are connected in a stakeholder network where certain interests and concerns are shared (Rowley 1997; Rowley and Moldoveanu, 2013); moreover, because of some common cultural values and social bias (Capelle-Blancard & Petit, 2015; Devinney, 2009), it is likely that a few issues may be commonly shared by all stakeholders. For example, it is reported that stakeholders are concerned with environmental protection (Devinney, 2012). The shared concern on certain issue enable stakeholders to mobilize the key powerful stakeholders to indirectly exert pressures on firms (Rowley, 2003).

Under the different pressures exerted by different stakeholders, IST implies that firms facing unequal stakeholder pressures tend to formulate different strategic postures in their social activities, depending on the importance of the necessary resources to the focal firm's success (Freeman, 1984; Mitchell et al., 1997). Therefore, the greater the resource base of a stakeholder group relative to the resource base of the focal firm, the greater the likelihood that this stakeholder group has high potential to affect the focal firm's survival and growth (Freeman, 1984; Jawahar and McLaughlin, 2001; Pfeffer and Salancik, 1978). In turn, this makes it more likely that the firm is proactive in addressing the specific stakeholder group's concerns because refraining from this would create a high cost to the firm (Eesley and Lenox, 2006). In contrast, firms tend to give lower priority to weaker stakeholders as they are not equally powerful to pose high threats to firms.

Enabled by their varying degrees of power, urgency, and (institutional and other forms of) legitimacy, two or more stakeholder groups can exert substantially different pressures on a firm. Under pressure, firms may therefore trade off several stakeholder groups against each other using different strategic postures: an act of CSR to one set of stakeholders may be accompanied by CSiR with respect to other stakeholders (Barnett, 2007; Greenwood, 2007). For example, in response to the overwhelming societal stakeholder pressures to improve employee welfare in subcontractor factories, Nike has promoted many CSR practices with respect to workers' compensation, safety, and education. Thus, pressures from societal groups have fueled Nike's CSR practices (Birch, 2012; Miller, 2014). Meanwhile, relative to labor activists, the pressures from environmental stakeholders are, arguably, weaker. Nike was accused of CSiR practices like using toxic substances in its products and discharging pollutants into rivers at the same time (Foster, 2011; Fung, 2014; Santen and Salize, 2014). Such irresponsible practices, in the short run less costly than environmentally responsible

ones, may set free resources that can compensate for the higher costs incurred by CSR practices (Orlitzky, 2013; Surroca et al., 2013). Therefore, in light of the above, it follows that unequal stakeholder pressures elicit CSI. Thus, we introduce the following straightforward baseline proposition:

Proposition 1: Ceteris paribus, stakeholder pressures affect the degree of consistency in corporate social practices. Relatively equal stakeholder pressures are associated with consistency and unequal stakeholder pressures are associated with corporate social inconsistency (CSI).

While CSI tends to increase in the presence of unequal stakeholder pressures, other postures in addition to CSI, CSR, and CSiR are also possible. For instance, according to the social responsiveness framework proposed by Wartick and Cochran (1985), firms can hold the current position of stakeholders without doing any CSR or CSiR—they can merely accommodate stakeholders, doing only the minimum legal requirement to address stakeholders' pressures and demands, a form of legal compliance. Therefore, we now relax the implicit assumption that firms would always trade some stakeholders off against others in the presence of unequal stakeholder pressures. Instead, we argue that the likelihood of CSI varies, depending on a firm's resource endowments.

4.2 Resource Endowment

Resource endowment refers to the amount of internal firm resources available to address stakeholder concerns. In essence, firms' resource endowments vary from abundant to limited (Sonenshein, 2014), or from high to low slack resources (Cheng and Kesner, 1997; Orlitzky, Schmidt and Rynes, 2003). Slack or excess resources accrue due to past organizational

performance (Voss, Sirdeshmukh and Voss, 2008). Resource endowments are important because they affect strategic choices ranging from irresponsible over compliant practices to the proactive, yet typically costly prevention of environmental harm. This happens because well-endowed firms may use their resources to develop proprietary technologies or absorb external technologies that help incorporate CSR into corporate strategy (Russo and Fouts, 1997). Conversely, firms with limited resources are less likely to engage in CSR because they would prioritize survival in the marketplace (Campbell, 2007). Meanwhile, the effect of abundant or slack resources on environmental responsiveness has been controversial in the literature (Cheng and Kesner, 1997). Therefore, resource endowments alone are not sufficient to explain corporate social practices. Instead, we argue that the way stakeholder pressures affect CSR, CSiR, and CSI is contingent on (i.e., moderated by) resource endowments. In other words, stakeholder pressure and resource endowments interact.

Typical forms of resource constraints include insufficient access to capital or financial markets, a lack of qualified personnel, especially managerial resources, and a shortfall of innovation resources, among others (Voss et al., 2008). Similar to the impact of resource constraints limiting the growth of the firm (Penrose, 1959), such constraints can restrict the extent to which firms are able to address stakeholder demands. While not the emphasis of our paper, resource constraints result from diverse origins, such as highly competitive markets (Campbell, 2007; Porter, 1985), macroeconomic conditions (e.g., economic recessions or depressions), and institutional factors, such as taxes, red tape, or corruption. At the same time, competition may also affect resource deployment to address stakeholder concerns (Campbell, 2007; Flammer, 2015).

The underlying assumption is that CSR requires firms to commit resources to costly activities, such as purchasing environment-friendly equipment and new technology or

introducing employee safety programs (Branco and Rodrigues, 2006; Orlitzky, 2013; Waddock and Graves, 1997). Since CSR is a business activity whose benefit is long-term and uncertain (Arora and Dharwadkar, 2011; Coffey and Wang, 1998), firms with significant slack resources are in a better position to implement CSR consistently than firms with limited resources (Arora and Dharwadkar, 2011; Cyert and March, 1963; Jawahar and McLaughlin, 2001). Conversely, firms with limited resources probably allocate fewer resources to their stakeholders and impede value creation for a wider range of stakeholders (Strike et al., 2006). Hence, these firms will prioritize the most powerful stakeholders, for instance, powerful customers who threaten to reduce orders, creditors threatening to withdraw funding, or governmental agencies threatening to withdraw operating licenses, among others.

Thus, under limited resource endowments, resource allocation to key stakeholders likely comes at the expense of the remaining stakeholders. Resource constraints affect a firm's ability to satisfy the needs of other stakeholders (Pfeffer and Salancik, 1978): other less critical stakeholders who exert weak pressures on the focal firm are not prioritized in firms' resource allocation. The fewer resources available and the weaker the pressures by a particular stakeholder, the more likely CSiR (Arora and Dharwadkar, 2011). This is because some executives may be tempted to obtain the resources needed to address a particular stakeholder's demands by reducing resource allocation to, or perhaps even extracting resources from, stakeholders who exert weaker pressures and are less critical for the company's success (Jawahar and McLaughlin, 2001; Kotchen and Moon, 2011; Strike et al., 2006). In a global setting, for instance, firms may transfer their irresponsible practices to countries with weaker stakeholder pressures (Kassinis and Vafeas, 2006; Surroca, Tribó and Waddock, 2010). Thus, firms economize on resources they need to address stakeholders who exert higher pressure elsewhere, leading to inconsistent social practices or CSI. Therefore, the

more significant the resource constraints, the greater the likelihood that firms concentrate their resources to address the strongest stakeholder pressures and withhold resources from stakeholder groups that exert less pressures.

Proposition 2: Ceteris paribus, firms' resource endowments moderate the effect of stakeholder pressures on the degree of consistency in corporate social practices.

4.3 Stakeholder Pressures, Resource Endowments, and Strategic Postures

Having discussed our two baseline propositions—that stakeholder pressures affect consistency and inconsistency directly (P1), but also interact with resource endowments (P2) in explaining strategic postures in corporate social practices, and, more specifically, CSI, we now elaborate on our analysis and argument in more detail. We aim to theorize particular strategic postures that can arise from different combinations of stakeholder pressures and resource endowments. Figure 2.2 depicts these combinations in our framework of strategic responses, organizing corporate social postures in six quadrants. As already argued above, two dimensions—stakeholder pressures and resource endowments—influence the choice of a firm's strategic posture in social practices. Stakeholder pressures range from generally weak pressures to unequal—strong and weak—pressures to generally strong pressures. The resource dimension ranges from abundant to limited resource endowments.

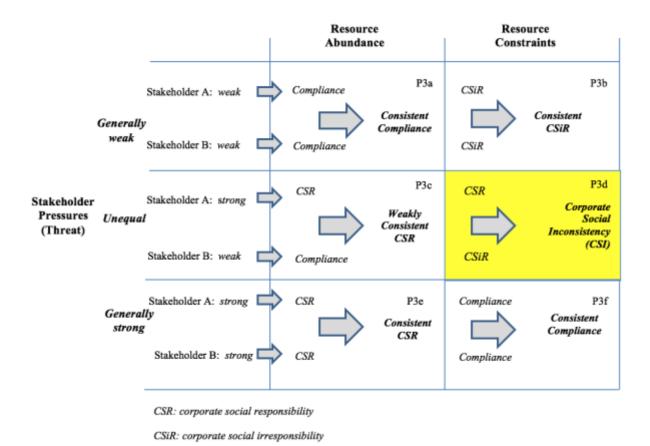


Figure 2.2 Strategic postures: (In)consistency in CSR, CSiR, and legal compliance

The framework in Figure 2.2 is built on three assumptions. First, we assume a hierarchy of responses to stakeholder pressures, ranging from CSR as a costly response to strong stakeholder pressure (Orlitzky, 2013), to legal compliance as an intermediate response, to CSiR as a form of resource extraction from weaker stakeholders. CSiR represents a form of resources extraction from stakeholders because it "produces a loss in social and stakeholder welfare" (Windsor, 2013, p. 1941) and thus "increases externalized costs and/or promotes distributional conflicts" (Kotchen and Moon, 2011, p. 2). Since value does not simply disappear, the welfare loss by one stakeholder may be appropriated by another stakeholder (often the focal firm, as in the example below) (Garcia-Castro and Aguilera, 2015).

The following example of employee-related CSiR illustrates this resource extraction.

Suppose an employer compels his employee, who by legal contract is required to work eight hours per day, to work 12 hours a day without compensation in the form of extra pay or fringe benefits. In this case, the employee loses four hours per day of welfare, whereas the employer extracts the value corresponding to four hours a day from his employee. Such resource extraction may have tangible and intangible consequences. While the tangible dimension is associated with the monetary gain or loss, the intangible dimension encompasses time (or other opportunity costs) and psychological costs, which in extreme cases can result in suicides committed by overworked employees (Kan, 2013).

Therefore, CSiR is fundamentally different from low levels of CSR because CSR describes a commitment to stakeholders beyond compliance with the legal framework (Carroll, 1999), which is not the case in the example above. Hence, low CSR characterizes a merely minor or minimal commitment to stakeholders. In our employee-related example, if compliant, the company would not require employees to work more than eight hours a day in line with legal requirements. Above and beyond compliance, low levels of CSR in social matters could, for example, mean that employees would be allowed to take a small number of days off (not counted as leave) for personal education and training purposes.

Our second assumption, again drawing on the tenets of IST, is that any given firm's response to stakeholder pressure seeks to increase the likelihood of the firm's overall success. For instance, strong negative stakeholder pressures may jeopardize achieving corporate objectives and therefore motivate CSR as a strategic posture. Conversely, responding with CSR to weak stakeholder pressure may be seen (by managers and investors) as an inefficient waste of resources because these stakeholders do not significantly affect the firm's performance. Likewise, the instrumentalist rationale implies that some firms may be tempted to respond with CSiR to weak stakeholders in order to extract resources because they would

not face significant resistance. Specifically, firms will consider whether the relative benefit of resources extracted from stakeholders is justified compared to the potential future costs of CSiR in terms of reputational hazards or legal disputes.

Third, we assume that the law of diminishing marginal returns applies. Hence, the marginal benefit of resource allocations decreases to the point where it becomes more beneficial to allocate additional resources to alternative options (Faff, Ho, Lin and Yap, 2013; Hess and Lucas, 2004). An example are resource-abundant mature industries with a decreasing number of attractive resource allocation opportunities (Jawahar and McLaughlin, 2001). Hence, under resource abundance, using excess resources to address mounting stakeholder pressures may add more value than allocating additional resources to existing activities or to less attractive new investment opportunities.

In line with Figure 2.2, we examine our proposition—that the effect of stakeholder pressures on corporate social practices is contingent on a firm's resource endowment (P2)—in the following three subsections: (1) generally weak stakeholder pressures, (2) unequal stakeholder pressures, and (3) generally strong stakeholder pressures. Especially in this section, it is important to keep in mind the emphasis on ideal-type theorizing (Bailey, 1994; Swanson, 1999; Weber, 1914/1947) mentioned in the Introduction.

Generally weak stakeholder pressures. When stakeholders exert generally weak or no pressure at all, IST suggests that firms are unlikely to engage in CSR. This is because managers may regard CSR as an unnecessary investment due to their stakeholders' limited impact on corporate success (Jawahar and McLaughlin, 2001; Van de Ven and Jeurissen, 2005). At the same time, when firm resources are abundant, CSiR (i.e., resource extraction from stakeholders) could be avoided, given the declining marginal benefit of this investment

in social practices. For instance, the resources extracted from employees would only be vital to survival for firms under severe resource constraints. In the same vein, the costs of legal compliance might often be easily absorbed when organizational resources are abundant. Likewise, under conditions of resource abundance, the risk of potential future legal and reputational damage—for example, when currently weak stakeholders become stronger—could be considerable and disproportionate (Jawahar and McLaughlin, 2001; Mitchell et al., 1997). Thus, legal compliance becomes the most plausible strategic posture under circumstances of generally weak stakeholder pressures and abundant resource endowment.

Proposition P3a: Ceteris paribus, under conditions of resource abundance, generally weak stakeholder pressures are likely to engender a **consistent compliance** posture regarding major stakeholders.

Facing generally weak stakeholder pressure, firms with *limited resources* have an incentive to extract resources from their stakeholders. This is because the marginal benefit of an additional unit of internal resource allocation is high, compared to the corresponding marginal benefits enjoyed by resource-abundant firms (Faff et al., 2013; Hess and Lucas, 2004). This is especially the case for start-up firms and declining firms for which securing finance is a crucial problem (Jawahar and McLaughlin, 2001). Therefore, firms endowed with limited resources are more likely to prioritize short-term concerns about economic survival and neglect potential future reputational or legal hazards (Campbell, 2007; Van de Ven and Jeurissen, 2005).

Suppose a firm disposes toxic substances in a nearby river. As environmental economists have demonstrated, this comes at a significant long-term cost for society because governments or private health insurers would have to pay for expensive treatment of the

affected population and the communities would have to bear the costs of decontamination (Callan and Thomas, 2012; Chatterji and Listokin, 2007). The firm obviously economizes the investment required for waste removal. In addition, the firm extracts a resource from its environment, a toxic waste disposal space, without payment. Thus, when firm resources are limited CSiR may become a viable strategic posture and positively contribute to a firm's performance—at least in the short run—because the firm can employ the economized and extracted resources to enhance its financial and market performance. The time value of money implies that having resources at one's disposal in the present is worth more than the equivalent amount in the distant future (Fisher, 1965). In addition, the difficulty (or near-impossibility) of estimating the likelihood of future legal and reputational hazards may incentivize decision-makers to ignore them (Laverty, 1996).

Proposition P3b: Ceteris paribus, under conditions of severe resource constraints, generally weak stakeholder pressures are likely to engender a **consistent CSiR** posture regarding major stakeholders.

Unequal stakeholder pressures. If one key stakeholder exerts strong pressure (stakeholder A) and another one weak pressure (stakeholder B), the focal firm faces unequal stakeholder pressure (in our stylized two-stakeholder example). Consequently, the focal firm is likely to go beyond mere compliance and engage in CSR to address the stakeholder with the stronger negative pressure. In line with IST, this posture allows the firm to avoid strategic disadvantages that may undermine its economic success. Furthermore, the resource-abundant firm can afford shifting from mere legal compliance to CSR vis-à-vis stakeholder A. Concerning the weak pressures by stakeholder B, however, the firm is likely to maintain compliance, given B's small impact on corporate success (Jawahar and McLaughlin, 2001;

Van de Ven and Jeurissen, 2005). We consider this combination between compliance and CSR to be a weak form of consistency in CSR.

Proposition P3c: Ceteris paribus, under conditions of resource abundance, unequal strong and weak stakeholder pressures are likely to engender a **weakly consistent CSR** posture regarding major stakeholders.

Firms with *limited resource endowments*, however, become less likely to invest in discretionary CSR. Due to stakeholder A's pressures and the focal firm's resource dependence on A, the firm risks its short-term survival. Given its limited resources, this firm needs to make new resources available to address stakeholder A's pressure. In line with IST, this firm is incentivized to extract resources from its weaker stakeholder B and shift these resources to stakeholder A. This incentive is strong because resource allocations and investments have higher marginal benefit when resources are limited (Faff et al., 2013; Hess and Lucas, 2004).

For instance, the firm may extract resources from stakeholder B, the employees, by providing substandard work safety conditions, paying low wages, and forcing employees to work overtime without compensation. Thus, the firm generates significant cost savings, appropriated from tangible and intangible resources (time, money, employee life satisfaction), which would belong to the employees if they were treated responsibly. These resources can then be allocated to stakeholder A, the society, for example, by investing in emission control or eliminating poisonous material from the supply chain. Thus, the limited internal resource endowment remains balanced because the firm extracted resources unit from stakeholder B and invested a similar amount in CSR to address stakeholder A's pressure. This strategic posture, while important for short-term survival, is inconsistent across stakeholder

dimensions.

Proposition P3d: Ceteris paribus, under conditions of severe resource constraints, unequal (strong and weak) stakeholder pressures are likely to engender a socially inconsistent (CSI) posture regarding major stakeholders.

Generally strong stakeholder pressures. A firm is likely to respond consistently with CSR to major stakeholders that exert strong stakeholder pressures when the firm owns abundant resources. The reason is that strong stakeholders can prevent firms from meeting their sales and profit targets by withdrawing resources. In addition and in line with our third assumption (discussed earlier), under conditions of resource abundance, the marginal benefit of existing resource investments in any given social practice decreases. Consequently, resources can yield more value when allocated to alternative uses. Therefore, resource-abundant firms may exhibit less resistance to stakeholder pressures (Arora and Dharwadkar, 2011) and, thus, are expected to spend their slack resources on both stakeholders A and B (see Figure 2.2).

For instance, highly unionized workers that go on strike or environmental protest groups can lead to an erosion of corporate reputation (King and Soule, 2007). One case in point is Unilever's response to the recent Indian activists' protests against its practice to dump toxic waste. The activists exerted strong stakeholder pressure by filming a video called "Kodaikanal Won't" over the issue and used social media (YouTube) to add voices to the campaign (Mackey, 2015). With the increasing coverage of the video in both local and international media, Unilever had to start the soil remediation process to address the issue and, more broadly, promised to act in a responsible manner regarding this matter (Unilever, 2015a). Meanwhile, under positive pressure from market consumers and new laws on food

safety (First Post, 2015), Unilever has been working on a CSR program—sustainable sourcing—for the past few years, aiming to ensure sustainable supplies of raw materials, enhance corporate its reputation, and create greater consumer value in this regard (Keys, Malnight and van der Graaf, 2009; Pinto, 2015; Unilever, 2015b).

Proposition P3e: Ceteris paribus, under conditions of resource abundance, generally strong stakeholder pressures are likely to engender a **consistent CSR** posture regarding major stakeholders.

Firms facing *resource constraints*, however, cannot afford spending resources on CSR addressing stakeholder concerns, nor can they afford the immediate consequences of extracting resources from strong stakeholders with CSiR (Jawahar and McLaughlin, 2001; Mitchell et al., 1997; Perez-Batres et al., 2012; Surroca et al., 2013). Therefore, firms would opt for the next available response within the hierarchical set of strategic postures, that is, legal compliance. While this would at least help to avoid lawsuits, stakeholders' pressures to go beyond compliance might persist and thus still compromise the firm's long-term success, albeit to a smaller extent.

Proposition P3f: Ceteris paribus, under conditions of severe resource constraints, generally strong stakeholder pressures are likely to engender a **consistent compliance** posture regarding major stakeholders.

5 DISCUSSION

This paper proposed a novel conceptual framework seeking to fill the gap in understanding of why some firms are so inconsistent in their social practices. Our framework draws predominantly on IST and resource dependence theory and builds on two core constructs that jointly explain strategic postures in corporate social initiatives, namely (a) the balance of stakeholder pressures and (b) a firm's internal resource endowments. Our theoretical framework explicates a set of hitherto unrecognized strategic postures, of which CSI merits particular attention.

5.1 Theoretical Implications

This paper contributes to the literature in CSR and IST (Barnett and Salomon, 2012; Brammer and Millington, 2008; Ducassy, 2013; Mackey, Mackey and Barney, 2007; Orlitzky et al., 2003; Servaes and Tamayo, 2013) in three major ways. First, we introduce the concept of CSI to the CSR literature. This conceptualization underscores that corporate social practices are not always unidimensional polarities—that is, a given firm is not *either* responsible *or* irresponsible. Hence, we suggest that CSR can no longer be conceived as a monolithic concept.

Admitting inconsistency contributes to a theoretical tension that can lead to a meaningful extension of the literature. On the one hand, inconsistency implies a breakdown of logic and reason from a philosophical perspective (Carnielli et al., 2007; Meheus, 2002), which potentially results in mistrust, confusion, and uncertainty (Lee et al., 2004; Masserman, 1971). On the other hand, our conceptual framework suggests that CSI may be seen (by managers) as a fitting strategic posture when stakeholder pressures are unequal and internal resource endowments limited. Addressing this controversy raises an important question: under what

institutional conditions may inconsistency be more or less tolerated by societies? Arguably, societies with a higher propensity to avoid uncertainty and a higher propensity towards a harmonic interplay among stakeholder groups may tolerate CSI less than others. These questions point to important pathways for future research.

Second, we proposed two main drivers of consistent and inconsistent corporate social practices and consolidated them in a novel theoretical framework and new theoretical propositions. Our framework encompasses a comprehensive set of strategic postures, ranging from consistent CSiR to legal compliance to CSI to weakly consistent CSR to consistent CSR. Thus, our study takes the literature on CSR and CSiR to the next level by suggesting that the social responsiveness literature needs further development in that proactiveness, accommodation, defense, and reaction similarly need to be captured at the stakeholder level. If expanded to multiple (more than two) stakeholders, these postures may coexist in the same firm that responds differently to different stakeholders. However, we are not claiming that these two variables are the only drivers of CSI and the other postures. Firm action may be motivated by other factors, such as executives' personal values and preferences for consistent CSR (Swanson, 2008).

Third, we contributed to IST by acknowledging and theorizing tradeoffs. Recognizing inconsistent social practices challenges the conventional view that firms can easily reconcile divergent stakeholder interests (Freeman, 1984; Freeman, Harrison, Wicks, Parmar and De Colle, 2010). Importantly, our study contributes to this literature with an explanation of tradeoffs and resource extraction that relates different levels of stakeholder pressures to different levels of internal resource endowments. Moreover, we aim to initiate an important debate over the impact of CSI on business and society. More specifically, CSI calls for a more cautious attitude toward firms' corporate social practices because CSR targeted at some

stakeholder groups may occur at the expense of others. With respect to corporate reputation, CSR on top of CSiR may "do good deeds in times of need" and thus compensate for the tarnished reputation caused by CSiR (Muller and Kräussl, 2011, p. 911). Once we admit the possibility of the negative implications of these pervasive tradeoffs, a second debate about strategies to manage such tradeoffs more effectively is going to enrich future research.

5.2 Practical Implications

Practitioners can employ our framework to map their company's strategic postures regarding its stakeholders. Thus, our framework allows firms to identify and analyze their current response as well as the strategic posture to which they aspire. Managers can then perform this gap analysis on their competitors to uncover opportunities for differentiation and threats of falling behind the industry norm. Especially in recessions (during times of low cash-flows), too many firms may be tempted to become inconsistent in their treatment of stakeholders and thus create an inconsistent firm image that is confusing to consumers, investors, and other stakeholders.

Second, managers should be aware of CSI and its underlying drivers and monitor CSI to avoid its possible negative impact. While CSI may improve resource allocation and organizational effectiveness in the short run, higher levels of CSI may send inconsistent signals about the social and environmental image of the firm in the long run. Since firms' stakeholder influence capacity is built upon stakeholders' trust, the more stakeholders doubt the genuine intentions and trustworthiness of firms' CSR, the more likely firms' stakeholder influence capacity will be undermined (Barnett, 2007, 2012; Oikonomou, Brooks and Pavelin, 2012). Therefore, to avoid the perception that the firm is window-dressing its commitment to CSR, managers need to plan their social practices in a more balanced and consistent manner,

while acknowledging the fiscal limits to such consistency.

Third, to obtain a more comprehensive understanding of a firm's CSR, investment analysts should also be cautious about the manner in which they evaluate it. Many rating agencies assess CSR by simply aggregating the scores of different dimensions of CSR (Capelle-Blancard and Petit, 2015). However, an aggregated score on any given firm's CSR may mask considerable inconsistency of CSR in that it allows a firm to compensate its irresponsible practices in one stakeholder dimension with responsible behavior in another. Thus, a partly irresponsible firm may erroneously be rated as "socially responsible" (or vice versa). Thus, CSR ratings based on aggregate scores are not only inaccurate, but also conceal possible future reputational risks, as exemplified by the aforementioned ANU case. Hence, social investment analysts would be well advised to adopt measures that consider each stakeholder group separately (Orlitzky et al., 2015) because this will avoid misleading investors.

5.3 Future Research Directions

Our model of CSI raises several questions that could be addressed in future research. First, future research may expand the scope of CSI research across time, space, and different divisions, i.e. by investigating the antecedents of temporal inconsistency and of corporate social practices that are inconsistent across countries and geographic regions. Inconsistency across organizational subunits, such as the divisions of large corporations or the firms belonging to business groups, also merits further investigation.

Second, future empirical studies should take into account potential reverse causality between CSI and the drivers proposed in this paper. For example, while unequal stakeholder pressures can drive CSI and other strategic postures, CSI may also affect stakeholders to

exert pressures. In particular, stakeholders who are treated irresponsibly may exert more pressure than other stakeholders. Conversely, stakeholders who are treated responsibly might not feel the need to exert negative pressure on firms.

Third, it would be interesting to examine whether other moderators, such as corporate leadership and culture, competitive and institutional environments, or macroeconomic factors (e.g., recessions), add significant explanatory power to our parsimonious framework. Finally, future research should develop a valid and reliable measure that captures consistent and inconsistent CSR and CSiR.

5.4 Conclusion

Our novel framework on CSI challenges the conventional polarized conception of CSR and CSiR. Generally, we can no longer look at CSR or CSiR as monolithic, unidimensional concepts. Nor can we make the unrealistic assumption that firms can always avoid trading off some stakeholders against others (i.e., avoid the opportunity costs of increasing one stakeholder-specific aspect of CSR). This study has conceptualized a new phenomenon, CSI, and it has theorized the drivers of different strategies, among which CSI merits particular attention. The central argument of this paper is that the balance of stakeholder pressures and organizational resource endowments together explain CSI as well as legal compliance, consistent CSR, and consistent CSiR. As a result, this paper advances the understanding of firms' implementation of CSR and tradeoffs in stakeholder prioritization, extends stakeholder theory, and adds to the debate on CSiR in a meaningful way.

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CHAPTER 3

PAPER 2—A CROSS-COUNTRY MULTILEVEL INVESTIGATION OF R&D, MARKET OPENNESS, AND WITHIN-FIRM VARIABILITY IN CORPORATE SOCIAL RESPONSIBILITY PRACTICES

Conference presentation

This paper was accepted and presented at 2016 National Doctoral Colloquium at The University of Melbourne, Melbourne, Australia, October 24, 2016.

This paper was accepted for presentation at the 77th Academy of Management, Atlanta, United States, August 7, 2017.

This paper was accepted for presentation at the Annual Meeting of Academy of International Business, Dubai, July 4, 2017.

Paper Development Workshop (PDW)

This paper was accepted by the PDW of Academy of International Business (AIB) - Australia and New Zealand Chapter Annual Symposium, Sydney, Australia, November 12, 2016.

This paper was accepted by the PDW of Emerging Scholars Colloquium, Australasian-Centre for Social and Environmental Accounting Research (A-CSEAR) Conference, Adelaide, December 7, 2016.

This paper was accepted by the 14th Annual Journal of International Business Studies (JIBS) PDW, Dubai, July 2, 2017

THE WEST COLUMN	A Cross-Country, Multilevel Investigation of R&D, Market Openness, and Within-Firm Variability in Corporate Social Responsibility Practices							
Publication Status	☐ Published	C Accepted for Publication						
	Submitted for Publication	Unpublished and Unsubmitted work written in manuscript style						
Publication Details								
Principal Author								
Name of Principal Author (Candidate)	Limin Fu							
Contribution to the Paper	Constructed the conceptual frame	work						
	Performed the data analysis							
	Drafted significant parts of the arti	cie						
Overall percentage (%)	85%							
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ABSTRACT

Some evidence suggests that R&D may enhance a firm's corporate social responsibility (CSR), whereas other studies show that R&D activities can shift resources away from CSR. To address this theoretical and empirical tension, we investigate the impacts of R&D on corporate social inconsistency (CSI), the within-firm variability of a firm's effectiveness in addressing different environmental, social, and governance (ESG) practices. Building on evolutionary economics, we propose that R&D is positively related to CSI because the complementarity between R&D and CSI can create important synergies between a firm's market and nonmarket strategies. Drawing on institutional economics, we also hypothesize that market openness, associated with competitive selection pressures, positively moderates the relationship between R&D and CSI because high selection pressure reinforces the need for cost-effective synergies by bundling R&D and CSI. Our hypotheses are empirically supported using multilevel data of 873 firms from 30 countries between 2008 and 2012.

Key words: corporate social responsibility (CSR), evolutionary economics, market openness, multilevel modeling, research and development, resource management.

1 INTRODUCTION

Many practitioners and academics believe that research and development (R&D) can enhance a firm's corporate social responsibility (CSR) by addressing some societal problems (Ahlstrom, 2010; Padgett & Galan, 2010; Surroca, Tribó, & Waddock, 2010). However, the extant literature on R&D and CSR is somewhat perplexing. The prevailing view in the extant literature suggests that a firm's R&D can positively affect its CSR in that R&D can enhance a firm's capability to incorporate stakeholders' needs and expectations in organizational decisions (Gallego-Álvarez, Prado-Lorenzo, & García-Sánchez, 2011; Padgett & Galan, 2010; Surroca et al., 2010). Applying R&D to CSR can also differentiate the firm and confer competitive advantages (Padgett & Galan, 2010; Surroca et al., 2010). This stream of arguments effectively assumes a high degree of relatedness between R&D and CSR, irrespective of the varying relevance to different ESG issues.

Yet, another stream of literature suggests otherwise (Hull & Rothenberg, 2008; Tang, Hull, & Rothenberg, 2012). This view asserts that R&D may be sufficient to enhance the firm's capability to differentiate itself from its competitors; thus investing in CSR for the sake of differentiation would become irrelevant (Hull & Rothenberg, 2008; Tang et al., 2012). More importantly, R&D activities can compete with CSR activities for limited resources (O'Brien & David, 2014; Tang et al., 2012; Wang & Bansal, 2012), which may lead to a lower level of CSR. This instrumental argument implicitly defies the existence of the potential synergies between R&D and CSR as complementary resources.

Notably, both of the streams of literature tended to adopt an approach that focused on level of firms' performance on CSR overall and aggregated measure. However, CSR is a multidimensional construct capturing environmental, social and corporate governance (ESG) practices with uneven performance on different dimensions. Thus, within-firm inconsistency

in ESG practices exists, which allows for high performance on one dimension of CSR to compensate for poor performance on another (Capelle-Blancard & Petit, 2015). Hence, prior studies examining the effects of R&D on CSR may have masked the *within-firm* variability in ESG practices.

This suggests a hitherto unexamined complexity in studies of the relationship between R&D and CSR: if firms are inconsistent in their implementation of ESG practices (Strike, Gao, & Bansal, 2006; Surroca, Tribo, & Zahra, 2013), then the observed average relationships between R&D and CSR may be misleading. Ignoring within-firm variability in ESG practices also obscures important differences in firm-level CSR strategies and their relationship with R&D. Firms can implement a "broad but shallow" CSR strategy (i.e., consistent in low performance across ESG practices) or "narrow but deep" strategy (i.e., inconsistent but high in a particular social issue among ESG practices) (Mazutis, 2010). Thus, within-firm variability in ESG practices should be incorporated in any empirical inquiry (Wang & Choi, 2013). Accordingly, an important question arises: how does R&D affect firms' within-firm variability in ESG practices?

Our study is designed to examine this unanswered question in this area. Since R&D is often a specific activity in search for a solution targeting at the preexisting puzzles and problems (Helfat, 1994), the social impacts of R&D may not be equally distributed over all ESG practices (Dierickx & Cool, 1989). Hence, we reconcile the two streams of literature and assume that the impacts of R&D on CSR vary across ESG practices. Rather than examining the overall CSR, we shift our focus to within-firm inconsistency across ESG practices. We call this within-firm variability in CSR across ESG practices *corporate social inconsistency* (CSI). Specifically, we examine how firms' R&D can affect CSI. To do so, we employ evolutionary economics and propose that R&D is positively related to CSI because of

the synergies incurred and the limited range of alternatives emerging from the pathdependent nature of R&D.

Furthermore, organizational routines and skills, such as those related to R&D and social practices, are also contingent on the institutional environment (Ioannou & Serafeim, 2012; O'Brien & David, 2014). Different countries have different institutions (e.g., policies, laws, rules etc.) that shape the selection environments of firms, which further affect organizational routines (Nelson & Winter, 1982; North, 1990). Thus, we need to examine how relevant country-level institutions influence the association between R&D and CSI through selection environments. Regulatory institutions in particular determine market opportunities and shapes firms adaption to competitive environments (North, 1990). Therefore, we focus on regulatory institutions that govern competition (Ioannou & Serafeim, 2012; Matten & Moon, 2008). Combining evolutionary economics and institutional economics, we explain how open markets—as a reflection of market institutions— unleash selection pressures and incentivize firms to seek routine modification and new routine creation through the bundling of R&D and CSI. We propose that the relationship between R&D and CSI varies in different markets such that open markets strengthen the relationship between R&D and CSI.

We test our hypotheses on multilevel data collected for 873 firms in 30 countries between 2008 and 2012. Our results show that R&D is positively related to CSI. In addition, we find that market openness strengthens the association between R&D and CSI, such that firms with greater R&D in more open markets are more likely to exhibit CSI. The results provide support for our hypotheses and are robust to a set of additional analyses, including a supplementary analysis using an alternative operationalization of CSI and the group-mean standardization method.

Our research makes two contributions to the literature in strategic CSR and international business. First, regarding the literature on strategic CSR, we push the frontier of R&D and CSR research to the study of CSI. Through an analysis of firms' variability in environmental, social, and governance (ESG) practices, we argue that R&D mainly affects CSI, which reconciles the opposing assumption of R&D's relatedness to CSR in the prior literature (Gallego-Álvarez et al., 2011; Hull & Rothenberg, 2008; Padgett & Galan, 2010; Tang et al., 2012; Wang & Bansal, 2012).

Second, regarding the literature on CSR in the field of international business, we argue that the link between R&D and CSI is contingent on institutional contexts, specifically, institutions that regulate market openness. Incorporating this contextual factor into our inquiry stresses the significance of institution, especially market-related institutions, in illuminating the organizational level studies in the field of CSR (Brammer & Millington, 2008; Gallego-Álvarez et al., 2011; McWilliams & Siegel, 2001; Padgett & Galan, 2010). In this paper, we highlight that the nature of the R&D-CSI relationship varies across countries and their respective selection environments, which are affected by the degree of market openness and thus competition.

2 THEORY AND HYPOTHESES

2.1 What is CSI?

We introduce the new concept of corporate social inconsistency (CSI) to capture organization-level patterns or variations in CSR over distinct domains of social practices. The three principal domains of CSR are environmental, social, and governance practices, also known as ESG practices (Cheng, Ioannou, & Serafeim, 2014; Ioannou & Serafeim, 2012;

Luo, Wang, Raithel, & Zheng, 2015). As explained in the introduction, firms may trade off their performance on some ESG practices against others. Thus, using overall CSR masks the within-firm variability across ESG practices. Accordingly, employing overall CSR as the basis of inquiry without exploring within-firm consistency can also be misleading. Some findings of prior CSR studies may provide an overly generic picture in which the antecedents and outcomes of CSR are perceived positive or negative, although they are only relevant to a specific ESG practice. Thus, the effects of the antecedent and outcomes can be biased. Moreover, the lack of the within-firm consistency and inconsistency also impede our understanding of firms' CSR strategy.

We call firms consistent at a particular point in time when their CSR is at similar levels in the three CSR domains (ESG)². In contrast, firms are inconsistent if their CSR is high in some domains, but low in others at the same time. We acknowledge that this distinctive categorization represents ideal types, which are useful as contrasting frames of reference (Bailey, 1994; Swanson, 1999; Weber, 1914/1947). In practice, of course, CSI is more of a continuum ranging from low to high.

While consistency may also vary over time, this temporal variability lies beyond the scope of this study. In addition, despite the possible positive or negative connotations of the terms consistent and inconsistent, we do not intend to convey any normative judgments. Rather, we conceptualize CSI as a descriptive disparity construct because, CSI, as an overall organizational pattern, is assumed to range from homogeneous (i.e., consistent) to heterogeneous (variable, or inconsistent, in ESG practices) (Harrison & Klein, 2007). Thus,

² It should be noted that consistency in high CSR and consistency in low CSR is likely to have different implications. This in-depth examination of these different implications is not within the scope of this paper. However, we control for level of CSR methodologically in this paper.

as a continuous variable, CSI captures the common occurrence of within-firm variance in CSR with respect to different ESG practices (Harrison & Klein, 2007; Wang & Choi, 2013).

2.2 Evolutionary Economics, Institutional Economics and Strategic Management

We adopt evolutionary economics as our primary theoretical perspective to explain how R&D relates to CSI. According to this theoretical perspective, organizations are conceptualized as a set of behavior-governed routines that encode the stock of organizational capabilities and knowledge (Feldman, Pentland, D'Adderio, & Lazaric, 2016; Nelson & Winter, 1982). These routines encode how organizations manage their resources and to what extent they are efficient in their operations (Feldman et al., 2016). Organizational change occurs when routines, such as the components of CSR, are modified or replaced by new routines (Nelson & Winter, 1982; Van de Ven & Poole, 1995). Search routines in evolutionary economics correspond to R&D in the real world (Nelson & Winter, 1982). Centering on routines, organizations navigate through a process of search, learning, selection, and adaptation (Nelson & Winter, 1982; Van de Ven & Poole, 1995).

Organizations selectively locate, recombine, and implement routines to deal with their current organizational context and create new value as their strategy (Feldman & Pentland, 2003; Feldman et al., 2016; Grand, 2016). However, because routines are path-dependent, the search for routine modification tends to be limited to a restricted set of alternatives—those alternatives that fit existing organizational routines (Feldman et al., 2016; Nelson & Winter, 1982). Moreover, not all firms equally benefit from search routines. Large firms enjoy considerable appropriability advantages in implementing search routines because of economies of scale in R&D, greater capabilities for risk spreading, or more abundant financial resources (Nelson & Winter, 1982; Schumpeter, 2013).

The search for routine change is often the result of external pressures from the market environment (Winter & Nelson, 1982). According to the perspective of evolutionary economics, change is often driven by external forces, such as competition in market environments. Competition forces firms to retain only those routines that are difficult to imitate and increase firms' survival prospects during the selection process (Nelson & Winter, 1982). It is here where evolutionary economics connects with institutional economics. Institutions, which include formal and informal rules, shape competition and, thus, firms' actions and strategies (North, 1990). Consequently, institutions cause firms to develop resources and organizational routines that allow them to survive (Kim, Kim, & Hoskisson, 2010; Meyer & Peng, 2015; North, 1990; Peng, 2003).

2.3 Why can R&D Promote Variability in ESG Practices?

As mentioned in the introduction, the prior literature on the relationship between R&D and social practices is still inconclusive. We intend to explain the inconclusiveness by arguing that R&D enhances within-firm variability in ESG practices. R&D represents a firm's search for knowledge toward commercial ends. Because of asset specificity, R&D would result in the loss of economic value if it were redeployed to unrelated activities (Dierickx & Cool, 1989; Knott, 2003). In other words, R&D usually constitutes a highly specialized search activity specific to certain products or processes (Knott, 2003). R&D tends to support those ESG practices that share related attributes, strategic goals, resources, capabilities, and/or knowledge.

Insofar as the contributions of R&D to ESG practices rely on such shared characteristics, the impact of R&D is not evenly distributed with respect to ESG practices (Dierickx & Cool, 1989; Knott, 2003). Thus, we expect R&D to be related to only certain ESG practices rather

than to all CSR domains evenly. This theoretical expectation results in CSI. To illustrate this idea, R&D aimed at specific green innovations, such as CO2 reductions, may help firms build capabilities and skills in, as well as gain a positive reputation regarding, specific areas within the broad area of environmental responsibility (Hart & Dowell, 2011; Marcus & Fremeth, 2009). In turn, corporate governance practices that are generally considered socially responsible are centered on enhancing public transparency and accountability and more effective balancing of stakeholder demands (He & Wang, 2009; Walls, Berrone, & Phan, 2012). To accomplish these goals, sustainability-related board initiatives may be necessary, such as increasing board diversity, linking executives' compensation to CSR initiatives, and conducting social audits (Mason & Simmons, 2014; Walls et al., 2012). That is, specific, focused governance initiatives that are synergistically integrated with R&D commitments may be an effective management tool to prevent strategically unfocused overspending in R&D (Chan, Chen, Hong, & Wang, 2015). Conversely, governance practices that have a short-term financial orientation have been found to weaken R&D commitments (Honoré, Munari, & de La Potterie, 2015).

The sharing of knowledge and capabilities between R&D and focused, strategically integrated ESG practices, which leads to the expectation of a positive association between R&D and CSI, creates synergies that lead to a more efficient implementation of ESG practices (Salvato, 2003; Sirmon, Hitt, & Ireland, 2007). Such synergies and resource management efficiencies allow firms to better exploit existing R&D activities to the closely related ESG issue, without making additional investments in relatively unrelated, unfamiliar fields of knowledge (Keys, Malnight, & van der Graaf, 2009; Ng, 2007; Tang et al., 2012). At the same time, synergies may point to the optimal pathway toward exploring new R&D capabilities and skills. For example, many companies that place high emphasis on R&D tend

to focus on ESG initiatives like education and skill development in communities (e.g., Twitter's "Neighbor Nest" program), where their technological expertise can produce the highest impact (Ramanathan, 2016). By exploiting R&D-ESG synergies (stemming from shared knowledge and capabilities), a firm's pattern of ESG is likely to be heterogeneous.

This anticipated positive association between R&D and CSI stands in contrast to two other patterns in ESG investments. First, a firm that scores low in ESG practices across the board (i.e., a firm with homogeneously low ESG scores implying low CSR across the board) may forgo opportunities to create new, valuable, and difficult-to-imitate resource (search routine) bundles, and, consequently, put its competitive advantage at risk (Keys et al., 2009; Sirmon, Hitt, Arregle, & Campbell, 2010). Second, a firm with homogeneously high commitments across all ESG domains may overinvest in ESG issues that are only weakly related to existing R&D resources and capabilities. This is because R&D and ESG can then increasingly compete for resources because firms require resources and time to reach the minimum threshold required for ESG practices to become visible (Dubé, Hitsch, & Manchanda, 2005). In addition, learning and developing knowledge applicable to each ESG practice would take a long time (Sirmon et al., 2007). As a consequence of path-dependent knowledge development, newly generated tacit knowledge and capabilities used to implement relatively unrelated ESG practices are less likely to be compatible with the firm's existing R&D capabilities (Tang et al., 2012). This incompatibility can reduce the effectiveness of those ESG practices (Tang et al., 2012) and compromise synergies and the efficient use of resources. Therefore, firms have an incentive to avoid ESG practices unrelated to their R&D investments, which results in CSI. For example, R&D and CSR investments in health-related industries may center on specific social issues (S) that are health-related, rather than environmental (E) or governance (G) issues. We therefore posit a positive association between R&D and CSI as follows:

Hypothesis 1: All else being equal, there is a positive association between R&D and CSI.

2.4 Institutions, Selection, and CSI

Firms' strategies and routines are responsive to business environments characterized by different degrees of competitive intensity (Farjoun, 2010; Nelson & Winter, 1982; Van de Ven & Poole, 1995). Analogous to natural selection in biology ("survival of the fittest"), markets select those firms with superior and eliminate those with inferior organizational routines (Feldman & Pentland, 2003; Nelson & Winter, 1982; Schumpeter, 1934). Some institutions that decentralize control of markets foster competition (Flammer, 2015; Kim et al., 2010; North, 1990), which in turn may trigger firms' search routines (e.g., R&D) that evaluate, modify, or replace existing organizational routines seeking to survive in the selection environment (Nelson & Winter, 1982). Hence, we argue that in different selective institutional environments, the relationship between R&D and CSI may vary to the extent that firms adapt to selection pressures.

Institutions, as rules of the game, are essential for the effective functioning of a country's economy (North, 1990; Williamson, 1985). Different countries enact different institutional rules including, but not limited to, laws, economic policies, property rights, and informal conventions (North, 1990). Such rules can influence the transaction costs in market exchange, the efficiency of markets, and competition in market (Meyer & Peng, 2015; North, 1990; Peng, Sun, Pinkham, & Chen, 2009). Some institutional rules that promote open markets tend to support economic exchange by guaranteeing capital and information flows, property rights

protection and the entry of newcomers into a market (Kaufmann, Kraay, & Mastruzzi, 2009; Shinkle & McCann, 2014).

Institutions that promote open markets are typically characterized by less government intervention, low trade and inward foreign direct investment barriers and high levels of financial freedom (Friedman, 1962; Hayek, 1944). Such institutional rules can further influence a country's industry structure and competitive intensity (Flammer, 2015; Kim et al., 2010). For instance, with fewer restrictions on international trade, goods and services can flow more freely across borders and buyers and sellers can interact in the international marketplace. With more players in markets, firms are faced with more intense competition from both domestic and foreign competitors (Flammer, 2015; Kumaraswamy, Mudambi, Saranga, & Tripathy, 2012).

Likewise, fewer barriers against foreign direct investments encourage movement of capital to promote the efficient allocation of resources domestically and internationally. In open markets, cross-border investment entails both the inflow and outflow of capital. A high level of financial freedom supplies access to diversified savings, credit, payment and investment to firms. Financial systems in open markets can mobilize capital because relevant information circulates more quickly. In contrast, countries with less open markets are often characterized by centralized planning, excessive regulatory barriers to trade, investment or capital movements (Ghoul, Guedhami, & Kim, 2016).

By contrast, institutions that set high entry barriers and restrictions on trade and foreign investment tend to generate less open markets. Without the free flow of trade, capital and investment, such static market environments tend to have a limited number of market players (Friedman, 1962; Hayek, 1944). Thus, competition in such institutional contexts tends to be limited (Flammer, 2015; Kim et al., 2010). Conversely, open markets heighten competition

among firms (D'Aveni, 2010; Flammer, 2015; Kumaraswamy et al., 2012). Higher competitive intensity unleashes market selection pressures and compels firms to increase their operational efficiency and create new value (Nelson & Winter, 1982; Sirmon et al., 2007). As selection pressures increase, the quasi-rents of R&D can be eroded by imitators (Nelson & Winter, 1982). Thus, underperforming firms tend to be selected out of the market. Seeking to survive selection pressures, organizations tend to activate their search routines (e.g., R&D) to search for greater operational efficiency and product innovation (Porter & van der Linde, 1995; Schumpeter, 1934).

As a way to increase their competitiveness, some firms may adopt nonmarket strategies in order to build relational capital³ (Fernández-Kranz & Santaló, 2010; Graf & Wirl, 2014). The search for competitive advantage is one of the key drivers for adopting social practices (Bansal & Roth, 2000; Porter & van der Linde, 1995; Vilanova, Lozano, & Arenas, 2009). For instance, firms tend to increase CSR after trade liberalization in order to outcompete their international competitors (Flammer, 2015).

However, under intense competition, instead of adopting responsible practices in all ESG domains, firms are more likely to be focused in their CSR (i.e., high in CSI) for the following three reasons. First, since fierce market competition also reduces firms' returns, firms tend to have fewer financial resources to explore new social practices in all possible dimensions (Campbell, 2007; Sirmon et al., 2007). The remaining options encompass bundling their existing (or easily reachable) knowledge, resources, and capabilities as a way to enhance value (Sirmon, Gove, & Hitt, 2008). Because fewer slack resources are available and due to

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³ Although there are firms that act socially irresponsible due to the narrow profit margin under intense competition (Campbell, 2007), the market can reward and enhance the choices that prove good in practice and to suppress the bad ones (Winter & Nelson, 1982).

the resource complementarity between R&D and some specific ESG practices, firms tend to bundle R&D with specific social practices, which increases CSI.

Second, bundling specific CSR practices with R&D transforms a firm's search routines and skills into more socially complex resources more difficult to be imitated (Grand, 2016; Sele & Grand, 2016; Sirmon et al., 2007). As agued in Hypothesis 1, the bundling of the related ESG practices with R&D enriches R&D routines with complementary social attributes. These newly attached attributes surrounding a particular R&D-related ESG domain can distinctly signal a firm's goodwill and commitment in this domain (O'Brien & David, 2014; Shen, Tang, & Zhang, 2016). R&D with distinctive social attributes helps secure the support from the related stakeholder in forms of access to resources, reputation, relationships, among others. (Cheng et al., 2014; O'Brien & David, 2014). This bundling thus makes R&D more socially complex: the goodwill and stakeholder support generated from R&D is beyond the ability of others firms to systematically manage, influence and imitate (Barney & Clark, 2007; Sirmon et al., 2007).

Thirdly, nevertheless, such bundling also exacerbates path dependence, which increasingly leads to self-reinforcing processes (Vergne & Durand, 2010). Therefore, in more open markets with higher levels of competition, firms tend to reinforce the established resource and capability bundles, which reproduce the existing path of value creation and avoid the costs of misfit that other choices might entail (Sirmon et al., 2008; Sirmon et al., 2007; Sydow et al., 2009). As a consequence, the R&D-CSI relationship may become increasingly entrenched, gradually driving out exploration of unrelated ESG issues (Sydow et al., 2009; Vergne & Durand, 2010). Once such lock-in effects are present, firms may even lose their capability to adopt solutions in ESG issues weakly related or unrelated to existing

knowledge (Sydow et al., 2009), strengthening the relationship between R&D and CSI (Tang et al., 2012). Therefore:

Hypothesis 2: Market openness positively moderates the association between R&D and CSI such that higher levels of market openness strengthen the link between R&D and CSI.

Figure 3.1 below summarizes our conceptual model:

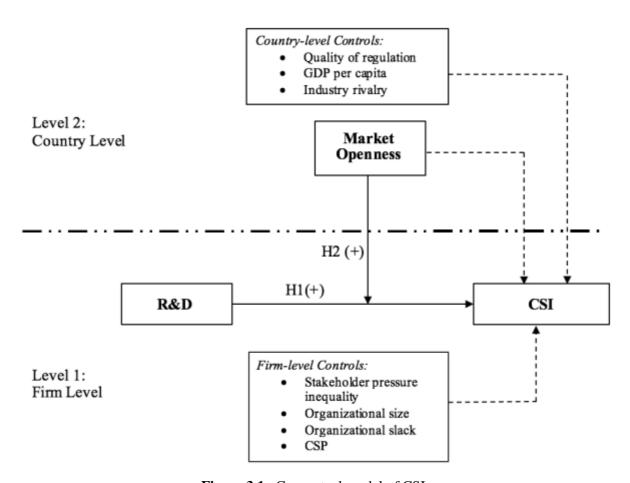


Figure 3.1 Conceptual model of CSI *Note.* Continuous lines represent hypothesized relationships; dashed lines represent controls.

3 METHODS

3.1 Data Sources and Sample

We arrived at the final sample in a three-step process. First, we identified firms in ASSET4ESG that had complete data on their corporate social performance (i.e., their ESG practices). ASSET4ESG includes 4,300 global companies that comprise various stock indices, including S&P 500, NASDAQ 100, MSCI World, STOXX600, Russell 1000, FTSE 100, ASX 300 and MSCI Emerging Market (Thomson Reuters, 2012). From the original sample of year 2002 to 2012, the years of 2002 to 2007 were excluded due to missing values. The

removal of missing values left us with 8,290 firm-year observations based on a sample of 1,658 firms from 2008 to 2012. Second, we obtained organizational data, including employee number, R&D expenditures, total sales from WorldScope and OSIRIS. Third, we collected country-level data on market openness, GDP and quality of regulation from Heritage Foundation, World Bank respectively. Fourth, we matched the data from different sources by each firm's International Securities Identification number (ISIN). We excluded 785 firms due to missing data of four variables: R&D, firm size, slack resources. Finally, in order to eliminate the influence of large outliers, we trimmed the sample (at the 1% level) from both ends (David, O'Brien, Yoshikawa, & Delios, 2010). In the end, the data matching yielded a usable unbalanced panel of 873 firms and 3,278 firm-year observations from 2008 to 2012.

Our final international sample of 873 firms covers 3,278 observations in 30 countries. The final sample is from firms that are predominantly headquartered in the USA (30.7%) and Japan (29.7%). The remaining sample is distributed in 28 other countries: Australia (1.7%), Austria (0.6%), Belgium (1.0%), Brazil (0.2%), Canada (0.9%), China (0.9%), Denmark (1.3%), Finland (2.0%), France (4.2%), Germany (5.3%), Hong Kong (0.6%), India (1.0%), Indonesia (0.1%), Ireland (0.5%), Israel (0.2%), Italy (0.5%), Netherlands (1.3%), New Zealand (0.3%), Norway (0.6%), Poland (0.2%), Singapore (0.1%), South Korea (1.3%), Spain (0.3%), Sweden (2.6%), Switzerland (3.1%), Turkey (0.4%), and United Kingdom (8.2%).

3.2 Dependent Variable

CSI. In line with Wang and Choi's (2013) use of the coefficient of variation to measure consistency in CSR, we measure CSI through the coefficient of variation of a firm's three ESG domains—that is, variability in environmental, social, and corporate governance (ESG)

practices. An advantage of the coefficient of variation is that it adjusts for the mean level of CSR (Harrison & Klein, 2007; Sørensen, 2002). In order to obtain the coefficient of variation, we first calculated the standard deviation of the firm's performance on each of those ESG dimensions. Then, we divided the standard deviation by the mean of the three dimensions (Harrison and Klein, 2007). The coefficient of variation measures the dispersion and dominance of a firm's ESG scores around its overall ESG performance. Thus, the higher the coefficient of variation, the higher the CSI: the less dispersed a firm is on its ESG dimensions, the more dominant (or focused) it is in a certain dimension. Following Harrison and Klein's (2007) suggestions, we also applied entropy, the Blau Index, and the Gini coefficient to measure CSI. Our results show that CSI calculated by these alternative proxies are highly correlated (with correlation coefficients > 0.96), which indicates strong convergent validity.

3.3 Independent and Moderator Variables

R&D. In this paper, we measured the level of R&D using the ratio of a firm's R&D expenditures to its total sales, which is in line with other studies (Barnett & Salomon, 2012; Berrone, Fosfuri, Gelabert, & Gomez-Mejia, 2013; Mudambi & Swift, 2014). R&D intensity is an important indicator of firms' search for routine modification and creation. High R&D investment stimulates firms' pioneering innovation (Luo & Du, 2012; Mudambi & Swift, 2014). Even if the R&D investment fails, it still comprises a learning-while-doing opportunity that enhances the knowledge stock of the firm (Knott, 2003). The enhanced knowledge stock becomes a valuable capability that enables the firm to further innovate (Knott, 2003). Firms that are on the path of explorative R&D, usually have large R&D

investments (Mudambi & Swift, 2014). Thus, high R&D intensity signposts that the focal firm is engaging in routine-modifying activities.

Market openness. Following the Heritage Index of Economic Freedom—a comprehensive assessment of economic freedom exploring the sources of enduring economic dynamism—we used the composite measure of trade freedom, investment freedom and financial freedom to assess market openness. Each of the indicators is evaluated on scale of 0 (no freedom) to 100 (full freedom). This index has been previously used in the literature with very similar purposes (Fuentelsaz, Garrido, & Maicas, 2015; Shinkle & McCann, 2014). Essentially, these measures reflect country-level economic institutions. Market openness represents a country's institutional framework associated with free markets (Fuentelsaz et al., 2015; Shinkle & McCann, 2014). Such country-level institutions have been shown to affect the efficiency of firms (Campbell, Eden, & Miller, 2012; Ioannou & Serafeim, 2012; Schotter & Beamish, 2013).

3.4 Control Variables

Stakeholder pressure inequality. As stakeholder pressure is a critical determinant to firms' ESG practices (Perez-Batres, Doh, Miller, & Pisani, 2012), unequal pressures from different stakeholder groups might affect whether firms attend to a wide bundle of social issues or only one social issue. We measured stakeholder pressure inequality by calculating the coefficient of variation of stakeholder pressures on the three different dimensions of ESG, respectively. As stakeholder pressure is reflected in the controversies a firm is faced with its ESG practices under public scrutiny (Capelle-Blancard & Petit, 2015; Surroca et al., 2013), we measured stakeholder pressure on each of ESG domain using a score directly from the ASSET4 dataset that measures firms' ESG practices, respectively. ASSET4 formulates this

indicator with the number of controversies published in media relating to the impacts of the firm on environment, society and corporate governance, and controversies published in media regarding specific issues and problems in ESG practices. These data were obtained by counting all the numbers of news articles, TV reports etc. on the focal controversies (Thomson Reuters, 2012). Further, we measured stakeholder pressure inequality by calculating the coefficient of variation of stakeholder pressures on the three different dimensions of ESG, respectively.

Organization size. Differences in firm size can affect firms' social performance (Udayasankar, 2008). We measure size by the natural logarithm of a firm's number of employees (Surroca et al., 2010; Waddock & Graves, 1997).

Organizational slack. Organizational slack provides firms with more resources to implement social practices (Campbell, 2007). Firms with greater slack are expected to be more consistent in high social performance, thus presenting less CSI. Slack is typically measured by the ratio of current assets to current liabilities (Bansal, 2005; Strike et al., 2006).

Corporate social performance (CSP). As CSI does not reflect the level of CSR in ESG practices other than a firm's within-firm variability, it is difficult to tell whether an inconsistent firm is a high CSP firm or low CSP firm. Thus, we also controlled for firms' CSP to hold this effect constant. We measure each firm's CSP by the average of its aggregate ESG scores.

Industry rivalry. Industry rivalry is likely to affect firms' ESG practices (Campbell, 2007; Flammer, 2015). We measured the industry rivalry with the widely used Herfindahl-Hirschman Index (HHI) by country, industry and year (Hirschman, 1964). By country and year, we calculated each firm's market share against the total sales of the industry that is defined at the four-digit Industry Classification Benchmark (ICB), and then summed the

squared form of market share to obtain the HHI. The U.S. Department of Justice (https://www.justice.gov/atr/herfindahlhirschmanindex) considers a market with a result of between 0.15 to 0.25 to be moderately concentrated, and consider markets in which the HHI is in excess of 0. 25 to be highly concentrated (U.S. Department of Justice, 2015). Industry concentration in our sample ranges from 0.011 to 1.

Quality of regulation. Institutions are argued to have great impact on firms' social performance (Campbell, 2007; Campbell et al., 2012). We used a composite measure of the six regulation-related indicators published by the World Bank as a proxy of institutional regulatory control (Surroca et al., 2013). The indicators are: (1) Voice and Accountability, (2) Political Stability and Absence of Violence, (3) Government Effectiveness, (4) Regulatory Quality, (5) Rule of Law, and (6) Control of Corruption. These indicators range from 2.5 (low regulatory control) to 2.5 (high regulatory control). They measure the degree of a country's institutional governance framework regulating economic activity and protecting private property (Kaufmann et al., 2009; Surroca et al., 2013).

Open markets require governments to effectively formulate and implement sound policies to support economic exchanges by guaranteeing capital and information flows, property rights protection and the entry of newcomers into a market (Kaufmann et al., 2009; Shinkle & McCann, 2014). Based on this association, we expect that quality of regulation is highly positively correlated to market openness.

GDP per capita. The gross domestic product (GDP) is one of the primary indicators used to measure the health of a country's economy. Although GDP does not directly measure societal welfare, it is suggested that a correlation between the stage of economic development and CSR exists (See, 2009). Thus, we included GDP per capita in our model as control variable. We collected data on GDP per capita from the World Bank. The World Bank

provides GDP per capita data in 248 countries in the time period between 1990 and 2014. These data are in constant 2011 international dollars, which has the same purchasing power over GDP as the U.S. dollar has in the United States.

3.5 Analysis

Given the nested structure of our data and the nature of our research question (i.e., CSI at firm level is predicted by the cross-level interaction between firm-level and country-level variables), we tested our hypotheses using multilevel linear modeling (MLM) as the primary method (Peterson, Arregle, & Martin, 2012; Snijders & Bosker, 2012). There are two major advantages of employing this statistic approach over the traditional ordinary least squares (OLS) approach (Hofmann, 1997; Snijders & Bosker, 2012). First, MLM recognizes that firms within the same country may resemble each other or be interdependent on each other. Thus, MLM separately estimates both firm and country level residuals. Since firms' social practices can exhibit systematic country differences due to country-level institutional differences (Ioannou & Serafeim, 2012; Matten & Moon, 2008), firms' CSI within the same country may display similarities given that firms in the same country are subject to a similar set of institutional rules. Thus, neither the CSR (i.e., ESG) activities nor the CSI of firms operating in the same country would be expected to be independent. As a result, our sample likely violates the independence assumption of the traditional OLS approach.

Second, MLM allows for the simultaneous analysis of the effects at lower level (e.g., firm-level R&D) and higher level predictors (e.g., country-level market openness) on the lower level outcome (e.g., firm-level CSI). MLM realizes these advantage through simultaneously estimating the fixed effects and random effects and apportioning the withingroup and between-group variance (Raudenbush & Bryk, 2002).

Multilevel model testing requires the examination of the dependent variable in a null model with respect to its between-group variance and whether this variance is significantly different from zero (Raudenbush & Bryk, 2002; Snijders & Bosker, 2012). The null model partitions the variance of the dependent variable into firm- and country-level components. Because our model essentially encompasses two levels—the firm level and country level, we first run a model including firm and country levels to examine the variance of CSI residing in between country effects. The intraclass correlation coefficients (ICC) of the null model is 0.127, which indicates 12.7% of the variance in CSI is accounted for by countries, suggesting the homogeneity of firm level CSI within a same country and the relative importance of country-level effects.⁴ The proportion of country-level variance provides a medium level of between-country variance to proceed with MLM analyses (see also Hox, 2010; Peterson et al., 2012). Once significant country-level variance is established, we introduced the independent variables and the moderator to test our hypotheses.

Due to the large differences of scales among the independent and dependent variables, we standardized all the variables in this study for a better assessment of effect sizes and ease of presentation. Following the recommendation of Bliese (2002), we employed grand-mean standardization. That is, country-level variables were standardized based on their country-level mean and standard deviation across the sample. Firm-level variables were grand-mean standardized, that is, standardized based on their firm-level mean and standard deviation across the sample. Standardizing enabled the simple illustration of interaction effects by

⁴ We also ran a model including firm- and industry-levels to examine the variance of CSI residing in between industry effects. The ICC is 0.019, which indicates that 1.9% of the variance in CSI is accounted for by industries. This ICC level is below the threshold of small ICC (0.05) that justifies a multilevel study (see also Hox, 2010). This suggests that the homogeneity of firm level CSI within a same industry is small. Thus, industry-level effects are relatively less important than country-level effects in our data. This finding lends statistical support for the exclusion of the industry-level from our multilevel models.

plotting the standardized scores of market openness at one standard deviation above, below and at their mean against the firm's likelihood of exhibiting CSI (Dawson, 2014).

4 RESULTS

Table 3.1 provides an overview of the descriptive statistics and correlation matrix. Table 3.2 shows the descriptive statistics by country. Table 3.3 presents the estimation results for the multilevel regression models on the relationship between R&D and CSI, and the moderating effect of market openness.

 Table 3.1
 Descriptive data and correlation matrix

	Variables	Mean	SD	Min	Max	1	2	3	4	5	6	7	8	9 10
1	CSI	0.128	0.066	0.001	0.361									
2	R&D	0.046	0.058	0.000	0.319	0.00								
3	Market openness Industry rivalry	74.449	9.713	40.333	91.667	-0.205***	0.131***							
4 5	(HHI) Stakeholder	0.132	0.196	0.011	1.000	-0.127***	-0.021	0.181***						
3	pressure inequality	1.459	0.188	0.224	1.732	-0.008	-0.009	-0.047***	-0.007					
6	Organization size	9.713	1.260	4.543	13.332	0.056***	-0.186***	-0.098***	0.043**	-0.084***				
7	Organizational slack	1.859	1.029	0.376	7.537	-0.005	0.390***	-0.023	-0.149***	0.0181	-0.359***			
8	CSP	52.776	6.489	37.346	68.667	-0.031*	-0.012	0.080***	0.114***	-0.076***	0.541***	-0.204***		
9	Quality of													
	regulation	1.273	0.332	-0.555	1.878	-0.105***	0.068***	0.627***	0.154***	-0.015	-0.140***	-0.016	0.096***	
10	GDP per capita	10.573	0.331	8.250	11.225	-0.106***	0.175***	0.673***	-0.055***	-0.027	-0.106***	0.070***	0.007	0.762***

^{*} *p*<0.10, ** *p*<0.05, ****p*<0.01

 Table 3.2
 Descriptive statistics by country

		CSI		R&D		Market	Market openness		
Country	N	Mean	SD	Mean	SD	Mean	SD		
Australia	56	0.123	0.057	0.034	0.047	84.838	0.167		
Austria	21	0.077	0.026	0.009	0.005	76.857	1.646		
Belgium	32	0.089	0.048	0.053	0.080	82.242	3.107		
Brazil	7	0.138	0.039	0.015	0.022	55.457	1.334		
Canada	29	0.162	0.075	0.030	0.049	80.261	0.944		
China	28	0.177	0.067	0.007	0.008	42.495	1.275		
Denmark	44	0.114	0.072	0.071	0.063	88.908	0.279		
Finland	66	0.113	0.055	0.026	0.033	80.465	2.238		
France	139	0.117	0.053	0.054	0.069	69.290	1.155		
Germany	175	0.109	0.062	0.039	0.041	76.389	1.111		
Hong Kong	20	0.198	0.049	0.045	0.030	90.833	0.855		
India	31	0.128	0.061	0.016	0.021	44.018	3.431		
Indonesia	2	0.149	0.086	0.000	0.000	48.233	0.801		
Ireland	16	0.136	0.051	0.011	0.012	86.825	2.603		
Israel	6	0.112	0.038	0.045	0.027	79.100	1.984		
Italy	15	0.151	0.064	0.041	0.046	72.629	1.968		
Japan	975	0.153	0.069	0.037	0.044	63.918	0.344		
Republic of Korea	43	0.131	0.065	0.017	0.024	67.330	2.027		
New Zealand	9	0.131	0.088	0.033	0.038	80.815	2.214		
Norway	21	0.094	0.043	0.010	0.015	69.219	2.577		
Poland	5	0.102	0.028	0.001	0.002	69.293	0.919		
Singapore	3	0.044	0.014	0.000	0.000	73.333	1.667		
South Africa	14	0.112	0.051	0.004	0.002	61.010	0.548		
Spain	9	0.178	0.041	0.009	0.012	81.467	1.610		
Sweden	84	0.110	0.060	0.030	0.029	83.021	1.113		
Switzerland	102	0.115	0.053	0.049	0.055	81.089	2.310		
The Netherlands	42	0.112	0.044	0.045	0.054	87.307	1.408		
Turkey	12	0.131	0.041	0.005	0.005	65.017	2.949		
United Kingdom	267	0.104	0.055	0.038	0.061	87.226	1.395		
United States of America	1005	0.119	0.065	0.065	0.071	79.760	2.526		
Total	3278	0.128	0.066	0.046	0.058	74.449	9.713		

 Table 3.3
 Results of MLM analyses on CSI

	Mod	el 0	Model 1		Model 2		Model 3	
Variables	Coefficient	p value						
Random effects								
Country-level effects (SD)	0.364***	0.000	0.335***	0.000	0.339***	0.000	0.341***	0.000
	(0.065)		(0.065)		(0.065)		(0.065)	
Fixed effects								
Stakeholder pressure inequality			-0.013	0.582	-0.012	0.607	-0.012	0.619
			(0.023)		(0.023)		(0.023)	
Organization size			0.081***	0.001	0.087***	0.000	0.091***	0.000
			(0.023)		(0.024)		(0.024)	
Organizational slack			-0.009	0.638	-0.016	0.417	-0.01	0.627
			(0.019)		(0.020)		(0.020)	
CSP			0.012	0.608	0.004	0.858	0.007	0.772
			(0.022)		(0.023)		(0.023)	
Regulatory Control			-0.072	0.301	-0.086	0.243	-0.081	0.272
			(0.070)		(0.074)		(0.074)	
GDP PPP			0.02	0.797	-0.003	0.975	0.006	0.945
			(0.078)		(0.082)		(0.083)	
Industry rivalry (HHI)			-0.078**	0.014	-0.079**	0.013	-0.078**	0.014
			(0.032)		(0.032)		(0.032)	
Market openness					0.058	0.443	0.025	0.753
					(0.076)		(0.078)	

Year Fixed Effects R&D (H1)			Included		Included 0.039*	0.097	Included -0.325*	0.064
					(0.023)		(0.175)	
R&D*Market openness (H2)							0.368**	0.037
							(0.176)	
Constant	-0.078	0.310	0.004	0.970	0.006	0.954	0.003	0.973
	(0.077)		(0.096)		(0.100)		(0.101)	
Number of Observations	3278		3278		3278		3278	
Number of Countries	30		30		30		30	
Degree of Freedom	0		19		21		22	
Wald χ^2			74.838		78.127		82.524	
p value of Wald χ^2			0.000		0.000		0.000	
Model deviance (based on REML)	9045.126		9044.196		9049.840		9047.112	
Model deviance (based on ML)	9041.816		8967.260		8963.890		8959.528	

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Following Goldstein (2011) and Aulakh, Jiang, and Li (2013), we treated the group random effect first. We first ran a null model including only the country random effect. Null models are reported in Model 0. Model 0 reports the results of the country level random effect, which shows the country-level variance is 0.127 (p=0.000). This suggests country-level effects accounts for 12.7% of the variance in CSI.

We treated the control variables as fixed effects (including industry fixed effects) in Model 1. Among the control variables, organizational size is positively and significantly related to CSI (b=0.081, p=0.001), suggesting that large firms show greater variability in their ESG practices (i.e., score higher in CSI). The results also show that industry rivalry is negatively and significantly related to CSI (b=-0.078, p=0.014). As higher HHI typically implies higher industry concentration but lower competitive rivalry within any given industry (e.g., Bikker & Haaf, 2002; Schimmelpfennig, Pray, & Brennan, 2004), the negative sign of the result reflects a positive relationship between industry rivalry and CSI, which supports our previous arguments on their association. All other control variables are nonsignificant. Model 2 tests Hypothesis 1 and Model 3 adds the hypothesized interaction effect to test Hypothesis 2. The model deviance tests suggest that the interaction term produces improved explanatory power (in Model 3). The model deviance drops from 9041.816 in model 0 to 8959.528 in model 3, suggesting better model fitness.⁵

In Hypothesis 1, we theorized that R&D was positively related to firms' CSI. The coefficient for R&D in Model 2 shows a positive sign (b=0.039, p=0.097), which provides

⁵ Because the country-level clusters in our sample is 30, below the suggested 50, we employed restricted maximum likelihood (REML) in order to obtain better estimation (Snijder & Bosker, 2007). However, since REML can only be used to compare random effects rather than fixed effects, it cannot be used for the comparison of models 0-3, given that the fixed effects are different in our models. Thus, we ran maximum likelihood (ML) to obtain the overall model deviance in order to make the models more comparable. The results of ML were largely the same as REML, showing increasing model fitness with decreasing model variances for models 0-3.

marginal empirical support for our Hypothesis 1. Specifically, increasing the level of R&D by one standard deviation is associated with an estimated increase of CSI by 0.039 of its standard deviation. The lack of full support of Hypothesis 1 justifies to further explore the market context in its impact on the link between R&D and CSI.

To test Hypothesis 2 with respect to the moderating effect of market openness, we included the interaction terms between R&D and market openness in Model 3. As presented in Table 3.3, the model deviance of Model 3 decreased to 8959.528 from 8963.890 in Model 2, representing an improvement over Model 2 in model fitness. The significant interaction term (b=0.368, p=0.037) supports our overall theorization that the link between R&D and CSI is strengthened in more open markets. Figure 3.2 depicts the moderating effect of market openness.

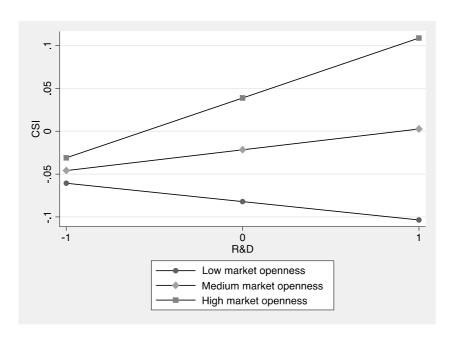


Figure 3.2 The effect of R&D on CSI at varying levels of market openness

4.1 Robustness Tests

We sought to investigate the robustness of our results in several additional ways to supplement the above analyses (details of testing the model are available from the authors). First, following the recommendations of Bliese (2002) and Snijders and Bosker (2012), we also ran the models based on group-mean standardization. The results are largely the same: the results indicated that Hypothesis 1 was marginally supported (b=0.039, p=0.088) and Hypothesis 2 was supported (b=0.369, p=0.034) Second, we also employed an alternative measure of CSI in our models to replicate the results. We used the Gini coefficient instead of the coefficient of variation to calculate CSI. In this test, Hypothesis 1 was not supported (b=0.037, p=0.112), but Hypothesis 2 was marginally supported (b=0.344, p=0.051).

5 DISCUSSION

In this study, we sought to examine the impact of R&D on CSI and explored the contextual effect of market openness and, thus, competitive selection pressures at the national level. Our results indicate that R&D is positively related to CSI. Because the R&D-CSI relationship without considering the institutional environment is weak, our empirical analysis lends further support to our argument that the business context matters for the R&D-CSI relationship. In fact, market openness strengthens the link between R&D and CSI. In open markets, firms tend to focus on synergistic bundles of R&D and specific ESG practices, which implies CSI. This is because such synergies support firms' survival strategies under intense selection pressure in more open markets.

5.1 Implications for Theory and Practice

Theoretically, our study makes two distinct contributions. First, our examination of the effect of R&D on CSI offers a finer-grained examination of the relationship between R&D and firms' social performance. Examining the within-firm variability of firms' social performance, we address the inconclusiveness of the prior literature on R&D and CSR (Gallego-Álvarez et al., 2011; Hull & Rothenberg, 2008; McWilliams & Siegel, 2001; Padgett & Galan, 2010; Tang et al., 2012) by emphasizing R&D's relatedness to CSR. We assumed that R&D's effects on CSR is not equally reflected on all ESG practices. Thus, the inquiry of R&D-CSI is more meaningful. The effect of R&D on CSI also unmasks the CSR strategies firms may adopt as a result of R&D. Therefore, future inquiry should decompose the CSR construct and examine specific performance in ESG domains in order to obtain a more reliable understanding of firms' social performances and their CSR strategies (see also Orlitzky, Louche, Gond, & Chapple, 2015).

Second, our study investigated the effect of regulatory institutions, a contextual variable, on the R&D-CSI link. Specifically, we examined how different countries' regulations on market openness can generate different levels of competitive pressures in different markets, and how these pressures affect the R&D-CSI relationship. Open markets unleash greater selection pressures for firms to emphasize specific social issues in their resource bundle, thus producing CSI. In contrast, less open markets are less likely to supply such incentive to nonmarket strategy. Although firms in less open markets are more likely to be more socially consistent, however, the lack of market incentives to apply social practices is less likely to yield benefits to the society at large because firms are probably consistent at low levels of CSR. Thus, our study contributes to the CSR literature (Gallego-Álvarez et al., 2011; Padgett

& Galan, 2010) by highlighting that the nature of the R&D-CSI relationship varies across countries and their respective nation-level economic institutions and selection environments.

Practically, this study provides insights for managers to coordinate their R&D and social practices in different market and institutional environments. Our results suggest that managers can make full use of their R&D expertise to generate CSI as their social strategy (i.e, "narrow but deep") which confers routine bundles that can create synergies and are difficult to imitate. However, since CSI can be emergent, we also recommend to managers to enhance their awareness of CSI and monitor the degree of their CSI in order to avoid possible negative outcomes. Correspondingly, internationally present firms need to pay more attention to how market openness differs across countries and adjust their R&D-CSR relationship accordingly. However, firms should be aware that excessively different (or contrasting) responses in different countries may not be beneficial to build a consistent social image.

Our study also offers implications for policy makers, especially in terms of trade, finance, and investment policies. Specifically, our findings suggest that in open markets characterized by significant freedom of trade, financial transactions, and investment, selection pressures can incentivize firms to emphasize specific social practices or ESG dimensions. Thus, changing the restrictions on international trade, investment, and financial movements likely affects synergies between R&D and CSR. For example, reducing tariffs, trade quotas and bans in imports can introduce more efficient foreign competitors and more advanced technology products. The competitive dynamism generated from competition can incentivize firms to utilize R&D to address societal problems out of instrumental motives⁶. Similarly, favorable investment policies encourage foreign investment in certain industries. In turn, the

⁶ However, we also acknowledge that extremely intense competition can also lead to corporate social irresponsibility (Campbell, 2007).

openness in market further spurs firms to introduce more R&D to market and engage with society more. This can create a virtuous cycle that integrates both business and society, which can eventually contribute to lasting inclusive growth and increased prosperity for society as a whole.

5.2 Limitations and Future Research

Although we used lagged effects in our model specification, we cannot entirely rule out reverse causality between R&D and CSI. Several theoretical studies have suggested that social practices may be a major driver of firms' R&D (Berrone et al., 2013; Fernández-Kranz & Santaló, 2010). Thus, some firms may formulate their CSI strategy first and then adjust their R&D accordingly. Future studies could identify effective instrumental variables for R&D that have a strong logical relationship with R&D, but do not affect CSI directly. Two stage least squares (2SLS) can be performed accordingly. Future studies can also employ quasi-experimental methods to examine causal relationships.

Second, due to the characteristics of our data, this study does not examine industry-level predictors (but used them as controls, e.g., industry rivalry). Industry dummies were included to control for the average differences across industries. Furthermore, future studies might consider including managerial-level predictors to explore how the characteristics of individual business executives may affect the link between R&D and CSI (e.g., executive personality traits of narcissism or openness to experience and executive political ideologies). Beyond country-level, multiple-nation region-level contexts also warrant future research because regional institutions and free trade zones might also influence the link between R&D and CSI. The combined set of institutions of the nations in an economic region may

exacerbate the complexity of the relationship between R&D and CSI. The coexistence of congruence and tension between regional integration and national identity retention in terms of laws, policies and cultural values may lead to firms' more consistent ESG practices across nations in the same region, or may increase the inconsistency across nations. The complexity underlying the tension may also hinder firms' attempt to translate R&D to socially responsible outcomes.

Third, this study examines market openness across countries as a selection and institutional environment that influences strategies and decision-making processes of firms. We look at firms operating in their respective domestic markets without considering their ownership links across countries. Future research can expand our cross-country study to investigate more research questions related to multinational enterprises (MNEs). For example, how might international firms be able to exploit the differences of market openness and exhibit different CSI profiles accordingly or maintain the same CSI profile across different markets? Would it be a better strategy to keep a same CSI profile with a universal social image or to display different CSI profiles that complement each other? Like MNEs' diversification strategy, the diversification of CSI profiles can present opportunities and challenges for MNEs. Addressing these questions can enhance our understanding of international selection environments, international strategies, and corporate-level decision-making.

5.3 Conclusion

It is widely acknowledged in academia and industry that R&D is related to ESG practices. Yet, our study has demonstrated that such approaches could lead to generic conclusions neglecting possible inconsistencies in social practices across ESG dimensions.

Therefore, this paper looks at how R&D may, in fact, lead to CSI and how the relationship between R&D and CSI varies across different nation-level institutional environments. Our results show that in more open markets, firms with higher investments in R&D are more likely to implement CSI. This is because more intense selection pressures resulting from the open markets incentivize firms to bundle R&D with specific ESG practices, thus leading to CSI.

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CHAPTER 4

PAPER 3—EXPLORING THE CURVILINEAR RELATIONSHIP BETWEEN CORPORATE SOCIAL INCONSISTENCY AND RISK

Conference presentation

This paper was accepted and presented at the 76th Annual Meeting of Academy of Management, Anaheim, United States, August 8, 2016.

Title of Paper	Exploring the Curvilinear Relationship Between Corporate Social Inconsistency and Risk			
Publication Status	☐ Published	Accepted for Aublication		
	Submitted for Publication	Unpublished and Unsubmitted work written in manuscript style		
Publication Details				
Principal Author				
Name of Principal Author (Candidate)	Limin Fu			
Contribution to the Paper	Conception and design of the paper Data collection Data analysis and interpretation Drafting the paper			
Overall percentage (%)	82%			
Certification:	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature and is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in this thesis. I am the primage author of this paper,			
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ABSTRACT

In this panel study of 863 firms over 5 years, we empirically explore the curvilinear relationship between firms' corporate social inconsistency (CSI) and corporate risk. CSI is defined as the firm-internal heterogeneity of its environmental, social, and governance practices at a given point in time. Drawing on instrumental stakeholder and resource-based theory, we expect a U-shaped relationship based on the latent benefits of CSI and its exponential costs. Consistent with this hypothesis, low and moderate levels of CSI are shown to be inversely related with corporate risk. However, beyond a certain point, CSI has a positive association with risk at high levels of inconsistency. Challenging conventional wisdom, the risk-enhancing characteristics of CSI can largely be avoided by pairing CSI with high levels of innovation.

Key Words: corporate governance, corporate social responsibility (CSR), environmental management, innovation, stakeholder management.

"Every day there's a potential crisis. The more you engage with society, the more you have a reservoir of goodwill that will limit the risks – and the more you make money."

Lord Browne (2015), former CEO of British Petroleum

1 INTRODUCTION

Lord Browne's remark represents an argument that is widely used by advocates of corporate social responsibility (CSR)—namely, that a firm's proactive engagement with social issues is key to mitigating its corporate risk (Godfrey, 2005; Husted, 2005). Indeed, in the contemporary business environment CSR has, in many ways, become a normative *sine qua non*, especially for large multinational enterprises (Bader, 2014; Orlitzky, 2013). However, given the persistent, wide-ranging political pressure for CSR and the considerable expenditures involved, an important question arises: Should business executives, in their support for CSR, either engage in a multitude of environmental, social, and governance initiatives simultaneously or, instead, focus on only a select few initiatives?

This key question in the strategic CSR literature may initially seem to be trivial, but it is not. In this study, CSR refers to bundles of discretionary resource allocations that aim to improve social welfare and enhance relationships with internal and external stakeholders (Barnett, 2007). As such, CSR is concerned with a corporation's environmental, social, and governance (ESG) practices (Cheng, Ioannou, & Serafeim, 2014; Ioannou and Serafeim, 2012; Luo, Wang, Raithel, & Zheng, 2015). At present, the research community seems to prefer companies casting a wide net in their ESG practices (see, e.g., Aguinis & Glavas, 2012; Orlitzky, 2013). Stakeholder theory encourages firms to engage with society on a wide—and widening—set of issues and address stakeholder concerns in a balanced way (Donaldson and Preston, 1995; Freeman, Harrison, Wicks, Parmar, & De Colle, 2010). Being consistent in CSR across the board has been argued, for example, to build trust with stakeholders,

reinforce firms' prosocial commitments, and enhance corporate reputations (Henisz, Dorobantu, & Nartey, 2014; Jones, 1995; Wang and Choi, 2013).

By contrast, inconsistency in CSR refers to ESG practices that address only a very limited set of environmental, social, or governance issues. For instance, at the same point in time, a firm might exhibit high environmental performance, but low social performance and corporate governance standards. Thus, such a firm caters to a single stakeholder domain while neglecting others. It is important to note that we do not attach value judgments to such limited CSR; inconsistency in ESG practices may reflect common industry practices, strategic considerations, or the regulatory environment. We therefore assume that firms are legally compliant. However, legally compliant firm may nonetheless be inconsistent in its ESG practices in our nomenclature. At present, though, most researchers regard such inconsistency as detrimental because it is said to undermine stakeholders' confidence in a firm's genuine commitment to CSR (Lee, Edmondson, Thomke, & Worline, 2004; Wang and Choi, 2013). However, some strategic management scholars generally argue for a strategic focus on a more limited set of particular ESG practices that produce not only beneficial social and environmental outcomes for the public at large, but also economic value for the firm (Porter & Kramer, 2006, 2011). In addition, the economic value can be reinforced through the development of various capabilities that multiply and extend these strategic pivot points. For instance, in the presence of innovation, firms may be in a better position to develop issueand stakeholder-specific capabilities (Surroca, Tribó, & Waddock, 2010). That is, by bundling clear strategic choices on a select few ESG practices with innovation, firms may be able to create valuable, rare, inimitable, and non-substitutable resources that confer competitive advantage (Berrone, Fosfuri, Gelabert, & Gomez-Mejia, 2013; Surroca et al., Indeed, prior research suggests that not every ESG practice enhances firm 2010). performance or reduces risk, but only select social or environmental initiatives targeted at

certain stakeholders (Godfrey, Merrill, & Hansen, 2009; Hillman and Keim, 2001). This argument implies that high inconsistency in ESG practices may be instrumentally preferable to indiscriminate, institutionally imposed consistency on a broad variety of ESG practices. In turn, these strategic benefits of high inconsistency in ESG practices could be reinforced through high levels of innovation.

To resolve this debate, our study makes three major contributions to the strategic management literature. First, building upon Wang and Choi's (2013) conceptualization, this study introduces a novel concept (*corporate social inconsistency*, or CSI) to the strategic CSR literature (see also Orlitzky, Siegel, & Waldman, 2011), denoting whether organizational resources are spent widely and indiscriminately on a multitude of ESG practices (low CSI) or on a limited set of ESG practices in a more focused way (high CSI). More details about CSI follow in the next section.

Second, the paper challenges the extant CSR literature by showing that CSI may be beneficial from a risk management perspective—at least up to a point. We show that responding to a wide range of ESG issues (i.e., a firm "spreading itself too thin" on CSR) is not always advantageous from a financial perspective. Specifically, our findings suggest that CSI is at first inversely related to corporate risk, but then risk starts to increase once CSI reaches a certain level. To the best of our knowledge, this paper is the first study to demonstrate such a curvilinear relationship between CSI and risk. Overall, we reconcile the debate about the benefits of consistency or inconsistency in CSR by arguing for a "too-much-of-a-good-thing" effect (Pierce and Aguinis, 2013).

Third, we show that organizational-level innovation moderates the curvilinear association between CSI and risk. Organizational-level innovation is an important concept in studies of risk (Bromiley, Rau, & Zhang, 2016) and CSR (McWilliams and Siegel, 2010). Specifically, innovation may strengthen the latent benefits of CSI, so that the risk-enhancing

characteristics of CSI could be largely avoided by pairing CSI with high investments in R&D. We expect this to happen because R&D, as an important intangible resource for most companies, can be bundled with CSI to achieve greater competitive advantage and lower firm risk. In other words, through the combination of innovation with specific stakeholder relationships, a firm can create a rare and difficult-to-imitate resource and capability bundle that can strengthen stakeholders' trust and thereby decrease risk. Thus, in our theorizing about the latent benefits of CSI, the escalating costs of CSI, and organizational-level innovation as a moderator, we draw on and synthesize instrumental stakeholder theory (Donaldson and Preston, 1995; Jones, 1995) and resource-based theory (Barney, Ketchen, & Wright, 2011; Branco and Rodrigues, 2006; Kraaijenbrink, Spender, & Groen, 2010). Thus, our paper extends these theories and proposes strategic insights regarding more effective risk management, if managers choose to pursue CSR with greater strategic focus and single-mindedness than the wide lens on CSR that institutional theory would typically suggest (Brammer, Jackson, & Matten, 2012; Campbell, 2007; Nikolaeva and Bicho, 2011).

2 THEORY AND HYPOTHESES

2.1 The Conceptual Anchors of Our Theoretical Exploration

Our theoretical exploration is anchored in the antecedent of corporate social inconsistency and in the outcome variable of corporate risk. As already defined in the introduction, the organization-level pattern in which an organization expresses its CSR is captured by our new concept of *corporate social inconsistency* (CSI). CSR can take many forms, but the three principal domains are environmental, social, and good governance practices (e.g., protection of minority shareholders or transparency in reporting), also known as ESG practices (Cheng *et al.*, 2014; Ioannou and Serafeim, 2012; Luo *et al.*, 2015). A firm's performance with respect to any specific ESG practice is generally assessed by third-

party observers (i.e., social rating agencies such as KLD). Firms are *consistent* at a particular point in time when their corporate social performance is similarly low or high in the three CSR domains (ESG). In contrast, we call firms inconsistent if, for example, their corporate social performance is high in some domains, but low in others at the same time. Thus, our concept captures "interdomain inconsistency" (i.e., "consistency in a firm's treatment of its different stakeholder groups"), but not "temporal inconsistency" (i.e., "the reliability of a firm's treatment of its stakeholders over time"), as defined by Wang & Choi (2013: 418). In addition, despite the possible positive or negative connotations of the terms consistent and inconsistent, we do not intend to convey any normative judgements. Rather, we conceptualize CSI as a descriptive disparity construct because, first, it is assumed that CSI, as an overall organizational pattern, may vary from homogeneous (i.e., consistent) to highly heterogeneous (highly variable, or inconsistent, in ESG practices) (Harrison and Klein, 2007). The second assumption is that this within-firm homogeneity or heterogeneity (i.e., consistency or inconsistency) in CSR is assumed to lead to predictable and important outcomes. This paper focuses on corporate risk as the theorized outcome.

Corporate risk, our dependent variable, is conceptualized as the variability in a firm's rate of return (Amit and Wernerfelt, 1990; Palmer and Wiseman, 1999; Ruefli, Collins, & Lacugna, 1999). In this paper, corporate risk is assessed from a top management perspective—with reference to equity markets. Of course, other conceptualizations of firm risk exist (Bromiley *et al.*, 2016). For example, a company's strategic risk can also be assessed via such proxies as its mergers and acquisitions activity, research and development (R&D) intensity, firm leverage (debt exposure), or tax avoidance (e.g., Baker, 1973; Christensen, Dhaliwal, Boivie, & Graffin, 2015; Eckbo and Norli, 2005; Kor, 2006). However, this paper considers risk from the perspective of top managers, who (among several other possible managerial goals) aim to avoid excessive volatility of their firm's stock

because lower volatility can help managers attract long-term investors, use stock as a currency for acquisitions or as a collateral for loans, and avoid down-grading of corporate debt by rating agencies. Thus, lower volatility tends to reduce the cost of capital (Bekaert and Harvey, 1997; Kothari, Li, & Short, 2009).

Previous research has shown that firms can mitigate risk through engaging with a wide array of ESG issues and stakeholder groups (Kassinis and Vafeas, 2006; Orlitzky and Benjamin, 2001; Wang and Choi, 2013). Stakeholders' endorsement and support can serve as a form of insurance against unpredictable changes in their economic environment (Godfrey, 2005; Husted, 2005). However, in the following section, we argue that CSI entails both benefits and costs. With increasing CSI, firms can deploy resources in a focused way so that the economic impact of ESG practices is magnified. These latent benefits of CSI reduce corporate risk up to a point. Beyond that point, however, CSI becomes very risky because it may quickly undermine firms' stakeholder influence capacity, that is, the ability of a firm to benefit from stakeholder relationships through CSR (Barnett, 2007). In short, our theorizing draws on an additive model about the linear benefits and exponential costs (Haans, Pieters, & He, 2016) of CSI to predict a U-shaped relationship between CSI and risk.

2.2 Theorizing The Curvilinear Relationship Between CSI and Risk

The latent benefits of CSI. CSI provides several latent risk-reducing benefits, which account for the downward slope of our hypothesized U-shaped curve. Compared with consistency in high level of ESG practices, CSI can reduce risk through the following mechanism. First, by definition, firms that are internally heterogeneous in their ESG practices (i.e., high in CSI) concentrate their corporate resources on only a limited set of ESG practices, which tends to enhance the effectiveness of resource allocation. Given the reality of resource scarcity and opportunity costs (Husted, 2005; Orlitzky, 2013), the resources allocated to each

ESG domain need to reach a minimum threshold to be visible (Dubé, Hitsch, & Manchanda, 2005). For instance, with fixed amounts of discretionary budgets available for CSR, firms seeking consistency in high level of ESG practices would have to split the resources on different ESG domains. Since ESG practices usually entail significant costs (Siegel, 2009; Windsor, 2001), engaging in a multitude of ESG practices (i.e., consistency in high ESG practices) without adequate expenditures on each may fail to signal firms' genuine commitment to any one specific ESG practice (Barnett, 2007; Fombrun and Shanley, 1990; Jones, Willness, & Madey, 2014). In contrast, signaling genuine commitment through greater focus (i.e., increasing CSI) can therefore mitigate corporate risk (Godfrey, 2005).

Second, CSI enhances the efficiency and quality of management. The concentration on a select number of ESG domains that is typical of firms high in CSI may help firms cast off those peripheral activities that do not fit with their mission, vision, and strategy (Panwar, Nybakk, Pinkse, & Hansen, 2015; Porter and Kramer, 2006). Generally, "bad strategy" involves a lack of strategic focus (Rumelt, 2011). Ironically, the pursuit of consistency in high level of ESG practices may hamper firms' development of high-quality management. Since consistent firms have to deal with a host of different—and often unrelated—ESG practices and stakeholders, differences in the characteristics of those practices can affect the ability of managers to successfully manage the firm (Harrison, Hall, & Nargundkar, 1993). For instance, the knowledge of different ESG domains may exceed executives' cognitive limits and expertise (Friedman, 1970; Levinthal and March, 1993; Sacconi, 2007). Firms that seek consistency across many different ESG domains are forced to deal with a more complex environment (Palmer and Wiseman, 1999), because an expansive view of CSR goes hand in hand with greater variability in stakeholder characteristics, supply chains, marketing, inbound and outbound logistics, cultural norms, government regulations, and many other aspects.

The flipside of the above is that CSI may allow firms to develop their organizational skills, knowledge, and capabilities in a more focused and committed way as organizational knowledge about a particular ESG domain tends to be industry-specific (Ethiraj, Kale, Krishnan, & Singh, 2005), firm-specific, and perhaps even *individual* stakeholder-specific (as opposed to an entire stakeholder group) (Garcia-Castro and Francoeur, 2016; McVea and Freeman, 2005). Thus, focusing on a limited set of ESG practices can build well-established knowledge around core CSR practices (Nadkarni and Narayanan, 2007). In other words, another benefit of CSI is that it circumvents the potentially risk-enhancing coordination problems inherent in consistency across a wide variety of different ESG practices while simultaneously building risk-mitigating core competencies.⁷

The above arguments only highlight that CSI is a favorable practice over consistency in high level of ESG practices. We also argue that CSI is also advantageous in risk reduction in comparison to consistency in low level of ESG practices, that is, firms only engage in ESG practices to a minimum extent. Indeed, consistency in low level of ESG can signal that the focal firm is following a shareholder-centric logic in management. The investors that are less concerned with CSR can be assured that the firm allocates resources to the core, value-creating business activities in order to promote the legitimate business objectives of maximizing economic value (Jensen, 2002). This may attract shareholders' investments that value financial return over social performance, and thus result in a high stock return (Jensen, 2002; Orlitzky, 2013).

However, the stock return is likely to be volatile. Despite the high stock return under some circumstances, firms that are consistency in low level of ESG practices are more vulnerable to negative events and thus resulting in more volatile stock returns and greater risk.

⁷ Notably, the coordination problems inherent in high consistency (i.e., low CSI) are not circumvented by synergy in the ESG practices. For example, while high levels of pollution abatement may be synergistic with employee well-being, the organizational knowledge base required to enhance either are very different in the firm's environmental and social/human resource arenas—and corresponding responsibilities often vested in different departments.

For instance, when events like protests, activisms, and accidents occur, a firm's reputation can be considerably damaged and its stock price can be negatively affected (Flammer, 2013; King and Soule, 2007; Luo, Zhang, & Marquis, 2016). However, not all firms are affected to the same degree (Muller and Kräussl, 2011). Firms with good stakeholder relations, even with only one stakeholder, can serve as a reservoir of goodwill to mitigate corporate risk (Browne, Nuttall, & Stadlen, 2015; Flammer, 2013; King and Soule, 2007; Luo et al., 2016). Conversely, because of the focal firm's lack of engagement in any ESG practices, stakeholder relations of the firm may be too weak to provide sufficient support for the firm (Barnett, 2007). Thus, firms that are consistent in low level of ESG practices are more vulnerable to these risks.

This is especially the case when stock analysts increasingly use ESG performance to gauge managements' long-term orientation (Luo et al., 2015). The lack of any prosocial commitment of the firm can lead to a negative evaluation of the firm and increases the risk of declining stock return (Luo et al., 2015; Muller and Kräussl, 2011). In contrast, firms that develop strong stakeholder relations can largely avoid these risks and can build sustainable access to labor and resources (Luo et al., 2016). Hence, consistency in low level of ESG practices is likely to generate greater risk than CSI.

The escalating costs of CSI. So far, our arguments were about the latent benefits of high CSI—in other words, of highly focused ESG practices. However, too much of a good thing does not always maximize the desired outcome (Pierce and Aguinis, 2013). In spite of its risk-reducing effect, CSI may also become hazardous when it exceeds a certain level: a firm can rapidly lose its stakeholder influence capacity, which leads to accelerating stakeholder penalties. This theoretical explanation implies a linear function with respect to the benefits of CSI (as proposed so far) and an exponential cost curve of decreasing

stakeholder influence capacity, that is, a firm's ability to profit from its stakeholder relationships (Barnett, 2007), as theorized below.

First, stakeholder influence capacity is a firm-level relational (intangible) resource that enables firms to act upon and profit from their ESG practices and improved stakeholder relationships (Barnett, 2007; Barnett and Salomon, 2012). In order to gain a strong stakeholder influence capacity, a firm needs to be perceived as overall socially responsible and, thus, continuously demonstrate the potential to deliver more stakeholder value in the future (Barnett, 2007). Stakeholder relationships built without consistency are usually not strong (Wang and Choi, 2013). Therefore, enhancing stakeholder influence capacity can be difficult: a firm has to make *consistent* and long-term efforts in ESG practices related to a wide range of stakeholders to demonstrate such evidence (Barnett, 2007; Wang and Choi, 2013). Similar to trust, stakeholder influence capacity is an asset that develops slowly, but can be destroyed quickly (Barnett, 2007). Once it becomes public that a firm's ESG practices do not benefit a wide range of stakeholders, these inconsistent practices may be perceived as symbolic or perhaps even fraudulent (Barnett, 2007; Perez-Batres, Doh, Miller and Pisani. 2012). Consequently, the stakeholder relations of increasingly inconsistent firms can lead to a loss of stakeholder influence capacity and, thereby, boost corporate risk (Godfrey, 2005).

Second, an increase in CSI can drain existing stakeholder influence capacity at a rapidly rising rate through the decreasing capacity to meet the heightened expectations of *other* stakeholder groups. This is because increasing CSI may evoke a Red Queen effect in ESG practices (Barnett and Hansen, 1996; Derfus, Maggitti, Grimm, & Smith, 2008)—that is, a firm is expected to perform better and better relative to its historical record to maintain its reputation for being socially responsible. This effect mainly manifests in the relationships with stakeholders that are *not* involved in the focal ESG issues of high CSI. Earning a reputation for being socially responsible on one or a select few ESG domains, a firm that is

high in CSI is probably expected to expand its currently focused ESG practices to a wider set (Barnett, 2007; Wang and Choi, 2013). Stakeholders whose demands are currently not met by the organization may spread information about their dissatisfaction quickly throughout their networks (see also Rowley, 1997). It is likely that neglected stakeholders—motivated by common interests and identities, and also sense of injustice in the distribution of stakeholder treatments—may start to exert collective pressure on the firm to meet their growing stakeholder expectations (Rowley and Moldoveanu, 2003; Monin, Noorderhaven, Vaara, & Kroon, 2013). A widening of the gap between increased stakeholder pressure and decreased capacity to meet stakeholder expectations exposes the firm to higher environmental risk (Vasi & King, 2012).

Third, when stakeholder expectations escalate rapidly a firm that is excessively focused on only a limited set of ESG domains (high CSI) may be too inflexible to address new expectations effectively. In other words, once CSI exceeds its optimal level (in terms of its instrumental risk-reducing properties), high CSI can hamper a firm's comprehensive response to new issues because a firm may become "locked in" a single ESG practice due to path dependency (Sydow, Schreyögg, & Koch, 2009). This, in turn, can undermine the firm's flexibility to adopt other ESG practices, that is, executives' decisions about ESG practices may become myopic (Swanson, 1999). The associated cognitive inertia may preclude managers from being attentive to the expectations of other stakeholders (Carley and Palmquist, 1992; Hodgkinson, 1997; Kiesler and Sproull, 1982; Reger and Palmer, 1996). Correspondingly, as the gap widens between increasing stakeholder pressure and the firm's capacity to address these exponentially growing expectations, firms that fail to implement a wider set of ESG practices are expected to lose their stakeholder influence capacity at an increasing rate (Barnett, 2007). The exponential decline of this intangible resource can exacerbate corporate risk: degraded stakeholder relations and the loss of moral capital will

lead to greater variability in financial returns, thereby increasing a firm's market risk (Barnett, 2007; Godfrey, 2005; Surroca, Tribó, and Waddock, 2010).

In comparison, being consistent is likely to bear less costs in this regard. Consistency creates a sense of certainty for stakeholders to evaluate the focal firm's ESG practices with a decisive conclusion (Lee et al., 2004; Rescher, 1987). Consistently high ESG practices can build stakeholder influence capacity on a wider and larger stakeholder base (Barnett, 2007). Hence, firms that are consistent in high ESG practices are unlikely to suffer the risk of loss of moral capital and degraded stakeholder relations. Consistently low ESG practices, although can hardly create stakeholder influence capacity, can at least deliver an unequivocal image of the shareholder-centric management approach to public (Jensen, 2002; Lee et al., 2004). This image can not only shield the focal firm away from a wide range of stakeholder pressures for equal stakeholder treatments, but also clear some "noises" (i.e., information unconnected to a firm's economic prospect) for investors in the markets (Orlitzky, 2013). Traders who prefer financial return over social practices may receive unambiguous market signals (Orlitzky, 2013). Therefore, the stock returns of such firms are less likely to be subject to variability incurred by "surprises" from stakeholder pressures or noise traders. In this sense, compared with the accelerating costs of excessive CSI, consistency generates less risk.

In sum, CSI results in an exponential cost curve due to the widening gap between stakeholder groups' demand for CSR and the firm's capacity to supply CSR. At some point, high CSI boosts corporate risk because of the rapidly declining stakeholder influence capacity (Barnett, 2007; Barnett and Salomon, 2012) and accelerating stakeholder penalties associated with inconsistency (Wang & Choi, 2013). Simultaneously accounting for the linear benefits and the exponentially increasing costs of CSI, we propose the following hypothesis:

Hypothesis 1: The relationship between corporate social inconsistency (CSI) and corporate risk is U-shaped. Specifically, CSI reduces risk up to a point, but then increases risk past that point.

2.3 The Moderating Role of Innovation in the CSI-Risk Relationship

Organizational-level innovation is an important type of strategic resource for almost any firm (Coff, 1999; Kogut and Zander, 1992) because it may enhance a firm's productivity and capacity to develop new knowledge and skills (Patel and Chrisman, 2014; Patel, Fernhaber, McDougall-Covin, & van der Have, 2014). More specifically, innovation has been implicated in theories of CSR before (McWilliams and Siegel, 2000, 2001; Surroca *et al.*, 2010). In this section, we argue that innovation strengthens the risk-reducing effect of CSI and delays the risk-increasing effect because greater innovation reinforces the latent benefits curve of CSI. Thus, in terms of Haans *et al.*'s (2016) nomenclature, we propose an additive turning-point shift. Below, we explain why we expect this to occur.

First, innovation can be synergistic with ESG practices. Innovation is considered to be a valuable intangible resource that helps a firm develop organizational knowledge and its associated capabilities (Padgett and Galan, 2010; Surroca *et al.*, 2010). The capability to innovate, especially when synergies are achieved, may strongly affect a firm's ESG practices as well as create value for a firm's stakeholders (Surroca *et al.*, 2010; Tantalo and Priem, 2014). The synergies may manifest in firm's processes and products with respect to their ESG practices. For example, for firms that focus on responsible environmental practices, the internal development of new environmental technologies may increase the efficiency of the production cycle and reduce production costs (Berrone *et al.*, 2013; Surroca *et al.*, 2010). Innovation can also generate synergies with social investments, because health, workplace safety, and job satisfaction can be enhanced by process innovations. Similarly, product

innovations with embedded health benefits may raise customer satisfaction and community well-being (McWilliams and Siegel, 2001). Higher governance standards tend to make—the often costly—innovative activities more viable by reducing the cost of capital. This is because good governance reduces shareholders' and debt-holders' concerns of being expropriated either by management (their agents) or by majority shareholders (Bhojraj and Sengupta, 2003; Chen, Chen, & Wei, 2009). Thereby, innovation can reinforce focused ESG practices (Padgett and Galan, 2010). In short, the postulated synergy between CSI and innovation strengthens the benefits of CSI.

Furthermore, firms with large investments in innovation may signal to investors that they have a long-term orientation rather than only a short time horizon (Busch, Bauer, & Orlitzky, 2016; Flammer and Bansal, 2016; Slawinski and Bansal, 2012). So, even though stakeholders may notice the focused approach to CSR of an inconsistent firm, an expansive R&D portfolio may allow for greater flexibility in shifting to new ESG practices quickly and efficiently in future. Thus, our view of overall firm-level innovation as a plan for the allocation of organizational resources *in the future* challenges the mainstream view of innovation as risky (see also Bromiley *et al.*, 2016; Kor, 2006). Therefore, we anticipate that innovation steepens the slope of the latent benefits line of CSI; in other words, the U-shaped relationship between CSI and corporate risk is expected to shift to the right, while the slope of the overall curve remains unaffected (see also Haans *et al.*, 2016). In sum, we hypothesize:

Hypothesis 2: R&D moderates the U-shaped relationship between corporate social inconsistency (CSI) and corporate risk in such a way that greater R&D strengthens the latent benefits of CSI. In other words, R&D enhances the advantages of CSI and reduces the negative consequences of CSI.

3 METHODS

3.1 Data Sources and Sample

We arrived at the final sample in a three-step process. First, we identified firms in ASSET4ESG that had complete data on their CSR (i.e., their ESG practices). ASSET4ESG includes 4,300 global companies that comprise various stock indices, including S&P 500, NASDAQ 100, MSCI World, STOXX600, Russell 1000, FTSE 100, ASX 300 and MSCI Emerging Market (Thomson Reuters, 2012). The years of 2002 to 2007 were excluded due to missing values. The removal of missing values left us with 8,290 firm-year observations based on a sample of 1,658 firms from 2008 to 2012. Second, we obtained financial data, including stock return risk and R&D expenditures from WorldScope and OSIRIS. Third, we matched the data from different sources by each firm's International Securities Identification number (ISIN). We excluded 795 firms due to missing data of four variables: risk, R&D, firm size, and slack resources. Finally, in order to eliminate the influence of large outliers, we trimmed the sample (at the 1% level) from both ends (David, O'Brien, Yoshikawa, & Delios, 2010). In the end, the data matching yielded a usable unbalanced panel of 863 firms and 3,281 firm-year observations from 2008 to 2012. The number of these observations met the minimum 2,040 observations required for achieving statistical power of 0.80 (assuming a conventional α of 0.05) (Cohen, 1988; Mazen, Graf, Kellogg, & Hemmasi, 1987).

Our final international sample of 863 firms covered 10 industries and 34 countries. The final sample is predominantly from firms in the industry sectors of Industrials (30.9%) and Consumer Goods (22.3%), with the remainder of the sample coming from Basic Materials (14.8%), Consumer Goods (22.3%), Consumer Services (3.7%), Financials (0.2%), Health Care (9.6%), Oil & Gas (0.3%), Technology (15.3%), Telecommunication (2.5%) and Utilities (0.4%). In terms of countries, firms in the sample are predominantly headquartered in the USA (30.3%) and Japan (25.0%). The remaining sample is distributed in 32 other

countries: Australia (1.9%), Austria (0.8%), Belgium (0.6%), Brazil (0.3%), Canada (1.25%), China (0.8%), Denmark (1.6%), Finland (2.3%), France (5.3%), Germany (5.8%), Greece (0.03%), Hong Kong (0.6%), India (0.8%), Ireland (0.2%), Israel (0.1%), Italy (0.5%), South Korea (1.2%), Malaysia (0.03%), Mexico (0.03%), Netherlands (1.1%), New Zealand (0.2%), Norway (0.7%), Poland (0.2%), Portugal (0.03%), Russia (0.03%), Singapore (0.1%), Spain (0.5%), Sweden (3.1%), Switzerland (3.2%), Taiwan (1.7%), Turkey (0.5%), and United Kingdom (8.9%). On average, firms had 37,360 employees in our sample.

3.2 Dependent Variable

Corporate risk is usually operationalized as a measure of variability in accounting-based or market-based returns (Orlitzky and Benjamin, 2001; Ruefli *et al.*, 1999). Since market measures are generally preferable to accounting measures (Richard, Devinney, Yip, & Johnson, 2009), we operationalized corporate risk using the 1-year beta to capture firms' stock return variability (Hillman and Keim, 2001). Beta is a measure of market risk that captures the relative volatility of a stock's rate of return against the market (Fombrun and Shanley, 1990; Montgomery and Singh, 1984; Tofallis, 2008). A beta of 1.0 indicates that the security's rate of return will move with the market. A beta of less than 1.0 means that the stock's rate of return will be less volatile than the market. A beta of greater than 1.0 indicates that the stock's rate of return will be more volatile than the market. For example, if a stock's beta is 1.2, it is 20% more volatile than the market (Sharpe, 1964). Research has shown that beta is highly correlated with the variability of stock returns (Zuckerman, 2004) and that firms exhibiting a low beta have a more stable pattern of stock market returns (Roberts, 1992).

OSIRIS obtains beta through the relationship between two statistics: (1) the covariance of the returns of the stock and the returns of a reference stock index and (2) the variance of the returns of the index (OSIRIS, 2007). The formula used for the calculation of beta is the

conventional formula ($\beta = \frac{Cov[Return_{stock}, Return_{index}]}{Var[Return_{index}]}$), which is based on the capital asset pricing model (Fama and French, 1993). Beta measures the magnitude of the relationship between the returns of the specific stock and the returns of the related index. On OSIRIS, the beta value is calculated for 1-month, 3-month, and 1-year periods. Since our ESG dataset is a yearly panel, we employed the 1-year beta from OSIRIS.

3.3 Independent and Moderator Variables

CSI. In alignment with Wang and Choi's (2013) use of the coefficient of variation to measure consistency in CSR, we measure CSI through the coefficient of variation of a firm's three ESG domains—that is, variability in environmental, social, and corporate governance practices. An advantage of the coefficient of variation is that it adjusts for the mean level of CSR (Harrison and Klein, 2007; Sørensen, 2002). In order to obtain the coefficient of variation, we first calculated the standard deviation of the firm's performance on each of those ESG dimensions. Then, we divided the standard deviation by the mean of the three dimensions (Harrison and Klein, 2007). The coefficient of variation measures the dispersion and dominance of a firm's ESG scores around its overall ESG performance. Thus, the higher the coefficient of variation, the higher the CSI: the less dispersed a firm is on its ESG dimensions, the more dominant (or focused) it is in a certain dimension. Following Harrison and Klein's (2007) suggestions, we also applied entropy, the Blau Index, and the Gini coefficient to measure CSI. Our results show that CSI calculated by these alternative proxies are highly correlated (with correlation coefficients > 0.96), which indicates strong convergent validity.

Organizational-level innovation. We measured innovation using the ratio of a firm's R&D expenditures to its total sales (R&D intensity), which is in line with other studies (Barnett and Salomon, 2012; Berrone *et al.*, 2013; Tsai, 2001).

3.4 Control Variables

Organizational slack. Organizational slack buffers firms against fluctuations in environmental conditions and absorbs shocks (Berrone *et al.*, 2013; Chattopadhyay, Glick, & Huber, 2001; Palmer and Wiseman, 1999). Firms with greater slack have been shown to be less vulnerable to risks from the complexity of the environment (Peteraf, 1993). Slack is typically measured by the ratio of current assets to current liabilities (Bansal, 2005; Strike, Gao, & Bansal, 2006).

Organizational size. Differences in organization size can affect corporate risk (Montgomery and Singh, 1984; Sharfman and Fernando, 2008). We measure organizational size by the natural logarithm of a firm's number of employees (Surroca *et al.*, 2010; Waddock and Graves, 1997).

Debt ratio. As the literature identifies the various determinants of firm risk, it is possible that risk is primarily affected by a firm's debt ratio (Cai, Cui, & Jo, 2015; Jo and Na, 2012). A high debt ratio means that the firm is more dependent on leverage. In general, the higher a firm's debt ratio, the higher the default risk. Thus, we control for a firm's debt ratio measured by short-term debt over total assets.

Investment opportunity. Finally, the literature suggests that investment opportunity can also be related to a firm's risk (Cai et al., 2015; Jo and Na, 2012). Generally, investment opportunity implies that a firm has the financial ability to invest in itself through capital expenditure, which makes it easier for the company to grow. Growth usually has a positive signaling effect and lowers a firm's market risk (Denis, 1994; Desai, Wright, Chung, & Charoenwong, 2011). Following these previous studies, our proxy of investment opportunity is capital expenditure divided by total assets.

Corporate social performance (CSP). We also controlled for the overall CSP in our model. As the past studies suggested, the overall CSP can affect a firm's risk (Jo and Na,

2012; Koh, Qian, & Wang, 2014). Thus, we also controlled for firms' CSP to hold this effect constant. We measured each firm's CSP by the average of its aggregate ESG scores.

Institutional regulatory control. We used a composite measure of the six regulation-related indicators published by the World Bank as a proxy of institutional regulatory control (Surroca, Tribo, & Zahra, 2013). The indicators are: (1) Voice and Accountability, (2) Political Stability and Absence of Violence, (3) Government Effectiveness, (4) Regulatory Quality, (5) Rule of Law, and (6) Control of Corruption. These indicators range from -2.5 (low regulatory control) to 2.5 (high regulatory control). They measure the degree of a country's institutional governance framework regulating economic activity and protecting private property (Kaufmann, Kraay, & Mastruzzi, 2009; Surroca et al., 2013).

GDP per capita. The gross domestic product (GDP) is one of the primary indicators used to measure the health of a country's economy. Although GDP does not directly measure risk, it is suggested that a correlation between the stage of economic development and CSR exists (See, 2009). Thus, we included GDP per capita in our model as control variable. We collected data on GDP per capita from the World Bank. The World Bank provides GDP per capita data in 248 countries in the time period between 1990 and 2014. These data are in constant 2011 international dollars, which has the same purchasing power over GDP as the U.S. dollar has in the United States.

3.5 Analysis

To test our hypotheses, we applied panel data techniques (Wooldridge, 2002). We employed firm fixed-effect estimates because the Hausman (1978) test indicates a correlation between the firm-specific error component and the explanatory variables. Unobserved variables can be eliminated by specifying a fixed-effects model. Our specification is:

$$Risk_{it} = b_1 CSI_{it} + b_2 CSI_{it}^2 + b_3 CSI_{it} + R \& D_{it} + b_4 R \& D_{it} + \partial_i + I_t + \theta_{it}$$

where $Risk_{it}$ is risk for firm i in year t, ∂_i is the firm fixed effect, I_t is the year fixed effect, and θ_i is the error term that represents other factors that predict risk.

Following Jo and Na (2012) and Guenster *et al.* (2011), we chose to model a contemporaneous effect between our independent and dependent variables because market reactions to a firm's ESG practices have been shown to be more immediate than 1-year lags (Orlitzky and Benjamin, 2001; Orlitzky, Schmidt, & Rynes, 2003). Even if a firm has a good historical record, analysts and financial markets tend to react more to the current events as a basis of their extrapolation of the future trends (Mishina, Dykes, Block, & Pollock, 2010). ESG practices such as toxic emissions, waste discharges, product quality risks, and stakeholder controversies (all measured in our CSI calculation) constitute more recent events that present contemporaneous risk (Guenster *et al.*, 2011). Because investors are more influenced by current ESG practices, CSI observed in the same year is likely to affect risk quickly.

Potential endogeneity bias in our empirical models is likely to be minimal for two main reasons. First, we employed fixed-effects in our model specification including year-fixed effects, firm-fixed effects and year x industry fixed effects in robustness tests. These estimators control to some extent for omitted variable bias (Bettis, Gambardella, Helfat, & Mitchell, 2014). Second, we regard reverse causality—risk affecting ESG practices—as unlikely because a firm's ESG practices and R&D usually entail significant long-term investments and therefore take time (Barnett, 2007; Campbell, 2007). Because the volatility of a stock's rate of return is a short-term phenomenon and measured accordingly, it is difficult to imagine that it could immediately affect ESG or R&D, which require more significant long-term commitments.

4 RESULTS

Table 4.1 presents descriptive statistics and Table 4.2 displays correlations for a total of 3,281 firm-year observations from 863 firms during the period of 2008 to 2012. As showed in Table 4.2, CSI and CSP are negatively related. As illustrated in Methods section, this negative correlation is resulted from the operationalization of CSI, which uses CSP as the dividend in calculation.

 Table 4.1
 Descriptive statistics

Variables	Mean	SD	Min	Max
Risk	0.696	0.361	-0.557	3.021
CSI	0.128	0.067	0.001	0.361
CSI square	0.021	0.020	0.000	0.130
Innovation	0.045	0.059	0.000	0.319
Organizational slack	1.837	1.040	0.376	7.537
Organization size	9.730	1.247	4.543	13.217
Debt ratio	0.056	0.065	0.000	0.478
Investment opportunity	0.043	0.033	0.000	0.310
CSP	52.966	6.492	37.346	68.667
Regulatory control	1.290	0.330	-0.723	1.878
GDP per capita	10.590	0.307	8.250	11.234

N=3,266

 Table 4.2
 Correlation matrix

	Variables	1	2	3	4	5	6	7	8	9	10	11
1	Risk											
2	CSI	-0.003	1									
3	CSI^2	-0.002	0.968***	1								
4	Innovation	0.035**	0.029*	0.039**	1							
	Organizational											
5	slack	0.005	0.028**	0.028**	0.369***	1						
	Organizational											
6	size	0.030**	-0.122***	-0.119***	-0.204***	-0.311***	1					
7	Debt ratio	-0.003	0.053***	0.050***	-0.170***	-0.337***	0.069***	1				
	Investment											
8	opportunity	0.016	0.003	0.000	-0.160***	-0.063***	0.048***	0.047***	1			
9	CSP	-0.042***	-0.282***	-0.276***	-0.035**	-0.136***	0.458***	0.049***	0.012	1		
	Regulatory											
10	control	-0.063***	-0.039***	-0.034***	0.080***	0.013	-0.151***	-0.106***	-0.123***	0.038***	1	
11	GDP per capita	0.065***	-0.016	-0.005	0.183***	0.062***	-0.076***	-0.146***	-0.154***	-0.081***	0.715***	1_

N=3,281. **p*<0.10, ***p*<0.05, ****p*<0.01

Table 4.3 presents the results of the firm fixed-effects regression analyses testing the hypothesized relationship between CSI and risk as well as the postulated moderator of R&D. The year effect (λ_t) indicates that, in our sample, risk is going down over the years. Due to space constraints, we omitted the year effect from Table 4.3.

 Table 4.3
 Regression coefficient estimates for risk

	Mode	el 0	Mod	el 1	Mod	el 2	Mode	el 3
Variables	Coefficient	p value						
Organizational slack	0.006	0.596	0.007	0.570	0.007	0.577	0.007	0.569
	(0.012)		(0.012)		(0.012)		(0.012)	
Organizational size	-0.003	0.910	-0.004	0.897	-0.004	0.886	-0.007	0.790
	(0.028)		(0.027)		(0.028)		(0.027)	
Debt ratio	-0.099	0.552	-0.108	0.515	-0.103	0.533	-0.114	0.490
	(0.166)		(0.165)		(0.165)		(0.165)	
Investment								
opportunity	-0.337	0.161	-0.371	0.126	-0.380	0.117	-0.380	0.114
	(0.240)		(0.242)		(0.242)		(0.240)	
CSP	-0.002	0.580	-0.002	0.423	-0.002	0.429	-0.003	0.365
	(0.003)		(0.003)		(0.003)		(0.003)	
Regulatory control	-0.337**	0.030	-0.324**	0.038	-0.335**	0.031	-0.325**	0.037
	(0.155)		(0.156)		(0.155)		(0.155)	
GDP PPP	-0.467	0.110	-0.471	0.112	-0.462	0.110	-0.434	0.131
	(0.292)		(0.296)		(0.289)		(0.287)	
Innovation	-0.610*	0.069	-0.578*	0.083	-0.574*	0.083	0.330	0.488
	(0.335)		(0.334)		(0.330)		(0.476)	
CSI			-0.283**	0.044	-1.020***	0.009	-0.823**	0.038
			(0.140)		(0.392)		(0.396)	
CSI^2					2.752**	0.028	2.965**	0.017
					(1.246)		(1.245)	
CSI × Innovation					,		-5.415***	0.005
							(1.936)	
Constant	6.458**	0.039	6.573**	0.039	6.527**	0.036	6.226**	0.044
	(3.131)		(3.174)		(3.102)		(3.086)	
Year Fixed Effects	Inclu	ded	Inclu	ded	Inclu	ded	Includ	ded
Firm Fixed Effects	Inclu		Inclu		Inclu		Includ	
Firm-year								
observations	3,22	26	3,22	26	3,2	26	3,22	26
Number of firms 851		851		851		851		
R^2	R^2 0.479		0.480		0.481		0.483	
Adjusted R^2			0.47	78	0.479		0.480	
F test	121.6	500	112.0	500	104.	200	98.16	500
p value of F	0.00	00	0.00	00	0.0	00	0.00	00

^{***} p < 0.01, ** p < 0.05, * p < 0.1 Robust standard errors in parentheses

Model 1 shows our linear baseline model, which is consistent with Haans *et al.* (2016). In this baseline model, CSI is inversely related to risk (β =-0.283, p=0.044), suggesting there is a statistically significant and negative link between CSI and risk.

In order to test Hypothesis 1, which anticipated a U-shaped relationship between CSI and risk, we included the squared term of CSI in Model 2. The results of Model 2 provide support for this curvilinear relationship: the coefficient of CSI² is positive (β_2 =2.752; p=0.028), while the linear coefficient between risk and CSI remains negative (β_1 =-1.020; p=0.009). These results support our first hypothesis: the effect of CSI on risk is U shaped, which is negative at lower level of CSI, but then positive after CSI reaches a certain level. This suggests that firms with the highest risk are those at the extremes of CSI—that is, firms that are either extremely consistent across ESG practices or extremely inconsistent in their ESG practices. In contrast, those firms in between those two extremes seem to benefit from CSI. Take Citizen Holdings as an example, a consumer goods company that has an intermediate level of CSI (0.185). This firm does not have an outstanding performance in terms of overall CSR, yet its environmental performance (77.871 out of 100) stands out comparing to its low scores in social (55.810 out of 100) and corporate governance (58.248 out of 100). As the firm's CSI approaches the turning point of 0.185, its market risk drops to 0.67.

Different from a linear relationship, which gives a straightforward prediction of a dependent variable given some marginal change in the independent variable, the prediction of risk in our case is conditioned on the level of CSI: the change in risk for a one-unit change in CSI depends upon the value of CSI. Based on our estimated coefficients of CSI and CSI², the average marginal effect of CSI on risk is $\frac{\delta Risk}{\delta CSI} = \beta_1 + 2\beta_2 CSI = -1.020 + 2 \times 2.752 \times CSI$. For example, if a firm's CSI is 0.119 (one standard deviation below the turning point 0.185), then the increase of one standard deviation of CSI predicts a change in risk of -0.367. Suppose the

beta risk measure prior to CSI increase was 1.0 (suggesting that its stock moves in line with the overall equity market in the sense that its stock's rate of return would decline by 10 percent if the overall market goes down by 10 percent), an increase of CSI by 1 *SD* reduces the risk to 0.633. That is, this firm is less volatile than the market: its stock's rate of return would decrease by only 6.33 percent if the overall market declines by 10 percent. However, if a firm's CSI is at 0.252 (= turning point + 1 *SD*), increasing CSI by an additional standard deviation is, on average, associated with a risk change of 0.367. Applying the same example as above, the firm's stock becomes more volatile because its stock's rate of return would decrease by 13.67 percent if the overall market falls by 10 percent. Table 4.4 presents the marginal effect of CSI at different values, while Figure 4.1 depicts the overall curvilinear relationship.

 Table 4.4
 Marginal effects of corporate social inconsistency on risk

CSI		Marginal change of risk	Change of risk	New risk level (if previous beta=1)	Bear Market (-10%) Volatility compared with market (if market drops 10% from beta=1)
Minimum	0.001	-0.934	-93.40%	0.066	-0.66%
2SD below the turning point	0.052	-0.734	-73.43%	0.266	-2.66%
Middle value between minimum and	0.093	-0.507	-50.72%	0.493	-4.93%
turning point					
1SD below the turning point	0.119	-0.367	-36.71%	0.633	-6.33%
Turning point	0.185	0.000	0.00%	1.000	-10.00%
1SD above the turning point	0.252	0.367	36.72%	1.367	-13.67%
Middle value between turning point	0.273	0.483	48.27%	1.483	-14.83%
and maximum value					
2SD above the turning point	0.319	0.734	73.43%	1.734	-17.34%
Maximum	0.361	0.965	96.53%	1.965	-19.65%

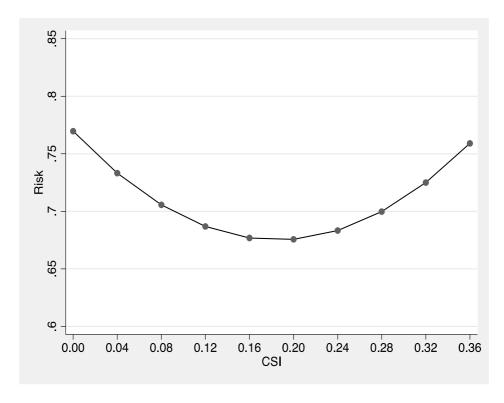


Figure 4.1 The curvilinear relationship between corporate social inconsistency (CSI) and risk

To test Hypothesis 2 concerning the moderation of the curvilinear relationship, we introduced the interactions between CSI and innovation in Model 3. Hypothesis 2 predicted that greater innovation would increase the positive outcome of CSI in risk mitigation, but avoid the occurrence of the negative outcome. The results of Model 3 indicate that the effect is as hypothesized. In Model 3, we find that the interaction term between CSI and innovation has a negative effect on risk (β_3 =-5.415, p=0.005). This suggests that innovation makes firms less likely to be subject to the risk-increasing effect of CSI. To illustrate, as Figure 4.2 shows, for values of R&D intensity corresponding to 0 (minimum value of innovation, which is less than 1 *SD* from the mean), the mean (0.045), and 0.104 (mean plus 1 *SD*), the values of CSI corresponding to the inflection point are 0.139, 0.180 and 0.233 respectively. The corresponding values of risk at the turning point are 0.700, 0.676 and 0.630, respectively. Figure 4.2 shows that as R&D intensity increases, the turning point of the U-shape moves rightward (in terms of the values of CSI) and downward (in terms of the values of risk). This

suggests that increasing levels of R&D not only reduce the risk-increasing effect of CSI, but also allow for further risk decrease at higher levels of CSI. In this sense, the risk-reducing of CSI is largely avoided. For example, Kudelski SA, a Swiss firm in our dataset, practices high R&D intensity (greater than 20%) along with its CSI. This would be expected to reduce the risk-reducing effect of its CSI: even if its CSI level (0.195) exceeds the turning point (0.185), because of its high R&D intensity (23%), the increase of CSI would not be expected to increase risk. Instead, this firm's risk would be expected to continue decreasing to 0.60 because the risk-reducing effect is shifted to a new turning point.

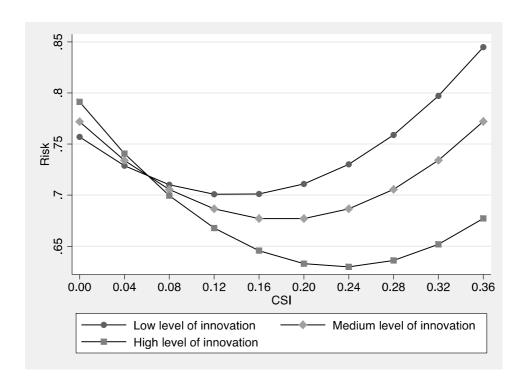


Figure 4.2 The curvilinear CSI-risk relationship at varying levels of innovation

Note. Low level of innovation is zero, medium level of innovation is the mean value, high level of innovation is the mean+1SD. We use zero to represent low innovation because Mean-1SD is negative in our sample, which is outside the lower bound of the data range of innovation. As the level of innovation increase, the U shape moves rightward and downward. Although it may look like the shape of the U curve changes, the curvature is actually unchanged.

4.1 Robustness Tests

4.1.1 Robustness Test of U-shaped Relationship.

According to Haans *et al.* (2016), a significant coefficient of the squared term alone is not sufficient to interpret it as a quadratic relationship. Therefore, to follow best methodological practice in testing a U-shaped relationship (see Haans *et al.* (2016) and provide stronger evidence for this U-shaped relationship, we also assessed the statistical significance of the U-shaped relationship by following the three steps proposed by Lind and Mehlum (2010). In the first step, we tested the joint significance of the linear and squared term of CSI. Second, we tested the simple slopes on both ends of the data range: a quadratic relationship requires the simple slope on both ends of the data range to be statistically significant and opposite in sign. Third, we tested the location of the extreme point by constructing the 95% confidence interval of the extreme point based on both Fieller's standard error method (Fieller, 1954) and the delta method (Hirschberg and Lye, 2005; Lind and Mehlum, 2010). The results of this three-step analysis are reported in Table 4.5.

 Table 4.5
 Test of a U-shaped relationship between CSI and risk

	Parameter Estimates	p value
Test of joint significance of CSI variables (CSI and CSI ²)	$\chi^2 = 7.220$	0.027
Lind & Mehlum overall test of U shape in CSI	t=1.770	0.038
Lower bound simple slope	-1.014	0.005
Upper bound simple slope	0.997	0.038
Estimated turning point	0.185	0.038
95% confidence interval—Fieller method	[0.136, 0.519]	0.038
95% confidence interval—Delta method	[0.127, 0.244]	0.038
Test of joint significance of control variables	$\chi^2 = 1455.990$	0.000
Test of joint significance of all variables in the model	$\chi^2 = 1355.410$	0.000

As shown in Table 4.5, the simple slopes on the two ends of the data range show opposite signs: the left end shows a decreasing slope (β =-1.014, p=0.005) as opposed to the right end displaying an increasing slope (β =0.997, p=0.038). This indicates that the

relationship decreases first and then increases, constituting a U-shaped relationship in our sample. The estimated extreme point is 0.185, which is well located within the data range [0.001 0.361]. The delta method constructed a confidence interval within the data limits, which provides a reasonable claim that there is a U-shaped relationship. Fieller's method, though, produced a wider confidence interval, whose upper bound is outside the range of CSI. This suggests the right half of the curve is not fully revealed by the data.

Although we theoretically advance and empirically substantiate a quadratic U-shaped relationship between CSI and risk, other functional forms might describe the association between CSI and risk. Thus, to improve the empirical rigor of the U-shape test, we also checked the robustness by specifying a cubic model applying the statistical techniques recommended by Haans *et al.* (2016). The robustness check formally eliminates the possibility of an S-shaped relationship with an additional cubic term in the model (β =-0.592, p=0.959). The results of the S-shaped robustness checks are presented in Table A4.1 of the Appendix (included at the end of this paper).

4.1.2 Robustness Test of Moderation

We also ran formal statistical tests for moderation in U-shaped relationships, following the techniques recommended by Haans *et al.* (2016) with respect to the turning point shift. Based on Haans *et al.*'s (2016) recommendations, a moderation that shifts the turning point depends on the statistical significance and value of the overall derivative equation of the independent variable with respect to the moderator. In a full moderated quadratic model specified as:

$$Y = b_0 + b_1 X + b_2 X^2 + b_3 XZ + b_4 X^2 Z + b_5 Z,$$

the derivative equation of X (independent variable) with respect to Z (moderator) is:

$$\frac{\beta_1\beta_4 - \beta_2\beta_3}{2(\beta_2 + \beta_4 Z)^2}.$$

According to Haans *et al.* (2016), if the overall equation is positive and significant, the X value of the inflection point moves to the right as Z increases. If the equation is tested to be negative, the direction of the shift is leftward. Since the denominator is always larger than zero, the direction of shift depends on the sign of the numerator. Whether the X value of the turning point moves to the right or left depends on the value of β_1 , β_2 , and β_3 , respectively. Accordingly, the Y value of the turning point moves upwards and downwards along with the movement of X.

We tested the overall derivative equation of CSI with respect to R&D, our hypothesized Z. Since we do not include the moderation on (CSI)² in our model (thus, β_4 =0),

the equation can be rearranged as:

$$\frac{-\beta_2\beta_3}{2(\beta_2)^2}.$$

To test Hypothesis 2 (rightward movement of the inflection point), we need to test whether

$$H_0: \frac{-\beta_2\beta_3}{2(\beta_2)^2} \le 0$$

can be rejected in favor of the alternative hypothesis:

$$H_1: \frac{-\beta_2\beta_3}{2(\beta_2)^2} > 0$$

The results of the R&D moderation show a positive value 0.913 (p=0.029), which confirm the prior results that the CSI value of the turning point shifts to the right as R&D increases.

Because Aiken and West (1991) cautioned against the inclusion of interactions that are theoretically unanticipated, we decided to include the moderation on the linear term only. In this context, we only hypothesized that the interaction will shift the turning point of the U

shape, that is, the moderation on CSI_{it} . However, following the recommendations of Haans $et\ al.\ (2016)$, we still ran a full model with the inclusion of moderations to quadratic CSI in order to (1) test whether we can formally eliminate the possibility of moderation on quadratic CSI and (2) to prevent potential bias in the estimated coefficients. Our results show that the moderation on quadratic CSI is not supported (β_4 =22.326, p=0.365), which lends additional support to our hypothesis of a shift of the turning point. The results are displayed in Table A4.2 of the Appendix (included at the end of this paper).

4.1.3 Additional Robustness Tests of the Model.

To validate the results of our model further, we checked the robustness of different operationalizations. We replicated our analyses by using the Gini coefficient across ESG dimensions as an alternative measure of CSI. In addition, in order to account for the effect of industry characteristics on risk, and thus for an additional form of potential endogeneity bias due to omitted variables at the industry level, we ran a robustness test including all the industry x year fixed effects to each of the models. We found that the results are consistent with those that we present herein. The results of this robustness test are displayed in Table A4.3 of the Appendix (included at the end of this paper).

5 DISCUSSION

In this study, we sought to explain the curvilinear association between CSI and corporate risk. Our results indicate that CSI is indeed inversely related to corporate risk. However, this effect occurs only at fairly low levels of CSI. After a certain point, the negative consequences of imbalanced stakeholder attention become more pronounced, so that increasing levels of CSI are associated with higher levels of corporate risk after that point. Based on our theorizing, we assume that, before this turning point, CSI improves firms'

resource allocation and management quality, that is, CSI enhances organizational processes that tend to mitigate risk. After the turning point, though, the increasing expectations from other stakeholders and the increasing likelihood of stakeholder reactions that are harmful to the firm (as a consequence of moderately high to high levels of CSI) tend to increase corporate risk. Furthermore, the test of innovation as a postulated contingency factor also shows that, although firms cannot eliminate the negative risk consequences of CSI completely, firms high in innovation may increase the positive effect of CSI and, thus, reduce the possibility of the occurrence of increasing risk. Greater innovation provides more leeway to engage in focused (i.e., inconsistent) CSR because CSI paired with innovation can largely avoid the risk-enhancing characteristics of CSI.

5.1 Implications for Theory and Practice

Theoretically, our study makes three distinct contributions. First, our study reconciles two contrasting streams in the literature with regard to consistency in ESG practices. One stream of research strongly suggests consistency or balance in stakeholder management as an optimal nonmarket strategy in order to develop trusting relationship with a wide range of stakeholder groups (Henisz *et al.*, 2014; Orlitzky and Benjamin, 2001; Orlitzky *et al.*, 2003; Wang and Choi, 2013). The other stream implies that firms can benefit from greater selectivity, or imbalance and focus, in their ESG (Godfrey *et al.*, 2009; Orlitzky, 2013; Porter & Kramer, 2006, 2011; Rumelt, 2011). Drawing on these contrasting arguments, we theorized a quadratic, U-shaped relationship between CSI and risk. We hypothesized that initially CSI is associated with lower business risk, but then increases risk once CSI exceeds a certain level. In this context, our results also addressed the contingency factor of innovation for this relationship by extending arguments about synergistic firm capabilities derived from innovation.

Second, our study challenged an overly broad, institutionally driven manage-for-stakeholders approach. Based on the findings of this study, firms should, at least to some extent, be selective in their ESG practices (see also Porter and Kramer, 2006; Porter and Kramer, 2011). That is, moving from an indiscriminate set of dozens of ESG practices (extremely low CSI) to a more focused set of activities may mitigate risk. With a more concentrated CSR effort, our theorizing suggests that firms may be able to supply CSR more efficiently and effectively—as part of a more eclectic shared value strategy (Porter and Kramer, 2011). Nevertheless, our findings of curvilinearity in the CSI-risk relationship also indicate that *extreme* imbalance in ESG practices is indeed as ineffective as the advocates of balanced CSR advise; extreme inconsistency, or focus, in ESG practices seems to increase business risk because it is too myopic.

Third, in response to our initial question (Should firms be consistent or inconsistent in their CSR?), our theorizing and empirical findings suggest that overall CSI reduces corporate risk, particularly if firms add value through innovation for those stakeholders that eventually provide firms with financial resources. Such stakeholders include customers and providers of equity (shareholders) or loans (banks). Customers benefit by enhanced product characteristics or reduced retail prices, both achievable through organizational-level innovation. In addition, innovation can also benefit equity or loan providers by raising the corporate profit margin as innovative products can sell at higher prices or because process innovations can reduce costs. This observation extends and qualifies Godfrey's (2005:793) work because a "myopic focus on certain stakeholder groups at the expense of others" may not necessarily increase risk as long as stakeholders who provide financial resources are satisfied. Firms can insure themselves against the risk resulting from more pronounced CSI or negative moral capital not only by enhancing moral capital, but also by enhancing the flow of financial capital in the form of revenues, equity, or loans. Expanding R&D may be an effective way to diversify and

mitigate risk, whereas diversifying CSR across many stakeholder groups may not provide the same strategic benefits from a risk management perspective.

Hence, our study also offers several implications for managers and other practitioners, such as policy-makers. First, firms ought to pursue focus in those ESG practices that are most relevant to their firm-specific core competencies and, thus, leverage resources to meet the threshold for being effective and noticeable in CSR. Second, firms can reinforce their CSI (as well as mitigate risk) with larger R&D investments. Innovation may reduce the risk-enhancing effect of CSI because innovation strengthens the latent benefits of CSI. In sum, we recommend that firms reject an indiscriminate set of ESG practices, but instead try to connect *specific* practices to their strategic intent, strategy (at various levels), and specific core competencies. At the same time, it should be noted that excessive concentration on only one or two particular ESG issues may be equally counter-productive in terms of effective risk management.

5.2 Limitations and Future Research

Like all studies, this one has several weaknesses that could be addressed by future research. First, we acknowledge that beta is an imperfect proxy of risk. Beta captures market risk or, more specifically, a company's volatility of its stock's rate of return relative to the market. Thus, future research could usefully extend our findings, for example, by operationalizing risk as downside risk (Husted, 2005).

Second, although we proposed CSI as a construct to describe firms' ESG focus, we recognize that the particular ESG practices on which firms focus may evolve over time. Our construct mainly captures a firm's *pattern* of inconsistency rather than the nature of the ESG practice. So, future studies could examine more specific types of inconsistency and their more nuanced impacts on risk. In other words, from a methodological perspective, follow-up

research may develop this field of inquiry further by proposing more fine-grained measures of CSI.

Third, if neglected or treated in a less responsible way, stakeholders' tolerance in this regard may vary across different institutional environments (Ioannou and Serafeim, 2012). Future studies might address this possibility by investigating whether the U-curve shifts its turning point or changes its shape under different institutional conditions. For this purpose, future studies should address ESG domain-specific institutions (Kostova, Roth, & Dacin, 2008), such as those that affect voice and relative power of NGOs, customers, shareholders, and corporate debt-holders.

5.3 Conclusion

Contemporary calls for consistency in firms' CSR (i.e., attending to an ever-growing number of stakeholder groups) only focus on the negative outcome of inconsistency. By contrast, this study indicates that inconsistency, or focus, in ESG practices may indeed produce beneficial risk outcomes, at least at relatively low levels of CSI. At the same time, though, the findings also confirm that inconsistency in ESG practices does indeed pose a real threat as far as corporate market risk is concerned. Nonetheless, high levels of innovation seem to compensate for these drawbacks of inconsistency. In short, our results reconcile two contrasting arguments about the association between inconsistency in firms' ESG practices and risk. We hope our research can inspire future studies and practicing managers to acknowledge the fact that, just like with market strategies (Rumelt, 2011), strategic focus in the nonmarket arena may "pay" (at least in terms of lower risk). A firm that is indiscriminate in its CSR and, thus, tries to live up to all stakeholder demands has not made the strategic choices and tradeoffs necessary for an effective nonmarket strategy. As General Electric's former CEO Jack Welch (Welch and Welch, 2005: 168) stated about strategy in general:

"You cannot be everything to everybody, no matter what the size of your business or how deep its pockets."

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APPENDIX

 Table A4.1
 U shape robustness test (cubic model)

•	Cubic Mo	odel
Variables	Coefficient	p value
Organizational slack	0.007	0.578
	(0.012)	
Organizational size	-0.004	0.886
-	(0.028)	
Debt ratio	-0.103	0.533
	(0.165)	
Investment opportunity	-0.380	0.117
	(0.242)	
CSP	-0.002	0.429
	(0.003)	
Innovation	-0.574*	0.083
	(0.331)	
Regulatory control	-0.335**	0.031
	(0.155)	
GDP PPP	-0.463	0.109
	(0.289)	
CSI	-1.052	0.165
	(0.758)	
CSI ²	3.015	0.571
	(5.323)	
CSI ³	-0.592	0.959
	(11.639)	
Constant	6.534**	0.035
	(3.099)	
Year fixed effects	Include	d
Firm fixed effects	Include	d
Firm-year observations	3,226	
Number of firms	851	
R^2	0.481	
Adjusted R^2	0.479	
F test	97.30	
p value of F test	0.000	

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

 Table A4.2
 Curvature moderation test

	Ris	sk	
Variables	Coefficient	p value	
Organizational slack	0.006	0.595	
	(0.012)		
Organizational size	-0.007	0.780	
	(0.027)		
Debt ratio	-0.108	0.513	
	(0.165)		
Investment opportunity	-0.386	0.109	
	(0.240)		
CSP	-0.003	0.355	
	(0.003)		
Regulatory control	-0.334**	0.032	
	(0.156)		
GDP PPP	-0.442	0.127	
	(0.289)		
Innovation	0.625	0.298	
	(0.600)		
CSI	-0.567	0.261	
	(0.504)		
CSI ²	1.987	0.236	
	(1.676)		
CSI × Innovation	-11.422	0.122	
	(7.387)		
$CSI^2 \times Innovation$	22.326	0.365	
	(24.613)		
Constant	6.314**	0.042	
	(3.105)		
Year fixed effects	Inclu	ided	
Firm fixed effects	Inclu	ided	
Firm-year observations	3,2	26	
Number of firms	851		
R^2	0.4	83	
Adjusted R^2	0.480		
F test	91.9	940	
p value of F test	0.0	00	

Robust standard errors in parentheses

^{***} p<0.01, ** p<0.05, * p<0.1

 Table A4.3
 Robustness test results

	Mode	10	Mode	11	Model 2		Model 3	
Variables	Coefficient	p value						
Organizational slack	0.006	0.649	0.006	0.633	0.005	0.650	0.005	0.650
	(0.012)		(0.012)		(0.012)		(0.012)	
Organizational size	0.001	0.972	0.001	0.967	0.001	0.980	-0.002	0.945
	(0.029)		(0.028)		(0.029)		(0.028)	
Debt ratio	-0.100	0.556	-0.110	0.517	-0.105	0.537	-0.115	0.497
	(0.170)		(0.169)		(0.169)		(0.169)	
Investment								
opportunity	-0.406*	0.100	-0.438*	0.078	-0.453*	0.068	-0.451*	0.067
	(0.247)		(0.248)		(0.248)		(0.246)	
CSP	-0.002	0.532	-0.003	0.377	-0.003	0.386	-0.003	0.313
	(0.003)		(0.003)		(0.003)		(0.003)	
Regulatory control	-0.385**	0.011	-0.373**	0.015	-0.385**	0.012	-0.381**	0.013
	(0.152)		(0.153)		(0.152)		(0.152)	
GDP PPP	-0.570*	0.051	-0.576*	0.052	-0.570**	0.048	-0.541*	0.060
	(0.291)		(0.296)		(0.288)		(0.287)	
Innovation	-0.540	0.115	-0.514	0.132	-0.513	0.129	0.416	0.394
	(0.343)		(0.341)		(0.338)		(0.487)	
CSI			-0.294**	0.040	-1.048***	0.008	-0.849**	0.034
			(0.142)		(0.395)		(0.400)	
CSI ²			, ,		2.817**	0.025	3.039**	0.016
					(1.259)		(1.256)	
CSI×Innovation					(' /		-5.556***	0.005
							(1.984)	******
Constant	7.536**	0.015	7.663**	0.015	7.653**	0.013	7.351**	0.017
	(3.106)		(3.154)		(3.081)		(3.070)	
Year Fixed Effects	Includ	ed	Includ	led	Includ	led	Includ	led
Firm Fixed Effects	Includ		Includ		Includ		Includ	
Industry x Firm								
Fixed Effects	Includ	ed	Includ	led	Includ	led	Includ	led
Firm-year								
observations	3,226		3,226		3,226		3,226	
Number of firms	851		851		851		851	
R^2	0.484		0.485		0.486		0.488	
Adjusted R^2	0.470	5	0.47	7	0.47	8	0.48	0
F test	76.2	1	74.21	0	74.19		6.96	0
p value of F	0.000)	0.00	0	0.00	0	0.00	0

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

CHAPTER 5

SUMMARY AND CONCLUSIONS

1 INTRODUCTION

This thesis sought to deepen our understanding of how CSI arises, in what contexts CSI is more likely to occur, and what the implications of CSI are for business risk. Specifically, this thesis aimed to address three interrelated research questions: (1) Why do firms engage in socially consistent and inconsistent CSR and CSiR? (2) How and in what contexts does R&D affect firms' CSI? (3) How does CSI affect a firm's market risk?

To address the three research questions, I adopted a resource-based theoretic reasoning as the central logic underlying the inquiry. Accordingly, I developed one conceptual paper and two empirical papers. A comparison of the three papers is provided in Table 5.1. As illustrated in the table, the inquiry of CSI evolved around a strategic approach and centered on firms' resource management surrounding CSI. Drawing on this central strategic approach, the first two papers examined how CSI might result from firms' strategic resource management under different stakeholder pressures and in different market contexts. In addition (in the third paper), I also investigated what the consequences of CSI on business risk might be.

As indicated in the three papers, I defined CSI slightly differently in the first paper from the other two. Essentially, two changes are illustrated in Table 5.1. One is that the reference point of CSI shifts from stakeholders to social issues. In paper 1, for the sake of parsimony, I used stakeholders as the reference point following Wang and Choi (2013). Papers 2 and 3 used social issues as the reference point of CSI. The other change of the definition is the unit that constitutes CSI: it changed from simultaneous CSR and CSiR (paper 1) to performance across social issues (paper 2).. Moreover, because CSiR was included in the concept of CSI in paper 1, the concept connoted negatively. The change of definition made the concept more value-neutral in papers 2 and 3, as exhibited in the *Connotation* definitional dimension of CSI in Table 5.1.

As all the papers center on resources as their rationale of arguments, the primary theories employed in all three papers are about resources. As can be seen in Table 5.1, papers 1 and Paper 3 applied resource dependence theory (RDT) and resource-based theory (RBT) as their main theory, respectively. Paper 2 adopted evolutionary economics as the main theory, which is also essentially about resources. This theory suggests that routines, as a stock of a firm's resources, capabilities, and skills can lead to organizational change. R&D is seen as a typical search routine to realize this change (Nelson & Winter, 1982). Since changes resulting from routine can be both intentional and unintentional (Feldman & Pentland, 2003; Nelson & Winter, 1982), in line with this reasoning, CSI in paper 2 was argued to be both strategic and emergent, as shown in the *Intentionality* dimension of CSI in Table 5.1.

Drawing on the insights from these theories, each paper developed propositions or hypotheses centering on resource management surrounding CSI. Accordingly, the propositions and hypotheses make several theoretical and practical contributions. These contributions are summarized in the following Contributions and Implications section.

Data for the thesis were collected from multiple databases: *ASSET4ESG*, *OSIRIS*, *WorldScope*, Heritage Foundation, and the World Bank. Due to the missing values generated by the matching of different databases, the final sample that contained the data of variables used in papers 2 and 3 consisted of 3,278 and 3,281 firm-year observations, respectively.

The remaining sections of this concluding chapter are organized as follows: Section 2 summarizes the findings of the thesis for each of the research questions examined in the stand-alone paper and the findings in combination. Section 3 presents a discussion of the theoretical and practical implications of the thesis. The final section shows the limitations of the thesis and possible directions for future research.

 Table 5.1
 Comparison of Paper 1-3

		Paper 1	Paper 2	Paper 3
Category	Sub-category	Drivers of CSI	Context of CSI	Risk Consequences of CSI
Research Question		Why do firms engage in socially consistent or inconsistent CSR and CSiR?	How and in what context does R&D affect CSI?	How does CSI affect corporate risk?
Type of paper		Conceptual	Empirical	Empirical
Approach		Strategic	Strategic	Strategic
	Internal dynamics	Simultaneous CSR & CSiR	Variability in ESG practices	Variability in ESG practices
	Reference point	Stakeholders	Social issues	Social issues
Definition of CSI	Connotation	Largely neutral, slightly negative because CSiR is included in the definition	Neutral; assuming legal compliance	Neutral; assuming legal compliance
	Intentionality	Intentional strategic choice	Intentional strategic choice and emergent outcome	Intentional strategic choice
Theory		Instrumental stakeholder theory (IST) Resource dependence theory (RDT)	Evolutionary Economics (EE) Institutional Economics (IE)	Instrumental stakeholder theor (IST) Resource-based theory (RBT)
Propositions/ Hypotheses		P1: Unequal stakeholder pressure (+) CSI P2: Resource endowment (+) moderating effects P3a-P3f: the combination of P1&P2 in different scenarios and different responses: CSI, (weakly & strongly) consistent in CSR, CSiR, compliance.	H1: R&D (+) CSI H2: Market openness (+) moderating effect	H1: U shaped (-) & (+) H2: Innovation (+) moderating effect (shifts U to right, i.e., mitigating risk)

	Theoretical	Theorizes CSI and tradeoffs implied by IST. Develops a novel Framework of firms' strategic responses that contributes to social responsiveness literature.	1. Addresses the inconclusiveness in the existing literature on the RD-CSR relationship. 2. Demonstrates how selection mechanisms in evolutionary economics are contingent on regulatory institutions (market openness).	1. Challenges the extant literature by showing that CSI can be beneficial from a risk perspective; challenges the broad, institutionalized manage-for-stakeholders approach. 2. Reconciles the debate over the benefits of consistency or inconsistency in CSR.
Contribution	Practical	1. Managers: apply the framework to analyze their current stakeholder pressure level, resource endowments, and the strategic postures in CSR. 2. Managers: compare their strategic postures with competitors and exploit the opportunities where competitors neglect stakeholders. 3. Investors & analysts: use aggregate indices of CSR with great caution when assessing a firm's CSR. Use the framework to predict companies' responses to ESG issues and their ESG practices.	1. Managers can make full use of their R&D expertise to generate CSR that confers a socially complex and difficult-to-imitate resource bundle. 2. Policy makers are advised to change the restrictions on international trade, investment and financial movements to facilitate synergies between R&D and CSR.	1. Managers ought to pursue focus in their ESG practices that are most relevant to their firmspecific core competencies. 2. Managers shall also monitor excessive CSI to avoid the riskincreasing effect of CSI. 3. Firms can pair innovation with CSI to mitigate the risk of excessive CSI.

2 FINDINGS

2.1 Drivers of CSI

The first paper investigated the drivers of CSI building on two core constructs: (a) the balance of stakeholder pressures and (b) a firm's internal resource endowments. Drawing on a combination of resource-based theory (RBT) and instrumental stakeholder theory (IST), the paper proposed that CSI is likely to be driven by the joint forces of severe resource constraints and unequal (strong and weak) stakeholder pressures. Under severe resource constraints, a firm's major and most immediate threat is survival. Because of resource constraints, under the condition of unequal stakeholder pressure, the firm is likely to allocate resources mainly to stakeholders that exert strong pressures. In line with IST, a firm is incentivized to shift resources from weak-pressure stakeholders to strong-pressure stakeholders. The different treatments to different stakeholders further lead to CSI.

As a specific examination of innovation resources and capabilities in driving CSI, paper 2 examined how R&D may also drive CSI. Drawing on evolutionary economics, paper 2 suggested that firms strategically manage the search routines of R&D in the form of bundling R&D with ESG practices in order to unleash the synergies between them. Because the synergistic effects of R&D on ESG practices vary, R&D is likely to lead to CSI. The results indicated that R&D is positively related to CSI, however, the relationship is weak. These findings provide additional support for the examination of institutional environment as an important external contingency factor on the relationship between R&D and CSI.

2.2 Context of CSI

The fact that there is an overall (average of all countries) relationship between R&D and CSI effectively lent further support to my argument that the institutional contexts are decisive because they affect firms' selection environment and thus the activation of search routines as proposed by evolutionary economics. I studied how the institutional context might shape CSI, especially in the context of the R&D-CSI relationship. As paper 2 suggested, market openness strengthens the link between R&D and CSI. In general, decentralized markets with higher levels of openness promote high levels of competition (Friedman & Friedman, 1979; Hayek, 1944). Faced with intense competition, firms tend to use nonmarket strategies to strengthen their competitive advantage (Flammer, 2015).

Thus, in open markets, firms are likely to focus on synergistic bundles of R&D and specific ESG practices, which implies CSI. Such synergies support their survival strategies under intense selection pressure. Moreover, an effective bundle of search routines spanning both market and nonmarket arenas can better enable firms to adapt to the dynamic market environment. The results indicated that, in competitive market environments, firms tend to exhibit higher CSI compared to market environments where firm rivalry is more muted.

The findings of this paper also support the argument that search routines and nonmarket strategies might be responsive to institutional environments that encourage different degrees of competitive intensity (Farjoun, 2010; Nelson & Winter, 1982; Van de Ven & Poole, 1995). The findings of paper 2 complement the prevailing emphasis on institutional differences across countries in explaining firms' CSR (Ioannou & Serafeim, 2012; Matten & Moon, 2008). The results underscore the significance of a firm's institutional environments in eliciting firms' bundling of market and nonmarket strategy.

2.3 Outcomes of CSI

The third paper explained an outcome of CSI, specifically how CSI can affect corporate risk. According to my results, there is a U-shaped relationship between CSI and risk, that is, CSI initially (at low to moderate levels) reduces corporate risk, but then starts to increase a firm's market risk. Based on my theorizing, paper 3 suggested that CSI at low or medium levels improves firms' resource allocation and management quality, that is, CSI enhances organizational processes that tend to mitigate risk. The results indicated that when CSI is low and medium level, it is indeed inversely related to corporate risk. These findings suggested that firms should be selective in their ESG practices, at least to some extent (see also Porter & Kramer, 2011; Porter & Kramer, 2006).

However, the results also suggested that this effect occurs only at low and moderate levels of CSI. After a certain point, the negative consequences of imbalanced ESG performance become more pronounced. Specifically, the increasing expectations from other ESG-related stakeholders and the increasing likelihood of stakeholder reactions are harmful to the firm (as a consequence of moderately high to high levels of CSI), which tend to increase corporate risk. Hence, increasing levels of CSI are associated with higher levels of corporate risk after that point. This finding partially supported consistency, as suggested by previous studies (Tang, Hull, & Rothenberg, 2012; Wang & Choi, 2013). In short, extremely high CSI can be equally ineffective as it is too myopic.

In addition, the test of innovation as a postulated contingency factor also shows that, although firms cannot eliminate the negative risk consequences of CSI completely, firms with greater innovation may largely avoid the risk-enhancing characteristics of CSI. Greater investments in R&D provide more discretion to engage in focused (i.e., inconsistent) CSR

because CSI, if paired with innovation, can largely avoid the risk-enhancing characteristics of CSI.

2.4 Conclusions in Combination

The combined findings in the three papers inform several overarching conclusions drawn from this thesis. First, my findings suggest that CSI essentially represents a focused resource management strategy in the nonmarket (ESG) arena that is akin to other business activities. CSI is engendered in the process of firms' resource management based on the joint forces of internal resource endowment (as found in paper 1), the characteristics of resources (e.g., R&D, as found in paper 2), and external factors (e.g., stakeholder pressures and institutional contexts, as found in papers 1 and 2). This management process involves tradeoffs among ESG practices and stakeholders, so that some ESG practices and stakeholders might be neglected, rendering the firm's CSR inconsistent. Nevertheless, strategy is ultimately about tradeoffs because firms cannot be good at everything, nor do they have unlimited resources to address the demands of all stakeholders (Jensen, 2002; Porter, 1996; Porter & Kramer, 2006; Rumelt, 2011). Hence, CSI is concerned with a focused strategy in a wide range of ESG practices that enable firms to implement CSR and create stakeholder value more effectively and efficiently (as shown in papers 2 and 3).

In a related vein, another conclusion is that CSI, in moderation, may be a more favorable strategy than consistent CSR, especially consistently high CSR. This conclusion deviates from the "manage-for-stakeholders" orthodoxy (Freeman, Harrison, Wicks, Parmar, & De Colle, 2010) and emphasizes the benefits of selectivity in managerial choices of ESG practices. Consistently high CSR has typically been viewed as a more preferable social strategy because it can strengthen stakeholder influence capacity and maximize the yield of

return from CSR (Barnett, 2007; Tang et al., 2012; Wang & Choi, 2013). In contrast, my findings suggest CSI, up to a point, may help reduce corporate risk. As argued (in papers 2 and 3), CSI essentially represents a strategic focus of a firm's social strategy and resource concentration on a particular set of ESG practices. Such concentration of resource allocation underlying CSI can enhance organizational effectiveness and efficiency. Moreover, the focused resource allocation can allow firms to develop organizational knowledge and capabilities around a core CSR practice in a more committed fashion with lower coordination costs. Therefore, CSI can mitigate corporate risk (as found in paper 3).

Nonetheless, my findings do not entirely refute the value of consistency in high CSR as a social strategy. The results indicate that excessive CSI can be equally harmful for firms in risk management. Thus, the conclusion that CSI is a good strategy must be qualified in that excessive CSI is as risky as unfocused, consistently high CSR. Excessive CSI increases corporate risk because of the accelerating stakeholder penalties associated with inconsistency (Wang & Choi, 2013). This is similar to the "too-much-of-a-good-thing" effect in organizational life: ordinarily beneficial antecedents cause harm when taken too far (Pierce & Aguinis, 2013).

The third conclusion relates to the significance of R&D and innovation in ESG practices (as highlighted in papers 2 and 3). The findings underscore that R&D and innovation can create value in the nonmarket arenas and further build firms' competitive advantage. These results reinforce the prevailing view of the positive impacts of R&D or innovation in social matters and society at large (Ahlstrom, 2010; Padgett & Galan, 2010; Surroca, Tribó, & Waddock, 2010). However, deviating from previous studies, this conclusion emphasizes that the synergy between R&D, innovation, and issues varies across ESG practices, rather than viewing R&D and innovation as a panacea to enhance all ESG practices.

3 CONTRIBUTIONS AND IMPLICATIONS

3.1 Theoretical Contributions and Implications

In addressing the three interrelated research questions, this thesis makes three theoretical contributions. First, this thesis introduces the concept of CSI to the CSR literature. Recognizing the problem that is inherent in the multidimensional concept of CSR (Capelle-Blancard & Petit, 2015), this thesis points to the importance of studying the within-firm variability in CSR. This conceptualization underscores that corporate ESG practices are not unidimensional polarities—that is, any given firm is not *either* responsible *or* irresponsible. Rather, firms exhibit actions that cover the entire range from responsible to irresponsible. Hence, this thesis takes the assumption that CSR is not a monolithic concept one step further.

Introducing the new variable of CSI challenges the viability of the prevailing aggregate approach to CSR as the basis of inquiry in the field of CSR. Prior studies, which examined antecedents, outcomes, moderators and mediators of CSR, predominantly based their conclusions on aggregate CSR (Aguinis & Glavas, 2012; Capelle-Blancard & Petit, 2015), without considering the possible tradeoffs among different dimensions underlying CSR. Arguably, not every construct under inquiry is relevant to a firm's aggregate CSR. What has also been neglected is firms' CSR strategies: the aggregate approach to CSR cannot reflect how firms react to their stakeholder and institutional environments and how they may formulate their stakeholder-specific strategies. Thus, the introduction of CSI to CSR literature makes a more realistic assumption about firms' CSR to reflect tradeoffs as well as the relatedness of ESG issues and CSR strategies.

Second, this thesis reconciles the persistent debate in the strategic management literature about being consistent or inconsistent in regard to ESG issues and stakeholders. One stream of research strongly suggests consistency or balance in stakeholder management as an

optimal nonmarket strategy to develop trusting relationship with a wide range of stakeholder groups (Henisz, Dorobantu, & Nartey, 2014; Orlitzky & Benjamin, 2001; Orlitzky, Schmidt, & Rynes, 2003; Wang & Choi, 2013). The other stream implies that firms can benefit from greater selectivity, or imbalance and focus, in their ESG (Godfrey *et al.*, 2009; Porter & Kramer, 2006, 2011; Rumelt, 2011). Nevertheless, this thesis does not intend to declare CSI as the ultimate victor in the debate. Rather, my findings (mainly paper 3) demonstrate that there may be an *optimum* level of inconsistency that is different from *maximum* consistency in addressing all stakeholder concerns.

Third, this thesis also provides insights as to the role of institutional contexts in influencing firms' resource management strategy (paper 2). Market-supporting institutional environments that encourage competition are more likely to unleash market selection pressure (i.e., open markets) to activate firms' search routines to create more value. Firms under such institutional contexts have to take quick actions to address the competitive threats to competitive survival with existing resources (Sirmon, Gove, & Hitt, 2008). Firms tend to bundle resources based on synergy and complementariness. This bundling strategy can reconfigure the resource stock and enhance the isolating mechanisms of competition (Sirmon, Hitt, & Ireland, 2007; Thomke & Kuemmerle, 2002). Thus, my thesis underscores the significance of institutional contexts, especially market openness, in eliciting firms' search for value-creating routines. These market-supporting institutional contexts can enable firms to better exploit the potentials of resources under competition. Because newly acquired resources and capability cannot be translated into competitive advantage in the short term (Sirmon et al., 2008), it is a more preferred competitive strategy sometimes to uncover the potential of existing resources and capabilities and create new values with resource bundling.

3.2 Practical Contributions and Implications

This thesis and its findings offer practical insights for managers, investors, and policymakers. First, overall this thesis suggests a strategic approach in CSR to practitioners. Unlike other institutional approaches to CSR (e.g., Global Reporting Initiative), which favor socially responsible practices across a wide range of social domains, the results of this thesis suggest that firms develop a strategic focus on those ESG practices that are most relevant to their core competencies to deliver effective and noticeable CSR in a cost-effective fashion. Importantly, managers can bundle their R&D expertise with ESG practices. For example, IBM bundles its data analytics and natural language processing expertise with its CSR program "Smarter City" campaign to help cities run more efficiently (Dirks & Keeling, 2016). This may not only create a synergistic mix of resources and capabilities that enable firms to address competitive pressures, but can also make the firm's resource stock more difficult to imitate. For example, firms can also create new systematic CSR core routines that draw on existing resources and capabilities (e.g., technology) to integrate the social attributes into their core competency (Yuan et al., 2011). Firms can undertake peripheral, core-extending CSR practices deriving from their core competency (Keys, Malnight & van der Graaf, 2009; Yuan, Bao & Verbeke, 2011).

Second, firms need to be aware of the CSI existing within their organizations and under what conditions CSI may change. Because CSI can also emerge from firms' existing routines rather than a deliberate choice, managers should continuously monitor their CSI in order to avoid the negative outcome of excessive CSI. Excess CSI may not only cause decline of stakeholder influence capacity, but also result in new competitive threats. Rival firms may exploit the negative outcomes of CSI to gain competitive advantage through the stakeholders that are not omitted from the focal firm's CSI. Thus, managers should be aware of excessive

CSI and keep their CSI within a relatively narrow optimal range. Managers can utilize the novel framework proposed in this thesis to identify their current response type, be it CSI or consistency in CSR, and map it to their present stakeholder pressures and resource endowment. This can help managers to be better informed when selecting a strategic response to their firm's current stakeholder pressures and resource endowment.⁸

In a related vein, analysts, investors, and managers can draw on the model in paper 1 as a comparative framework. Analysts and investors can predict how firms may respond to their current stakeholder pressures and resource endowment and make more informed decisions. Managers can perform a gap analysis on their competitors to uncover opportunities for differentiation in ESG practices and assess the threats of falling behind the industry norm. For instance, they can differentiate themselves by proactively attending to stakeholders that are not treated well by their competitors. In turn, managers should also pay attention to their own stakeholders that are not treated well, which can be an opportunity for their competitors to exploit. This could be a threat for the focal firm: the negative outcomes of negligence (e.g., boycott, strike, negative media coverage) might damage the support and trust from other related stakeholders (Barnett, 2007; Browne, Nuttall, & Stadlen, 2015).

Third, this thesis also has practical implications for policy-makers, especially in terms of trade, finance, and investment policies. As open markets unleash more competitive pressure to select firms that combine both market and nonmarket strategies, changing the restrictions on international trade, investment, and financial movement may incentivize firms to engage more in socially responsible practices. Although firms are only likely to exhibit CSI instead

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⁸ However, it is worth emphasizing that this framework is descriptive rather than normative. Therefore, although the framework delineates the postures that some firms may adopt, especially under highly unequal pressures and in recessions when too many firms are tempted to be inconsistent, my framework does not encourage managers to intentionally practice CSiR and knowingly harm stakeholders. Instead, developing a strategic focus and assuming discretionary responsibility beyond that is more of the essence of this framework.

of addressing all societal issues evenly, different firms with different emphases on CSI may complement each other and ultimately enhance social welfare at large.

4 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This thesis has several limitations, which imply further research opportunities. Building on my study, many other related themes can be envisaged. First, the conceptualization of CSI is still limited in capturing all characteristics and varieties of inconsistency. Because the reference point was stakeholders or social issues, the understanding of CSI is limited to these domains. Future research needs to enrich the conceptualization by expanding the scope of CSI research across time, space, and different divisions, that is, by conceptualizing temporal inconsistency and corporate ESG practices that are inconsistent across countries and geographic regions. Inconsistency across organizational subunits, such as the divisions of large corporations or the firms belonging to business groups, also merits further investigation.

Second, my exploration of the drivers, contexts, and outcomes of CSI was limited in its scope. My inquiry into CSI built on the factors that are viewed as the most dominant in CSR literature: stakeholder pressure, resource endowment, and institutions (Aguinis & Glavas, 2012; Perez-Batres, Doh, Miller, & Pisani, 2012). Focusing on these factors, I investigated how unequal stakeholder pressures (in paper 1), specific resource (i.e., R&D or innovation, as found in papers 2 and 3), and specific institutions (i.e., market openness, as found in paper 2) interact with each other and lead to CSI or result in different risk consequences. However, this thesis does not intend to make any narrowly deterministic claim that these are the only factors that explain the driver, contexts, and risk consequences of CSI. Many other factors at

firm, industry, and country levels were included as control variables in the empirical investigations (papers 2 and 3).

My theoretical framework of the drivers of CSI studied two factors (unequal stakeholder pressures and resource endowment; in paper 1) that offer a basic understanding of the drivers of CSI. More factors at different levels can be investigated in order to enhance the field's understanding of management, organizational, and societal drivers of CSI. It would be useful to examine whether factors at different levels, such as corporate leadership (e.g. CEO's hubris ethics, and political ideologies), organizational culture, market and institutional environments, or macroeconomic factors (e.g., recessions), can add significant explanatory power to my parsimonious framework. More contextual factor can be studied as well. In addition to regulatory institutions, future research may study how cultural norms can shape the relationship between R&D and CSI. For example, since CSI can create uncertainty (Lee, Edmondson, Thomke, & Worline, 2004), future studies can examine how uncertainty avoidance in different cultural contexts can increase or decrease firms' CSI.

Also, risk consequences of CSI are not limited to market risk. This thesis only examines the risk of stock market performance captured by beta. Future research can expand the inquiry into the impacts of CSI on accounting risk. Furthermore, the examination of risk consequences of CSI can be extended to corporate financial performance, reputation, stakeholder relations, or on firms' strategies in product markets and other countries. In addition, future research can examine the impacts of CSI across different contexts. Addressing this point raises a new question: Under what institutional conditions may CSI be more or less risky? For this purpose, future studies can also address ESG domain-specific institutions and stakeholders (Kostova, Roth, & Dacin, 2008), such as those that affect the voice and relative power of NGOs, customers, shareholders, and corporate debt-holders. As

stakeholders' tolerance of CSI may vary in different contexts, studying stakeholders in different contexts would yield interesting research in examining the outcomes of CSI.

Third, because CSI only reflects the within-firm variability, firms that are consistent in low CSR and high CSR may exhibit the same consistency level, leaving the important differences between these two types of firm indistinguishable. Therefore, future research may develop this field of inquiry further by developing a more comprehensive measure of CSI to accurately represent firms' CSI, consistency in high CSR and in low CSR, respectively. This might be a challenging task for future researchers, but to progress with the task of understanding where creative thought is likely to lead in the field of CSR, it is helpful to recognize the tasks that need to be completed. My initial conceptualization was in this spirit.

In addition, although I addressed potential endogeneity concerns in my empirical models by employing fixed-effects and lagged independent variable models, minimizing sampling bias and measurement errors, endogeneity is a limitation that could be addressed more persuasively. Theoretically, the best solution to this problem is the use of instrumental variables to isolate the effects of independent variables (i.e., CSI and R&D, respectively) on dependent variables (i.e., risk and CSI, respectively) from other sources of variation (Wooldridge, 2002). However, in practice it can be difficult to find appropriate instruments that have a strong conceptual relationship with the independent variable, but that do not affect the dependent variable directly (Bettis, Gambardella, Helfat, & Mitchell, 2014). Even if an instrument is found, it is important to note that a bad instrument may, in fact, be worse than no instrument at all (Bascle, 2008; Semadeni, Withers, & Trevis Certo, 2014). I acknowledge this limitation of my research, but need to defer the search for effective instruments to future research. Future research can identify meaningful instrumental variables that have a logical relationship with the endogenous variable, are correlated with the dependent variable only

through the endogenous variable, and are not themselves endogenous. Two-stage least squares (2SLS) can be performed accordingly.

5 CONCLUSION

This thesis initiates the exploration of CSI and addresses three research questions around CSI that correspond to the drivers, contexts, and risk consequences of CSI. With the introduction of CSI into the field of CSR, researchers should realize that firms' ESG practices are neither monolithic nor unidimensional nor binary. This implies that researchers should not exclusively rely on aggregated CSR in future studies. This more nuanced conceptualization of CSI not only advances our understanding of firms' ESG practices, but also builds a pathway to future research on CSR as it will permit us to obtain more reliable results.

Challenging the conventional wisdom regarding the perception of CSI, this thesis suggests that CSI is a strategic posture for which firms opt under certain conditions related to stakeholder pressures, the firm's resource endowment, and market environment. CSI does not necessarily drive up risk, but instead may be beneficial for firms. Thus, I hope my research can inspire future studies and practicing managers to acknowledge that CSI can be advantageous when implemented with foresight, caution, and moderation. Conversely, a firm that is indiscriminate in its CSR and thus tries to meet all stakeholder demands and address all social issues may have the best intentions, but may end up with poor results with respect to its nonmarket strategy. As the well-known American poet Ralph Waldo Emerson (Emerson, 2010, p. 96) stated about consistency: "A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines. With consistency, a

great soul has simply nothing to do. He may as well concern himself with his shadow on the wall."

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