# Societal Determinants of Corporate Social Disclosures

*An International Comparative Study*

René P. Orij

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# List of Abbreviations

| | |
|---|---|
| AICPA | American Institute of Certified Public Accountants |
| ANOVA | Analysis of variance |
| AR | Authority Ranking (as a variable) |
| CAPM | Capital Asset Pricing Model |
| CFD | Corporate financial disclosures |
| CIFAR | Center for International Financial Accounting & Research |
| COM | Common law (as a variable) |
| CS | Community Sharing (as a variable) |
| CSD | Corporate social disclosures |
| CSDempl | Corporate social disclosures on employment issues |
| CSDenv | Corporate social disclosures on environmental issues |
| CSP | Corporate social performance |
| CSR | Corporate social responsibility |
| D.F. | Degrees of Freedom |
| ELI | Employment Laws Index (as a variable) |
| EM | Equality Matching (as a variable) |
| EPI | Environmental Performance Index |
| F | F statistic of the ANOVA |
| FA | Financial accounting |
| FRD | Freedom (as a variable) |
| FRE | French code law (as a variable) |
| FRM | Freedom of markets (as a variable) |
| GER | German code law (as a variable) |
| GEST | General Systems Theory |
| GNP | Gross National Product |
| H | Hypothesis |
| HER | Heritage Foundation Index of Economic Freedom |
| IASB | International Accounting Standards Board |
| IDV | Individualism (as a variable) |
| INST | Institutional Theory |
| KLD | Kinder Lydenburg Domini |
| LEGT | Legitimacy Theory |
| LTO | Long-term Orientation (as a variable) |
| MAS | Masculinity (as a variable) |
| MNC | Multinational Corporation |
| MP | Market Pricing (as a variable) |
| MSCI | Morgan Stanley Capital International |
| N | Number (sample size) |
| NGO | Non-Governmental Organisation |

| | |
|---|---|
| NOR | Nordic code law (as a variable) |
| OLS | Ordinary least squares |
| PAT | Positive Accounting Theory |
| PDI | Power Distance (as a variable) |
| PE | Political Economy |
| ROE | Return on equity |
| RQ | Research question |
| SA | Social accounting |
| SEC | Secrecy (as a variable) |
| SIM | Sensitive industry membership (as a variable) |
| SRI | Socially responsible investments |
| STAT | Stakeholder Theory |
| TYP | Generic Types of Culture (as a variable) |
| UAI | Uncertainty Avoidance (as a variable) |
| US | United States |
| USA | United States of America |
| UU | User Utility |

# Preface

This dissertation is written as part of my assignment as a lecturer with the Centre for Business Studies of Leiden University. I regularly teach accounting, finance and general business studies to a very diverse group of students. Before I started lecturing, first at Inholland University of Applied Sciences and since 2004 at Leiden University, I worked in the financial industry. My last job in that industry was at a bank with a microfinance and poverty alleviation project in the Vietnamese countryside. My main asset for getting involved in that project was my prior 7-year experience as a credit risk manager with Deutsche Bank Group in Cologne, Luxembourg and Amsterdam.

My professional experiences in the financial industry have provided me with insights of how the business world functions, or how most people think the business world functions. The straightforward perspective that most people have on running a business is a financial perspective. Financial models provide a more or less objective and easy-to-digest mathematical-economic reality. I discovered that there may be more perspectives on gaining insights into business. Working with many different people, in many different places, gave me a nuanced view on business. In my view there is not just one financial perspective on business, or one view on the business reality. In my view business is part of a larger concept, namely society. In this study I do not radically oppose the perspective of the majority, the straightforward economic model approach, but I try to support the relativistic, societal perspective on business. My support for this perspective is non-normative, but based upon empirical evidence.

As can be concluded from my previous remarks, this study certainly contains subjective aspects. The main subjectivity is the choice to leave mainstream financial accounting research and to study corporate social disclosures from a social accounting perspective. I, the researcher, am interested in broad, societal concepts. This study is a reflection of my own interests and viewpoints.

I have learned a lot from carrying out this study, especially about what I am interested in, and how I generally approach problems, which is similar to how I approach scholarly research. I discovered the way my brain works. It uses a system-oriented and relativistic approach, similar to the way I performed this PhD study.

I would like to finalise this preface with some words of gratitude. I am grateful to all those people who have contributed directly or indirectly to do this study, from which I have gained so much. There is a broad circle of people who have contributed to this, but the ones I specifically mean here will recognise themselves. I especially want to thank DSR / Sustainalytics for the provision of their data.

Castricum, January 2012.

# Abstract

The purpose of this study is to investigate whether corporate social disclosure levels are determined by society. A social accounting methodology is applied, consisting of a hypothetico-deductive approach. Social accounting research is a critical or interpretative branch of financial accounting research. The main difference from financial accounting is the unqualified acceptance of a social reality by social accounting researchers.

Empirical evidence is assessed with the application of a system-oriented theoretical framework. The theoretical framework consists of a combination of theories: Stakeholder Theory, Legitimacy Theory and institutions from Institutional Theory. Research questions are developed out of the theoretical framework, which are input for the development of hypotheses. Stakeholder Theory and Legitimacy Theory are both suggested to explain corporate social disclosure levels and its relation with economic institutions, social institutions and political institutions. Prior research supports the suggested relationships, especially studies that take a similar outside-in approach; these studies suggest outside effects on the internal corporate social disclosure decision.

Corporate social disclosure data are provided by Sustainalytics, which are similar to the often-studied KLD social performance data. Economic institutional variables applied are of legal origin, as a determinant of corporate governance systems and freedom of markets. Social institutional variables applied are national culture dimensions and combined measures. Political variables applied are political and civil freedom, national environmental and labour law indices.

The sample tested consists of 600 large corporations from 22 countries. The corporations are part of what is known as Morgan Stanley Capital International index. They are all large corporations.

Statistical testing with the use of bivariate correlations, t-tests and multivariate regression models largely support the hypotheses suggested. The main conclusion is that corporate social disclosure levels are related to the way society is organised.

The outcomes of the study show several confirmations of theoretically suggested relationships. Economic institutions are weakly related to corporate social disclosure levels on the basis of a stakeholder orientation of societies, or communitarianism. The relationships that were suggested by theory and some of the prior literature were weakly and partially confirmed. The found relationship between corporate social disclosure levels and governmentally supported freedom of markets can be explained by stakeholder theory, especially communitarianism. Another variable related to

communitarianism, the distinction between legal origins, which describes corporate governance systems, is not found to be relevant to explain corporate social disclosure levels. Legitimacy issues certainly play a role as a determinant of corporate social disclosure levels, but not with regard to economic institutions.

The relationship described between corporate social disclosure levels and national cultures is consistent with the associations suggested by stakeholder theory. Legitimacy has been related in the past mainly with corporate characteristics, company size, and sensitive industry membership. As this study only applies data on large corporations measured by market capitalisation, sensitive industry membership remains as the main relevant corporate legitimacy variable. The sensitive industry membership variable causes the models with social institutional variables to improve.

Political institutions are related to corporate social disclosure levels, though differentiated.

The relationship between freedom and corporate social disclosure levels is described by applying stakeholder theory. Stakeholder theory states that the influence that stakeholders can have on the corporation depends on the salience of their needs. The relationship is confirmed, as expected.

Political institutions are related to the way corporations deal with legitimacy issues. Clear relations are found between corporate environmental disclosure levels and national environmental performance indices. A relationship between corporate employment disclosure levels and national employment law indices is difficult to confirm. A generally valid relationship between corporate social disclosure levels and political institutions is not clearly found.

A general conclusion is that meso-level institutions have shown to be relevant determinants of corporate social disclosure levels. The systems-oriented framework is found to be applicable in explaining relationships between levels of corporate social disclosure and the institutional environment.

The conclusion that societal, institutional determinants are relevant for corporate social disclosures implicitly supports the acceptance of a social reality of social accounting, as institutions are social by definition.

# 1 Introduction

This PhD dissertation contains an empirical study on corporate social disclosures (CSD) and their determinants in relation to society. The search for determinants is limited to those determinants which describe the relationship between society and corporations. These determinants are suggested to have an effect on managerial decisions on corporate disclosures.

This is an empirical social accounting (SA) study. SA research is a multidisciplinary field of study that is part of financial accounting (FA) research. The main distinguishing feature of SA is the clear acceptance of a socially created reality. Mainstream FA differs from this.

Davis *et al.* (1982, p. 311) give the American Institute of Certified Public Accountants (AICPA) definition of accounting from 1953:

> "Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof".

Davis *et al.* (1982, p. 311) also mention the Financial Accounting Standards Board purpose of accounting from 1978:

> "To provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit and similar decisions".

Davis *et al.* (1982, p. 311) further mention the development of accounting as an information system that provides useful information for investment decisions. A further analysis of accounting research methodology is provided in chapter 3 of this dissertation.

The International Accounting Standards Board (IASB) provides a definition of accounting policies. International Accounting Standard 8 contains the following definition of accounting policies:

> "Accounting policies are the specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements" (IASB, 2009).

The presented accounting definitions do ignore any aspect of SA. SA is seen as a part of the field of FA by Deegan and Unerman (2006, p. 267), who include the topics on systems orientation and social and environmental factors in their FA Theory textbook. The relationship between SA research and FA research is discussed in chapter 3 of this study.

This introduction further contains a problem definition, a motivation for the choice of the topic of this study, brief descriptions of research questions, research design, description of key terms and a brief outline of this dissertation

## 1.1 Problem Definition

Corporations have a relationship with society, which partly determines how they behave. The provision of CSD is a type of corporate behaviour. CSD is considered to be at least partly determined by the corporation-society relationship. This consideration is based upon a 'bigger picture' perspective on corporate behaviour, which means that corporate behaviour is not only economically driven, but also socially driven.

The objective of this study is to describe the society-related determinants of CSD, in relation to socially-determined institutions, based upon corporate dealings with legitimacy and stakeholder issues. The latter is assumed to depend on the societal context of corporations.

The research problem is the search for determinants of the relationship between corporate social disclosure levels and the national, societal context of corporations in an international comparison. These determinants provide input for possible cause-and-effect explanations of relationships between corporate CSD behaviour and society.

## 1.2 Motivation

When corporations decide to disclose on social issues, they do take into account their position in society. In this study it is assumed that the decision on social disclosures has to be linked with issues in society. This corporate position is often described by how corporations deal with accountability and legitimacy, which determines their relationship with society. Society-related determinants of CSD are studied in a comparison between countries in order to be able to look for issues that have been selected to be relevant to society as a whole, from the perspective of the organisation. In this study, research objects are the society-related determinants of CSD, especially the determinants that vary between countries. The variance between countries provides the opportunity to study determinants that matter to the research objects – CSD levels.

The society-related determinants of CSD are theoretically assumed to be related to stakeholder accountability, because of the distinction between stakeholder and shareholder orientation of societies. The broad concept of the social contract is related to organisational legitimacy of corporations, which may differ between countries.[1]

The study of issues related to the position of corporations in society is carried out in CSD studies, while assuming that corporations are part of the system society. This assumption supports the validity of general systems theory (GEST) and related theories as an explanatory framework for corporations and their relation with society. Stakeholder Theory (STAT) and Legitimacy Theory (LEGT) are derived from GEST and these two theories are the explanatory part of the theoretical framework.

Determinants of CSD have been studied often, but not in an overall study specifically focused on differences between corporations' countries of origin with a system-theoretical and institutional framework, focused on society. The relevance for accounting science is that further clarity is gained in a positivistic manner on empirical accountability and empirical organisation-centred legitimacy in relation to CSD on a national level.

From a practical perspective, CSD has become an important topic in the world of accounting. Accounting regulators and audit firms have shown interest in the topic. It is assumed that this study can contribute to the increasing importance of the topic in practice, although any practical application of the outcomes of this study may need to be developed afterwards.

## 1.3 About Research Questions

In this subsection an initial overall research question is proposed, on the basis of the research problem. This question is: What are the society-related determinants of CSD in relation to the manner in which societies are organised and the approach of corporations to deal with the societal context? This overall research question is answered using a theoretical framework that consists of theories that have a confirmed ability to explain empirical corporate social disclosure levels. General concepts that relate to corporate activities towards society are accountability and organisational legitimacy of the corporation. Furthermore, the societal context is referred to as institutions in society. In chapter 5, research questions are developed in detail.

## 1.4 About Research Design

In this section a brief set-up is provided with regard to the research design, which is discussed in more detail in chapter 3. This is a quantitative, comparative study, in which conclusions are drawn on the basis of empirical evidence and a positive research approach. A large sample of quantitative CSD level scores are examined in order to be able to draw generally valid conclusions. The methods of this study are similar to FA methods. SA research is related to the mainstream FA paradigm, but it differs from it, especially with regard to methodological issues such as epistemology, ontology and theory application.

A hypothetico-deductive approach is taken: hypotheses are deducted from the theoretical framework. Empirical evidence is assessed with testing of the hypotheses. The theoretical framework consists of a combination of theories: STAT, LEGT and institutions from Institutional Theory (INST). STAT is a theory that is designed to explain corporate behaviour in relation to a broad set of stakeholders. LEGT is a theory that is designed to explain corporate behaviour in relation to societal expectations.

Institutions are also part of the framework, as these institutions are societal issues that may have an impact on corporations. These institutions have been defined in INST. In this study INST explains which societal determinants exist, whereas STAT and LEGT explain how the institutional determinants are related to CSD levels.

This study applies a managerial outside-in approach to SA research, as defined by Burritt and Schaltegger (2010, p. 832). They identify two main paths to SA research, or in their words, "sustainability accounting and reporting" – a critical path and a managerial path. The managerial path consists of three approaches: the inside-out approach, the outside-in approach and the combination of these two, the twin-track approach. Inside and outside refer to the direction of sustainability accounting or SA in relation to the organisation: does the organisation influence the development of social or sustainability accounting (inside-out approach) or is the organisation influenced by social or sustainability accounting (outside-in approach)? They also mention the information flows that are organised and provided for managerial decision-making. In this study the information flows with regard to national contextual factors are studied on their relationship with CSD levels, which are based upon management decisions.

## 1.5 Corporate Dealings with Stakeholder and Legitimacy Issues

Accountability and legitimacy are important theoretical perspectives on FA, as is suggested by Deegan and Unerman (2006). From the perspective of the corporation, these concepts relate to the position of the corporation towards a social contract, as R. Gray *et al.* (1988, pp. 9-10) describe.

In this study, accountability and legitimacy of corporations are studied empirically and in a social context. Accountability and legitimacy have a normative basis, but in this study it is intended only to describe how corporations deal with these concepts in an instrumentalist manner.

Accountability is the moral duty of organisations in general and corporations specifically to be accountable for their actions, as it is defined by R. Gray *et al.* (1996, p. 38). This means that managers of organisations wish to be discharged of their responsibilities. They are held accountable by all stakeholders. Financial reporting plays a major role in accountability, which applies to accounting information for financial decision purposes. The discharge for the managers' responsibilities to all stakeholders, not just the ones with a financial interest, can be explained by other than FA theories, such as STAT. In this study there is a focus on the social aspects of accountability, which here is stakeholder accountability of the corporation or stakeholder accountability. Freeman (1984, p. 25) characterises a corporation's stakeholders as "all of those groups and individuals, that can affect, or are affected by, the accomplishment of organizational purpose".

Legitimacy is a wider, less concrete phenomenon. "Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions". Dowling and Pfeffer (1975, p. 122) state that "[o]rganizations seek to establish congruence between values associated with or implied by their activities and norms of acceptable behaviour in the larger social system of which they are part". They also mention that empirical evidence of organisational legitimacy supports a normative discussion on this topic. Suchman (1995) and Luft Mobus (2005) build on Dowling and Pfeffer's (1975) work.

Accountability and legitimacy of organisations, here with a focus on corporations, are related to Corporate Social Performance (CSP). CSD is assumed to support the accountability and legitimacy of corporations by disclosing CSP.

## 1.6 Brief Outline of this Dissertation

This dissertation is organised as follows. The next chapter, chapter 2, reviews prior research, which is applied as input for further parts of this study, until chapter 6.

In chapter 3 research methodology is discussed, which includes the philosophy of science in accounting and methods of research in FA and SA. SA research finds its basis in FA research.

Chapter 4 contains the development of the theoretical framework applied. The theoretical framework is a synthesis of several existing theories and concepts, which are related to the relationship between corporations and society. In chapter 5 the hypotheses are developed and in chapter 6 the research methods and data are discussed. After chapter 6 the autonomous analysis starts which continues the work of the prior chapters and without direct input from prior literature. Chapter 7 contains the results of the empirical study and the hypotheses testing. The concluding chapter 8 contains the conclusion, limitations and suggestions for further research.

## 1.7 Tool for Readers

Figure 1-1 is meant as a tool for readers to gain overview of this dissertation. The outline shows the chapters, sections and subsections and how these relate to the theoretical framework.

*Figure 1-1 Outline of the dissertation, with flow scheme of contents*

**Chapter 2 Review of prior Empirical Literature**

2.2 Empirical Studies on CSD Determinants

2.3 CSD Determinants Theoretically Explained

| 2.3.1 CSD Determinants and STAT | 2.3.2 CSD Determinants and LEGT |
|---|---|

2.4 Institutional CFD Determinants Outside-in

2.5 Institutional CSD Determinants Outside-in

2.6 Institutional CSD Determinants Inside-out

**Chapter 3 Research Methodology**

3.2 Accounting Research Methodology

3.3 Financial Accounting Research Paradigms

3.4 Social Accounting Research Methodology

3.5 International Comparative Research Methodology

**Chapter 4 Towards a Theoretical Framework**

4.2 General Systems Theory and the Corporation-Society Relationship

| 4.3 STAT | 4.4 LEGT |
|---|---|

4.5 Institutional Theory

4.5.1 Economic Institutions

4.5.2 Social Institutions

4.5.3 Political Institutions

4.6 International Theoretical Issues

4.7 Synthesis of the Relevant Theories into the Theoretical Framework

*Figure 1-1 Outline of the dissertation, with flow scheme of contents, continued*

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5.3 Theoretical Framework from Chapter 4

5.4 Research Questions related to Economic Institutions

| | |
|---|---|
| 5.4.1 Economic Institutions and STAT | 5.4.2 Economic Institutions and LEGT |

5.5 Research Questions related to Social Institutions

| | |
|---|---|
| 5.5.1 Social Institutions and STAT | 5.5.2 Social Institutions and LEGT |

5.6 Research Questions related to Political Institutions

| | |
|---|---|
| 5.6.1 Political Institutions and STAT | 5.6.2 Political Institutions and LEGT |

5.7 Development of Hypotheses

| | |
|---|---|
| 5.7.1 Economic Institutions and STAT | 5.7.2 Economic Institutions and LEGT |
| 5.7.3 Social Institutions and STAT | 5.7.4 Social Institutions and LEGT |
| 5.7.5 Political Institutions and STAT | 5.7.6 Political Institutions and LEGT |

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*Figure 1-1 Outline of the dissertation, with flow scheme of contents, continued*

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|---|---|
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| 7.2 Descriptive Statistics and Correlations | |
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| 7.4 Multivariate Analysis with Regression Models | |
| 7.4.1 Economic Institutions and STAT | 7.4.2 Economic Institutions and LEGT |
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|---|
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– STAT is Stakeholder Theory.
– LEGT is Legitimacy Theory.

# 2 Review of prior Empirical Literature

## 2.1 Introduction

This study builds on knowledge, which is found in prior literature. This chapter contains discussions on prior empirical studies that have been selected as relevant for this study. The discussion on prior literature supports the theory and hypothesis development and the operationalisation of hypotheses.

The approach of this study is an outside-in approach, as defined by Burritt and Schaltegger (2010, p. 832). Outside-in relates to the outside institutional context of corporations that influences the inside of organisations. The 'inside' is in this study the CSD decision by corporations.

Prior empirical studies are discussed in this chapter that are relevant for their approach and for their search for national contextual factors that relate to managerial social disclosure decisions. For a complete overview of the field of research, studies that apply an inside-out approach in SA and equivalent studies in the field of FA research are also discussed.

In this study the institutional determinants are related to legitimacy and stakeholder issues with an outside-in approach. The outside of this study is the national level of institutional characteristics that are related to stakeholder and legitimacy issues with regard to corporations.

The studies on institutional disclosure determinants are discussed in detail up to determinant level, as these may serve as examples for this study for variable operationalisation.

Unless mentioned otherwise, the financial and social disclosure studies discussed focus on voluntary disclosures, as these are discretionary to corporate managers and therefore studied in FA and SA research.

This chapter contains seven sections, of which the brief contents are given hereafter. Section 2.2 contains a discussion of studies on inside corporate characteristics as determinants of CSD. These studies contain searches for corporate determinants that may have an effect on the outside, which means an inside-out approach. The outside, as is seen by Burritt and Schaltegger (2010, p. 833), is the development of social or sustainability accounting, or a certain institutional factor.

Section 2.3 contains a discussion of studies on CSD determinants that apply a clear theoretical foundation in SA research. For each study the approach and the relationship with institutional factors is discussed, which is analysed further in sections 2.4 to 2.6.

Section 2.4 contains a discussion on studies on institutional determinants of corporate financial disclosures (CFD) with an outside-in approach.

The outside elements of those studies are relevant as they are institutional factors, although they are related to CFD levels.

Section 2.5 contains a discussion on studies that search for institutional CSD determinants with an outside-in approach. CFD studies with an inside-out approach are omitted from this study, as they are irrelevant to this study; neither the field of research, nor the approach is used in this study. Section 2.6 contains a discussion of studies on institutional CSD determinants with an inside-out approach. Section 2.7 contains the summary of the chapter.

Studies that apply the outside-in approach without the search for relationships between disclosures and institutions are omitted from this study, as only outside societal institutions are seen as being relevant for this study. Also, CFD studies that search for the relationship with institutions with an inside-out approach are seen as irrelevant for this study.

Regarding the application of theories, the following can be said: STAT and LEGT have been applied in two combinations:

1. Inside-out, without the study of relationships between disclosures and institutions.
2. Outside-in, including the study of relationships between disclosures and institutions.

STAT and LEGT have been applied in both combinations.

From an operationalisation viewpoint, the articles mentioned in section 2.5 are the most relevant examples for this study. Theories play a role in the classification of the literature studied. All theories are explained in chapter 4. All theories applied and the research fields of the studies discussed in this chapter are shown in table 2-1.

*Table 2-1 Theories applied and fields of research/research paradigms*

| **Theories applied** | **Fields of research/paradigms** |
|---|---|
| STAT | SA, FA and Management research |
| LEGT | SA research |
| INST | SA research and Economics |

- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.
- SA is Social Accounting.
- FA is Financial Accounting.

All studies discussed are part of two separate, but related, research paradigms: an FA research paradigm[2] and the SA research paradigm. These paradigms are discussed in chapter 3, section 3. In that section a full overview of the relevant fields of accounting research is provided, including a description of the reasons of relevance for this study. The aforementioned categorical distinctions are found in several combinations.

The studies in sections 2.4 to 2.6 have in common the study of relationships between disclosure levels and institutions. The studies in sections 2.4 and 2.5 have in common the outside-in approach. The studies in 2.3.1 and 2.3.2 have in common the application of theories STAT and LEGT. In brief, the systems-oriented theories STAT and LEGT are the main theories for SA and CSD studies and the study of institutions is a step towards a society-wide analysis of national institutional determinants of CSD.

The discussion of prior literature is done by summarising each study and by mentioning research objects, research approach, research paradigm and theories applied. In between the discussion of each study I place brief personal comments. My comments also show developments over time from study to study. All studies are empirical. In the event that these searched for disclosure determinants, the confirmation of the associations is based upon statistical significance.

## 2.2 Empirical Studies on CSD Determinants

The first studies that are discussed in this section are also the earliest studies over time. These studies show a lack of theory or a theory that is underdeveloped. Later studies clearly apply STAT or LEGT. The studies that clearly apply STAT and LEGT are discussed in separate subsections of this section. STAT and LEGT are generally applied to explain empirical data on CSD determinants. The theories have been under development since the 1970s (R. Gray *et al.*, 1995, p. 56). The research objects of some of the studies relate to the search for institutional determinants, which are also discussed later. The CSD determinant studies in this section are distinguished by the following characteristics:

- Research objects: CSD determinants from an organisational perspective.
- Research approach: Inside-out.
- Research paradigm: SA research.
- Theories applied: None for the earlier studies, later STAT or LEGT.

The studies discussed in this section are:

(1) Trotman and Bradley (1981).
(2) Cowen *et al.* (1987).
(3) Belkaoui and Karpik (1989).
(4) R. Gray *et al.* (1995).
(5) R. Gray *et al.* (2001).

(1) One of the earlier studies in the field of empirical research for CSD determinants is performed by Trotman and Bradley (1981). They developed an operationalisation method for this type of studies. Trotman and Bradley's (1981) study lacks a well-developed theoretical framework, but

applies some minor theoretical reasoning with their application of the size hypothesis from Positive Accounting Theory (PAT), also known as the political cost hypothesis. Based on previous studies, they build a model to investigate the associations between CSD and corporate characteristics. Their model is an explanatory model for "the amount of social responsibility disclosure" (Trotman and Bradley, 1981, p. 358). The amount of disclosure is measured by the number of lines in the annual report of the sample corporations. Their data are not clearly time-bound. They find that corporations that publish "corporate social responsibility information" (Trotman and Bradley, 1981, p. 361) show positive associations between the amount of that information, which is based upon content analysis, and all of the following variables:

- Company size, which are total assets and total sales.
- Systematic stock risk, stock beta, which is assumed to be reduced by disclosing social information.
- Social pressure, which is based upon corporation's perception, data gathered by questionnaires, which may cause CSD level to rise.
- Management's decision horizon, which relates to CSD levels positively, is measured by questionnaires.

Further studies build on Trotman and Bradley´s (1981) work, to be discussed in chronological order. As in Trotman and Bradley (1981), in the next study no clear theory is applied.

(2) Cowen *et al.* (1987) look for corporate patterns in CSD without a theoretical foundation. They build a model to explain the associations between "corporate social responsibility disclosures" (Cowen *et al.*, 1987, p. 111) and corporate characteristics. The characteristics studied are industry, return on equity, company size and the existence of a social responsibility committee, which explain the "number of total disclosures".[3]

Cowen *et al.*'s (1987) work is cited often, but lacks the (theoretical) depth to be useful for this study. The studies discussed next do contain the application of a theoretical framework, which is developed further over time.

(3) Belkaoui and Karpik (1989) develop and test a model to explain management's decisions on CSD levels in relation to economic performance and social performance. They call it a 'positive model' (Belkaoui and Karpik, 1989, p. 36). They state that previous studies show inconsistent results, because the operationalisation and conceptualisation of these studies differed. They view their model as an attempt to correct the limitations of prior research (Belkaoui and Karpik, 1989, p. 38). The limitations they mention are a lack of theory and theoretical framework and the diversity of data analysed by others.

Their model contains social and economic performance indicators and political visibility. Social performance is measured by ranking of corporations by managers, who are asked for this information, but it is unclear exactly what that information is. Economic variables are the level of dividends and leverage. Political visibility is represented by company size; large corporations are expected to be affected by political decision-making.

Important parts of Belkaoui and Karpik's (1989) model are difficult to interpret, as is mentioned by Hackston and Milne (1996, p. 82). The theoretical framework for SA determinants studies is developed further towards the systems-oriented framework in the next study by R. Gray *et al.* (1995).

(4) R. Gray *et al.* (1995) study CSD from the United Kingdom (UK) longitudinally. A major part of the study consists of a discussion of the applicability of theories. Political Economy (PE) is found to be the explanatory basis for CSD. They state further that STAT and LEGT provide insights on empirical CSD findings, taking an organisational perspective. This application of theories is additional to a PE theory, which implies a broader than organisational perspective, a societal perspective. They find changes in CSD levels, over a period in which UK society changed from less shareholder orientation into a society with a stronger market or shareholder orientation, after political changes in the 1980s.

This study by R. Gray *et al.* (1995) is the first in this study in which they apply a system-theoretical framework with PE, STAT and LEGT. In the next study a further theoretical development towards LEGT appears.

(5) R. Gray *et al.* (2001, p. 329) apply UK corporations' characteristics as explanatory variables that had been studied in prior studies. They state that there is a "convergence of opinions derived from very different theoretical perspectives". The theories they mention are agency theory, LEGT and Marxian PE. They conclude that company size, profit and industry are related to CSD, which, they state, is predicted by those theories. They further state that the relationships are never unique and stable over time.

Summarising this section, it is shown that some trends have appeared. The discussion of the prior literature is done in a sequence of year of publication in order to be able to find those trends. The major development that can be seen in this section is the increased importance of theory application. R. Gray *et al.* (2001) mention that a combination of theories is probably the best framework to describe determinants of CSD.

On an operational research level, it can be concluded that company size is clearly confirmed to be an important predictor of CSD levels in many studies, for example by Trotman and Bradley (1981). Most early studies from the 1980s researched inside-out. Long-term management view, profitability and systematic stock risk have been studied as determinants. The main reasoning for the assumed association between the inside corporate characteristics and CSD levels are organisation-centred shareholders' wealth creation views. In further studies the application of societal theories shows the need for a development towards a framework to analyse CSD determinants.

In the studies in this section a development over time of theory application is seen. In the next section I discuss studies that have a clear theoretical basis.

## 2.3 CSD Determinants Theoretically Explained

CSD determinants are explained in prior literature by STAT and LEGT. In this section studies are discussed that apply STAT and LEGT. Subsection 2.3.1 contains a discussion on the studies that apply STAT and 2.3.2 on studies that apply LEGT.

The CSD determinant studies in this section are distinguished by the following characteristics:

– Research objects: CSD determinants.
– Research approach: not distinctive.
– Research paradigm: SA research.
– Theories applied: STAT or LEGT.

### *2.3.1 CSD Determinants and Stakeholder Theory*

In this section, studies for CSD determinants are discussed that apply STAT, shown in a chronological order. The studies discussed in this section are:

(1) Ullmann (1985);
(2) Roberts (1992);
(3) Tilt (1994);
(4) Adams (2002);
(5) Van der Laan Smith *et al.* (2005);
(6) Kolk (2008);
(7) Simnett *et al.* (2009);
(8) Orij (2010).

(1) The discussion of studies that apply STAT starts with Ullmann in 1985. His study is a reaction to previous studies. He criticises those prior studies as they lack theory, with his remark that "data are in search of a theory" (Ullmann, 1985, p. 540). Ullmann's 1985 study is a starting point for the field of research in which relationships between social and financial issues in companies are studied. He clarifies the status of prior research, and constructs a contingency framework for relationships between CSD, Corporate

Financial Performance and CSP. The contingency framework contains three dimensions to explain social performance and CSD levels:

1. Stakeholder power;
2. Strategic posture;
3. Economic performance.

He takes an inside-out approach, by addressing internal corporate issues, that affects SA in society, or in other words, outside.

Ullmann's study (1985) is the first that clearly applies STAT. His study has been cited in the field of SA research by Roberts (1992) and in the field of management research by Mitchell *et al.* (1997).

Ullmann (1985) was only mentioned very briefly in the STAT review study by Freeman *et al.* (2010, pp. 93 and 238). In the field of SA, specifically the studies that are discussed in this section mention Ullmann's (1985) work. In this subsection the stakeholders' issues are discussed.

(2) Roberts (1992) appreciates Ullmann's model for application in his study for CSD determinants. He states that CSD activities by corporations are part of the larger group of activities that is called corporate social responsibility (CSR). His purpose is the operationalisation of Ullmann's (1985) model. He builds a model containing the three dimensions by Ullmann (1985). He links Ullmann's (1985) model to STAT by applying stakeholder-related variables. Roberts (1992) describes stakeholder issues as input for strategic management decisions, as suggested by Freeman (1984). Roberts' study applies STAT in an organisation-centred manner.

1. He chooses three proxies to represent stakeholder power:
   a) The percentage of the corporation owned by large shareholders or management, which stands for the "potential stakeholder power of passive investors" (Roberts, 1992, p. 601). It is assumed that wide dispersions of shares relates to high levels of CSD.
   b) The amount of dollars paid as contributions to political campaigns, which shows the responsiveness to political, legislative and regulatory risks.
   c) The debt ratio, which represents the suggested influence by creditors, which are financial stakeholders.
2. For strategic posture Roberts (1992) applies two proxies:
   a) Number of staff in public affairs departments;
   b) The sponsorship of a philanthropic foundation.
3. Economic performance is included in his model in two ways:
   a) Return on equity, especially the return on equity of the previous year. Low returns on equity may increase the priority of profit over social issues.

b) Beta or systematic stock risk. Low stock volatility or stable stock prices in comparison to the market causes Beta to be low and vice versa. A stable stock performance may enhance the corporations' involvement in CSR.

Roberts (1992) confirms that STAT can be applied to analyse levels of CSD as he shows an effect on CSD levels from the impact of prior economic performance, strategic posture concerning CSR activities and the strength of stakeholder power.

Roberts' (1992) study has been cited often as an example of a study that assesses the theoretical framework by Ullmann (1985). The development of further studies takes several different directions after Roberts' (1992) study. The link between stakeholders and CSD levels is studied in all articles in this section.

(3) Tilt (1994) studies the influence of a type of stakeholder, the external pressure group, on CSD. She states that she is the first to find evidence of pressure groups having potential influence on CSD. Tilt (1994) takes an outside-in approach to assess the pressure of stakeholder groups.

No clear trend can be found with regard to the approach – inside-out or outside-in. The next studies take different approaches. Sometimes external stakeholder issues are studied and in other studies internal issues in relation to stakeholders.

(4) Adams (2002) studies internal organisational factors that influence CSD, in combination with general contextual factors. These factors are similar to institutional factors. Adams (2002) applies STAT implicitly, by taking into account stakeholder involvement and accountability. These issues tested are part of a larger framework of factors influencing CSD. The general contextual factors that she tests are related to the institutional factors from INST. For a further discussion on this study, see also section 2.5.

STAT is developed further in some of the next studies into the direction of a society-wide theory, including institutional aspects. A move towards outside-in approaches becomes visible.

(5) Van der Laan Smith *et al.* (2005) relate CSD to stakeholder issues, culture and corporate governance. That study is further discussed in section 2.5, as Van der Laan Smith *et al.* (2005) apply culture and corporate governance as institutional factors with an outside-in approach and in a comparison between nations. The study applies a combination of STAT, the national culture dimensions framework by Hofstede,[4] and corporate governance theory in an international comparison. They also mention S. Gray's hypotheses that relate culture to accounting. Van der Laan Smith *et al.* (2005) apply

STAT from a national perspective, which differs from the organisation-centred perspective (Gray *et al.*, 1995, p. 49), although they studied organisational stakeholders. Van der Laan Smith *et al.* (2005) relate a stakeholder orientation of societies, which is found in code law nations, with a stronger position of individual stakeholders towards individual corporations through higher salience of the stakeholders' needs. These concepts from STAT are discussed in chapter 4, section 3.

The study by Van der Laan Smith *et al.* (2005) contains a search for institutional CSD determinants with an outside-in approach, which is the same approach as this study applies. The next study is a STAT-study with an inside-out approach.

(6) Kolk (2008) describes multinationals' reporting practices in relation to stakeholder accountability and corporate governance. There is no focus on a specific type of stakeholder. She finds an increased level of corporate governance information, which is related to the level of sustainability information. Based on the relationship found, she suggests that increased corporate governance information shows a desire of corporations to improve their accountability and transparency.

The next study partly studies the same institutional determinants as Van der Laan Smith *et al.* (2005) – culture and legal origin with an outside-in approach with a broad societal application of STAT.

(7) Simnett *et al.* (2009) study determinants of assurance of sustainability reports. They apply company, industry and national institutional factors. They include the institutional factor quality of legal origin, as determined for a World Bank report (Kaufmann *et al.*, 2009), and the distinction between stakeholder and shareholder orientation of nations, for which the proxy legal origin is used. The distinction between the legal origins is code law or common law. They state that the business culture in a nation partly determines the demand for CSD assurance. Part of the business culture is in their view determined by the above-mentioned stakeholder and shareholder orientation of nations. They further state that in stakeholder-oriented national societies, stakeholder groups have legitimate interests in business activities. They conclude that the distinction between stakeholder and shareholder orientations partly determines choices on assurance of sustainability reports. They add industry as one of the explanatory variables, based upon prior literature. They include corporate characteristics company size by the natural log of sales, return on assets and leverage, based upon prior literature. This study has characteristics which relate to the issues I discuss in section 2.5.

Simnett *et al.* (2009) is not a CSD determinant study, but the approach is similar to this study. Outside determinants affect the inside decision, in this case the assurance decision.

As the previous two studies, the next study relates the institution culture to CSD levels with an outside-in approach with a broad societal application of STAT.

(8) Orij (2010) relates CSD levels to culture by applying STAT on a national level. CSD levels are confirmed to be related to Hofstede's cultural (1983, 2001) dimensions and S.J. Gray's (1988) and Gannon's (2001) cultural constructs. The outcomes of Orij (2010) are integrated in this study. The study is based upon Van der Laan Smith *et al.* (2005). Orij (2010) is further discussed in section 2.5.

In the summary and synthesis of the studies that apply STAT, the conclusion can be drawn that different approaches and different operationalisations of theoretical concepts have been applied. The studies that apply STAT have not developed a standard framework based upon academic consensus, but several different viewpoints on STAT have arisen. This is discussed further in chapter 4, section 3. Ullmann (1985) builds a contingency model that is later applied as a stakeholder model by Roberts (1992). The explanatory model by Roberts (1992) is an attempt to operationalise Ullmann's (1985) model. Some critique can be given on the modelling. Specifically strategic posture cannot fully be covered by its proxies. A very broad concept like strategy is covered by very specific stakeholder data, the sponsoring of a philanthropic foundation and number of public affairs staff, which do not clearly entail a full stakeholder strategy. The application of STAT with an inside-out approach and descriptive manner, as done by Roberts, may need further analysis. The development of STAT puts these studies in this subsection into a clearer perspective – in which way researchers think that STAT can be applied. See for a discussion on theory application R. Gray *et al.* (1996).

STAT can be applied in a general way, similar to Van der Laan Smith *et al.* (2005) and Simnett *et al.* (2009), where a stakeholder orientation of a society means a social orientation of society. Van der Laan Smith *et al.* (2005) combine stakeholder orientation and corporate governance systems. Neither Van der Laan *et al.* (2005) nor Simnett *et al.* (2009) have operationalised STAT up to the level of specific stakeholder variables, but only the proxy legal origin. Legal origin serves as a proxy for the stakeholder orientation of society. It can be argued that this application of STAT from a national perspective causes a level-mismatch.[5]

In an organisation-centred application of STAT, types of CSD need to be associated with its specific stakeholder audience and the salience of these stakeholders' needs. The influence on CSD levels by the relationship between the corporation and specific stakeholders has not been explained clearly. In particular, accountability issues have not been clearly described in the literature here discussed, although accountability is an important stakeholder issue to be explained by STAT.

Next to STAT, the other often- applied systems-oriented theory is LEGT. Studies that apply LEGT are discussed in the next subsection.

### *2.3.2 CSD Determinants and Legitimacy Theory*

LEGT has become a major theory in SA, as is shown by Deegan and Unerman (2006). The development of LEGT as an explanatory theory of CSD levels is shown in this subsection. Studies for CSD determinants that apply LEGT are performed by:
(1) Patten (1991)
(2) Patten (1992)
(3) Hackston and Milne (1996)
(4) Adams *et al.* (1998)
(5) Neu *et al.* (1998)
(6) Wilmshurst and Frost (1999)
(7) Milne and Patten (2002)
(8) O'Donovan (2002)
(9) Newson and Deegan (2002)
(10) Deegan *et al.* (2002)
(11) Campbell (2003)
(12) Campbell (2004)
(13) Luft Mobus (2005)
(14) Magness (2006).

(1) Patten's two studies (1991, 1992) apply LEGT to explain the revealed associations. The 1991 study is a general study on CSD and the relation to the corporation's legitimacy. Patten's (1991) study focuses on corporate characteristics in relation to the CSD levels, with an inside-out approach. The 1991 study focuses on the distinction between economic and public pressure motives. Company size and industry classification are related to CSD levels, Patten (1991) states, which is seen as a confirmation of LEGT. Patten's (1991) research objective is to search for confirmation of legitimacy as a societal phenomenon in comparison with market-based determinants of CSD.

LEGT is not developed in much detail when applied by Patten (1991). The next study can be seen as a practical application of LEGT from the previous study.

(2) Patten's 1992 study is an event study on the Exxon Valdez Alaska disaster and the effects on CSD as explained by LEGT. In Patten's 1992 study a regression model is confirmed, which assesses a relationship between the change in 1988-1989 of the average environmental disclosures, company size, natural logarithm of 1989 revenues and a dummy variable related to the ownership of an Alaskan oil pipeline. The main CSD determinant in this study, which is derived from LEGT, is company size, combined with the sensitivity of the industry with regard to legitimacy issues.

Since the two studies by Patten (1991 and 1992), company size has been the main CSD determinant derived from LEGT. LEGT is again applied in the next study.

(3) Hackston and Milne (1996) investigate CSD practices of listed New Zealand corporations. New Zealand companies make most CSD on human resources and also considerable amounts of environment and community CSD. Corporate characteristics company size and industry are confirmed to be related to CSD levels. They find that the combination of these two characteristics interact in relation to CSD. The single characteristics are not related to CSD levels. They also find an indication that overseas listings other than the New Zealand stock exchange listing may be related to higher CSD levels.

Company size and industry are confirmed to be the main determinants related to corporate legitimacy. The application of LEGT as an explanatory theory of CSD levels is further developed.

(4) Adams *et al.* (1998) focus on the legitimisation of corporate behaviour by the provision of CSD in annual reports in six Western European nations. They find that several factors influence CSD levels. The factors are company size, industry and country-specific differences. The country-specific differences are not studied by them in detail. They suggest that the social and political context in nations have an impact on motives for CSD, which relate to the differences between the nations. They discuss (without further analysis) the effect of strong trade unions, strength of government, signing of the EU social charter and works council and the strength of environmental pressure groups (see Adams *et al.*, 1998, p. 17). They also state that their results show that voluntary CSD is not related with CSR or accountability, but it is meant to enforce a free market by influencing government policy and government not having to introduce any social legislation.

Adams *et al.* (1998) add a broad societal approach to the application of LEGT, in addition to company size and industry. The addition of new elements of the empirical testing of LEGT continues, especially the concept of relevant publics for organisational legitimacy.

(5) Neu *et al.* (1998) study organisational legitimacy and the influence of the different relevant publics on the level of environmental disclosures in Canada. They define their relevant "publics"[6] as financial stakeholders, government regulators and environmental pressure groups. They study organisational legitimacy within specific institutional domains and the related disclosure strategies.

The relevant publics in relation to corporate legitimacy, as defined by Neu *et al.* (1998), relates LEGT to STAT, as the relevant publics are separate stakeholders.

The application of LEGT in positive tests continues, including the confirmation that LEGT is an applicable theory in SA research.

(6) Wilmshurst and Frost (1999) test LEGT for environmental reporting by Australian corporations. They state that in the past, LEGT has never been supported by prior research. In their study they find limited support for LEGT, as they find only some significant relation between the importance of the factors that determine the decision to disclose environmental information and the actual level of CSD. Data on the importance of the factors to disclose are directly gathered from corporate managers by questionnaires. They state that if the importance of the factors as experienced by managers relates with the actual CSD, LEGT is supported. In that case CSD is applied as a tool to legitimise corporate activities.

So far in this dissertation, the investment decision usefulness has not been studied yet, but this is done in the next study in a combination with legitimacy issues.

(7) Milne and Patten (2002) study the legitimating effect on investors of environmental disclosures related to chemical firms' liabilities for toxic waste legal responsibilities. Data are gathered through an experimental investment scenario. They include Superfund-related issues (Milne and Patten, 2002, p. 385). Superfund is a popular name for the 1980 Comprehensive Environmental Response, Compensation, and Liability Act. Milne and Patten (2002) assess the effect of Superfund legislation on fictitious investment decisions of positive and negative environmental disclosures, in combination with financial information. Their results confirm an association between investment strategies and environmental disclosures. Positive disclosures diminish the effects of negative toxic waste liability information on long-term investors.

Milne and Patten (2002) combine a market-based research approach related to decision usefulness with legitimacy issues. Decision usefulness related to legitimacy is further studied in the next study.

(8) O'Donovan (2002) interviewed managers and draws conclusions on the applicability of LEGT. His purpose is to refine LEGT by looking for links between CSD levels in the annual report. He further searches for choices of legitimating tactics and whether the purpose of CSD is to "gain, maintain or repair legitimacy" (O'Donovan, 2002, p. 346). Providing a positive view of the corporation is a general objective of the corporations studied, which, he states, undermines the decision usefulness of the information for stakeholders.

O'Donovan shows opposing conclusions compared with Milne and Patten (2002) is decision usefulness relevant as a determinant of CSD levels? This remains unclear. LEGT has been applied on an organisational level in studies that have been discussed so far, but is applied nationally in the next study. Institutional aspects on a national level are assessed, with this national perspective with an outside-in approach.

(9) Newson and Deegan (2002) present a study on the global expectations in society in relation to the CSD policies of large companies in a comparison between three nations. LEGT is applied to explain the findings. They state that the organisational legitimacy of a corporation can be threatened if the corporation's social performance or CSD does not meet society's expectations, or specifically their relevant publics' expectations. These expectations are taken from prior studies, which are measured through survey questionnaires that are sent to Non-Governmental Organisations (NGOs) all over the world. For their study they only select expectations for which the corporations studied can be held fully accountable. Content analysis is used to count the number of relevant CSD. They identify eight categories of CSD:

1. Environment.
2. Energy.
3. Diversity.
4. Fair business practices.
5. Human resources.
6. Community.
7. Products.
8. Other CSD.

They study 148 corporations from Australia, Singapore and South Korea. These nations are chosen on the basis of data availability and differences in their national cultures. They study differences between CSD levels of the corporations from these three nations and the legitimacy gaps, the difference between the expectations and the actual level of CSD. They confirm that international disclosure determinants by multinational corporations relate to the corporations' nation of origin and not to the global presence of these corporations. They also show that global expectations only relate to CSD levels with globally operating corporations. See also section 2.5.

The different categories identified by Newson and Deegan (2002) suggest a relationship between legitimacy and stakeholder issues, but they only briefly mention this (Newson and Deegan, 2002, p. 192). The previous study relates legitimacy issues to a large group of corporations, which is the usual way of doing research in accounting. The next study is a case study.

(10) Deegan *et al.* (2002) study environmental disclosures by BHP longitudinally, to assess the relationship between the social contract and LEGT. BHP is a large Australian public corporation. The social contract is suggested to relate to social expectations. They provide evidence that larger media exposure increases CSD levels, especially to improve the public opinion regarding the corporation from negative to positive. It remains questionable whether CSD does what it is meant to do, which is the legitimisation of corporate activities, as LEGT suggests.

As Deegan *et al.* (2002) only study a single corporation, doubts can be raised on the generalisability of the results. In the next two studies Campbell assesses LEGT in two ways, longitudinally assessing CSD and one with a focus on the assessment of LEGT with the use of sector data.

(11) Campbell (2003) performs a longitudinal analysis of environmental disclosures. His analysis is cross-sectional for 10 UK-based corporations. He concludes that variability between sectors may be caused by differences in perceived needs to legitimating environmental disclosures. He also states that prior literature suggests that LEGT can be supported, if corporations respond by changing their CSD levels in response to opinions in society. These CSD level changes are observable by differences over time or between sectors or industries.[7]

(12) Campbell's 2004 study contains five sector studies and he assesses the sectors' need for legitimacy: retail, brewing, petrochemical and chemical. He states that LEGT may be supported if at least one of the two following criteria is apparent:

- Voluntary disclosure of a certain type responds to societal opinions of the stakeholder, whose interests are related to the contents of the type of CSD.
- Some sectors are likely to be more strongly influenced by certain types of voluntary disclosures.

Sector (or industry) has been studied before by Adams *et al.* (1998). The institutional issue of law is added next to a test of LEGT in a study of sector differences. It builds on prior work by others, including Patten (1991 and 1992).

(13) Luft Mobus (2005) is also partly discussed in section 2.5 about studies on institutional CSD determinants. The testing of LEGT in combination with legal issues is done with a model explaining environmental performance by mandatory environmental disclosures and control variables. The model also contains variables of economic performance and company size of the petrochemical corporations studied. Economic performance is entered into the model because prior literature that she studied suggested it. Economic performance is also as a control variable. The company size variables are entered as proxies for complexity of the corporate activities studied, as complexity is assumed to increase environmental management effort (Luft Mobus, 2005, p. 504). The proxy for economic performance is the capacity utilisation of the refinery studied. Luft Mobus' model shows a positive association between mandatory disclosures and LEGT. She concludes that LEGT explains corporate responses to legitimacy-negative mandatory disclosures, if corporations are forced to show any bad environmental performance. The response is to repair the environmental damage and not having to publish any negative mandatory disclosures in the future. See also section 2.5.

Luft Mobus' (2005) study is unique in the search for associations between legal issues, corporate legitimacy and CSD. A different direction is taken in the next study, which is a study that applies LEGT with an element of STAT.

(14) Magness (2006) performs a test on LEGT in combination with the issues mentioned by Ullmann (1985), which applies STAT. Magness (2006) focuses on the testing of strategic posture, one of the elements of Ullmann's contingency framework. The variables tested are similar to studies which solely apply LEGT, and she adds the STAT element of the strategic posture variable. Corporate press release level is the proxy of strategic posture. The relation to LEGT is established through her remark: "Legitimacy Theory was subsequently integrated into accounting literature as a means of explaining what, why, when and how certain items are addressed by corporate management in their communication with outside audiences" (Magness, 2006, p. 542). She states that corporate communication is a tool to legitimise corporate activity.

In summary, the studies in this subsection show the significance of corporate characteristics as CSD determinants and the applicability of LEGT in explaining CSD levels. CSD studies that apply LEGT provide input for this study by the way that theory is applied and by the operationalisation of theoretical concepts. LEGT assumes that corporations react by issuing CSD on the basis of a negative opinion in society in order to increase their organisational legitimacy. Certain sectors, large media attention and company size are the most often applied operationalisations of organisational legitimacy. LEGT assumes reaction, not a pro-active attitude. STAT differs from

LEGT in this perspective. STAT and LEGT are often applied to explain CSD with an inside-out approach. STAT implies that corporations want to be held accountable for their actions in a field related to a certain stakeholder, not specifically aimed at regaining legitimacy. This assumes a pro-active CSD. The two theories have been applied complementarily, especially by Deegan *et al.* (2002). Legitimacy is a moral concept that relates to society as a whole. Organisational legitimacy is a descriptive framework for CSD and certain CSP levels, as is suggested by prior studies. LEGT is further discussed in section 4.4.

The discussed studies that apply LEGT use inside-out or inside-out approaches.

The focus of this section is on the application of theory. The next section has its focus on the research on institutions as determinants of disclosure levels.

## 2.4 Institutional CFD Determinants Outside-in

Some FA studies, specifically studies that explain levels of CFD with the use of institutional aspects, apply an outside-in approach. This category of studies on institutional CFD determinants contains the following studies:
(1) Belkaoui (1983).
(2) S.J. Gray (1988).
(3) Ball *et al.* (2000).
(4) Jaggi and Low (2000).
(5) Archambault and Archambault (2003).
(6) Hope (2003b).
(7) Hope *et al.* (2008).

These studies are distinguished by the following characteristics:
– Research objects: Disclosure determinants.
– Research approach: Outside-in. The studies search for institutional determinants of disclosures.
– Research paradigm: FA research.
– Theories applied: Theories that relate to institutional factors, such as national culture dimensions by Hofstede, or in one case STAT, Ball *et al.* (2000).

(1) Belkaoui (1983) studies a combination of economic, political and demographic issues in relation to financial reporting and disclosure adequacy of nations. He calls these issues environmental factors (1983, p. 207). Other studies call the same factors institutional factors, as do Ball *et al.* (2000, p. 1). Reporting and disclosure adequacy measures are based upon prior literature. A score has been developed for 55 nations with a list of 267 accounting

principles and reporting practices. The single score applied is an equal addition of all 267 scored items. The score represents the "willingness by a given nation to adhere and enforce 267 accounting principles and practices deemed necessary for enhancing the quality of accounting practice and helping move forward toward a greater degree of harmonization" (Belkaoui, 1983, p. 213). The institutional factors are operationalised and measured with factors that are grouped in three environments, as he calls them:

1. Economic.
2. Political.
3. Demographic.

The environments are subdivided into smaller sections, which are mentioned below.

1. The economic environment has an effect on the development of accounting systems, because accounting is seen as "a valuable tool for promoting the development process" (Belkaoui, 1983, p. 210). The economic environment identified contains several factors:
   a) Economic system, which could range on a 1-4 scale from capitalist to socialist, depending on the level of market orientation, individual pursuit of welfare and size of the government apparatus, as it was in 1978, by Freedom House.[8] These scores have changed drastically since the collapse of a large part of the communist political system around 1990.
   b) Per capita Gross National Product (GNP).
   c) Income growth rate.

Belkaoui (1983) suggests, based on prior literature, that high per capita GNP, high income growth and high economic and political freedom relate to an improvement of adequacy of reporting and disclosure. Government expenditures over GNP relate to large government interference, which relates to an increase of levels of adequacy of reporting and disclosure, Belkaoui (1983) states. He also states that a higher level of GNP leads to a higher level of exports, which relates to higher need for improved reporting, because more export and free trade associations create more cooperation between nations.

2. The political environment contains three factors, which Belkaoui (1983) calls civil and political indicators:
   a) Political rights, for which the Freedom House scores are applied. These rights are scored by Freedom House on the basis of the right to play a role in government.
   b) Civil freedom, for which the Freedom House scores are also applied, and which has its basis in the rights of the individual in the justice system and the rights of free speech.
   c) Political system, of which the score is settled on the basis of the Freedom House scores of political structure index and which ranks nations with a multiparty system to no political parties.

Belkaoui (1983, p. 209) states that "political repression involves a general loss of freedom which may hinder to some extent the development of the profession of accounting".

3. Belkaoui's (1983) demographic environment is scored by the size of the population, with the argument that a larger population means more potential accounting professionals. Belkaoui's (1983) outcomes are disappointing in confirming the suggested hypotheses. Only the size of government expenditures relates to reporting and disclosure adequacy.

The previous study contains many outside determinants that are studied for their effects on CSD levels. Some of these determinants are institutional. These are relevant for this study, as this is an outside-in study for institutional determinants.

A trend towards studying certain institutional determinants of financial disclosures can be seen in the next six studies: culture is a much studied institutional factor, which is further associated with legal origin and corporate governance systems.

(2) S.J. Gray (1988) proposes a model to assess the influence of culture on accounting issues applying Hofstede's (1983) national culture dimensions. A discussion on S.J. Gray's (1988) study is done in chapter 4, section 5, for the elaboration on culture as a theoretical phenomenon. The accounting issues in the model are "the development of accounting systems, the regulation of the accounting profession and attitudes toward financial management and disclosure" (S.J. Gray, 1988, p. 1). S.J. Gray (1988) states that culture is an important factor in the analysis of changes of social systems. Accounting is also a social system,. In particular, the definition of accounting values and how these values are related to cultural values has helped in the operationalisation of suggested theoretical relationships in later studies.[9] He clearly states that the model he designed is a proposal that needs to be tested in further research.

The testing of S.J. Gray's model is done in studies by Jaggi and Low (2000) and Hope *et al.* (2008) in the FA research paradigm. For SA the model is tested by Mathews and Reynolds (2001), Newson and Deegan (2002), Van der Laan Smith *et al.* (2005) and Orij (2010). The next study takes a new perspective on the issue of national institutional differences and the relationship with CFD.

(3) Ball *et al.* (2000) study the relationship between CFD determinants and institutional factors. It is a study with the objective of determining properties of accounting earnings and how these properties are affected by differences in institutional factors internationally. The accounting properties they study are timeliness and conservatism in earnings calculation. They

find that differences between code law and common law countries exist. This is explained by the closer relationship between corporations and their major stakeholders in code law nations, which makes public accounting properties of timeliness and conservatism less important. They also state that the influence of the political system on accounting standards is stronger in code law countries compared to common law nations. They mention that government in code law nations has a larger impact on society than in common law countries. Common law nations are more shareholder-oriented, according to Ball *et al.* (2000). They focus on the distinction between code law and common law countries, legal origin being the major institutional factor to determine differences in accounting levels, but they place an emphasis on the heterogeneity of the nations of a certain legal origin. This study is one of the only studies on CFD that mentions stakeholder issues. It can be said that this study has affected later studies in their application of STAT.

The search for institutional determinants – culture, legal origin and corporate governance systems – is found next, but without a discussion on differences between stakeholder orientations of code law and common law countries.

(4) Jaggi and Low (2000) study the impact of culture and legal origin on levels of CFD with a mixed outside-in and inside-out approach. They include corporate financial data and multi-nationality of the corporations. They apply a national index score developed by the Center for International Financial Accounting & Research (CIFAR). Their sample contains 401 corporations from the UK, the USA, Japan, Germany, France and Canada. The UK, the US and Canada are regarded as common law nations and the other countries as code law countries. As cultural values they apply four of Hofstede's (1984) national culture dimensions, not including the later-added long-term orientation (LTO) (Hofstede and Bond, 1988).

Other variables they apply are a mixture of financial corporation-specific variables and national variables. They apply firm company size as a predictor of CFD levels, because it had been argued in prior literature that large firms are more motivated to have higher CFD levels because of a broader ownership base. They also state that large firms have good opportunities to provide detailed information: "Large firms are generally well-established and they can afford to provide detailed comprehensive information without the fear of their information being misinterpreted that could result in negative investor reaction" (Jaggi and Low, 2000, p. 503). They apply the debt ratio as an explanation of higher levels of CFD, but only in the case of public debt, as public debt holders do not have a close relationship with the firm and require higher CFD. They assume, without clear evidence, that corporations from common law nations have larger amounts of public debt. Strength of the capital markets is generally related to high levels of CFD, which is represented by market capitalisation divided by Gross Domestic Product. For multi-nationality they chose the CIFAR classification of internationalism. This classification contains geographic diversification of sales, ratio of foreign sales to foreign assets, export and number of subsidiaries. They test the predictive power of the institutional determinants with multivariate regressions. They find differences between corporations from different legal origins. They find no significant relationship between CFD and culture in common law nations, which is however found for code law nations. Multi-national corporations do not show any relation between culture and CFD. Overall, they find that common law nations show higher levels of CFD, and that culture makes a difference in a world-wide sample. They suggest that if culture is no descriptor of CFD, the level of CFD is mainly determined by information needs. Multi-nationality does not show any significant relationship with CFD. Jaggi and Low (2000) find similar results to Hope (2003b): culture has explanatory power in explaining CFD, but the explanatory power of culture differs within the sample corporations from code law and common law legal origin.

With regard to the study for institutional determinants of CFD, the next study is an extension of the studies by Jaggi and Low (2000) and Ball *et al.* (2000).

(5) Archambault and Archambault (2003) apply INST. The application of INST is not done explicitly, but clearly aspects of this theory are applied. The study provides operationalisations of INST that are useful for this study. Archambault and Archambault (2003) built a model to explain CFD by institutional determinants, specifically cultural, political and economic systems, which are divided into the following categories:
1. Culture.
2. National systems.
3. Corporate systems.

The level of CFD is scored per corporation by CIFAR.[10]

1. Culture is represented by:
   a) Four of Hofstede's scores.[11]
   b) The proportion of the population being followers of one of five main religious groups.[12]
   c) Literacy rates.

2. National systems contains two subsystems, political systems and economic systems:
   a) Political systems, with the factors:
      – Political rights, for which the Freedom House score is applied (McColm *et al.*, 1993).
      – Civil freedom, also by Freedom House, see political freedom.

- Legal origin, which is the distinction between code law and common law. Code law nations have created national standards and common law nations have created a shareholder-oriented corporate governance model, according to Ball *et al.* (2000).
- Press, which is scored by newspaper circulation. Societies that desire more information can be satisfied by more newspapers or more accounting information.

b) Economic systems contain the factors that increase the need for information:
   - Economic development is predicted to relate positively to the development of accounting systems in nations, as development causes an increase in capital needs. Increased capital needs cause an increase in the need for accounting systems. A proxy for economic development is the classification of development from the World Development Report (2011).
   - Inflation causes a rising need for accounting information, as it increases insecurity about the information from CFD.
   - Capital markets. The larger the size of the capital markets in a nation, the larger the need for accounting information. The market capitalisation per nation is deflated by GNP.

3. Corporate systems as a separate category of factors consist of corporate data, and relates to an inside-out research approach. The two other groups of factors, culture and national systems, relate to an outside-in approach. Corporate systems consist of two subsystems – financial systems and operating systems.
   a) Financial systems:
      - Ownership is predicted to have an influence on CFD, as large block shareholders are able to gain information from other sources and a large number of small shareholders increases the need for accounting information.
      - Exchange listings are predicted to have an influence on CFD, as the number of stock exchange listings may increase CFD.
      - Auditor's choice is predicted to have an influence on CFD, as large audit firms are assumed to improve CFD and the perceived quality of accounting information.
      - Leverage is predicted to have an influence on CFD. No clear direction of the relation with CFD levels is predicted, as prior literature does not provide consistent evidence.
   b) Operating systems:
      - Company size, about which prior literature shows evidence for a positive relationship with CFD, but without clear theoretical foundation.
      - Number of industries in which a corporation operates increases the information needs of users.

- Foreign sales are predicted to have a positive relationship within CFD levels, as more foreign resources are needed, for which accounting information may be useful.

The models by Archambault and Archambault (2003) are tested in multivariate regression models. They test five models. The major model they test contains all of the above variables for a sample of 621 corporations from 33 nations. They conclude that the systems they identified are related to CFD. Most, but not all, variables have a significant statistical relationship with CFD. Company size is disturbed by other variables that strongly correlate with company size, which makes it a possible proxy for the other variables and they must therefore be excluded from the model. They especially find strong relationships between CFD and cultural and national systems.

Archambault and Archambault (2003) do not clearly apply theory, but use parts of INST. They do not provide a theoretical explanation for the relationships between institutions and CFD. They assess a very wide scope of institutional aspects. The next study continues with the research direction that is initiated by Ball *et al.* (2000), with legal origin as a determining factor of CFD differences.

(6) Hope (2003b) uses Hofstede's dimensions in a decision usefulness study for CFD. Hope (2003b) adds legal origin of the nations, or legal origin, as he calls it, of the companies as a determinant of CFD levels and analyst following. He tests a model that contained the national culture dimensions separately and in combinations, which had been suggested in prior literature. Hope (2003b) uses the reasoning by Ball *et al.* (2000), that legal origin determines the distance from the corporation to shareholders and stakeholders, which is seen in this study as a social institution. In code law nations the distance is smaller, which relates to different information needs. Shareholders tend to get information more directly from management, compared with common law nations. Also other stakeholders, as for example bankers, are assumed to be nearer to the corporation's management. Hope (2003b) finds that culture has explanatory power in explaining CFD, but this differs within the sample corporations from code law and common law origin. Within the sample of code law origin corporations, culture has more explanatory power than in common law origin corporations. Analyst following changes the impact of legal origin on CFD levels, as the analyst following causes a "rich information environment" (Hope, 2003b, p. 242).

Hope (2003b) is useful for this study, as it applies the study of Ball *et al.* (2000) and the effect of legal origin on the corporate relationship with stakeholders. The previous study by Hope (2003b) is extended, especially with regard to the institutional aspect of culture.

(7) Hope *et al.* (2008) test whether secrecy relates to auditor's choice. Secrecy is an accounting value proposed by S.J. Gray (1988). Secrecy is operationalised by a calculation with three of Hofstede's dimension values: Uncertainty avoidance (UAI) plus power distance (PDI) minus individualism (IDV). They also include corporate-specific financial variables as control variables: relative amount of international income tax as a proxy for internationalisation, market capitalisation and accruals as an indicator for audit complexity. They conclude that secrecy in nations relates negatively to accounting quality and a lower preference for Big 4 auditors.

The summary of this section focuses on the applicability of the approach and variables applied that are related to the objective of this study to find society-related determinants of CSD. The emphasis of outside-in studies in search of institutional CFD determinants shows its clear research preferences for culture and legal origin. Although studies show different outcomes, culture and legal origin have a strong case of being relevant for CFD. The relevance of a legal origin variable as a determinant of CSD is likely and is discussed in subsection 5.7.1. Overall institutional testing, as is done by Archambault and Archambault (2003), provides input for the search for institutional and other society-related determinants of CSD.

This section deals with CFD studies for institutional determinants with an outside-in approach. In the next section I discuss similar studies, institutional determinants of CSD with an outside-in approach.

## 2.5 Institutional CSD Determinants Outside-in

In this subsection, the emphasis is on institutional determinants, with an outside-in approach. With regard to the type of determinants and the approach, the studies in this section are most relevant for this study.

In this category the following studies are grouped:

(1) Adams *et al.* (1998).
(2) Newson and Deegan (2002).
(3) Adams (2002).
(4) Luft Mobus (2005).
(5) Van der Laan Smith *et al.* (2005).
(6) Simnett *et al.* (2009).
(7) Orij (2010).

These studies are distinguished by the following characteristics:

- Research objects: CSD determinants.
- Research approach: Outside-in.
- Research paradigm: SA research.
- Theories applied: STAT or LEGT.

There is no overall empirical study of institutional CSD determinants known to the author, only on single institutional factors and CSD. The studies in this section search for separate institutional CSD determinants.

(1) Adams *et al.* (1998) is also illustrated in subsection 2.3.2. They discuss without further empirical analysis the effect of strong trade unions, strength of government, signing of the EU social charter and works council and the strength of environmental pressure groups (see Adams *et al.*, 1998, p. 17). They relate CSD levels to free market ideology of government, and corporations trying to influence policy and government not having to introduce any social legislation. They suggest that country differences may relate to social and political factors which influence legal issues (Adams *et al.*, 1998, p. 2). They suggest further (Adams *et al.*, 1998, p. 18) that the country differences may be explained with a PE theoretical framework.

Adams *et al.* (1998), mention the economic and political determinants of CSD, without testing them. Their suggestion for further research includes a detailed study for the social and political environments of the countries involved to explain levels of CSD (Adams *et al.*, 1998, p. 18).

The next study adds further institutional determinants to the analysis.

(2) Newson and Deegan's (2002) study is discussed in the section of LEGT, subsection 2.3.2. They study differences between legitimacy gaps of corporations from three different nations with different cultural backgrounds – Australia, Singapore and South Korea. The choice of nations is partly determined by the cultural differences. Culture itself as a determinant of CSD levels is not tested. They find that differences between CSD levels can be explained by differences between nations which, in their turn, are determined by cultural differences.

Newson and Deegan (2002) write a study on the global expectations in society in relation to the CSD policies of large companies in a comparison between three nations. LEGT is applied to explain the findings.

They apply LEGT on a national level, which makes the testing possible of national differences, specifically national cultural differences. The next study takes a broader perspective than the cultural differences. It continues on the work done by Adams *et al.* (1998) with additional CSD determinants.

(3) Adams (2002) studies internal contextual factors, but also addresses institutional contextual factors. This study is also discussed in subsection 2.3.1, because of the link with STAT. Aspects of STAT and INST are applied. The institutional contextual factors identified are:

– Country of origin (industrial, institutional conditions).
– Social and political context.
– Economic issues.

- Cultural context.
- Time (which is not an institution, but from a totally different level).
- Media.
- Stakeholder power.

As is mentioned in subsection 2.3.1, these determinants by Adams (2002) are mentioned only by her, but not tested. The next study tests an issue not tested before – environmental laws.

(4) Luft Mobus (2005) is also discussed in the subsection on studies that apply LEGT, 2.3.2. She explains the influence of legal obligations on environmental performance. Luft Mobus (2005) states that LEGT is applicable in situations where disclosures are non-voluntary. It is the only study that clearly relates CSD with legal issues in the context of the most widely applied theory LEGT.

The turn that is taken next is the application of STAT on a national level. The studies that are discussed in the following part of this section all apply this theoretical framework in combination with national institutions.

(5) Van der Laan Smith *et al.* (2005) is discussed in subsection 2.3.1, as this study applies STAT. It applies STAT on a national level and suggests that the stakeholder orientation of nations is a determinant of CSD levels, through its relationship with legal origin and corporate governance systems. The corporate governance systems are also suggested to be related to culture.

As the previous study, the next study discusses institutional determinants that are related to legal origin. They both confirm the relationship between disclosure levels, national corporate governance systems, and legal origin, as is initially discussed by Ball *et al.* (2000). Culture is also part of the distinctive determinants of disclosures, as is mentioned by Van der Laan Smith *et al.* (2005).

(6) The study by Simnett *et al.* (2009) is discussed in subsection 2.3.1. The reason for mentioning this study in this section is that its conclusions relate to institutional characteristics of national institutions. They confirm that the institutional factor legal origin matters as a determinant of CSD audits. Legal origin serves as a proxy for a stakeholder orientation of countries.

Culture is also assessed in the next study, as it was in Simnett *et al.* (2009). The next study builds on the prior work by Van der Laan Smith *et al.* (2005).

(7) Orij (2010) relates CSD levels to culture, specifically Hofstede's cultural (1983, 2001) dimensions and S.J. Gray's (1998) and Gannon's (2001) cultural constructs. The outside-in approach of that study is mentioned as being a clear example of that approach by Burritt and Schaltegger (2010, p. 841).

Culture is found to be a distinctive CSD level determinant, but legal origin is not.

Orij (2010) provides input for this study by its methodology, research methods and choice of variables.

In summary, it can be concluded that the institutional factors legal origin, environmental laws and culture are relevant elements of descriptions of determinants of CSD levels. The outside-in approach is the most commonly used approach and has been applied with the most recent studies. STAT and LEGT are both applied in combination with institutional relationships with CSD and with the outside-in approach.

This section provides an overview of studies that search for institutional CSD determinants with an outside-in approach. Inside-out approach studies are discussed in the next section, which are less relevant for this study than the studies with the outside-in approach. They are relevant for their empirical research on institutions.

## 2.6 Institutional CSD Determinants Inside-out

The focus on the studies discussed in this section is on the institutional aspects of these studies, as they search for CSD determinants. Their approach differs from this study, which is inside-out.

In this category the following studies are grouped:

(1) Guthrie and Parker (1990), CSD differences.
(2) Mathews and Reynolds (2001), cultural determinants.

These studies are distinguished by the following characteristics:

- Research objects: Institutional CSD determinants.
- Research approach: Inside-out.
- Research paradigm: SA research.
- Theories applied: Mixed.

(1) CSD studies only occasionally take an international perspective. Guthrie and Parker (1990) write a much-cited paper on the topic of international differences of CSD levels. They show differences in CSD levels between three nations – the USA, the UK and Australia. They explained the outcomes of the research by applying PE and User Utility (UU) perspectives.

Guthrie and Parker (1990) do not apply Hofstede's dimensions, but show only differences between CSD scores of corporations from different nations. They apply a combination of PE theory and the UU or decision usefulness concept as their explanatory theoretical framework. The user-utility perspective is applied to explain the differences in spreads over CSD categories between the corporations studied from the three nations. They conclude that PE is able to contribute to CSD research in the identification of social and political CSD determinants, which cannot be done by the UU concept. The inside-out approach can be explained by CSD, which is supposed to determine differences in PE between nations.

The study by Guthrie and Parker (1990) is much cited, also by Mathews and Reynolds (2001), which is discussed next.

(2) Mathews and Reynolds (2001) test a possible classification of CSD based upon Hofstede's dimensions. Mathews and Reynolds apply S.J. Gray's (1988) classification methodology of financial reporting. This classification is also based on Hofstede's work. Mathews and Reynolds show that differences in CSD levels between nations are relevant and that Hofstede's dimensions are useful in CSD research.

The summary of this section focuses on the confirmation of the usefulness of the research for institutional determinants of CSD and the theoretical framework applied. Guthrie and Parker (1990) state that PE theory is more appropriate than a UU approach. Mathews and Reynolds (2001) show that culture can be relevant for CSD. Both these conclusions are relevant for this study, as they show a preference for societal systems-oriented theories, as PE is, and they provide a link between CSD determinant studies and institutional aspects of society. The relevance of these conclusions may be limited, as these studies apply an inside-out approach.

## 2.7 Summary of the Chapter

Prior literature shows that institutional disclosure determinants have been research objects since at least the 1980s. FA studies have set examples for the identification of the main elements of the institutional environment: cultural institutions, legal origin, economic institutions and political institutions. SA studies have researched separate elements, but not the full spectrum of the institutional environment. Table 2-2 shows the overview related to the classifications applied in this chapter. In prior literature, institutional environment is confirmed to be significant as a determinant of CFD and CSD.

This chapter shows studies that are relevant to this study on the basis of the following characteristics:
1. Research objects.
2. Research approach, which is outside-in or inside-out.
3. Research paradigms.
4. Theories applied.

*Table 2-2 Characteristics of prior empirical literature per section*

| **Section** | | 2.2 | 2.3 | | 2.4 | 2.5 | 2.6 |
|---|---|---|---|---|---|---|---|
| **Subsection** | | | 2.3.1 | 2.3.2 | | | |
| **Research Objects** | CSD determinants | X | X | X | | X | X |
| | CFD determinants | | | | X | | |
| **Research Approach** | Outside-in | | X | X | X | X | |
| | Inside-out | X | X | X | | | X |
| **Paradigm** | SA | X | X | X | | X | X |
| | FA | | | | X | | |
| **Theories Applied** | STAT | X | X | | | X | |
| | LEGT | X | | X | | X | |

- CSD is Corporate Social Disclosures.
- CFD is Corporate Financial Disclosures.
- SA is Social accounting.
- FA is Financial accounting.
- STAT is Stakeholder theory.
- LEGT is Legitimacy theory.

The research objects of this study are institutional determinants of CSD related to legitimacy and stakeholder issues on a national level, to be determined by international comparison. The approach is outside-in. The inputs are institutional aspects of nations. Corporate characteristics may serve as control variables. In particular, the studies with similar perspectives serve as examples of development of hypotheses in section 5.7.

The studies discussed in this chapter are categorised into different groups. The first group of studies contains CSD studies, which do not clearly apply a specific approach or theory that is applicable for this study. These are relevant for this study on the basis of their search for CSD determinants. The next group are studies that are similar to the previous group, but with the clear application of a theory. These are useful for this study on the basis of the application of theories and the operationalisation of these theories. The collection of studies that searched for institutional determinants (CSD and CFD) are divided into distinctive groups based upon paradigm and approach. Only seven out of the 36 discussed studies related LEGT or STAT to institutional factors, as is shown in section 2.5.

*Table 2-3 Overview of prior empirical literature*

**2.2 CSD determinants**
(1) Trotman and Bradley (1981), no theory, inside-out
(2) Cowen *et al.* (1987), no theory, inside out
(3) Belkaoui and Karpik (1989), no theory, inside-out
(4) R. Gray *et al.* (1995), PE, inside-out
(5) R. Gray *et al.* (2001), multi-theoretical, inside-out

**2.3.1 CSD Determinants and STAT**
(1) Ullmann (1985), inside-out
(2) Roberts (1992), inside-out
(3) Tilt (1994), outside-in
(4) Adams (2002), see 2.5, inside-out
(5) Van der Laan Smith *et al.* (2005), outside-in, see 2.5
(6) Kolk (2008), inside-out
(7) Simnett *et al.* (2009), outside-in, see 2.5
(8) Orij (2010), outside-in, see 2.5

**2.3.2 CSD Determinants and LEGT**
(1) Patten (1991), inside-out
(2) Patten (1992), inside-out
(3) Hackston and Milne (1996), inside-out
(4) Adams *et al.* (1998), outside-in, see 2.5
(5) Neu *et al.* (1998), inside-out
(6) Wilmshurst and Frost (1999), inside-out
(7) Milne and Patten (2002), inside-out
(8) O'Donovan (2002), inside-out
(9) Newson and Deegan (2002), outside-in, see 2.5
(10) Deegan *et al.* (2002), inside-out
(11) Campbell (2003), inside-out
(12) Campbell (2004), inside-out
(13) Luft Mobus (2005), outside-in, see 2.5
(14) Magness (2006), inside-out

**2.4 Institutional CFD Determinants outside-in**
(1) Belkaoui (1983), multi-institutional
(2) S.J. Gray (1988), cultural
(3) Ball *et al.* (2000), multi-institutional
(4) Jaggi and Low (2000), cultural
(5) Archambault and Archambault (2003), multi-institutional
(6) Hope (2003b), legal
(7) Hope *et al.* (2008), auditing, cultural

**2.5 Institutional CSD Determinants outside-in**
(1) Adams *et al.* (1998)
(2) Newson and Deegan (2002), cultural, see 2.3.2
(3) Adams (2002), see 2.3.2
(4) Luft Mobus (2005), legal, see 2.3.2
(5) Van der Laan Smith *et al.* (2005), cultural and corporate governance, see 2.3.1
(6) Simnett *et al.* (2009), auditing, legal, see 2.3.1
(7) Orij (2010), cultural, see 2.3.1

**2.6 Institutional CSD Determinants; inside-out**
(1) Guthrie and Parker (1990), Political Economy or user-utility
(2) Mathews and Reynolds (2001), cultural

– CSD is Corporate Social Disclosures.
– CFD is Corporate Financial Disclosures.
– PE is Political Economy.

Table 2-3 shows an overview of all studies discussed in this chapter. It is an attempt to show an outline of the sorting of the articles in the sections 2.2 to 2.6. Within each section studies are shown in chronological order. Table 2-2 explains the set-up of the chapter and of table 2-3. The articles are sorted first by research objects, then theory is added, then institutions. The addition of institutions takes the outside-in approach. Table 2-4 also provides an overview of the sorting of the prior literature and its associations between the search for institutional determinants, the approaches and theories applied.

*Table 2-4 Prior research categorised and related to sections*

| | **Outside-in** | **Inside-out** |
|---|---|---|
| **Institutions** | Section 2.4 CFD<br>Section 2.5 CSD,<br>incl. those with STAT and LEGT | Section 2.6 CSD<br>CFD n.a. |
| **No Institutions** | n.a. | Section 2.2,<br>Section 2.3,<br>all with STAT or LEGT |

- CSD is Corporate Social Disclosures.
- CFD is Corporate financial disclosures.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.
- n.a. is not applicable.

Table 2-4 shows that the studies from section 2.5 are particularly useful for this study with regard to the outside-in approach, the search for institutions and application of STAT and LEGT. In the next chapter, chapter 3, research methodology is discussed.

# 3 Research Methodology

## 3.1 Introduction

Research methodology is a set of theories and methods applied in a specific field of research and the philosophy of science, including the assumptions about reality and knowledge (Ryan *et al.*, 2002, p. 7). This methodology chapter contains descriptions of the dominant SA and FA research methodologies, including the relationship and similarities between these fields of research. The aim of this chapter is to describe SA methodology explicitly in order to be able to apply this methodology in this study. There is no aim to develop new SA methodology. According to Ryan *et al.* (2002, p. 27), most financial research methodology is implicit and not explicit, but it is possible to provide a description of the dominant methodology. The necessity to know the position of SA towards mainstream FA research is given by the determination of the dominant research methodology that is followed in this study: Is it purely SA or a combination of FA and SA? At the end of the chapter, in the summary, a brief conclusion is drawn that serves as input for further chapters: the theories and the construction of a theoretical framework to be applied in this study is discussed in chapter 4, the hypotheses in chapter 5 and the research methods to be applied in this study in chapter 6. The methodology is discussed extensively and in combination with FA research methodology because of the relatively low level of development of the SA research paradigm. SA research is a field of research that is still under development.

Ryan *et al.* (2002) provide a full overview of methodology in finance and accounting and the underlying philosophy of science. Other authors, such as Scott (2006) and Deegan and Unerman (2006), provide overviews of FA theories and the development of FA research paradigms in educational textbooks. The discussion on FA research, methods, methodology and theories is extended for purposes of this study with a discussion on methodology, methods and theories applied in SA. Work by R. Gray (2004; 2007) and R. Gray *et al.* (1996) are sources for these issues in SA.[13]

This chapter contains six sections. After this introduction, in section 3.2 a discussion on the accounting research methodology is given. Section 3.3 contains a discussion on the FA research paradigms. Section 3.4 contains a discussion on the research methodology, methods and theories in the SA research paradigm and the position of SA in relation to the FA research paradigms. Section 3.5 contains a discussion on international comparative research methodology. Section 3.6 contains the summary of the chapter.

## 3.2 Accounting Research Methodology

Accounting research that is discussed in this chapter is FA and SA research. Contemporary FA and SA research are mostly performed in an empirical manner with the focus on generalisations. The scientific-philosophical descriptions of methodological concepts for FA research are given here.

Financial research mainly applies models, instead of theories, with the capital asset pricing model (CAPM) as an important example in financial research.[14] CAPM is based upon neoclassical economic theory. Ryan *et al.* (2002, p. 27) state that the dominant methodology is 'Lakatosian', following Lakatos (1978), which means that the theoretical models are "developed through an exhaustive process of refinement and validation". Lakatos (1978) was a philosopher of science who builds on the work of Popper (2002) and Kuhn (1970). In this section a brief outline of the work by these philosophers is given, as far as it is relevant for this study.

Accounting research currently heavily relies on empirical observations. Modern Empiricism is a philosophy which suggests that knowledge is determined by experience, settled in empirical observations. Experience can justify our beliefs about our knowledge. In Ryan *et al.* (2002), it is described how empiricism only recognises value-free science, or non-normative, as the truth should be found in the experience and not directed by the values of the researcher. Positivism is a variant of Empiricism. In other fields of science, Positivism has been succeeded by philosophical ideas from instrumentalists[15] and Popper. Popper's work relates to post-positivism (Knoops, 2010, p. 45). In FA research, positivism has a large influence on research methodology. Positive research, and its theoretical counterpart, PAT, strongly opposes normative research, as Empiricism does. It is only concerned with 'what is' (Ryan *et al.*, 2002, p. 107). A central issue is the tendency towards natural law-like generalisations based on the empirical observations made. Positivism differs from Empiricism in the emphasis on the verification principle. According to this principle, statements can only be meaningful if they can be tested empirically. The verification principle is opposed by the falsification principle, developed by Popper (2002). Within this principle, theories are assessed in order to be able to create progress in science. Empirical evidence cannot confirm a theory; it can only falsify a theory. Falsification is needed to overcome the problem of induction, Popper states (2002, pp. 3-7). He further states that falsification separates science from non-science. In his perspective, the objective of science is to find evidence that can be applied to reject hypotheses, which are deduced from theory. He further states that a single observation could disprove a theory. Kuhn (1970) and Lakatos (1978) oppose this statement. In their view, theory and empirical observation are closely related. They state that empirical observations are theory-dependent and cannot fully reject theories, as they are part of it, in their views. Kuhn developed the concept of the research paradigm. The aforementioned relationship between theory and observation is part of a larger structure, the research paradigm. All things are seen as relative by Kuhn (1970), and his work is seen as relativistic. A research paradigm is seen by Kuhn (1970) as a set of theories and observations within a field of research, including the ideas about reality. The research paradigm has a life cycle, in which normal science is the mainstream research. Over time, the body of knowledge in normal science becomes large, including the number of anomalies found that conflict with the mainstream theories and observations. This causes better theories to be developed and a scientific revolution is born; the old research paradigm is replaced by the new research paradigm. The way this research paradigm shift happens is seen by Kuhn (1970) as a social process and in his view theories are therefore also socially constructed. In the next section references to Kuhn's (1970) work, especially the research paradigms, are made. FA research paradigms are identified by Belkaoui (1983).

Kuhn's (1970) methodology does not contain many practical tools for creating scientific progress, as Ryan *et al.* (2002, p. 22) state, neither does it provide the tools to evaluate whether science is good or bad science. Lakatos' (1978) ideas are similar, in the sense of the theory-dependence of observations. His work is more practically applicable as it contains, for example, prescriptive elements for research. He states that within research programmes common ideas, language and definitions exist, which he called the 'negative heuristic', as is mentioned by Ryan *et al.* (2002, p. 22). These are *ceteris paribus* clauses. The 'positive heuristic' is the strengthening of the 'negative heuristic' throughout the lifetime of the research programme by performing scientific experiments and improving theories.

Positivism was abandoned in other fields of science in the middle of the 20$^{th}$ century, but positivism was only adopted in accounting in recent years – the 1970s, – as PAT was. Christenson (1983) and Hines (1988) criticize PAT. Christenson (1983) mainly focuses on the issue of 'what is', a reality, as the central point of positivism. Christenson (1983, p. 20) says that empirical accounting research is more than that; it also contains theories. Hines (1988) supported Christenson (1983), particularly by adding an argument for falsificationism in accounting research. Hines (1988, p. 657) states that accounting scholars incorrectly interpret falsification and positivism in the way they translate these issues into methods. She thinks that accounting scholars phrase their hypotheses positively, as they incorrectly assume is necessary in positivist research. Hypotheses, which are tested with statistical methods, should be phrased negatively to be able to relate the statement correctly to the statistical methods, she argues.

All empirical SA studies discussed in chapter 2, sections 3 to 6, contained positively formulated hypotheses that are tested against empirical observations. Although this is affirmed to be methodologically incorrect by Hines (1988, p. 658), this is the dominant method of hypothesis testing in SA research that is also applied in this study.

The discussion on accounting methodology is continued in the next section with an elaboration on FA research paradigms. The discussion is intended to show the development of accounting research over time towards the state of the art in accounting research.

## 3.3 Financial Accounting Research Paradigms

This dissertation contains an SA study. SA is seen by some as a critical part of the FA discipline (Deegan and Unerman, 2006, p. 353), or part of a "critical accounting movement" (R. Gray *et al.*, 1996, p. X). In addition to this, Burritt and Schaltegger (2010) identify critical and managerial sustainability accounting, which is assumed to be similar to SA. This means that within SA research there is mainstream-similar research and research that questions mainstream research methodology.

To be able to discuss fully SA research, the field of FA research is described. A brief description of the development of the accounting practices shows that these practices have developed largely parallel to the rise of economic activity, from ancient Mesopotamia, to Luca Pacioli, the industrial revolution and the growth of US businesses in the 20th century and the necessary funding of these businesses. FA is usually seen as the process of recording, measuring, summarising and communicating economic activities of organisations. In particular, the industrial revolution in the UK has initiated the development of accounting towards a model of stewardship or accountability (Ryan *et al.*, 2002, p. 95). Professional accounting associations were founded in the 19th and 20th centuries. The development of accounting theory and academic accounting had its basis in accounting practice. Academic accounting research developed in the 1920s and 1930s. According to Ryan *et al.* (2004, p. 100), the early accounting research was empirical inductive and focused on analysing accounting practices in an attempt to develop theories and principles based on generalisations of these practices. In the 1960s a deductive approach was adopted by many researchers. This deductive approach was prescriptive or normative and focused on income determination or 'true income'. This research was based upon economic methodology from the 1920s and 1930s. At the end of the 1960s and the start of the 1970s, following Ball and Brown (1968), another switch was made. The new approach was based upon decision usefulness of accounting information. This meant that the users' needs, especially shareholders' needs, became dominant. Accounting information was needed for investment decisions, based upon Neo-Classical Economic Theory: net present value calculations using forecasted cash flows derived from accounting information. A level of a prescriptive approach was followed by some researchers: the accounting method with the best predictive capacity for future cash flows was seen as the best method (Ryan *et al.*, 2002, p. 102). Market-based accounting research arose from these predictive studies. Ball and Brown (1968) are the first major representatives of this group to focus on the decision usefulness of the information for shareholders and potential investors. This evolved into several directions of research related to decision usefulness in the 1970s. At the end of the 1970s a development towards PAT shows an even stronger focus on empirical observations (Ryan *et al.*, 2002, p. 106). In the 1990s the focus shifted to the measurement perspective on decision usefulness, which includes studies on value-relevance of accounting information. In general, the measurement perspective expects that financial statements incorporate current values, which are expected to be relevant for investment decisions, as is described by Scott (2006, p. 157).

*Table 3-1 Financial accounting research paradigm shifts*

| Period | Shift towards type of research | Methodological description |
|---|---|---|
| **1920-1960s** | Inductive | Empirical, descriptive |
| **1960s-1970s** | Deductive | Normative |
| **End 1960s – 1970s** | Market-based, efficient securities markets | Hypothetico-deductive empirical, predicting |
| **1970s** | Decision usefulness information perspective<br>a) Individual users (behavioural)<br>b) Market-based | Hypothetico-deductive empirical, predicting |
| **1970s-1980s** | Positive Accounting Theory, empiricist/positive | Hypothetico-deductive, empirical/positive, predicting |
| **1990s** | Measurement perspective of decision usefulness | Hypothetico-deductive empirical/positive, predicting |

Source: summarised from Ryan *et al.* (2002).

The paradigm shifts mentioned in table 3-1 show shifts that are merely changes of focus. With the change of focus the research paradigm did not immediately disappear after the shift; the research performed within older paradigms still exists, but in a less prominent position than before the shift. The paradigms are predominantly found in the USA.

Belkaoui (2004) describes the status of FA research as a multi-paradigm science. Multiple paradigms exist simultaneously for the field of science. He described a categorisation for FA theories which is similar to the description based upon Ryan *et al.* (2002) in table 3-1. These categories represent research paradigms, in Belkaoui's vocabulary. He identifies six categories of theories or paradigms:

– Anthropological/inductive theories.
– Deductive theories, or true-income.
– Decision usefulness/decision model theories.
– Decision usefulness/aggregate market behaviour theories.
– Decision usefulness/individual user.
– Information-economics theories.

Belkaoui (2004) describes each category in such a manner that it can be classified as a paradigm. For each category he identifies four specific paradigm-classifying components:

- Specific examples within this category.
- General thoughts on the research topic.
- Specific theories within this category.
- Research methods applied.
  A brief overview of the paradigms is given below.
- The work of Watts and Zimmerman (1978, 1979 and 1990), specifically their contrition to PAT, is seen as an example of the anthropological/inductive theories paradigm. The general attitude of advocates of PAT is that accounting practices are derived from and explained by practical usefulness and management's choices. Mainly empirical methods are used.
- An important true-income/deductive illustration is the work of Edwards and Bell (1965). In this research paradigm, logical and normative reasoning are used to arrive at theories of true-income.
- An example of decision usefulness/decision model theories (individual users) is the work of Beaver *et al.* (1968). They study predictability as a criterion to improve decision-making based on accounting information.
- Part of the decision usefulness/aggregate market behaviour theories paradigm is an article by Gonedes and Dopuch (1974). In this paradigm, efficient capital markets and the decision-making of the individual investor with regard to aggregate capital markets are important. Finance theory and the efficient-market hypothesis are the theoretical foundations.
- The decision usefulness/individual user paradigm is linked to behavioural accounting research; how does the individual user of accounting information respond to this information? Accounting is seen as a behavioural science. An example in this category is Hofstedt and Kinard (1970).
- Information-economics theories are economic theory of choices and other economic theory with a focus on economically rational behaviour. Accounting information is seen as an economic item, with a market with demand and supply. An example in this category is Feltham and Demski (1970).

It can be concluded from this overview that different paradigms exist next to each other. Accounting is presumably a multiple paradigm science (Belkaoui 2000).

Scott (2006) also presented a categorisation of FA theories. He identifies the following categories:[17]

- Decision usefulness approach, on an individual level.
- Information perspective on decision usefulness.
- Measurement perspective on decision usefulness.

- Economic consequences.
- Analysis of conflicts.

Scott (2006) describes the categories and also explains how these came to existence.

- The decision usefulness approach to FA as a category relates to decision theory and investment theory. The latter assumes efficient security markets. Efficient Securities Markets – an issue that is mentioned here is voluntary disclosures, which are meant to diminish undervaluation. Investors believe that firms are undervalued, as managers may have inside information. Information Asymmetry is seen by Scott as the most important concept in FA theory, which refers to Akerlof (1970).
- The information perspective on decision usefulness has dominated FA theory and research since Ball and Brown's (1968) study, which in the 1990s changed to a stronger focus on the measurement perspective on decision usefulness. The information perspective on decision usefulness means that individual investors need useful information to predict future company performance. It assumes that securities markets are efficient and that the markets react on the provision of useful information.
- The measurement perspective on decision usefulness focuses on the reliability of information and the usefulness of the information to assist investors in predicting firm value, under the assumption that more attention to measurement increases the usefulness of the information. This research branch assumes that securities markets are less efficient than previously believed. Scott (2006) identifies as the relevant theories prospect theory and clean surplus theory. The former is a theory related to behavioural finance. The latter says that the market value of the firm can be expressed in terms of balance sheet and income statement variables (see Harris and Ohlson 1987). This theory has led to studies of value relevance.
- Research for economic consequences is clustered around PAT research, which was initiated by Watts and Zimmerman (1978 and 1979), but this direction in accounting research was initially identified by Zeff (1978). Despite efficient market theory implications, there is a belief that accounting and disclosure policy can have an influence on firm value and can therefore affect managers' and others' decisions. Economic consequences research is a broad concept. Examples of research in this field are employee stock options and stock market reactions to accounting policy choices. PAT belongs to this category, according to Scott. He explained the economic consequences by stating that PAT is concerned with predictions of accounting policy choices and how managers respond to accounting regulation changes. A firm can be seen as a nexus of contracts, for which contracting costs are minimised by management.

– Analysis of conflicts, in relation to FA, uses models from economic game theory and its branch Agency Theory. Agency theory is a type of cooperative game theory, modelled by an employment contract between manager and owner. In the case of the agency theory, there is the implication that net income has to play a role in motivating and monitor managers' performance. Non-cooperative game models may provide insight into conflicting interests of different groups of users of accounting information. The nature of the theories is mainly economic, which makes the separate discussion of this category questionable in this dissertation. This dissertation searches for non-economic CSD determinants.

Healy and Palepu (2001) write about frameworks instead of paradigms. They identify four main frameworks, which can be compared with the previously mentioned paradigms and categories of accounting research studies. The categories, with sub-categories, are as follows:
– Regulation/standard setting.
– Auditors/intermediaries.
– Managers' disclosure decisions.
– Capital market consequences.

Healy and Palepu (2001) partly distinguish their categories on the users of accounting information. They described the category of regulation and standard setting research, which is different from the overviews by Scott (2006) and Belkaoui (2004). In particular, the research category of managers' disclosure differs from the other categorisations. Within this category they discuss voluntary financial disclosures. These are said to be hard to measure. Managers' disclosure decisions may be related to stock compensation for managers, litigation costs and proprietary costs. The latter was extensively discussed in Verrecchia (2001) and Dye (2001).

Healy and Palepu (2001) also put PAT studies in this category, which is discussed in further parts of this section. Chua's (1986) description of accounting research, as adapted by Ryan *et al.* (2002), is given in table 3-2. She determined three types of accounting research – mainstream, interpretive and critical. These types of accounting are distinctive, based upon beliefs about knowledge (epistemological), beliefs about reality (ontological), and on the relationship between theory and practice.

Ryan *et al.* (2002) apply this categorisation of accounting research types and combine it with another categorisation from the field of management accounting research, which is less relevant here. The description by Chua (1986) is applied in the next section to identify the position of SA research towards FA research. The description per distinctive factor of the three identified types of research is compared with what is said about SA research in prior literature. The distinction is explained by Ryan as different ways of viewing the world (2002, 36).

Ryan *et al.* (2002) mention possible interdisciplinary approaches to FA, which combines accounting with sociological research. Critical accounting is seen by Ryan *et al.* (2002, p. 111) as similar to a group of interdisciplinary approaches. Critical accounting also contains a "variety of ways of seeing", which assumes a relativistic approach, as Ryan *et al.* (2002, p. 11) describe. This approach means accepting pluralism, which is caused by modernisation. Critical FA research has more relativistic elements than mainstream FA research. This relates to our knowledge in general: Is it socially constructed or not?

Ryan *et al.* (2002) mention a further distinction between mainstream, interpretative and critical accounting research. An overview of Ryan *et al.* (2002) is given in table 3-2. Mainstream is seen as weakly realist, as is mentioned by Ryan *et al.* (2002, p. 112). Critical and interpretative accounting show lower levels of realism.

*Table 3-2 Categories of accounting research*

| | **Mainstream** | **Interpretive** | **Critical** |
|---|---|---|---|
| **Beliefs about knowledge, epistemology** | Theory and observation are independent of each other, and quantitative methods of data collection are favoured to provide a basis for generalisations. | Theory is to provide explanations of human intentions. Its adequacy is assessed via logical consistency, subjective interpretation and agreement with the actors' common-sense interpretations. | Criteria for judging theories are always temporal and context-bound. Social objects can only be understood through a study of their historical development and change within the totality of relations. |
| **Beliefs about physical and social reality, ontology** | Empirical reality is objective and external to the subject (and the researcher). Human actors are essentially passive objects who rationally pursue their assumed goals. Society and organisations are basically stable and dysfunctional behaviour can be managed through the design of control systems. | Reality is socially created and objectified through human interaction. Human action is intentional and has meaning grounded in the social and historical context. Social order is assumed and conflict mediated through shared meanings. | Empirical reality is characterised by objective, real relations, but is transformed and reproduced through subjective interpretation. Human intention and rationality are accepted, but have to be critically analysed, because human potential is alienated through false consciousness and ideology. |
| **Relationship between accounting theory and practice** | Accounting is concerned with means, not ends. It is value-neutral[18] and existing institutional structures are taken for granted. | Accounting theory seeks to explain action and to understand how social order is produced and reproduced. | Theory has a critical imperative, in particular the identification and removal of domination and ideological practices. |

Source: adapted from Chua (1986) and Ryan *et al.* (2002).

The overview of research categories in table 3-2 provides input for the next section. The position of mainstream FA research is shown, which is used to describe the position of SA research in the next section.

## 3.4 Social Accounting Research Methodology

SA research consists of two paths – a critical and a managerial path, as is mentioned by Burritt and Schaltegger (2010, p. 829). The latter focuses on the managerial decision on accounting, reporting and auditing of corporate social and environmental data. Researchers following the critical path assume that SA is the "cause and source of corporate sustainability accounting", as was also discussed by Burritt and Schaltegger (2010, p. 829).

R. Gray (2004, p. 15) states that "social (and environmental) accounting is almost mainstream".

Burritt and Schaltegger (2010, p. 843) state that "conventional accounting continues to neglect sustainability issues". The two remarks are more or less opposite. This may illustrate the diversified nature of FA and SA.

The development of SA methodology and the current position towards mainstream (FA) research is discussed in this section. The first remark can be made about the philosophical backgrounds of FA and SA: they are both grounded in positivism, although positivism was abandoned in other sciences long ago. This section continues with a description of a probable new paradigm, the description of SA methodology, including theories, and methods.

The development of FA research in table 3-1 shows the development from normative to usefulness research. The development of SA research starts after FA research largely abandoned normative for hypothetico-deductive approaches. Much SA research follows a hypothetico-deductive approach, similar to FA research.

Belkaoui (2004) states that accounting is a multi-paradigm science, which is a pluralist view. SA research, as a branch of FA research, fits within the pluralist view on accounting. His four identifiers of paradigms can be set for SA research:

- Specific examples within this category relate to social and environmental reporting, which is researched in this study. These examples are Ullmann (1985), Roberts (1992), Guthrie and Parker (1990) and Simnett *et al.* (2009). Simnett *et al.* (2009) is concerned with audits of social and environmental reports. It can be seen as an important study as it is published in an important mainstream journal, The Accounting Review.
- General thoughts on the research topic are the reality as a social construct. Further, it is assumed that businesses are part of a meta-system, society.

- Specific theories within this category are STAT and LEGT.
- Research methods applied are positivistic, mainly quantitative, especially the search for social and environmental reporting determinants.

Preston (1975) mentions the search for a new research paradigm, which consists of the search for the relationship between corporation and society in an economics context. Preston and Post (1975) continue that discussion into the direction of STAT, which is discussed further in chapter 4, section 3. In the field of accounting, Ramanathan (1976) discusses the first steps of the development of a theory of corporate SA. That study focuses on the issues related to social performance measurement, which is outside the scope of this study. Further studies on SA, which are discussed in chapter 2, section 3, focus on social disclosures. Hines (1989) starts the discussion on an FA research paradigm which has not been identified by other authors in the FA paradigm: the socio-political paradigm in FA research. According to Hines (1989, p. 55), the research in the socio-political paradigm focuses on the investigation of the role of accounting in the "construction and maintenance of a social reality". Whether accounting has that role is not studied by her.

It can be argued that there is a relationship between the socio-political research paradigm of FA research and SA research. Deegan and Unerman (2006) relate SA to FA as a sub-paradigm, although they did not provide input for a discussion on paradigms. They discuss social and environmental reporting as a type of unregulated corporate reporting, as most of the reporting is done voluntarily and in combination with the regular corporate annual report.

R. Gray (2004; 2007) made general remarks on SA methodology and its position towards mainstream accounting research, and not just FA. Table 3-3 shows the summary of the ideas of R. Gray (2004).[19]

*Table 3-3 Mainstream financial accounting and social accounting research*

| Theme | Mainstream financial accounting research | SA research |
|---|---|---|
| **Broadness** | Mainstream financial accounting is part of social accounting.[20] | SA is a broader concept ('the universe') than mainstream financial accounting. |
| **The leading research agenda** | Mainstream financial accounting (and finance) agenda is led by the business agenda. | SA agenda is led by other issues, society as a whole. |
| **Measurement and reporting issues** | n.r. | SA covers a broader set of measurement issues than mainstream financial accounting. |
| **Methods and Methodology** | n.r. | SA research covers a broad set of methods and methodology, because "the issue is more important than the way it is researched" (R. Gray, 2004, p. 14). |
| **Theories** | One theory, with its variants, is applied. | A broad set of theories is applied. |
| **Complexity** | n.r. | SA is very complex, as it covers a whole universal set of relationships within society and the environment. |
| **Incremental tensions** | n.r. | SA research contains large tensions between practice, theory and methodology. |

Where n.r. is mentioned, no remark on the issue is made.

Source: adapted from R. Gray (2004).

The information given in table 3-3 provides an insight into the view on reality, the ontology, as it may be seen by SA researchers. R. Gray (2007) continues a methodological discussion he started in R. Gray ( 2004). The 2007 paper focuses on theory application in SA research. He identifies three levels of applicable theories – meta-, meso- and micro-theories.

Meta-theories are in his view, amongst others, Marxism and Neo-Classical Economic Theory and unspecified ethical or religious theories. They can relate to society as a whole, or society as a system;

meso-level theories relate to subsystems of society. These are, for example, decision usefulness, accountability theory and LEGT of the system. I assume accountability theory to be the same as normative STAT, as discussed in R. Gray *et al.* (2010, p. 25). LEGT of the system means that the theory is applied to assess, whether the system itself is legitimised or not. LEGT can also be applied on an organisational level. Micro-theories are, in R. Gray's (2007) view, agency theory and the CAPM.

The statement by R. Gray (2004) that SA research follows the agenda of relevant issues, other than business issues, confirms a certain level of subjectivity. What he means exactly with these other issues is not mentioned, but these are assumed to be issues that are relevant to society as a whole, which has been R. Gray's focus in much of his research. R. Gray (2007) mentions that meso-level theories in particular are useful in SA research, as these theories can be traced back to meta-theories and their assumptions, and the theories are specific enough to be able to facilitate hypothesis development. In R. Gray *et al.* (1996 and 2010) it is mentioned that the application of meso-level theories STAT and LEGT can be done on an organisational level, or micro-level. R. Gray (2007) states that meso-level theories are not specific, which means that operationalisation needs to be done by the researcher. Further, he describes most studies in SA research as being strongly positivistic (R. Gray, 2007, p. 22). He mentions that his own research is exploratory, conditional, ill-focused and political, or in other words subjective. In R. Gray *et al.* (2010, p. 3) the level of subjectivism is more explicitly described: "Approach social accounting with a personal commitment and passion".

In R. Gray *et al.* (2010, p. 3) the preference for meso-level theories is less explicit. In that study the meso-level is defined differently in comparison with R. Gray *et al.* (1996). In R. Gray *et al.* (2010) the meso-level is seen as a subsystem level, a subsystem of the meta-level. Decision usefulness is seen as a micro-level theory, which is seen as a meso-level theory in 1996 by R. Gray *et al.*

R. Gray *et al.* (1988) discuss the level of radicalism of SA research. Tinker *et al.* (1991) developed a critical perspective on SA research which provides input for the analysis of the relationship between FA and SA research that apply Chua's (1986) classification. There is no consensus on the level of radicalism between Tinker *et al.* (1991) and R. Gray (1988 and 1996), for example regarding the applicability of Marxism. Their discussion at least shows the ongoing development of SA research methodology.

Two aforementioned remarks by R. Gray (2007) on the position of SA research in relation to FA and the large attention for SA Research in FA theory in Deegan and Unerman (2006) provide input for further discussion. The remarks suggest that at least part of the SA and FA research communities accepts the status of SA being part of mainstream FA research. Hopwood (2007, p. 1370) supports this implicitly by stating that mainstream accounting research needs to broaden its perspectives to a more multidisciplinary approach.

Guthrie and Parker (1990) find that a UU approach is useless in explaining CSD levels. Their UU approach is similar to the approach applied in the FA research paradigm of decision usefulness. R. Gray *et al.* (1995) perform an attempt to relate CSD studies to three FA paradigms, of which two are part of mainstream research. The three paradigms are decision usefulness studies, economic theory studies and the SA research. Social and political theories are seen by them as the most "insightful theoretical perspectives" (R. Gray *et al.*, 1995, p. 52) in relation to SA research. The focus of decision usefulness studies on the effect of corporate information on changes in share prices causes a misspecification, according to R. Gray *et al.* (1995, p. 51), because "interest in CSR[21] is not motivated predominantly by a concern with the needs, wants and whims of financial participants". They also state that the under-theorising of the decision usefulness approach makes it less likely to apply these theories in an SA context. They make an exception for socially responsible investments (SRI) studies. An example SRI study is done by Renneboog *et al.* (2008), who find evidence of the opposite – investors are willing to pay a price for corporate ethical behaviour.

Further developments towards the measurement perspective are not discussed by R. Gray *et al.* (1995), as these appeared later in time. The appearance of the measurement perspective is caused by doubts about the level of market efficiency and the stronger focus on fair values in annual reports. The discussion on the relationship between decision usefulness and SA research needs to be further developed. The same misspecification goes for value-relevance studies. Managers' disclosure decisions, as identified by Healy and Palepu (2001) and mentioned above, relate to PAT and litigation costs. Litigation costs directly relate to environmental disclosures. The relationship between these issues is tested by Luft Mobus (2005), who applies LEGT, a social system theory. Social system theories or theories derived from GEST focus on general laws within systems. For a further discussion on these theories, see chapter 4.

Milne (2002) criticises the applicability of PAT in SA research. Mainly the political costs hypothesis of PAT has been applied in some studies, for example by Patten and Trompeter (2003). Milne (2002) states that the links laid by Watts and Zimmerman (1978, 1979 and 1990) to CSD (and therefore) SA do not convince him on the basis of their arguments. He does not criticise PAT on methodological grounds.

For a further analysis of SA research, Chua's (1986) description of accounting categories is applied.

Descriptions of Chua's (1986) three categories of FA research are copied and placed into table 3-4, if found relevant for SA research. Additions to the original descriptions are made, which are given separately.

*Table 3-4 Analysis and description of social accounting research*

| Theme | Social Accounting Research |
|---|---|
| **Beliefs about knowledge, epistemology** | "Theory is to provide explanations of human intentions. Its adequacy is assessed via logical consistency, subjective interpretation and agreement with the actors' common sense interpretations." (Interpretative)<br>"Criteria for judging theories are always temporal and context bound. Social objects can only be understood through a study of their historical development and change within the totality of relations." (Critical)<br><u>Addition</u>: the broadness of the topics studied and number of theories applied in SA research, as described by R. Gray (2004), suggests a number of subjective choices to be made by researchers |
| **Beliefs about physical and social reality, ontology** | "Reality is socially created and objectified through human interaction." (Interpretive)<br>"Empirical reality is characterised by objective, real relations, but is transformed and reproduced through subjective interpretation." (Critical)<br><u>Addition</u>: Corporations are seen as part of the social system "society". This can be seen as subjective, as the "norm" in mainstream accounting is that the only relationship that matters is the relationship between the corporation and its shareholders |
| **Relationship between accounting theory and practice** | <u>Middle-of-the-road variant of Social Accounting</u>:<br>"Accounting theory seeks to explain action." (Interpretative)<br>"Accounting is concerned with means, not ends. It is value-neutral and existing institutional structures are taken for granted." (Mainstream)<br><u>Radical variant of Social Accounting</u>:<br>"Theory has a critical imperative; in particular the identification and removal of domination and ideological practises." (Critical) |

Source: adapted from Chua (1986) and Ryan *et al.* (2002).

The brief analysis provided in table 3-4 shows that SA contains interpretive and critical elements, depending on the level of radicalism the researcher accepts. These elements, mainly interpretative, may be embraced by mainstream FA research, as suggested by R. Gray (2007). Knoops (2010, p. 249) summarises the issue clearly for SA research: radical, critical SA research studies society and societal problems of inequalities taken from Marxism, and the middle-of-the-road interpretative research focuses on the relation between organisations and society.

In FA research there is not much discussion on ontological and epistemological issues. Mouck (2004) discusses the institutional reality of financial reporting from a mainstream perspective. His analysis of the institutional or social reality of FA and reporting approaches the ontology of SA. Mouck (2004, p. 535) mentions the following concerning the subjectivity of accounting: "But the main point remains. There is no way to operationalise the double-entry accounting model (except perhaps for a strict cash-basis system) without a set of rules which, in turn, have no objective basis in physical or institutional reality". Mattessich (2009, p. 60) discusses the subjectivity of accounting regulation and its conceptual framework. He disputes the absolute subjectivity of a social reality and its branch, the institutional reality: "Once the rules have been established, certain accounting representations based on those rules may be said to be epistemologically objective with respect to those rules, even though there is no objective basis for the rules themselves".

Arnold (2009) discusses methodological and theoretical issues thematically similar to Chua (1986), along with the subprime crisis from 2008. She is critical about contemporary accounting research and its ability to solve the problems surrounding the crisis. The dependency on quantitative databases and the exclusive application of positivism and neoclassical theory as a basis for financial accounting research is questioned. She also states that a certain level of normative or subjective accounting research may be useful. Roberts and Jones (2009, p. 864) mention the 'hyper-reality' created by accounting models and relate this to the causes of the crisis.

In empirical research, a possible anomaly of the economic rationality from neoclassical economic theory is shown in the following quote by Renneboog *et al.* (2008): "Investors of SRI funds may thus explicitly deviate from the economically rational goal of wealth-maximization by pursuing social objectives". Ryan *et al.* (2002, p. 111) provide some input for the latter: "The manifestation of this new research paradigm in FA is the attempt to extend the analysis of accounting choices beyond traditional positivist investigations to encompass socio-political factors". As the overview of FA research shows, it is a multiple-paradigm science. In addition to the abovementioned, SA may be a new paradigm next to the existing paradigms, or changes the existing paradigms.

A question that remains unsolved is: Has mainstream FA research converged towards SA research or has a new SA paradigm been created? The dawn of a new paradigm may be seen, a paradigm in which economic rationality from Neo-Classical Economic Theory plays a less important role than before. As can be seen in chapter 2 and in the analysis above, the most widely used theoretical framework for CSD determinant studies are the systems-oriented meso-level theories. These theories do not have misspecification problems and fit into the views on reality that are appropriate for the critical character of critical SA research. The latter includes the raised doubts about full economic-rationality.

In table 3-5 an overview is provided of applicable theories in this study, taken from a full list of SA theories by R. Gray *et al.* (2010). In brief, they state that they intend to support the view on the 'bigger picture' (R. Gray *et al.*, 2010, p. 1), which is shown in the broad selection of theories. The theories that are mentioned in table 3-5 are discussed in this section. These have been selected as they have been applied in prior literature to describe or explain CSD levels, or have been applied in mainstream FA research.

*Table 3-5 Selection of theories*

| | Biological metaphor | Political or sociological metaphor | Economic/Rationalist |
|---|---|---|---|
| **Meta/systems level** | GEST | Marxism<br>Communitarianism | Friedman's liberal economics |
| **Meso/subsystems level** | (Neo) INST | Bourgeois PE<br>Social Contract<br>Accountability<br>Media agenda setting<br>Cultural conceptions | Efficient markets hypothesis |
| **Micro/organisational level (external)** | (Neo) INST<br>STAT | LEGT<br>STAT | Decision usefulness |
| **Micro/organisational level (internal)** | n.a. | n.a. | Positive Accounting Theory |
| **Micro/individual level** | n.a. | n.a. | Agency Theory |

– GEST is General Systems Theory.
– INST is Institutional Theory.
– STAT is Stakeholder Theory.
– LEGT is Legitimacy Theory.
– PE is Political Economy.
– n.a. is not applicable.

Source: adapted from R. Gray *et al.* (2010).

The selection of the theories in table 3-5 is based upon the discussed SA and FA studies from previous parts of this chapter and chapter 2. In table 3-6 the SA studies are placed in their respective positions. The SA studies from chapter 2 that apply an outside-in approach are seen as system or sub-system studies. The inside-out can be seen as studies that apply theory on an organisational level. This categorising of this section goes further than is done similar to chapter 2. The research output determines the level of analysis and theory. The research output on a national level from chapter 2 is seen as a system or sub-system level, depending on the theory applied. The inside from the outside-in research approach from chapter 2 is seen as micro /organisational level (external).

The useful theoretical level for this study, the organisational level, has relationships with other levels. R. Gray *et al.* (2010) discuss the theories and the levels extensively. The relationship between LEGT at an organisational level and LEGT at a meso-level is not made fully clear by R. Gray *et al.* (2010). LEGT at a meso-level relates to legitimacy of the system, capitalism. The parent theory of STAT at an organisational level is accountability theory. A detailed discussion on the relation between the theories applied in this study is done in chapter 4.

*Table 3-6 Selection of theories and prior empirical literature*

| | Biological metaphor | Political or sociological metaphor | Economic/ Rationalist |
|---|---|---|---|
| **Meta/ systems level** | | Communitarianism<br>– Van der Laan Smith *et al.* (2005) | n.a. |
| **Meso/ subsystems level** | (Neo) INST | Bourgeois PE<br>– Guthrie and Parker (1990) (confirmed)<br>– R. Gray *et al.* (1995) | n.a. |
| | | Cultural conceptions<br>– Mathews and Reynolds (2001)<br>– Van der Laan Smith *et al.* (2005) | n.a. |
| **Micro/ organisational level (external)** | (Neo) INST<br>– Adams (2002) | – LEGT<br>– Patten (1991)<br>– Patten (1992)<br>– Hackston and Milne (1996)<br>– Adams *et al.* (1998)<br>– Neu *et al.* (1998)<br>– Wilmshurst and Frost (1999)<br>– Milne and Patten (2002)<br>– O'Donovan (2002)<br>– Newson and Deegan (2002)<br>– Deegan *et al.* (2002)<br>– Campbell (2003)<br>– Campbell (2004)<br>– Luft Mobus (2005)<br>– Magness (2006) | Decision usefulness<br>– Guthrie and Parker (1990) (falsified) |
| | STAT<br>n.a. | STAT<br>– Ullmann (1985)<br>– Roberts (1992)<br>– Tilt (1994)<br>– R. Gray *et al.* (2005)<br>– Kolk (2008) | n.a. |
| | | <u>Communitarianism</u><br>– Simnett *et al.* (2009)<br>– Orij (2010) | n.a. |
| | | <u>Cultural conceptions</u><br>– Orij (2010) | n.a. |
| **Micro/ organisational level (internal)** | | n.a. | Positive Accounting Theory<br>– Patten and Trompeter (2002) |

– GEST is General Systems Theory.
– INST is Institutional Theory.
– STAT is Stakeholder Theory.
– LEGT is Legitimacy Theory.
– PE is Political Economy.
– n.a. is not applicable.

Source: adapted from R. Gray *et al.* (2010).

This study consists of a search for organisational determinants in relation to society. This means that the theoretical conceptions on an organisational level are relevant for this study, which are shown in table 3-5. The next table, table 3-6, shows the relevant prior literature grouped on the theoretical level. The only exception that can be found that adds an extra cell to the table is the application of communitarianism by Simnett *et al.* (2009) and cultural conceptions by Orij (2010). These studies confirm that meta-level institutions influence corporations at an organisational level and that these theories can be applied on the meta-level. This is inherent to the abovementioned outside-in approach.

Some remarks on specific studies that have a special position need to be made. Guthrie and Parker (1990) test the applicability of PE and UU concepts. PE is used as a term, instead of the afore mentioned term bourgeois PE, which is a Marxian term for the same concept. Guthrie and Parker (1990) find that PE is useful to explain CSD levels and UU is not. UU can be seen as decision usefulness. The position of the study in the overview has two angles: UU is falsified and PE is confirmed as a useful approach in CSD studies.

R. Gray *et al.* (1995) confirm that PE is useful in explaining trends in CSD levels. They further suggest that STAT and LEGT can be useful additions to PE.

Patten and Trompeter (2002) test PAT as an explanatory theory of CSD levels. They find evidence related to an environmental event, the 1980 Union Carbide disaster in Bhopal, India. Others, for example Milne (2002) criticise the application of PAT.

INST is only applied in Adams (2002). She applies not the full theory, but she identifies contextual factors that are similar to the institutional and economic conditions identified by Campbell (2007, pp. 954-962). Studies that clearly apply INST to explain SA and CSD are not known to the author. INST is a systems-oriented theory. North (1990, p. 3) states that institutions have a role in reducing uncertainty. Institutions provide "structure to human interaction" (North, 1990, p. 6). An important aspect of INST is institutional change, which is not applied in this study. Institutional change is supported by the critical SA researchers, represented by Tinker (Tinker *et al.*, 1991).

Aspects of INST that have been applied in other studies and discussed in chapter 2 relate to the description and categorisation of the institutional environment.

In this section the SA research methodology is discussed, while mentioning the relevant literature. This study applies SA methodology with an international perspective. This international perspective is an international comparative research methodology, which is discussed in the next section.

## 3.5 International Comparative Research Methodology

In chapter 2, several studies are discussed that have similar objectives to this study: the search for contextual factors that determine CSD levels in international comparative studies. The philosophical basis for international comparative studies in accounting is relativism, or more specifically a "reasoned form" of cultural relativism (Lewis and Unerman, 1999, p. 521). Gallhofer *et al.* (2000) mention that critical (accounting) theory is sensitive to differences between cultures. Cultural relativism especially relates to reality as a social construct: the way society creates reality depends on people's culture. Cultural relativism rejects any form of normative judgement of which culture is superior to other cultures. Extreme relativism, as in postmodernism, is not found in SA research for CSD determinants.

The studies mentioned in chapter 2 that use data on a national and institutional level all apply an international comparative approach. Some studies, for example Simnett *et al.* (2009), apply national, institutional data on an organisational level with a meta-theory, communitarianism. This shows that variations between levels are possible.

International accounting is described Ryan *et al.* (2002) as an interdisciplinary perspective on accounting. They describe the relationship between accounting and globalisation. Globalisation has led to an increased focus on international aspects of capital markets. International accounting describes and explains diversity in accounting on a country level and relates this with contextual factors such as "culture, industrialization, economic development, and legal and political systems" (Ryan *et al.*, 2002, p. 112). The relevance for this study is the international comparative methods that apply differences in contextual factors. The research output on a national level of this type of research is not relevant for this study, as an inside-out approach is applied.

Adams *et al.* (1998) state that differences between countries can explain differences of CSD levels between countries.

## 3.6 Summary of the Chapter

In this chapter the dominant methodology of SA research and the closely related FA research is described. The SA research paradigm can be seen as a multidisciplinary paradigm, with interpretive and critical elements, within the multi-paradigm science FA. FA is pluralistic in methodology, on all levels. FA research went through much development during the last century and focuses on the usefulness of FA information to support investment decisions. SA differs from FA on the issue of influence on stock prices. SA is not performed because of a relationship between corporate social issues and investment decisions, i.e. value relevance. It is even seen as a misspecification, if they are related. SA research focuses on general laws within the system society. In SA research, FA research methodology is applied, although specific theories relate to SA only. SA empirical studies are, as in FA, predominantly done in a positivistic manner. The qualitative research is sometimes ethical and scholars add normative issues to their research. The application of theory in SA research has been under discussion for a long time, for example by R. Gray *et al.* (1996), Tinker *et al.* (1991) and R. Gray *et al.* (2010). It remains unsettled as to whether radical theories or the 'middle ground', less critical, theories should be applied to explain SA. This particular study is middle-of-the-road within SA research and also managerial: quantitative, empirical, logical-positivistic, aimed at generalisations, and subjective, but non-normative. The theories that are best fitted to be applied in SA research, and especially CSD determinant studies, are systems-oriented theories. On an organisational level, systems-oriented theories STAT and LEGT can be applied. Mingling levels has been done in the past: the meta-theoretical concept of communitarianism has been applied to explain individual SA. The categories of the institutional environment, taken from INST, can be useful to describe the system society. The institutional environment is linked to contextual factors by Adams (2002).

# 4 Towards a Theoretical Framework

## 4.1 Introduction

In this chapter I develop the theoretical framework to be applied. The focus of this study is the relationship between corporations and society, expressed in the level of corporations' CSD. In chapter 2, it is argued that STAT and LEGT are the most regularly theories applied in the research paradigm to explain or describe relations between corporations and society. Institutional structures or societal contextual factors are in a few cases applied to explain the relationship between corporations and society in addition to, or instead of, STAT and LEGT.

In chapter 3 it is concluded that STAT and LEGT are theories that do not cause a theoretical mismatch, in contrast with a purely economic perspective of decision usefulness for investment purposes. The latter perspective does not match with society-related determinants of CSD. STAT and LEGT are part of a larger group of theories that are derived from GEST. GEST is developed for modern scientific application by Von Bertalanffy (1950), although he originally applied the theory in biology and information sciences. Preston and Post (1975) relate GEST to corporate social responsibility, while implicitly discussing STAT. Overviews on the application of systems-based theories in SA are given by R. Gray *et al.* (1995), R. Gray *et al.* (1996), R. Gray *et al.* (2010) and Deegan and Unerman (2006).

In this chapter, the theories that are found to be relevant for this study are synthesised into a full theoretical framework with input from prior (mainly) theoretical literature. The relevance of the theories is discussed in chapter 3. Section 4.2 contains a discussion on GEST; this discussion is an introduction to further elaboration on system theories in sections 4.3-4.5. Section 4.3 concerns STAT – the position of STAT towards other theories, the different views on STAT and the link with communitarianism. Section 4.4 contains a discussion on LEGT. In section 4.5, INST and separate institutions are discussed. International theoretical aspects are discussed in section 4.6, which entails the application of the theoretical framework in an international comparison. In section 4.7 the synthesis of theories from sections 4.2 to 4.6 is provided. The synthesis shows that the combination of the theories can take the shape of a constructed theoretical framework. Section 4.8 contains the summary of this chapter.

## 4.2 General Systems Theory and the Corporation-Society Relationship

The systems-oriented view on corporations is the dominant view in SA research, as is discussed in chapter 3. This view represents the 'bigger picture' of society. GEST is the theoretical basis of the systems-oriented view. This view in relation to corporations is discussed by Preston and Post (1975). They discuss several models that explain the society-related decision-making of corporate managers, which they called social system models. They explicitly relate these models to GEST (Preston and Post, 1975, p. 26). GEST applied in societal systems is the foundation theory of STAT, LEGT and INST, the main theories of this study. The central concept of GEST is the interrelation between all elements in a system. The relevant elements of society are, from an organisation-centred perspective, corporations and their stakeholders. Von Bertalanffy (1950, p. 139), who developed GEST, says: "General System Theory is a logico-mathematical discipline, which is in itself purely formal, but is applicable to all sciences concerned with systems".

In chapter 3 it is concluded that SA research considers society as being a system, as part of the beliefs about physical and social reality within the research paradigm. This is similar to Preston and Post (1975). Von Bertalanffy (1950) also mentions that the existence of systems implies the existence of general system laws. The search for generalisations is part of a dominant SA research methodology.

Preston and Post (1975) state that, at the time their book was written, the dominant view on 'management-society relationships' was a market-fundamentalist view. They describe changes to that view, caused by an evolutionary process of socialisation over the past decades. Socialisation, they state (Preston and Post, 1975, p. 44), is to "become adapted to a social environment".

According to Preston and Post (1975, p. 47) the socialisation process of organisations (in this case corporations) has three stages:

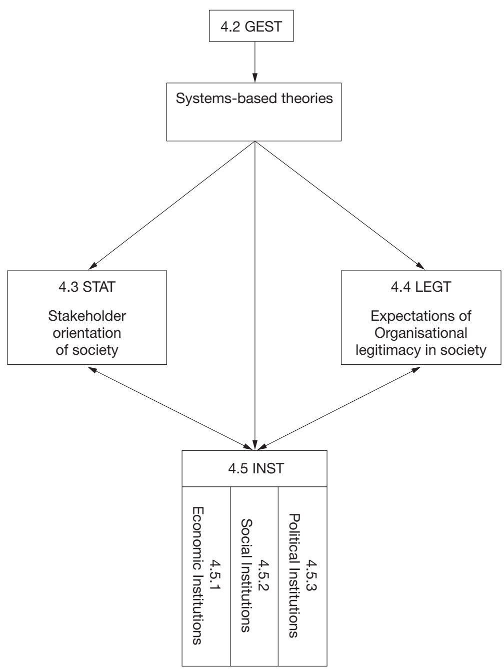
- Recognition of relevant publics – publics being groups with common interests.
- Consideration of the corporation's impact on the relevant publics.
- Positive recognition of the desires and needs of the publics and the fact that these are not just constraints on the corporation.

Preston and Post (1975) suggest that the socialisation process of corporations is a necessity for CSR. In other words, if corporations are part of the system that is called society, CSR is a response of the corporation to its own socialisation.

The application of GEST assumes a pluralistic approach. GEST as an explanatory theory for the corporation-society relationship always assumes GEST to be accompanied by other theoretical perspectives, especially decision usefulness and or similar neoclassical economic perspectives. The application of GEST suggests that the neoclassical economic theories fall within a system-theoretical framework in combination with other theories.

As is discussed in chapter 3, systems-based theories are applicable on different theoretical levels: meta-, meso- and micro-level. The meta-level is society as a whole. The meso-level refers to subsystems, or parts of society. The micro-level refers to the organisational level, which can be within the organisation or between organisation and a (sub-) system; i.e. internal and external. This is discussed in R. Gray (2010). STAT and LEGT are the systems theories that are applicable at the external micro-level – between the organisation and society. In figure 4-1 a simplified overview is given, which is derived from R. Gray *et al.* (1996, p. 49). This figure shows the relationship between the theories GEST, STAT, LEGT and INST. STAT and LEGT are clearly derived from GEST. INST is a systems-oriented theory, but is not clearly related to GEST. This is shown by the greater distance between GEST and INST, compared with the distance between the other theories. The dotted-line arrows show the relationships STAT-INST and LEGT-INST, which is discussed in section 4.7, as part of the synthesis of all theories applied.

*Figure 4-1 GEST and the systems-oriented theories*




- GEST is General System Theory.
- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.

Source: Adapted from R. Gray *et al.* (1996, p. 49).

The first theory derived from GEST that is discussed in the next section is STAT.

## 4.3 Stakeholder Theory

Stakeholder Theory is part of a group of societal systems-based theories, derived from GEST, and it has logical ties with the concept of accountability, which can be seen in figure 4-1. Accountability is a meso-theoretical concept that relates to stewardship.[22] STAT is originally a management theory (see Freeman, 1984). It can be instrumental, descriptive or normative, according to Donaldson and Preston (1995). In this dissertation the descriptive perspective of the theory is applied. R. Gray *et al.* (1996) describe two variants of STAT. One variant is related to accountability, which is: "The duty to provide and account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible" (R. Gray *et al.*, 1996, p. 38). The accountability variant is assumed to have little explanatory power in a CSR context, according to R. Gray *et al.* (1996). Deegan and Unerman (2006, p. 286) mention that the accountability variant is equal to the ethical or normative perspective of the theory. The other variant is organisational or instrumental STAT.

Like R. Gray *et al.* (1996), Van der Laan Smith *et al.* (2005, p. 127) suggest that the organisational perspective of STAT describes the relation between the corporation and its stakeholders. They find that factors from STAT are also applicable in explaining the CSD differences between corporations from different countries

There is an ongoing discussion in management literature on the validity of the application of STAT in the different STAT research variants (Phillips *et al.*, 2003 and Agle *et al.*, 2008). Their discussion focuses on the separation of managers' ethics from managers' actions with the application of STAT. In this dissertation the separation is applied. The so-called separation thesis states that instrumental and ethical STAT can be applied separately. Phillips *et al.* (2003, p. 485) oppose the separation thesis. In many studies, SA scholars implicitly accept the separation, as STAT has been applied widely in empirical research on company-stakeholder relations (see R. Gray *et al.* 1996). Deegan and Unerman (2006, p. 290) discuss the separation thesis for the fields of SA and FA. They suggest that separation causes empirical research to provide only a partial view on company-stakeholder relations. They state that separation means that companies deal with stakeholders in either an ethical or an instrumental manner, but that a combination of these is more likely. In this study, STAT is applied in a pragmatic and empirical manner. The results of this study only provide a partial view on the issue. Freeman *et al.* (2010) continue the discussion on the separation thesis in their extensive book on STAT. They conclude (2010, p. 291) that ethics is at the centre of all business decisions.

Ullmann (1985) discusses stakeholder issues in an instrumental manner, using a three-dimensional model. The three stakeholder dimensions by Ullmann are stakeholder power, strategic posture and economic performance. Roberts (1992) tests Ullmann's dimensions. Ullmann (1985, p. 552) states about stakeholder power that "stakeholders control resources critical to the organization". Roberts (1992, p. 599) states that stakeholder power means that a "firm will be responsive to the intensity of the stakeholder demands". Stakeholder power is regarded as the most important attribute of stakeholder-corporation relationships (see Van der Laan Smith *et al.*, 2005, p. 127).

Mitchell *et al.* (1997) design a model for stakeholder identification, based upon stakeholder salience. Stakeholder salience is seen as a combination of the stakeholder attributes of power, urgency and legitimacy. Mitchell *et al.* (1997, p. 865) state that stakeholder power means that a stakeholder is able to enforce the company to perform some activity that it would not have performed without the enforcement. Urgency in the manager-stakeholder relationship is where stakeholders want their wishes to be fulfilled quickly. Legitimacy in the stakeholder-manager relationship is where certain actions fit within the expectations and demands of the other party, manager or stakeholder, and where the actions are reasonable within a subsystem. The combination of the three attributes prioritises what constitutes the interests and needs of salient stakeholders for a company. Corporations deal with the salience of stakeholders' needs and wishes in a pro-active manner.

Van der Laan Smith *et al.* (2005, pp. 127-128) state that stakeholder salience attributes are more pronounced in an international context. They apply the attributes as situational factors, which influence managers' behaviour. Further, managers' characteristics are relevant in relation to the corporation's stakeholders as this explains the managers' perception of the importance of stakeholders' claims and how they deal with those claims. Freeman (2010, p. 136) summarises the conclusion by Van der Laan Smith *et al.* (2005) by stating that they "conclude that the way society defines the relationship between a firm and its stakeholders is a primary influence on the level and type of social disclosure". The latter statement provides a bridge to the following part of this subsection, in which STAT on a national level is discussed.

STAT is related to the concept of communitarianism. The country-specific orientation on shareholders or stakeholders is relevant for this study. Code law countries are more stakeholder-oriented than civil-law countries, according to Ball *et al.* (2000). Van der Laan Smith *et al.* (2005) find that the level of CSD is related to the country of origin of the corporation and specifically to the orientation of the country. A stakeholder orientation is called communitarianism by Bradley *et al.* (1999). This term relates to a corporate worldview of communitarianism, which contrasts with contractarianism. Contractarianism implies a shareholder orientation. Simnett *et al.* (2009) also apply this distinction and confirm its relevance for assurance on CSD in an international comparison.

Bradley *et al.* (1999, p. 42) study communitarianism, about which they say: "Focusing on the managerial means to achieve corporate ends, contractarians invoke norms of freedom, while communitarians emphasize responsibility".

Communitarianism is seen as a separate theory by R. Gray *et al.* (2010, pp. 14-15). They describe communitarianism as a normative view on political systems, which relates to "fairness and locally determined needs" (see R. Gray *et al.* 2010, p. 15).

Freeman *et al.* (2010, p. 138) briefly discuss the application of STAT on a national level in international comparative studies. They apply the term multi-stakeholder orientation, which is opposite to single stakeholder orientation, i.e. shareholder orientation. They mention the application of this orientation in accounting research in Ball *et al.* (2000).

A distinction can be made between internal and external stakeholders in the corporation. This distinction is made by Freeman (1984, p. 218), with his statement that "the stakeholder approach focuses on the corporation externally". Internal stakeholders are seen by him as a channel to the external stakeholders. In that view, the distinction between internal and external stakeholders is somewhat irrelevant. Eesley and Lenox (2006) discuss primary and secondary stakeholders. They view primary stakeholders as customers and employees and secondary stakeholders as outside groups (Eesley and Lenox, 2006, pp. 768 and 779n).

Clarke (1998) discusses contractual and community stakeholders. The discussion on contractarianism and communitarianism can be related to Clarke's (1998, p. 187) distinction. If having a contract with the corporation determines the position of the stakeholder, the view on society is a contractarianist view. For an overview of the stakeholders by Clarke, see table 4-1.

*Table 4-1 Contractual and community stakeholders from a contractarianist perspective*

| **Contractual stakeholders** | **Community stakeholders** |
|---|---|
| Shareholders | Consumers |
| Employees | Regulators |
| Customers | Government |
| Distributors | Pressure Groups |
| Suppliers | The media |
| Lenders | Local communities |

Source: Clarke (1998, p. 187).

A communitarianist perspective differs from the contractarianist by not having a focus on formal contracts but on community relations. Communitarianism can be seen as a normative, non-economic, organic view on the relationship between corporations and society, with a focus on stakeholders. The distinction based on having or not having a contractual relationship with the corporation is irrelevant in the communitarianist perspective.

In this section an elaboration of the systems-oriented theory STAT is given. In the next section the systems-oriented theory LEGT is discussed.

## 4.4 Legitimacy Theory

LEGT is a lesser developed theory compared with STAT. Where STAT deals with pro-activity of corporations, LEGT deals with voluntary reactions to threats by negative-impact events to the licence to operate of organisations. The organisational legitimacy of corporations, as defined by Dowling and Pfeffer (1975), is the establishment of congruence between the corporation's actions and social values. An extensive discussion on this theory is given by Suchman (1995), R. Gray *et al.* (1996) and Deegan (2007). The latter states that legitimacy is a resource for the organisation, which is needed for a going concern. Legitimacy deals with the expectations that society has of the corporation. These expectations may change and corporations then need to change, which causes a need for the corporation to act.

The approach by Suchman (1995) is applicable for this study, as it gives the opportunity to apply LEGT at an organisational level. The legitimacy of the system is a concept at the societal sub-system level.

Magness (2006, p. 542) mentions that LEGT assumes that organisations do not have a fundamental right to exist. Deegan (2002, p. 290) relates the idea of legitimacy directly to the concept of a social contract. The social contract is a concept from the 17th and 18th century by Hobbes and Rousseau. R. Gray *et al.* (2010, p. 21) describe the social contract as a contract between the empowered government and society that grants that power. The individuals benefit from being part of society and in return they agree that government has power. Organisations, like corporations, need to provide benefits to society to be able to operate in society. Those benefits can be CSR and CSD.

O'Donovan (2002, p. 349) determined types of legitimation responses to the so-called legitimacy gaps, with regard to social expectations:

- Gaining legitimacy.
- Maintaining legitimacy.
- Repairing legitimacy.

Legitimacy gaps become apparent when societal expectations differ from corporate performance.

O'Donovan (2002, p. 364) assumes that environmental disclosures are meant to present corporations "in a positive light". He further relates legitimacy to the relevant stakeholders of the organisation, which is part of STAT by Mitchell *et al.* (1997).

Luft Mobus (2005) concludes that in SA research, voluntary disclosures are related to strategic issues. She describes legitimisation by CSD as managing and manipulating the view of relevant audiences on the corporation.

She also mentions the legitimacy of the system, which she calls the institutional aspect of LEGT.

As mentioned in chapter 2, Campbell (2004, p. 116) writes about LEGT. He says organisational legitimacy is supported in a context of CSR with the use of CSD, if at least one of the two following criteria is apparent:
- Voluntary disclosure of a certain type responds to societal opinions of the stakeholder, whose interests are related to the contents of the type of CSD;
- Some sectors are likely to be more strongly influenced by certain types of voluntary disclosures.

These above-mentioned criteria can be explained by the following remarks:
- Specific stakeholders can express the legitimacy of their needs, in case of a legitimacy gap;
- The concept of legitimacy has always been difficult to get operationalised, due to its level of abstractness. Legitimacy gaps are most likely to appear in certain industries, especially the petrochemical and chemical industries. Company size has been tested as an operationalisation of legitimacy of corporations. Large corporations are more likely to create a legitimacy gap in comparison to smaller corporations, which is mentioned by Patten (1991, p. 303).

LEGT can be related to international differences in legitimising activities. Adams *et al.* (1998, pp. 2 and 16) suggested that differences in legitimising activities exist between countries, caused by differences in "social and political contexts".

## 4.5 Institutional Theory

Institutions in society are defined by Durkheim in his theory of society, as described by Berger and Luckmann (1991). Institutions are social constructions and they are structures of interaction between people. INST is the theory of institutionalisation and institutional change. Deegan and Unerman (2006, p. 297) describe processes of isomorphism, which are processes of adaptation or change of institutional practices. In words of the economist North (1990, p. 3) institutions are "the humanly devised constraints that shape interaction. In consequence, they structure incentives in human exchange, whether political, social, or economic." North (1990, p. 4) further states that laws and regulations are formal institutions. Informal institutions are "conventions and codes of behaviour". INST is a theory of constraints. North (1990, p. 42) mentions that these conventions relate to culture. He continues that informal constraints or institutions come from "socially transmitted information and the heritage that we call culture" (North, 1990, p. 37). This gives culture an important role in studies that apply INST.

INST in relation to CSR is discussed by Campbell (2007). This theory is also a systems-based theory. Preston and Post (1975) relates institutional issues to a systems-oriented view on corporations and society. Scott (1987, p. 2) discusses INST as a systems-based theory and relates the theory, amongst other fields of research, to accounting. Campbell (2007) identifies the theory for the field of research of CSR, while placing the organisation in the midst of its institutional environment, influenced by economic or institutional conditions. He proposes that relationships need to be established between CSR and the following conditions. Campbell's (2007) categorisation is mentioned below, with additional information; institutional conditions are sorted on the basis of North's categorisation of economic, social or political institutions (in brackets, behind a short description of the institution):

1. Economic conditions:
    a) Financial performance.
    b) Competition.
2. Institutional conditions:
    a) Regulations concerning position of stakeholders (social institution).
    b) Industrial self-regulation (economic institution).
    c) Monitoring by independent NGOs, "social movement organisations" (Campbell, 2007, p. 957), institutional investors and press (social institution).
    d) Normative calls by the institutional environment (social institution).
    e) Membership of trade or employer associations (economic institution).
    f) Institutionalised stakeholder dialogues (social condition).

Deegan and Unerman (2006, p. 296) state that INST is useful in SA research as it provides clarifications of how corporations align their actions with values in society. They also state that INST, STAT and LEGT are complementary theories, not competing (see Deegan and Unerman, 2006, p. 296). The above-mentioned isomorphic processes of adaptation and change relate to this. Stakeholders' values and concerns are addressed and the corporation changes and institutionalises its practices to those needs. They further describe the process of decoupling, when the corporation uses voluntary CSD to adapt to certain institutional practices to gain organisational legitimacy.

Larrinaga-González (2007, p. 163) also describes neo-Institutional Theory for SA research. He mentions that INST overlaps with LEGT and he states that "legitimacy is an element of institutions". He applies the prefix 'neo', because the variant of INST he applies is solely applicable in organisational analysis.

He describes INST as a theory that explains change. Institutions come to existence because of institutionalisation. Institutionalisation is a process of issues becoming settled socially. Larrinaga-González (2007, p. 150) discusses the Institutionalisation of sustainability reporting, which is similar to CSD. The change that Larrinaga-González (2007) mentions is the change caused by institutionalisation. He describes mechanisms of institutionalisation, which are normative, regulatory and cognitive structures. Institutions need these mechanisms to exist. Whether a state of institutionalisation of CSD has been reached in relation to these institutional subsystems remains the question to be solved in this study.

The relation between the discussion on the application of theories in chapter 2 and the contents of INST can be summarised with the remark that reality is seen as a social construction.

The remainder of this section is structured in such a way that the economic and institutional conditions, as mentioned by Campbell (2007), are discussed in relation to the economic, social and political institutions mentioned by North (1990). The structure of the remainder of the section is a combination of North's (1990) and Campbell's (2007) classifications, discussed in separate subsections: economic, social and political institutions. The institutional conditions by Campbell (2007) are spread over the subsections on institutions. Campbell (2007) does not provide a clear distinction between institutions and conditions. These are regarded as being similar in this study.

Pauly and Reich (1997) discuss institutions in an international comparative context. They study differences between German, American and Japanese corporate behaviour related to political and economic institutions and economic ideology. They conclude that the institutions studied differ per country and that globalisation does not support converging of the institutions internationally.

The institutions and ideology by Pauly and Reich (1997) are also added to the subsections below.

### *4.5.1 Economic Institutions*

The focus of North's (1990) study is on institutional change and the relationship with economic performance. He put an "emphasis on the interaction between institutions and organizations". He continues that "the major role of institutions in society is to reduce uncertainty by establishing a stable (but not necessarily efficient) structure to human interaction" (North, 1990, pp. 5-6). He says that institutions are "the underlying determinant of the long-run performance of economies" (North, 1990, p. 107).

In 1995, North states that economic rationality ignores institutions, ideas and ideologies. Only efficient markets matter, according to neoclassical economic theory. North (1990) proposed a modification of the assumption of economic rationality. He states that institutions matter in economic choices, as they constrain these choices. For this study in particular, the issues that North (1990, p. 107) wants to add to neoclassical theory are relevant, as he states that economic rationality may be influenced by institutions. The institutional aspects that he adds are institutional aspects that may alter economic rational choices. These institutional aspects are a mixture of economic, social and political aspects. The economic conditions are, in North's (1990, p. 107-112 and 139) view, the level of economic development, the level of development of local capital markets and property rights security.

A relevant discussion by North (1990) is the level of formality of institutions. The level of development of the economy is a condition that is indirectly related to the formality of institutions. The level of development of the economy relates to the level of development of capital markets. Development of capital markets is influenced by formal regulations (see Fisman and Love, 2004).

The distinction that North (1990) makes on the formality of institutions is relevant for another, informal institution – ideology, in particular economic ideology. North (1990, p. 23n) defines ideology as "the subjective perceptions (models, theories) all people possess to explain the world around them". A capitalist free-market ideology is supported by formal institutions, laws and regulations.

Campbell (2007, p. 952) describes economic conditions as a combination of economic and financial conditions that are relevant to explain CSR in relation to INST. The financial conditions relate to the organisational level. He hypothesised that weak financial performance relates to a low level of CSR activity. The discussion on that relationship has not led to a model or theory so far (Margolis and Walsh, 2001 and 2003).

Campbell (2007, p. 953) mentions the level of competition as the only relevant economic condition in relation to CSR. He suggests that corporations are less likely to act in socially responsible ways if there is a low or a high level of competition. He states that a low level of competition causes low levels of CSR performance as reputation and customer loyalty do not, either positively or negatively, affect financial performance when there is a (near) monopoly. A high level of competition relates to the level of CSR negatively, if this competition leads to low profit margins that leave no room for spending or investments in CSR.

Campbell (2007, p. 955) further mentions two other institutional conditions that relate to economic institutions:

- Industrial self-regulation.
- Membership of trade or employer associations.

Industrial self-regulation is informal, as codes of conduct amongst businesses in the same industry (or sector). The membership of trade or employer associations increases peer pressure amongst businesses and improves monitoring, as is stated by Campbell (2007, pp. 959). He states that membership of these associations increases the likelihood for corporations to act in a socially responsible way, if the employer associations promote CSR.

The economic institutions according to Pauly and Reich (1997, p. 7) are the organisation of markets (capital and trade), the level of market concentration (capital and trade), market regulation (capital and trade) and the relationship between business and providers of capital (banks and shareholders).

### *4.5.2 Social Institutions*

The main social institution that is discussed here is culture. Culture is an informal institution, as is mentioned by North (1990, p. 37). It is part of a set of informal constraints on human interaction. Hofstede's Research-Based Theory on National Culture Dimensions is a theory on culture that has been applied in other SA and FA studies. These are discussed in chapter 2. Culture, as researched by Hofstede (1983, 1984a, 1984b and 2001) and Hofstede and Bond (1988) is seen in this study as supplementary to INST. Hofstede describes culture by national culture dimensions – the national level of the cultures studied implies national-level social institutions. S.J. Gray (1988, p. 7) describes culture as a part of societal values, which influences institutional consequences.

Culture is collective 'mental programming', as Hofstede describes (2001, p. 14). Sources of mental programming are socially constructed. Culture is transferred socially, or inherited. Hofstede's work on national culture dimensions was initially performed in the 1960s. The study was carried out for IBM among its staff at offices worldwide. Hofstede originally identifies four dimensions that represent people's values at work as related to the culture of the country in which they work.

The four dimensions originally identified are:
- Masculinity (MAS).
- Power distance (PDI).
- Individualism (IDV).
- Uncertainty Avoidance (UAI).

One more dimension is added later (Hofstede, 2001):
- Long-term orientation (LTO).

The dimensions are briefly discussed below. A further discussion on the application and operationalisation of these dimensions is given in chapters 5 and 6.
- The dimension MAS stands for assertiveness and competitiveness. Van der Laan *et al.* (2005) describe femininity, according to Hofstede, as the opposite of masculinity and it has a focus on relationships, cooperation and environment. A low-masculine society is a socially oriented society, or a society with a stakeholder orientation.

– PDI shows the level of inequality of power distribution within a group of people or organisation. The acceptance of the inequality is the measured object.
– IDV is the opposite of collectivism. Collectivism means that individuals have close ties with other members of a group to which they belong. The group can be described as a "tightly-knit social structure" (Hofstede, 1984a). Loyalty towards the group is important.
– With the term UAI, Hofstede means the level of acceptance of uncertainty. Hofstede suggests that in societies with a high level of uncertainty avoidance, an increase of uncertainty is neutralised by the issuance of laws and regulations.

1. The LTO dimension refers to a forward-looking perspective rather than an historical perspective. Such a future orientation is related to thrift and perseverance. The opposite – short-term – orientation means a focus on social status being fixed in the present and past. Although the naming of the dimension suggests something generally applicable, this dimension is strongly related to Confucian values. It scores highly in Hong Kong[23] and in countries with a large Chinese influence, but also in some other countries.[24] Trotman and Bradley (1981) relate the social behaviour of corporations to an emphasis on long-term decision-making. Freeman and McVea (2002) clearly relate a corporation's stakeholder management to a long-term orientation of the corporation. Some doubts can be raised about LTO being part of a stakeholder orientation, because of the strong link with Confucian values. These values contain other values than a long-term orientation. Hofstede and Bond (1988, p. 7) refer to Confucius' teachings as 'practical ethics'. A remarkable principle of Confucianism is hierarchy, which is mentioned by Hofstede and Bond (1988). Hierarchy can also be related to PDI, which can be argued as being non-social. Further, the basic social organisation in Confucianism is the family, which is very similar to a stakeholder orientation for society as a whole.

S.J. Gray's (1988) model of culture and accounting values applies Hofstede's four original national culture dimensions (1983). S.J. Gray's (1988) study is discussed in chapter 2, section 4. His hypothesis suggests that relationships between national culture dimensions, societal values, and institutional consequences of societal values, accounting values and accounting systems exist.

He identifies the following accounting values and their opposites:

– Professionalism vs. Statutory control.
– Uniformity vs. Flexibility.
– Conservatism vs. Optimism.
– Secrecy vs. Transparency.

S.J. Gray (1988) relates high individualism combined with low uncertainty avoidance to professionalism in accounting. He also relates high uncertainty avoidance and low individualism to a high level of uniformity. He relates high uncertainty avoidance, low individualism, and low masculinity to a high level of conservatism. He finally relates high uncertainty avoidance, combined with high power distance and low individualism and low masculinity with a high level of secrecy. In particular, this last suggested relationship has been assessed in accounting studies, for example Hope *et al.* (2008).

The theory of Hofstede is criticised by, for example, McSweeney (2002) and Baskerville (2003). McSweeney (2002, p. 89) questions "systematically causal national cultures". Baskerville (2003, p. 1) expresses a similar critique. She rejects "such a universalist approach". She mentions that culture and nations are non-similar concepts. She continues by stating that in accounting research, differences between nations can better be explained thus:"Clusters of characteristics reflecting the wealth, economy, political and social organization of that nation may then lead to identifying why and how accounting is undertaken in that nation" (Baskerville, 2003, p. 10). She implicitly refers to institutions.

As is mentioned in chapter 3, section 5, cultural relativism particularly relates to reality as a social construct: culture influences social interaction, and therefore institutions. Cultural relativism tells us that differences exist, but there is no normative framework available in relation to culture. The difference between national cultures is applied in this study.

In addition to the discussion on culture, Campbell (2007) mentions social institutional conditions. These social institutions are:

- Regulations concerning the position of stakeholders.
- Monitoring by independent NGOs, "social movement organisations", as Campbell writes (2007, p. 957), institutional investors and press;
- 'Normative calls' by the institutional environment;
- Institutionalised stakeholder dialogues.

The regulations that Campbell (2007) mentions are laws to protect stakeholders' interests and the environment. The monitoring of the press and institutional investors by NGOs relate to informal institutions. The 'normative calls' are difficult to classify. As examples, Campbell mentions business school curricula with an increased emphasis on CSR, and training programmes by business associations on the cooperation between business and union. The institutionalised stakeholder dialogues are studied in relation to STAT by Kaptein and Van Tulder (2003).

### *4.5.3 Political Institutions*

North (1990, p. 138) discusses political institutions on the level of transaction costs in the political process. He relates several national characteristics to political institutions: provision of a legal framework by politicians, the definition of a level of freedom as a political institution, property rights and the development of capital markets as factors related to political institutions.

For this study the relationship between corporations and institutions is relevant, and can be seen in the study by Pauly and Reich (1997). They mention differences in democracy as differences in political institutions. They state that in a context of globalisation, markets never replace politics, i.e. politics are a factor that influences corporate action in addition to market influences (see Pauly and Reich, 1997, p. 2).

Brammer *et al.* (2009) study the relation between internationalisation by multinationals and negative social issues in countries of concern and corporate characteristic charitable giving. They apply STAT, while using Freedom House and Transparency International data on 305 UK-listed corporations. Brammer *et al.* (2009) relate charitable giving, as a stakeholder management tool, with freedom in societies. The country characteristic freedom is seen as salient, which assumes to offset stakeholder-related actions. Political freedom is applied in relation to a stakeholder orientation in countries. Freedom is a concept related to politics, political freedom, and civil freedom. The definition and scores are given by Freedom House (McColm *et al.*, 1993, pp. 77-84).

Stiglitz (2007, p. 196) relates corporate strategy to politics: politics are part of strategy. The relationship between corporations and politics is described in PAT and it relates to political institutions as the threat of legislation may lead to manipulating accounting numbers by corporate managers. In their 1979 work, Watts and Zimmerman mention corporate social disclosures as a minor issue. They mention in their 1978 paper (p. 115): "To counter these potential government intrusions, corporations employ a number of devices, such as corporate social responsibility campaigns in the media, government lobbying and selection of accounting procedures to minimize reported earnings."

As is mentioned in chapter 3, Milne (2002) criticises the applicability of PAT in SA research. The political costs hypothesis of PAT may be relevant in a discussion of political institutions, but Milne shows that the single application of the political cost hypothesis, without the bonus plan and debt/equity hypothesis, gives an incomplete view of what is meant to describe CSD levels using PAT.

Political institutions are closely related to legal issues, as is suggested by PAT, but is also found in the work of Rawls (1971).

So far in this chapter, separately applicable theories have been discussed. The international perspective of this study asks for an international add-on to the theories. This is provided in the next section.

## 4.6 International Theoretical Issues

Because of the international dimension of this study, there is a need to add international theoretical aspects to the theoretical framework. These aspects in the field of international accounting relate to differences in accounting methods and regulations. As discussed in chapter 3, the contribution of international accounting to this study is the comparative method, which uses contextual or institutional factors. The output of international accounting research has a different focus from this study. It aims to identify and describe different accounting methods and regulations and contribute to international accounting harmonisation (see Alexander and Nobes, 2007, p. 364).

Pauly and Reich (1997) study the relationship between institutions and multinational corporate behaviour. They identify three types of national differences that "condition corporate structures" (1997, p. 23) – political institutions, economic institutions and dominant economic ideology. In another study in the field of SA by Adams (2002, p. 225), these structures are called contextual factors. Pauly and Reich's (1997) study takes its theoretical basis from globalisation and the convergence hypothesis. This hypothesis states that globalisation leads to similar economic institutions, politics and society everywhere, on a worldwide scale, as described by Berger and Dore (1996). See also Rodrik *et al.* (2004) and Hall and Jones (1999). Rodrik *et al.* (2004) apply INST in an economic way to explain labour productivity differences between countries. Hall and Jones (1999, p. 1) relate the same labour productivity to an attribute that they call social infrastructure. This social infrastructure is defined by them as "the institutions and government policies that determine the economic environment within which individuals accumulate skills and firms accumulate capital and produce output" (Hall and Jones, 1999, pp. 1-2).

Stiglitz (2007) relates globalisation to CSR. He states that globalisation can be harmful to societies, as "in a world of ruthless competition, incentives work against even those with the best intentions" (2007, p. 199). Multinational corporations (MNCs) hide behind borders, he mentions. The MNCs that work in developing countries can be very large compared to the economy they work in. The MNCs may provide many jobs that may be put at risk if the MNC threatens to leave the country. Stiglitz (2007) describes cases in which MNCs have threatened to leave developing countries if environmental laws are put in place. In brief, Stiglitz's (2007) message is that institutions in the developing world differ from the developed nations and MNCs may be willing to exploit those differences.

The differences in CSD levels between countries, as is discussed by Adams *et al.* (1998) and also in subsection 4.4, are relevant to be mentioned in this subsection on international theoretical aspects.

With the addition in this section of international theoretical aspects, the spectrum of theories is complete, except for the synthesis. In the next section this synthesis is made.

## 4.7 Synthesis of the Relevant Theories into the Theoretical Framework

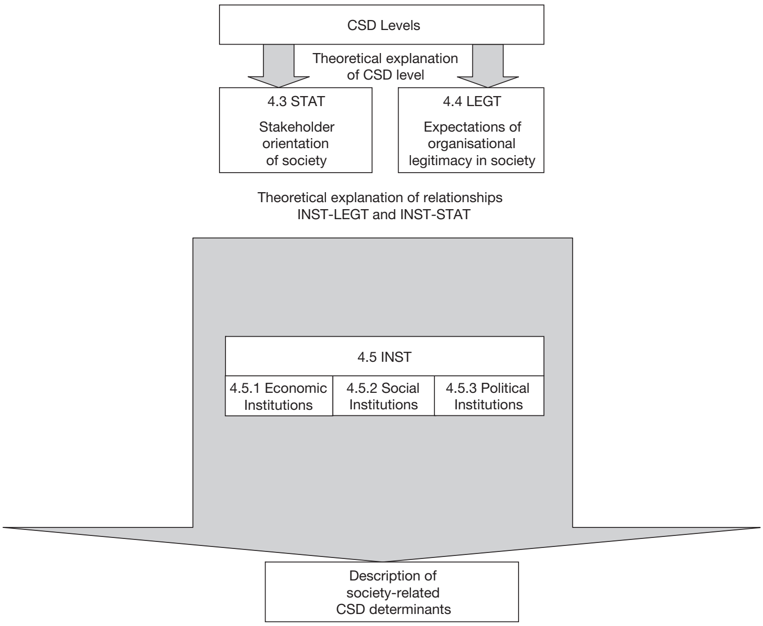
The systems-oriented theoretical framework of this study contains STAT, LEGT and INST, in combinations and separately. The reality of SA research is socially constructed, as is discussed in chapter 3. STAT, LEGT and especially INST assume a socially constructed reality, which influences organisations and corporations. Although there is an overlap between the three theories, they are complementary. STAT and LEGT can be applied in different situations. LEGT can be applied in reactive CSD, for example in relation to legitimacy-threatening events.

STAT can be applied to explain pro-active stakeholder-specific disclosures. STAT, in combination with communitarianism, can be applied to study stakeholder orientation of societies. INST provides structure to STAT and LEGT. INST shows the constraints that are caused by institutions. Formal and informal institutions partly determine legitimising behaviour or activities that are related to stakeholder issues. INST assumes that institutions are a set of constraints related to economic, social, and political issues. This means that STAT and LEGT of organisations describe activities within the boundaries of institutions. Institutional determinants relate to corporate actions in relation to society and therefore CSD levels. This assumes that a relationship between legitimacy and shareholder issues and institutions may exist. Figure 4-2 shows the relationship between the theories; STAT and LEGT describe the intrinsic motivation for CSD determinants and INST the extrinsic boundaries for the CSD determinants. This is the theoretical framework of this study. The combined framework of these theories suggests the following: differences in the institutional environment between countries can be related to differences in corporate legitimisation, stakeholder salience and the stakeholder orientation of nations.

Figure 4-2 shows a flow that represents a description or explanation of corporate CSD activities by the systems-based theories STAT and LEGT, constrained by institutions of INST. This can be explained as follows: the small arrows going from the CSD level to STAT and LEGT show that the corporate activity may be initiated by legitimacy and stakeholder-driven CSD activities. The large arrow shows that the next step to explain corporate

CSD activities are institutional constraints. The flow shown by the arrows combined also represents the development of hypothesis in Chapter 5; How can hypotheses be formulated within the boundaries of the theoretical framework that illustrate determinants of the research objects?

*Figure 4-2 Theoretical framework of this study*




- CSD is Corporate Social Disclosures.
- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legìtimacy Theory.

## 4.8 Summary of the Chapter

A theoretical framework is developed which represents the 'bigger picture' of society. Theories are derived from GEST. These theories are STAT, LEGT and INST, which are system-oriented theories. According to LEGT, corporations look for a licence to operate, which can be threatened by certain events. STAT can be applied in stakeholder-corporations relationship and as a stakeholder-orientation of societies through communitarianism.

Institutionalism relates to social structures. The theories are applicable in different situations. INST can be applied in combination with STAT and LEGT. It can be concluded that a framework of these three theories can be applied to explain and describe corporate actions, such as society-related determinants in an international comparison.

# 5 Hypothesis Development

## 5.1 Introduction

In this chapter hypotheses are developed. The development is done through a synthesis of the theoretical framework and prior literature. The hypotheses developed have a focus on how CSD determinants are suggested to be related to CSD levels and the theoretical framework. In this study the theoretical framework combines systems-oriented theories STAT and LEGT, as is discussed in chapters 3 and 4, with INST. According to the theoretical framework, CSD determinants can be explained by analysing CSD level with explanatory theories STAT and LEGT and constrained by institutions. Three types of institutions have been proposed in chapter 4 – economic, social and political. The development of hypotheses is done in two stages. Initially general research questions are formulated, based upon the theoretical framework and prior literature. The hypothesis development is the operationalisation of the questioned relationships from the research questions. Each research question and the following hypothesis suggests a specific theoretical relationship.

The remainder of this chapter is organised as follows. Section 5.2 shows the empirical studies from chapter 2 that deal with institutions, which are re-sorted and re-numbered for this chapter[25]. Relevant discussions on institutions and CSD from prior literature are analysed. The relevance for this study relates to the application of INST through institutions, the application of STAT or LEGT and the type of disclosure, CFD or CSD. Sections 5.3 to 5.5 contain discussions on the development of research questions per institution type. Section 5.3 repeats briefly the theoretical framework from chapter 4, in order to be able to obtain a full overview of the development of research questions.

Section 5.4 contains the development of research questions on economic institutions: subsection 5.4.1 a research question based upon STAT and subsection 5.4.2 a research question based upon LEGT. Section 5.5 contains the development of research questions on social institutions: subsection 5.5.1 a research question based upon STAT and 5.5.2 a research question based upon LEGT.

Section 5.6 contains the development of research questions on political institutions: subsection 5.6.1 a research question based upon STAT and 5.6.2 a research question based upon LEGT.

Section 5.7 contains the development of hypotheses. For each of the six research questions a separate subsection is arranged. Section 5.8 contains the summary of the chapter.

At the end of the chapter figure 5-1 is given. This figure contains the outline of the development of research questions, linked to the sections and subsections in this chapter. This Figure 5-1 is an extended version of figure 4-2, the theoretical framework. Figure 5-1 shows the flow of analysis.

## 5.2 Prior Empirical Literature on Institutions from Chapter 2

Prior literature is discussed in chapter 2. In that chapter the distinction is made between studies that use institutional data and other studies. The studies from chapter 2 that apply institutional data never explicitly mention INST, but these studies implicitly apply INST, as is analysed in chapter 2. The institutions that are studied in prior literature are shown in this chapter and analysed for applicability in this study. Most relevant studies are found in sections 2.4 and 2.5. The relevance relates to the search for relationships between institutions, stakeholder and legitimacy issues and corporate disclosures (CSD or CFD). These relationships are shown in table 5-1. The structure of Table 5-1 is similar to table 2-2: first research objects, second research approach, third paradigm and fourth theories applied. A fifth characteristic is added, which are the institutions studied.

In this section the summary of the relevant prior literature is provided. This serves as input for the development of research questions and hypotheses in sections 5.4 to 5.7. In the next section the relationship between the theoretical framework and development of research questions and hypotheses is given. In the sections hereafter, table 5-1 is split into separate tables 5-2 to 5-4 per institution for further study.

*Table 5-1 Prior empirical literature and institutions*

| **Study** | | (1) Belkaoui (1983) | (2) S.J. Gray (1988) | (3) Guthrie and Parker (1990) | (4) Adams *et al.* (1998) | (5) Ball *et al.* (2000) | (6) Jaggi and Low (2000) | (7) Mathews and Reynolds (2001) | (8) Newson and Degan (2002) | (9) Adams (2002) | (10) Archambault and Archambault (2003) | (11) Hope (2003b) | (12) Van der Laan Smith *et al.* (2005) | (13) Luft Mobus (2005) | (14) Hope *et al.* (2008) | (15) Simnett *et al.* (2009) | (16) Orij (2010) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Section in chapter 2** | | 2.4 | 2.4 | 2.6 | 2.5 | 2.4 | 2.4 | 2.6 | 2.5 | 2.5 | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | 2.5 | 2.5 |
| **Research Objects** | CSD | | | X | X | | | X | X | X | | | X | X | | | X |
| | CFD | X | X | | | X | X | | | | X | X | | | X | | |
| **Research Approach** | Outside-in | X | X | | X | X | X | | X | X | X | X | X | X | X | X | X |
| | Inside-out | | | X | | | | X | | | | | | | | | |
| **Paradigm** | SA | | | X | X | | | X | X | X | | | X | X | | X | X |
| | FA | X | X | | | X | X | | | | X | X | | | X | | |
| **Theories Applied** | STAT | | | | | | | | | X | | | X | | | X | X |
| | LEGT | | | | X | | | | X | | | | | X | | | |
| | Economic | X | X | | X | X | X | | X | X | X | X | X | | | X | |
| **Institutions** | Social | X | X | | X | | X | X | X | X | X | X | X | | X | | X |
| | Political | X | | | X | | X | | | X | X | | | X | | | |

- CSD is Corporate Social Disclosures.
- CFD is Corporate Financial Disclosures.
- SA is Social Accounting.
- FA is Financial Accounting.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.

## 5.3 Theoretical Framework from Chapter 4

The theoretical framework contains three theories – STAT, LEGT and INST – that are applied to explain CSD levels. STAT, in combination with communitarianism, suggests differences in stakeholder orientation of societies. LEGT shows that organisational legitimacy is related to the search for corporations to find their relevant publics in an attempt to create, preserve or regain a licence to operate. On a national level legitimacy relates to the general concept of the social contract (Deegan, 2002, p. 290). INST shows socially created constraints by institutions.

Formal and informal institutions partly determine legitimising behaviour or activities that are related to stakeholder salience. This assumes relationships between theories, which can be found in combinations of theories. These combinations can explain certain corporate activities. These combinations are as follows: Corporate activities that relate to STAT and LEGT are partly determined by INST. INST provides an external boundary to the activities. INST assumes that institutions are a set of constraints related to economic, social, and political issues. It is suggested by STAT that institutions are related to the orientation of society – whether a society is stakeholder- or shareholder-oriented. LEGT suggests a relationship between institutions and the status of organisational legitimacy in societies. The relationship between CSD and the theoretical framework are discussed in the further sections of this chapter.

After a brief summary of the theoretical framework, research questions are developed in the three sections hereafter. The development starts with research questions related to economic institutions. This development is done in subsections for research questions related to STAT and LEGT.

## 5.4 Research Questions related to Economic Institutions

Economic institutions have their relevance for CSD levels, as is discussed by Adams (2002). Adams (2002, p. 227) states that the economic environment influences the level of CSD, but less so than the social environment. She further mentions economic events that have an influence on CSD levels (2002, p. 227). Adams *et al.* (1998, p. 17) suggest that differences between the social and political contexts between nations can be related to corporations willing to influence government ideology on freedom of markets. They also state that LEGT is an explanatory theory for motives for CSD, but they exclude accountability to stakeholders in relation to freedom of markets as a possible explanatory theory (1998, p. 17).

The theoretical mismatch between CSD and economic issues at a corporate level has been discussed in chapter 3. The match between levels of CSD and economic institutions is discussed along the line of institutions as constraints.

In chapter 4 a theoretical study by Campbell (2007) is presented. He hypothesises on the relationship between CSR-activity and the level of competition in markets and societies, which later will be called industrial organisation. He suggests that industrial organisation can be part of an Institutional Theory of CSR. Although it can be argued that industrial organisation is related to how corporations behave, it is assumed in this study that no theoretical relationships based upon STAT and LEGT can be established.

In this section the prior literature is discussed which mentions economic institutions. These studies are also mentioned in chapter 2, but this section has a focus on economic institutions. In subsections 5.4.1 and 5.4.2 the relationship between economic institutions and STAT and LEGT are discussed. The studies in table 5-2 are discussed for their relevance to economic institutions. Table 5-2 contains a selection of articles from table 5-1 that relate to economic institutions only.

*Table 5-2 Prior empirical literature and economic institutions*

| **Study** | | (1) Belkaoui (1983) | (2) S.J. Gray (1988) | (4) Adams *et al.* (1998) | (5) Ball *et al.* (2000) | (6) Jaggi and Low (2000) | (8) Newson and Deegan (2002) | (9) Adams (2002) | (10) Archambault and Archambault (2003) | (11) Hope (2003b) | (12) Van der Laan Smith *et al.* (2005) | (15) Simnett *et al.* (2009) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Section in chapter 2** | | 2.4 | 2.4 | 2.5 | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | 2.4 | 2.5 | 2.5 |
| **Research Objects** | CSD | | | X | | | X | X | | | X | |
| | CFD | X | X | | X | X | | | X | X | | |
| **Research Approach** | Outside-in | X | X | X | X | X | X | X | X | X | X | X |
| | Inside-out | | | | | | | | | | | |
| **Paradigm** | SA | | | X | | | X | X | | | X | X |
| | FA | X | X | | X | X | | | X | X | | |
| **Theories Applied** | STAT | | | | | | | X | | | X | X |
| | LEGT | | | X | | | X | | | | | |
| **Institution** | Economic | X | X | X | X | X | X | X | X | X | X | X |

- CSD is Corporate Social Disclosures.
- CFD is Corporate Financial Disclosures.
- SA is Social Accounting.
- FA is Financial Accounting.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.

(1) Belkaoui (1983) studies the relationship between all mentioned institutions and CFD – economic, social and poltical. His study is relevant for the purpose of identifying economic institutions for operationalisation purposes. Belkaoui (1983) suggests that high per capita GNP, high income growth

and high economic and political freedom relates to an improvement of adequacy of financial reporting and disclosure. This suggested relationship could not be confirmed empirically by Belkaoui (1983).

(2) S.J. Gray (1988) proposes a model to assess the influence of culture on FA issues. The accounting issues in the model are “the development of accounting systems, the regulation of the accounting profession and attitudes toward financial management and disclosure” (S.J. Gray, 1988, p. 1). The accounting issues mentioned here are economic institutions. S.J. Gray (1988) does not test the model empirically. The proposed model by S.J. Gray (1988) is an attempt to link social (cultural) institutions to economic institutions, specifically accounting issues.

(4) Adams *et al.* (1998) discuss institutional differences between countries that could cause differences in CSD levels. They do not study these issues, but suggest further research. They mention social and political institutions that are related with economic institutions. These are (Adams *et al.* 1998, p. 17): the effect of strong trade-unions, political climate, signing of European Union social charter and works council regulation and the strength of environmental pressure groups. They also state that their results show that voluntary CSD is not related with stakeholder accountability, but it is meant to enforce a free market by influencing government policy and encouraging government to refrain from the introduction of stricter social legislation. The free market ideology issue is seen in this study as an economic institution.

(5) Ball *et al.* (2000) focus on differences between code law and common law countries. Though they ignored the terms communitarianism and contractarianism, they explain that the distinction between code law countries and civil law countries is similar to the distinction of shareholder and stakeholder corporate governance models. They find differences in FA practices between corporations from the two groups of nations. They further look at differences in security market regulation, security litigation costs and the organisation of the debt markets.

(6) Jaggi and Low (2000) test the predictive power of all types of institutional determinants. They found CFD differences between corporations from different legal origins. They suggest that the level of CFD is mainly determined by information needs related to capital markets.

(8) Newson and Deegan (2002) discuss culture and relate this to legitimacy. They also study the expectations of economic issues amongst their research population. These are the expectations of how MNCs behave on a global scale concerning economic development and global competition. The specific relationship between legitimacy and these economic institutions is untested, but there is an expectation that country of origin plays a role in CSD levels and legitimising behaviour and economic environment.

(9) Adams (2002) studies internal organisational factors that influence CSD, in combination with institutional factors. She takes into account stakeholder involvement and accountability. She studies internal factors, but also discusses institutional factors influencing CSD levels – economic, social and political, in a slightly different classification. A brief conclusion by Adams (2002) states that there is different CSD due to different needs for different stakeholders in different countries. Regarding the economic institutions or context, Adams says (2002, p. 227) that "the influence of the economic does not appear to be as strong as the social". What she means exactly by "the economic", remains unclarified.

(10) Archambault and Archambault (2003) study the influence of institutional factors on CFD. They state that economic development is predicted to relate positively to the development of accounting systems in nations, as development causes an increase in capital needs. Increased capital needs cause an increase in the need for accounting systems. As with Belkaoui (1983), the study is relevant for the purpose of identifying economic institutions as variables and proxies in chapter 6.

(11) Hope (2003b) relates culture to legal origin and the level of CFD. The issue of legal origin is studied in a similar way to Ball *et al.* (2000). Legal origin according to Ball *et al.* (2000) refers to the economic institution of corporate governance systems. Hope (2003b) states that in stakeholder-oriented societies the distance between management and shareholders is smaller than in shareholder-oriented counties, which causes a lower need for financial information.

(12) Van der Laan Smith *et al.* (2005) study the relationship between national corporate governance systems, culture and the stakeholder orientation of societies or communitarianism. National corporate governance systems are economic institutions. These are constraints on economic activities. They find that corporate governance systems are related to culture and CSD levels. Their selection of countries is limited – it is a comparison between US corporations and corporations from Scandinavia.

(15) Simnett *et al.* (2009) apply nation-related factors, which are the quality of legal systems and the distinction between stakeholder and shareholder orientation of nations. For this national stakeholder orientation they apply the proxy legal system. They state that the business culture in a nation partly determines the demand for CSD assurance. In their view, part of the business culture is determined by the above-mentioned stakeholder and shareholder orientation of nations. The business culture is regarded as an economic institution in this study.

### 5.4.1 Economic Institutions and Stakeholder Theory

STAT has in some cases been applied as an explanatory theory for CSD in relation to economic institutions. These studies are Van der Laan Smith *et al.* (2005) and Simnett *et al.* (2009), although the latter studies CSD audits. The institutions that are mentioned in prior literature are corporate governance systems, economic development business culture, and governments' free market ideology (Adams *et al.*, 1998). The latter, governments free market ideology, also has a relationship with political institutions.

Stakeholder orientation at a society-level relates to the economic institution of corporate governance. Corporate governance is likely to differ between stakeholder and shareholder-oriented nations, and therefore the level of CSD is assumed to differ for countries with differing corporate governance systems. Corporate governance systems are often studied with the proxy legal origin, for example by Hope (2003b).

Economic development may be related to CSD, but no relationship can be suggested on the basis of STAT. Economic development is related to increased corporate capital needs, which can be related to CFD levels, but there is no clear match with levels of CSD.

Business culture, as described by Simnett *et al.* (2009) has a relationship with sustainability report assurance. They confirmed in their study that business culture is partly determined by the stakeholder orientation of societies.

Stock market development as an economic institution is studied by La Porta *et al.* (2006), in relation to stock market laws.[26] Based on their study, legal origin can be applied as a proxy for stock market development. A separate hypothesis is not developed, as legal origin is already a proxy of corporate governance systems.

Free market ideology may be related to levels of CSD, but that is explicitly linked to legitimacy by Adams *et al.* (1998) and (stakeholder) accountability is excluded by them. An addition can be made to the statement that stakeholder accountability needs to be excluded from the analysis in relation to freedom of markets. An issue that has been ignored so far in prior literature is the possible existence of a relationship between a stakeholder orientation of society and free market ideology. Except for the remark by Bradley *et al.* (1999, p. 44) that contractarianism relates to competition and communitarianism to cooperation, no empirical test of the relationship between levels of CSD and free market ideology based upon a stakeholder orientation is known to the author.

The research question based on the above-mentioned discussion is:

*Research question 1: How are CSD levels related to economic institutions and stakeholder orientations of societies of corporations' home countries?*

### *5.4.2 Economic Institutions and Legitimacy Theory*

The relationship between economic institutions and levels of CSD, explained by LEGT, has not been confirmed clearly in prior literature. It is discussed by Adams *et al.* (1998) and Adams (2002). LEGT has often been applied as an explanatory theory for CSD, as can be seen in chapter 2. Prior literature, as is also discussed in the first part of this section, shows that LEGT is only applied in some cases in relationship with institutional issues. LEGT is related to CSD and governments' free market ideology by Adams *et al.* (1998). The corporations' attempts to influence government policies on free markets can be seen as a mixed economic-political institution. With regard to the economic institution that relates to government ideology, it is suggested to cause CSD levels to be high. CSD activities have a focus on government as its relevant public. This is the way corporations deal with demands from society. This means that a relationship between the economic institutions and CSD can be explained by expectations of organisational legitimacy.

The research question based on the above-mentioned discussion is:

> *Research question 2: How are CSD levels related to economic institutions and expectations of organisational legitimacy in societies of corporations' home countries?*

In this section, two economically-oriented research questions are developed. In the next section, 5.5, two socially-oriented research questions are developed.

## 5.5 Research Questions related to Social Institutions

Social institutions have their relevance for CSD levels, as is discussed by Adams (2002). Although all institutions have a social basis, social institutions have been identified as separate institutions or institutional conditions by, for example, Campbell (2007). Culture has often been mentioned as a social institution that has influence on CSD, as is noted by Adams (2002). In one study the relationship between human development and CSD is mentioned, although no clear relationship with CSD levels is established (Newson and Deegan, 2002, p. 187). Other social issues from FA research that are studied in prior literature are literacy rates and religion (Archambault and Archambault, 2003).

The search for cultural dimensions that relate to levels of CSD is based upon the suggestion that there are theoretically reasonable differences in levels of CSD between corporations with different scores for particular national culture dimensions. The relationship between CSD and culture is based on the reasoning that differences exist between the stakeholder orientations of countries. National culture dimensions, as societal values, are reflected in situational factors, which associate with the stakeholder salience attributes, and in management characteristics. Van der Laan Smith *et al.* (2005, p. 132) argue that: "In a society concerned with social issues, we argue that stakeholder groups have more power, possess greater legitimacy, and have their claims viewed with greater urgency".

The studies in table 5-3 are discussed for their relevance to social institutions. Table 5-3 contains a selection of articles from table 5-1 that relate to social institutions only.

*Table 5-3 Prior empirical literature and social institutions*

| **Study** | | (1) Belkaoui (1983) | (2) S.J. Gray (1988) | (4) Adams *et al.* (1998) | (6) Jaggi and Low (2000) | (7) Mathews and Reynolds (2001) | (8) Newson and Deegan (2002) | (9) Adams (2002) | (10) Archambault and Archambault (2003) | (11) Hope (2003b) | (12) Van der Laan Smith *et al.* (2005) | (14) Hope *et al.* (2008) | (16) Orij (2010) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Section in chapter 2** | | 2.4 | 2.4 | 2.5 | 2.4 | 2.6 | 2.5 | 2.5 | 2.4 | 2.4 | 2.5 | 2.4 | 2.5 |
| **Research Objects** | CSD | | | X | | X | X | X | | | X | | X |
| | CFD | X | X | | X | | | | X | X | | X | |
| **Research Approach** | Outside-in | X | X | X | X | | X | X | X | X | X | X | X |
| | Inside-out | | | | | X | | | | | | | |
| **Paradigm** | SA | | | X | | X | X | X | | | X | | X |
| | FA | X | X | | X | | | | X | X | | X | |
| **Theories Applied** | STAT | | | | | | | X | | | X | | X |
| | LEGT | | | X | | | X | | | | | | |
| **Institution** | Social | X | X | X | X | X | X | X | X | X | X | X | X |

– CSD is Corporate Social Disclosures.
– CFD is Corporate Financial Disclosures.
– SA is Social Accounting.
– FA is Financial Accounting.
– STAT is Stakeholder Theory.
– LEGT is Legitimacy Theory.

(1) Belkaoui (1983) studies the relationship between demographics as a social indicator and CFD. He suggests that large numbers of people that are interested in accounting numbers could relate to a high level of CFD, which could not be supported empirically.

(2) S.J. Gray's (1988) model to assess the influence of culture on FA issues suggests that culture is an important factor in the analysis of changes of social systems. The model is an attempt to link social (cultural) institutions to economic institutions, specifically accounting issues. The model has not been tested, but parts of the model are tested by several others such as Hope (2003b) and Hope *et al.* (2008).

(4) Adams *et al.* (1998) discuss institutional issues in relation to economic institutions. They mention social and political institutions that are related to economic institutions. These are (Adams *et al.* 1998, p. 17): the effect of strong trade-unions, political climate, signing of the EU social charter and works council regulation and the strength of environmental pressure groups. These institutions are a mix of economic social and political issues. Specifically social are the trade unions and the EU labour regulations.

(6) Jaggi and Low (2000) test the predictive power of all types of institutional determinants. They find no relationship between CFD and culture in common law nations, but for code law nations they find a relationship with culture. They also find that common law nations show higher levels of CFD and culture makes a difference on a world-wide sample. They suggest that if culture is no descriptor of CFD, the level of CFD is mainly determined by information needs related to capital markets.

(7) Mathews and Reynolds (2001) test S.J. Gray's (1988) model. They show that differences in CSD levels between nations are relevant, specifically Hofstede's (1983) dimensions and S.J. Gray's (1988) model.

(8) Newson and Deegan (2002) discuss culture and its relationship with legitimacy and multi-nationality of corporations. They find that corporations look for their relevant publics to legitimise themselves. MNC's public is the global society. They state that culture its influences the expectations of the local relevant public.

(9) Adams (2002) states that country of origin has an impact on CSD levels because of the social and political context in nations, and less so the economic context. There are different needs for different stakeholders in different countries. Culture is seen as part of the social context, for the purpose of this study, but is separately mentioned by Adams (2002).

(10) Archambault and Archambault (2003) find a strong relationship between levels of CFD and culture. They explained the relationship with Hofstede's (1983) national culture dimensions and S.J. Gray's (1988) model.

(11) Hope's (2003b) study relates culture to legal origin and the level of CFD. Hope states that in stakeholder-oriented societies the distance between management and shareholder is smaller, which causes a lesser need for financial information.

(12) Van der Laan Smith *et al.* (2005) study the relationship between national corporate governance systems, culture and the stakeholder orientation of societies. They find that culture relates to a stakeholder orientation of society and that this orientation influences levels of CSD.

(14) Hope *et al.* (2008) study the relationship between audit quality and culture. They conclude that secrecy in nations relates negatively to accounting quality and a lower preference for Big 4 auditors.

(16) Orij (2010) describes the relationship between CSD levels and culture. Culture is confirmed to be related to CSD levels through a stakeholder orientation of nations.

### *5.5.1 Social Institutions and Stakeholder Theory*

The country-specific orientation is relevant for this study: there are two possible orientations, an orientation on shareholders or an orientation on stakeholders. Code law countries are more stakeholder-oriented, according to Ball *et al.* (2000). Van der Laan Smith *et al.* (2005) find that the level of CSD is related to the country of origin of the corporation and specifically to the orientation of the country – stakeholder or a shareholder orientation. This orientation is related to culture, or more specifically national culture dimensions, by Hofstede and models that have been created by others with the use of national culture dimensions.[27]

The research question based on the above-mentioned discussion is:

*Research question 3: How are CSD levels related to social institutions and stakeholder orientations of societies of corporations' home countries?*

### 5.5.2 *Social Institutions and Legitimacy Theory*

Legitimacy of the organisation and culture are issues on a different theoretical level; LEGT is a micro-level theory and culture is a meso-level concept. Nevertheless, Newson and Deegan (2002) assume that legitimising activities by corporations differ from one nation to the other or on a global scale, are due to cultural differences. They all search for the relevant publics. Legitimacy also differs because of company size and industry participation. Corporations are likely to adjust levels of CSD if culture differs internationally. Society demands that corporations arrange their licence to operate.

The research question based on the above-mentioned discussion is:

*Research question 4: How are CSD levels related to social institutions and expectations of organisational legitimacy in societies of corporations' home countries?*

In this section, two socially-oriented research questions are developed. In the next section 5.6, two politically-oriented research questions are developed.

## 5.6 Research Questions related to Political Institutions

Political institutions have their relevance for CSD levels, as is discussed by Adams *et al.* (1998) and Adams (2002). Research on the relationship between the political institution, political and civil freedom and levels of CFD is performed by Belkaoui (1983) and Archambault and Archambault (2003). The only study that researched political issues in relation to CSD is Luft Mobus (2005). She studies the relationship between environmental laws and levels of CSD.

The search for political institutions that have a relationship with CSD is carried out by formulating research questions on relationships between levels of CSD and political institutions in home countries of corporations.

The empirical studies in table 5-4 that mention relations between corporate disclosures and political institutions are discussed for their relevance to explain a suggested relationship between political institutions and CSD. Table 5-4 contains a selection of articles from table 5-1 that relate to political institutions only.

*Table 5-4 Prior empirical literature and political institutions*

| **Study** | | (1) Belkaoui (1983) | (4) Adams *et al.* (1998) | (6) Jaggi and Low (2000) | (9) Adams (2002) | (10) Archambault and Archambault (2003) | (13) Luft Mobus (2005) |
|---|---|---|---|---|---|---|---|
| **Section in chapter 2** | | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 |
| **Research Objects** | CSD | | X | | X | | X |
| | CFD | X | | X | | X | |
| **Research Approach** | Outside-in | X | X | X | X | X | X |
| | Inside-out | | | | | | |
| **Paradigm** | SA | | X | | X | | X |
| | FA | X | | X | | X | |
| **Theories Applied** | STAT | | | | X | | |
| | LEGT | | X | | | | X |
| **Institution** | Political | X | X | X | X | X | X |

- CSD is Corporate Social Disclosures.
- CFD is Corporate Financial Disclosures.
- SA is Social Accounting.
- FA is Financial Accounting.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.

(1) Belkaoui (1983) defines political and civil indicators for CFD studies. These indicators relate to social and political institutions. He does not find significant relationships between these indicators and CFD. He suggests that levels of freedom are negatively related with CFD levels. Low levels of freedom may hinder “the tradition of full and fair disclosure” (Belkaoui, 1983, p. 209).

(4) Adams *et al.* (1998) discuss institutional issues, as mentioned in relation to economic institutions. They mention social and political institutions that are related with economic institutions. These are (Adams *et al.* 1998, p. 17): the effect of strong trade-unions, political climate, signing of the EU social charter and works council regulation and the strength of environmental pressure groups. These institutions are a mix of economic social and politi-

cal issues. Specifically political is the political climate, which they discuss in relation to the willingness of government to implement social and environmental regulation. They also state that CSD may be applied to influence government policy. This can be regarded as political activity.

(6) Jaggi and Low (2000) test the predictive power of all types of institutional determinants. The relationship between levels of CFD and political institutions is only briefly explained. They suggest a relationship between “political environment” and the legal system in a country (Jaggi and Low, 2000, p. 498).

(9) Adams (2002) states that country of origin has an impact on CSD levels because of the social and political context in nations. She studies internal organisational factors that influence CSD, in combination with institutional factors.

(10) Archambault and Archambault (2003) find a relationship between political freedom and levels of CFD, which is predicted by Belkaoui (1983, p. 215). They assess the same relationship as Belkaoui does (1983), which they could confirm. They also suggest low development of the accounting profession in countries relates to a low level of freedom.

(13) Luft Mobus (2005) studies the relationship between mandatory disclosures and legitimacy questions. The political institution in that study is legislation on social and environmental issues, including disclosure issues. Luft Mobus’ model shows an association between mandatory disclosures and LEGT. She concludes that LEGT explains corporate responses to legitimacy-negative mandatory disclosures, if corporations are forced to show any bad environmental performance. The response is to repair the environmental damage and not having to publish any negative mandatory disclosures. Also, corporations issue CSD if a bad environmental performance is expected. The corporation’s licence to operate can be threatened, as mandatory requirements require these bad performances to be published.

### *5.6.1 Political Institutions and Stakeholder Theory*

Full disclosure of CFD, as it is linked to freedom, a political institution, by Belkaoui (1983), may relate to performance on FA and SA issues. Political and civil freedom as a political institution may be applied as a proxy for the stakeholder orientation of societies, although there is no clear relationship found in prior literature between stakeholder orientation of societies and political institutions. Civil and political freedom could mean that political and civil organisations are well organised and may influence society in the direction of a stakeholder orientation. As Van der Laan Smith *et al.* (2005, p. 132) state, a stakeholder orientation of societies relates to stakeholder groups with more power, legitimacy and urgency. It is assumed that freedom increases the power, legitimacy and urgency of stakeholders and therefore may be related to a stakeholder orientation.

Stakeholder accountability issues are not related to CSD through political institutions such as a free market ideology, as is argued by Adams *et al.* (1998). They relate CSD to legitimacy issues in society.

The research question based on the above-mentioned discussion is:

*Research question 5: How are CSD levels related to political institutions and stakeholder orientations of societies of corporations' home countries?*

### *5.6.2 Political Institutions and Legitimacy Theory*

Legitimacy of corporations or their licence to operate is related to CSD and political institutions, as is argued by Adams (2002). The threat of stricter legislation or lobbying to support government's free market ideology may relate to CSD levels. These are activities by corporations, expected by society, to arrange their licence to operate. Free market ideology is assumed to be determined by the political colour of government. That reasoning relates a political institution to an economic institution and to expectations of corporate legitimacy in society.

The relationship between environmental laws and CSD is mentioned by Luft Mobus (2005). Legislation on environmental disclosures causes corporations to perform better on environmental issues, because of expectations of legitimacy of corporations in society. If this relationship is generalised, it is suggested that strict environmental disclosure laws can also increase levels of environmental disclosures, including voluntary disclosures. This can also be suggested for other legislation such as social legislation in relation to CSD, in a narrow or broad sense: narrow as social in the sense of employment disclosures, or broad as CSD.

The discussion on political institutions and CFD can be traced back to the political cost hypothesis of Watts and Zimmerman (1979), as part of PAT. This hypothesis assumes the political threat of legislation and the activities that corporations may plan to deal with this threat. The hypothesis has been aligned with company size, as is mentioned by Scott (2006, p. 244). PAT deals with accounting method choices to avoid political costs. Accounting methods and CSD are mentioned by Watts and Zimmerman (1978, p. 115) as a method to avoid government interference with the corporation. The application of PAT itself to study CSD is criticised by Milne (2002), as is discussed in chapter 4, and is not applied in this study.

The research question based on the above-mentioned discussion is:

*Research question 6: How are CSD levels related to political institutions and expectations of organisational legitimacy in societies of corporations' home countries?*

After the development of the research questions, the operationalisation and development of the hypotheses is performed in section 5.7. The empirical confirmation of the relationships suggested in the hypotheses is assessed in chapter 7.

In sections 5.4 to 5.6, six research questions have been developed. In the next section the development of hypotheses is performed, with the use of the developed research questions.

## 5.7 Development of Hypotheses

In the previous chapters 3 and 4, three types of institutions are identified that are suggested to be related to CSD through STAT and LEGT. The institutions are: economic, social and political. Six research questions are developed in the first part of this chapter, for which hypotheses are developed in this section. For each research question an operationalisation is provided, grouped by type of institution.

Table 5-2 shows an overview of the research questions, as described in sections 5.4 to 5.6.

*Table 5-5 Overview of research questions*

| INST | STAT | LEGT |
|---|---|---|
| **Economic Institutions** | Research question 1:<br>How are CSD levels related to economic institutions and stakeholder orientations of societies of corporations' home countries? | Research question 2:<br>How are CSD levels related to economic institutions and expectations of organisational legitimacy in societies of corporations' home countries? |
| **Social Institutions** | Research question 3:<br>How are CSD levels related to social institutions and stakeholder orientations of societies of corporations' home countries? | Research question 4:<br>How are CSD levels related to social institutions and expectations of organisational legitimacy in societies of corporations' home countries? |
| **Political Institutions** | Research question 5:<br>How are CSD levels related to political institutions and stakeholder orientations of societies of corporations' home countries? | Research question 6:<br>How are CSD levels related to political institutions and expectations of organisational legitimacy in societies of corporations' home countries? |

- CSD is Corporate Social Disclosures.
- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.

### *5.7.1 Economic Institutions and Stakeholder Theory*

This section shows the development of hypotheses that deal with economic institutions and STAT. The research question developed in the first part of chapter 5 is the following:

> *Research question 1: How are CSD levels related to economic institutions and stakeholder orientations of societies of corporations' home countries?*

The economic institutions discussed in chapter 5 which are questioned to have a relationship with CSD are corporate governance systems and free market ideology. Corporate governance systems are suggested to be related to the legal origin by Ball *et al.* (2000) and Simnett *et al.* (2009).

The discussion on the relationship between legal origin and CSD levels is as follows. Code law countries are assumed to be stakeholder oriented and common law countries shareholder oriented (Simnett *et al.*, 2009, p. 947), which are also assumed to determine the level of free market ideology in a country.

Hope (2003b, p. 224) suggests that within the group of code law countries three subgroups exist: French, German and Nordic. The source that Hope (2003b) uses is La Porta *et al.* (1997). Hope (2003b) distinguishes between these legal origins, while corporate governance differs between countries with different legal origins. The distance between managers and investors differs between the countries. The differences between the groups and subgroups of countries are mentioned by La Porta *et al.* (1997, p. 1132): "Legal rules from the different traditions differ in content as well as in the history of their adoption". This causes differences in the dealing with external financiers (La Porta *et al.*, 1997, p. 1132) and financial disclosures (Hope 2003b, p. 226). Legal origin is said to be a rough distinguishing factor that explains "developments in economic structures" (Hope 2003b, p. 226).

The relationship between legal orientation and corporate governance models and CFD is determined by Ball *et al.* (2000), but they do not distinguish differences between code law subgroups. The shareholder orientation in common law countries is suggested to be related to CSD levels negatively. Code law countries are supposed to have higher CSD levels. Differences between the levels of stakeholder orientation exist between the code law subgroups – French, German and Nordic countries. The study by Van der Laan Smith *et al.* (2005) suggests a higher level of stakeholder orientation of Nordic countries in comparison with the US, a common law country. Nordic countries are chosen on the basis of the suggested difference between the code-law subgroups.

As there is more than one suggested relationship relating to research question 1, more than one hypothesis is developed out of this research question. Therefore, I introduce subhypotheses.

This results in the following subhypothesis:

*Subhypothesis 1.1: CSD levels are related to the legal origin of the home country of corporations.*

As is discussed earlier in this chapter, there is more than one suggested relationship between economic institutions and CSD levels. The free market ideology of governments is mentioned by Adams *et al.* (1998). They suggest that these relationships are motivated by legitimacy issues and not by accountability issues. Though accountability is related with STAT, the explanation of the relationship by STAT is suggested to be different in this subsection. As is discussed in this chapter, the free market ideology is suggested to be related to the stakeholder orientation of nations, or communitarianism, which is based upon Bradley *et al.* (1999, p. 44): stakeholder orientation is related to a low level of competition and shareholder orientation is related to a high level of competition. The free market ideology of governments is suggested to lead to a high level of competition.

Bradley *et al.* (1999) relate communitarianism to the legal origin of countries. This suggests that the free market ideology may not be seen as a separate determinant of CSD levels, apart from legal origin. The argument for applying governments' free market ideology, apart from legal origin, is the greater possibilities to differentiate scores between nations: legal origin is largely scored binary and the free market ideology of government is suggested to differentiate more than between two types of legal origin, or between communitarianism and contractarianism. This leads to the following subhypothesis:

*Subhypothesis 1.2: CSD levels are negatively related to government ideology on freedom of markets in the home country of corporations.*

Hypothesis 1 is a summary of the subhypotheses 1.1 and 1.2.

*Hypothesis 1: CSD levels are related to economic institutions in the home country of corporations.*

### *5.7.2 Economic Institutions and Legitimacy Theory*

This section shows the development of hypotheses that deal with economic institutions and LEGT. In the first part of chapter 5 the research question developed is the following:

*Research question 2: How are CSD levels related to economic institutions and expectations of organisational legitimacy in societies of corporations' home countries?*

The economic institution mentioned in chapter 5 that is suggested to have an effect on the level of CSD is governments' free market ideology. A strong orientation on free markets causes a corporation to publish much CSD, as is suggested by Adams *et al.* (1998). They suggest that corporations publish CSD to convince governments to keep markets free, as corporations show that they do not misuse the freedom they received from government. This leads to the following hypothesis:

> *Hypothesis 2: CSD levels are positively related to government ideology on freedom of markets in the home country of corporations.*

This hypothesis suggests the opposite to the same relationship suggested by subhypothesis 1.2. This further suggests that the outcomes of the empirical test can be explained in several ways and the drawing of conclusions may be difficult. The relationship between government ideology and the level of CSD can be either positive or negative, and the legitimacy effects can be stronger or weaker than the stakeholder effects, which means the following for hypotheses 1.2 and 2, as can be found in table 5-3:

The information from table 5-3 suggests that only if the strength of the relationship can be predicted *ex ante*, the outcomes of the empirical test can support the confirmation of either hypothesis 1.2 or hypothesis 2. Based upon the discussion in subsections 5.4.1 and 5.4.2, no clear statement on the relative strengths of stakeholder and legitimacy effects can be produced *ex ante*.

In the context of environmental and employment regulation, the testing of membership of sensitive industries may increase the reliability of the tests. As is suggested by Campbell (2007), legitimacy gaps are most likely to appear in certain industries, especially the petrochemical (oil and oil-related) and chemical industries. A control dummy variable for sensitive industry membership increases the relationship with legitimacy issues. In this study two industries are added, forestry (including paper) and mining. These are suggested by Patten (1991, p. 300), who discusses the forestry industry. Mining is discussed as a sensitive industry by Deegan *et al.* (2002). Other groupings of sensitive industries are possible, for example by Adams *et al.* (1998, p. 7). They define the sensitive industries as consumer-related industries and raw materials. In that study, consumer-related industries are assumed to be the industries comprising the consumer staples sector. The membership of the consumer staples sector plus the membership of sensitive industries is applied as a dummy for sensitive industry membership.

*Table 5-6 Possible outcomes of opposing hypotheses 1.2 and 2*

| **Possible strengths of theoretical relationships** | **Suggested empirically relationship found** | **Possible outcome** |
|---|---|---|
| Positive legitimacy effect is stronger than negative stakeholder effect on CSD. Overall effect is suggested to be positive. | Positive relationship between government free-market ideology and CSD levels | The empirical test shows that the positive effects are stronger than the negative effects. The positive legitimacy effect can be confirmed. The negative stakeholder effect cannot be confirmed, as it disappears in the larger legitimacy effect. H2 can be confirmed. H1.2 cannot be confirmed. |
| Positive legitimacy effect is weaker than negative stakeholder effect on CSD. Overall effect is suggested to be negative. | Positive relationship between government free-market ideology and CSD levels | The negative stakeholder effect is suggested to overrule the positive legitimacy effect, as the empirical test shows that the negative effects are stronger than the positive effects. Both H1.2 and H2 cannot be confirmed. |
| Positive legitimacy effect is stronger than negative stakeholder effect. Overall effect is suggested to be positive. | Negative relationship between government free-market ideology and CSD levels | The positive legitimacy effect is suggested to overrule the negative stakeholder effect, as the empirical test shows that the negative effects are stronger than the positive effects. Both H1.2 and H2 cannot be confirmed. |
| Positive legitimacy effect is weaker than negative stakeholder effect. Overall effect is suggested to be negative. | Negative relationship between government free-market ideology and CSD levels | The negative stakeholder effect is suggested to overrule the positive legitimacy effect. The empirical test shows that the negative effects are stronger than the positive effects. The positive legitimacy effect can be confirmed, but the negative stakeholder effect cannot be confirmed; H2 not confirmed, H1.2 confirmed. |

– CSD is Corporate Social Disclosures.

### *5.7.3 Social Institutions and Stakeholder Theory*

This section shows development of hypotheses that deal with social institutions and STAT.

In the first part of chapter 5 the research question developed is the following:

*Research question 3: How are CSD levels related to social institutions and stakeholder orientations of societies of corporations' home-countries?*

Culture is the social institution that is researched in this study, as is discussed in chapter 4.

Culture is used in tests by its proxy in Hofstede's framework of national culture dimensions. Culture is a broad phenomenon. Due to its broadness, more than one hypothesis is developed out of research question 3. Therefore, I apply subhypotheses. The discussion on operationalisation is started by S.J. Gray (1988). He discusses the relationship between national culture dimensions by hypothesising relationships between accounting values and national culture dimensions. The accounting values are professionalism, uniformity, conservatism and secrecy (S.J. Gray, 1988, p. 9-11). In particular the secrecy hypothesis is studied further by others, for example by Hope (2003b) and Hope *et al.* (2008) in the field of FA research, and by Mathews and Reynolds (2001) and Newson and Deegan (2002) in the field of SA research. Secrecy is seen as the opposite of transparency in relation to financial disclosures. S.J. Gray (1988, p. 11) states that secrecy can be related to the IDV, PDI and UAI dimensions.

His reasoning for relating IDV to secrecy is explained by a low level of IDV, which results in a high level of information to internal stakeholders.[28] A low level of individualism is sometimes referred to as collectivism, see Orij (2010, p. 872). A collectivistic corporate attitude is assumed to be collectivistic up to the level of the corporation and not to a wider circle of secondary[29] stakeholders in society. S.J. Gray (1988) states that MAS is less likely to be related to secrecy with financial disclosures, although he states that transparency is more likely in the case of an orientation on quality of life.

A relationship between secrecy and PDI is explained by him as the wish to preserve the *status quo* with regard to power inequalities.

UAI relates to secrecy, because low provision of information supports the approach "to avoid conflict and competition and to preserve security", as is mentioned by S.J. Gray (1988, p. 12).

Hope *et al.* (2008) apply the operationalisation of secrecy (SEC), which is an equal addition or deduction of the dimensions involved: SEC = UAI + PDI – IDV. They also add MAS in an alternative measure with similar results: $SEC_{alternative}$ = UAI + PDI – IDV – MAS.

The dimension MAS stands for assertiveness and competitiveness. Low masculinity relates to the appreciation of quality of life. Van der Laan Smith *et al.* (2005) describe femininity, according to Hofstede, as the opposite of masculinity and it indicates a focus on relationships, co-operation and environment. A low-masculine society is a socially-oriented society, which is a society with a stakeholder orientation.

Gannon (2001) applies PDI and IDV in identifying management culture metaphors, which are based upon four types of cultures. Gannon's metaphors are applied by Van der Laan Smith *et al.* (2005) and Orij (2010) to identify differences in stakeholder orientation of nations in relation to culture. The generic types of culture (TYP) by Gannon (2001) are as follows:

Market Pricing (MP): High PDI, high IDV. The US is an example of this type of culture.
Equality matching (EM): Low PDI, high IDV. Scandinavian countries, for example.
Authority ranking (AR): High PDI, low IDV. Many Asian and African cultures, for example.
Community sharing (CS): Low PDI, low IDV. This type does not exist in reality on a national level, which makes it irrelevant for this study.

The analysis by Van der Laan Smith *et al.* (2005) indicates that a high score on IDV can relate to both a stakeholder and shareholder orientation of society, combined with a high or a low level of PDI. The US ranks first on IDV, but scores medium high on PDI, which makes it a less socially oriented country. Scandinavian countries rank high on IDV and low on PDI. Individual citizens are seen as being equal, but strive for individual goals, which are not always economic goals.[30] Scandinavian countries have EM cultures. According to Gannon (2001), CS cultures do not exist in reality on a national level, as a nation is too large for people to share all they have (see Gannon, 2001, p. 16).

The fifth dimension, LTO, is added by Hofstede (2001) in 1987. Hofstede's approach has been used in accounting studies, for example S.J. Gray's (1988) accounting classification. Hope (2003b) finds a relationship between secrecy, legal systems and FA disclosures, and Hope *et al.* (2008) find a relationship between secrecy and auditor's choice.

Secrecy, as the opposite of transparency, is negatively related to financial disclosures, according to S.J. Gray (1988). In this study, secrecy in the case of CSD stands for a non-stakeholder orientation of society. External stakeholders in particular are excluded from social information about the corporation.

The operationalisation of Hope *et al.* (2008) is applied, which states that SEC is the combination of the UAI, PDI and IDV dimensions in the SEC = UAI + PDI – IDV. The IDV component is assumed to contribute negatively to secrecy, as collectivism excludes secondary stakeholders from the information that is available to the collectivistic circle of primary stakeholders. PDI is assumed to be related positively to secrecy, as a low level of information to secondary stakeholders of the corporation helps to preserve the *status quo* of power relations. UAI relates positively to secrecy, as secrecy is helpful in preserving security. This leads to the following subhypothesis:

> *Subhypothesis 3.1: CSD levels are negatively related to secrecy as a combination of national culture dimensions in the home country of corporations.*

Gannon (2001, p. 15) identifies the MP culture as a "generic type of culture". This is characterised by a high level of PDI combined with a high level of IDV. He states that MP is found in the US. Van der Laan Smith *et al.* (2005) related the US and its MP culture to a shareholder orientation of society. Countries with EM cultures are seen by Gannon (2001) as countries with a stakeholder orientation, which differs from the shareholder orientation of an MP culture. These cultures have a high level of IDV and a low level of PDI. AR societies are the third type, which have a low level of IDV and a high level of PDI.

In this study the operationalisation of TYP relates to Gannon (2001) and is similarly constructed as SEC. TYP is the operationalisation of a level of social orientation of society. Individualism positively contributes to TYP, as the opposite, collectivism, relates to a narrow view of group interests, which is regarded as non-social on society level. This results in the equation TYP = IDV – PDI. This leads to the following subhypothesis:

*Subhypothesis 3.2: CSD levels are related to generic types of culture as a combination of the national culture dimensions individualism and power distance in the home country of corporations.*

Masculinity represents the opposite of a social orientation of a society, according to Hofstede (2001, p. 279). Greater masculinity in a society is related to a weaker social orientation. CSD levels are positively related to a social orientation. Consequently, it is hypothesised that masculinity is negatively related to CSD levels. This leads to the following subhypothesis:

*Subhypothesis 3.3: CSD levels are negatively related to masculinity as a national culture dimension in the home country of corporations.*

The LTO-dimension looks similar to management's long decision horizon, as measured by Trotman and Bradley (1981). Given the reasoning by Bradley (1999) that long-term orientation of society is related to a stakeholder or social perspective, CSD is likely to be positively related to LTO.

The dimension of LTO is strongly related to Confucian or Chinese values. LTO in society is the equivalent of LTO in business; it can be linked with a stakeholder perspective. As Confucianism is much broader than LTO only, a study for the separate relationship between LTO and CSD determinants may experience interference by other aspects of Confucianism. This leads to the following subhypothesis:

*Subhypothesis 3.4: CSD levels are positively related to long-term orientation in national cultures in the home country of corporations.*

Hypothesis 3 is a summary of the subhypotheses 3.1 to 3.4.

*Hypothesis 3: CSD levels are related to national cultures of the home country of corporations.*

### 5.7.4 Social Institutions and Legitimacy Theory

This section shows development of hypotheses that deal with social institutions and LEGT. In the first part of this chapter the research question developed is the following:

> *Research question 4: How are CSD levels related to social institutions and expectations of organisational legitimacy in societies of corporations' home countries?*

Newson and Deegan (2002) assume that legitimising activities by corporations differs from one nation to the other due to cultural differences. The expectations of the relevant publics differ, which is related to culture. On a corporate level legitimacy differs because of company size and industry participation, but in this study national institutional differences are studied.

On a national level, Newson and Deegan (2002, p. 191) assumed that the differences in all five of Hofstede's national culture dimensions and the combination of dimensions SEC by S.J. Gray (1988) are relevant to determine CSD levels. They state that it is difficult to identify the exact influence of each of Hofstede's cultural variables on SEC, and it is also difficult to precisely relate SEC CSD levels, as the countries they select are different in culture. They translate into "national acceptance of differences in disclosure levels" (see Newson and Deegan, 2002, p. 191). They relate the differences to culture, which relates to differences in societal expectations of corporate behaviour and legitimising activities such as CSD. This leads to the following hypothesis:

> *Hypothesis 4: CSD levels vary with national cultures of the home country of corporations.*

### 5.7.5 Political Institutions and Stakeholder Theory

This section shows the development of hypotheses that deal with political institutions and STAT. In the first part of this chapter the research question developed is the following:

> *Research question 5: How are CSD levels related to political institutions and stakeholder orientations of societies of corporations' home countries?*

A proxy for political institutions that is applied in other studies is a combination of political and civil freedom, as it is scored by Freedom House (McColm *et al.*, 1993). This is applied by Belkaoui (1983) and Archambault and Archambault (2003). These two studies do not specifically apply freedom in relation to stakeholders. Brammer *et al.* (2009) study the relation between internationalisation by multinationals and negative social issues in countries of concern and corporate characteristic charitable giving. They apply STAT, while using Freedom House and Transparency International data on 305 UK-listed corporations. Brammer *et al.* (2009) relate charitable giving, as a stakeholder management tool, with freedom in societies. The country characteristic freedom is seen as salient, which assumes to offset stakeholder-related actions. Political freedom is applied in relation to stakeholder orientation in countries; freedom is assumed to be positively related to stakeholder orientation. This leads to the following hypothesis:

> *Hypothesis 5: CSD levels are positively related to the level of freedom in the home country of corporations.*

### *5.7.6 Political Institutions and Legitimacy Theory*

This section shows the development of hypotheses that deal with political institutions and LEGT. In the first part of this chapter the research question developed is the following:

> *Research question 6: How are CSD levels related to political institutions and expectations of organisational legitimacy in societies of corporations' home countries?*

The economic institution government free-market ideology is also a political institution, which is suggested to be caused by expectations of organisational legitimacy. As this issue is dealt with in hypothesis 2, another explanatory direction is looked for in this subsection. Luft Mobus (2005) provides input for that. She concludes that voluntary CSD is a corporate response to CSR and CSD regulation. If corporations are forced to show any negative environmental performance, they level this off with positive disclosures. The result is the repair of the negative exposure in society and not having to publish any negative mandatory disclosures. It is assumed that corporations respond to existing legislation and new legislative threats, which relates to society's view on corporations. These legislative threats may be related to political cost issues, as mentioned by Watts and Zimmerman (1978 and 1979). Milne (2002) finds no evidence for that.

Environmental and social legislation is applied as a proxy for legitimacy threatening political institutions. There are several legal indices that are applied specifically in international economic and legal comparative studies. Botero *et al.* (2003)[31] study the regulation of labour in relation to political power and legal systems. They find a relationship between political institutions and labour regulation. They also find an even stronger relationship between labour regulation and legal systems. They created an employment laws index, an economic index which scores the cost to the employer to alter employment contracts related to country-wide practices. The index does not reflect formal laws, but it is an economic measure of worker protection.

The Environmental Performance Index (EPI) is provided by Yale University (Environmental Performance Index, 2010). EPI scores the commitment of countries to the environment, including the existence of environmental regulations. In this study it is assumed that political power shapes institutions by the introduction and commitment to specific regulations, as is suggested by Botero *et al.* (2003, p. 2).

This leads to the following hypothesis:

*Hypothesis 6: CSD levels are positively related to the level of existing social and environmental legislation in the home country of corporations.*

A further detail has to be mentioned with regard to specific institutional score – legal or political scores for environment and employment. CSD is a broad measurement, as it is dealt with in this study. The relationship between CSD detail scores or "type of social data" (Guthrie and Parker, 1990, p. 164) and the specific institutional scores is assessed. Further, a control dummy variable for sensitive industry membership may improve the relationship between CSD levels and legitimacy issues.

Caution is necessary in the interpretation of hypothesis 6, as no clear distinction is made between voluntary and mandatory disclosures. Most studies only assess voluntary disclosures and also assume that the majority of disclosures are voluntary in their analysis, for example Patten (1991), the one exception being Luft Mobus (2006).

## 5.8 Summary of the Chapter

The chapter can be summarised as follows: research questions and hypotheses are developed that question and suggest relationships between CSD levels and national institutions that can positively be explained by STAT and LEGT. The theoretical framework developed in chapter 4 suggests LEGT and STAT to be related to economic, social and political institutions: two theories times three institutions equals six hypotheses. The previously mentioned table 5-2 shows an overview of the developed research questions. Table 5-4 shows the overview of all six developed hypotheses.

*Table 5-7 Overview of hypotheses*

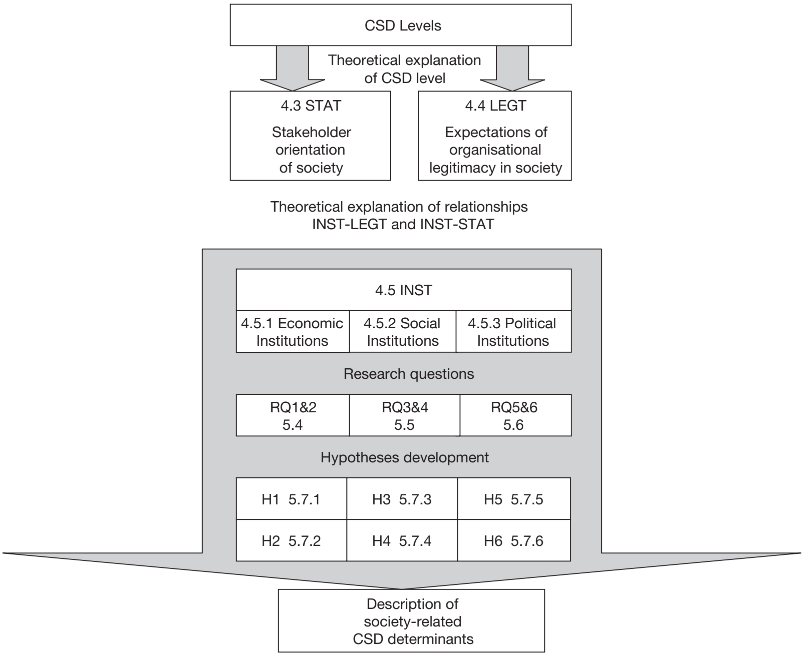
| INST | STAT | LEGT |
|---|---|---|
| **Economic Institutions** | Subhypothesis 1.1:<br>CSD levels are related to the legal origin of the home country of corporations.<br><br>Subhypothesis 1.2:<br>CSD levels are negatively related to government ideology on freedom of markets in the home country of corporations.<br><br>Hypothesis 1:<br>CSD levels are related to economic institutions in the home country of corporations. | Hypothesis 2:<br>CSD levels are positively related to government ideology on freedom of markets in the home country of corporations. |
| **Social Institutions** | Subhypothesis 3.1:<br>CSD levels are negatively related to secrecy as a combination of national culture dimensions in the home country of corporations.<br><br>Subhypothesis 3.2:<br>CSD levels are related to generic types of culture as a combination of the national culture dimensions individualism and power distance in the home country of corporations.<br><br>Subhypothesis 3.3:<br>CSD levels are negatively related to masculinity as a national culture dimension in the home country of corporations.<br><br>Subhypothesis 3.4:<br>CSD levels are positively related to long-term orientation in national cultures in the home country of corporations.<br><br>Hypothesis 3:<br>CSD levels are related to national cultures of the home country of corporations. | Hypothesis 4:<br>CSD levels vary with national cultures of the home country of corporations. |
| **Political Institutions** | Hypothesis 5:<br>CSD levels are positively related to the level of freedom in the home country of corporations. | Hypothesis 6:<br>CSD levels are positively related to the level of existing social and environmental legislation in the home country of corporations. |

– INST is Institutional Theory.
– STAT is Stakeholder Theory.
– LEGT is Legitimacy Theory.

CSD levels are hypothesised to be related with economic, social and political institutions through a stakeholder orientation of society or societal expectations of organisational legitimacy.

Figure 5-1 shows the position in this study of the research questions and hypotheses developed with regard to the theoretical framework.

*Figure 5-1 Theories, research questions and hypothesis development*




- CSD is Corporate Social Disclosures.
- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legìtimacy Theory.

# 6 Research Methods

## 6.1 Introduction

This chapter contains a discussion on the research methods applied. The method is a standard for the research paradigm, see Roberts (1992) and Van der Laan Smith *et al.* (2005). The answer to the research questions is sought and found while testing positively formulated hypotheses and statistical analysis.[32]

For replicability purposes, only publicly available and archival data are used. The national institutional country data are assumed to be country-unique. CSD data are provided by Sustainalytics.

The empirical truth of potential determinants is confirmed with the testing of the hypotheses. The hypotheses contain relationship models with CSD levels as dependent variables and scores on national institutions as independent variables. These models are suggested by theoretical reasoning.

The testing of these variables is initially done with t-tests, comparing CSD levels, grouped per variable high or low score per national institution. The constructed models represent relationships between dependent and independent variables.

The testing of robustness of the models and consequently the hypothesis is done by assessing the power of the models and the significance of the independent variables applying ordinary least squares (OLS) methods.

This chapter is organised as follows: Section 6.2 contains a description of the sample of corporations tested. Section 6.3 shows the variables and proxies. Section 6.4 contains the description of the data. Section 6.5 contains the description of the statistical methods applied. In section 6.6 the distribution of the data is discussed. Section 6.7 contains the summary of the chapter.

## 6.2 Description of the Sample

With regard to the methodology of this study, a world-wide sample of corporations is chosen. The methodological issue that causes the need for a large sample is the positivistic approach that aims at drawing general law-like conclusions. A large world-wide sample of corporations can be found in the “World Index” of MSCI Barra (2010), also known as Morgan Stanley Capital International (MSCI). A selection from this index is made on the basis of availability of a maximum amount of available CSD data. The viability of data is explained hereafter.

The full 2006 database of global profiles of Sustainalytics, formerly marketed under the name of the SiRi group, is the basis for the CSD data. The data-set is compiled by a content analysis of the corporations' external reports and interviews performed by Sustainalytics. A description of the assessment methods by Sustainalytics is available to the researcher. The collection of the data applied is a combined effort by the SiRi group of research institutes. Sustainalytics aims at collecting CSR data from all companies included in the "World Index". Kinder Lydenberg Domini (KLD) data are used in the majority of CSR and CSD studies (Orlitzky *et al.*, 2003) and are useful data, as Sharfman (1996) demonstrated. The availability of CSR data is the bottleneck in CSR and CSD research, which makes these data the starting point for the sample selection (Sharfman, 1996), as is confirmed in Orij (2010, p. 876).

A data reduction process is done as follows. The full 2006 database contains 1944 corporations. 600 corporations are covered in both the 2004 and 2006 Sustainalytics databases, both of which are made available for this dissertation. 1344 of those corporations do not appear in both databases but in only one of the two. The non-appearance of the corporations in one of the databases is caused by mergers of corporations or non-timely coverage by Sustainalytics.

All 600 companies are considered to be large, based upon market capitalisation by MSCI Barra's criteria (MSCI Barra, 2010). For this study, only the 2006 scores are taken, which is the most recent available data-set of Sustainalytics. Out of the sample of 600 corporations, 167 are from the US. As this is a rather large share of the sample, tests are added to adjust for the possible disturbance of the sample by the large US sample share.

## 6.3 Variables

In this discussion, a brief description of the relevant variables is given. The discussion on variables is linked to the development of hypotheses, which is done in chapter 5.

In all of the developed hypotheses, CSD levels are the dependent variable. This level is based upon a score of the disclosure data from the corporate social responsibility database from Sustainalytics. This is the variable of which the determinants are researched.

The independent variables are mentioned during the development of the hypotheses in section 5.7. In table 6-1 these independent variables, derived from section 5.7, are provided in an overview. The level of detail of the variables has to be deepened. Table 6-1 only contains issues discussed in section 5.7.

Whenever a dummy variable is applied, this is mentioned separately. The application of dummy variables is done in cases of binary variables.

The application of dummy variables in accounting research is done by Ball *et al.* (2000) and Simnett *et al.* (2009). The latter apply dummies for the distinction between common law and code law countries, and their approach is similar to the approach in this study. The approach with regard to dummies differs according to the field of study.

*Table 6-1 Overview of independent variables per hypothesis*

| INST | STAT | LEGT |
|---|---|---|
| **Economic Institutions** | Subhypothesis 1.1: Legal origin relates to the distinction between code law and common law countries, and the subgroups of code law countries.<br><br>Subhypothesis 1.2: Free-market ideology has its proxy economic freedom scores. | Hypothesis 2: Free-market ideology has its proxy economic freedom scores. Controlled by a dummy for sensitive industry membership. |
| **Social Institutions** | Subhypothesis 3.1: Secrecy relates to Hofstede's national culture scores. Secrecy is a combination of uncertainty avoidance (pos.), power distance (pos.) and individualism (neg.).<br><br>Subhypothesis 3.2: Generic types of culture relates to Hofstede's national culture scores. Generic types of culture is a combination of individualism (pos.) and power distance (neg.).<br><br>Subhypothesis 3.3: Masculinity relates to Hofstede's national dimension.<br><br>Subhypothesis 3.4: Long-term orientation relates to Hofstede's national dimension. | Hypothesis 4: The variables applied for hypothesis 3 are also applicable for hypothesis 4. Controlled by a dummy for sensitive industry membership. |
| **Political Institutions** | Hypothesis 5: Political institutions relate to CSD levels. Freedom level is the variable and Freedom House scores are applied. | Hypothesis 6: Social and environmental legislation levels are applied as proxies for political institutions. Relationship with CSD levels is assessed, including specific items from CSD. Controlled by a dummy for sensitive industry membership. |

– INST is Institutional Theory.
– STAT is Stakeholder Theory.
– LEGT is Legitimacy Theory.

The independent variables given in table 6-1 are derived from the hypothesis development in section 5.7. Further details on the variables from table 6-1 are discussed in the remainder of chapter 6.

A numerical description of the data is given in chapter 7.

## 6.4 Description of the Data

The data described in this section, consist of four types of data:
- CSD data.
- Economic data.
- Social data.
- Political data.

### *6.4.1 Description of the CSD Data*

The 2006 Sustainalytics database contains 13 scoring items on CSD out of a total of 186 scoring items on the broader concept of CSR per corporation. With these 13 items a new score is created per corporation, which is the CSD level used in this study. This CSD level is the equal addition of all 13 original scores per CSD item. No weighting for any of the scores is used, as choosing for a weighting with regard to assumed differing importance is always arbitrary but no weighting is equally arbitrary. This method is similar to Hillman and Keim's (2001) method to compute multiple-entry scores of KLD scoring items.

The SiRi database contains eight categories. These categories are ethics, community, corporate governance, customer, employees, environment, contractors and miscellaneous. Six of these categories contain two CSD scores, which are the availability of public data and the external verification of reported data for the category. These six are ethics, community, customer, employees, environment and contractors. Six categories with two CSD scores make a total of twelve scores. The category corporate governance contains one CSD item, the compliance with the guidelines of the Global Reporting Initiative guidelines on Corporate Governance, which is the 13th CSD item. Because there are no CSD scoring items within the CSR category miscellaneous, this category is omitted from this study. Table 6-2 shows an overview of the available CSR data and the selected CSD data, similar to the text above.

*Table 6-2 CSR and selected CSD data*

**Panel A CSR data**

| **Category** | | **No. of CSR items** | **No. of CSD items** |
|---|---|---|---|
| A | Ethics | 11 | 2 |
| B | Community | 26 | 2 |
| C | Corporate Governance | 14 | 1 |
| D | Customers | 22 | 2 |
| E | Employees | 21 | 2 |
| F | Environment | 64 | 2 |
| G | Contractors | 16 | 2 |
| H | Miscellaneous | 12 | 0 |
| | Total | 186 | 13 |

**Panel B Selected CSD items**

| **No.** | **Category** | **Item name** |
|---|---|---|
| 1 | A | Public reporting on business ethics issues |
| 2 | A | Public reporting on business ethics issues externally verified |
| 3 | B | Public reporting on community issues |
| 4 | B | Public reporting on community issues externally verified |
| 5 | C | Public reporting based on GRI guidelines |
| 6 | D | Public reporting on customers issues |
| 7 | D | Public reporting on customers issues externally verified |
| 8 | E | Public reporting on employees issues |
| 9 | E | Public reporting on employees issues externally verified |
| 10 | F | Public reporting on environmental issues |
| 11 | F | Public reporting on environmental issues externally verified |
| 12 | G | Public reporting on contractors issues |
| 13 | G | Public reporting on contractors issues externally verified |

– CSD is Corporate Social Disclosures.
– CSR is Corporate Social Responsibility.
– GRI is Global Reporting Initiative.

Source: Sustainalytics.

### *6.4.2 Description of the Economic Data*

Kaufman *et al.* (2009) apply data supplied by the Heritage Foundation. They provide an overview of worldwide governance indicators, which is the output of a World Bank research project (see Kaufman *et al.*, 2009 p. 2). An older version of the data by Kaufman *et al.* (2009) is applied by La Porta *et al.* (2006). Data by La Porta *et al.* (2006) are applied by Hope *et al.* (2008). The Heritage Foundation data are called the Heritage Foundation Index of Economic Freedom (HER).

The Heritage Foundation is an NGO for research and educational purposes from Washington, D.C., USA. It advocates conservative public policies. The HER has been published annually since 1995 and contains 10 components. Kaufman *et al.* (2009) use three components, which are based on subjective measurements by Heritage staff: Investment Freedom, Financial Freedom, and Property Rights. These are scored on a 0 to 100 scale. High freedom relates to high scores and *vice versa*. HER is applied as a proxy for freedom of markets variable (FRM).

Another variable that is applied as an economic variable is the distinction between common law and code law countries. This distinction is applied as a dummy variable that explains national differences in corporate governance procedures. These data are provided by La Porta *et al.* (1997).

A variable that may be sorted by all of the institutions is SIM. As industry is an economic feature, it is sorted under the economic data. The definition of which industries are sensitive is described in subsection 5.7.2. The industry data are provided by Sustainalytics. The data are compiled by scoring membership as a dummy variable.

### *6.4.3 Description of the Social Data*

The social data, which are cultural data, are based upon Hofstede (1983, 1984a, 1984b and 2001), Hofstede and Bond (1988), S.J. Gray (1988) and Gannon (2001). For the description of the data, I refer to the description given on the cultural data in subsections 4.5.2 and 5.7.3. These data are the following:

- Masculinity (MAS).
- Power distance (PDI).
- Individualism (IDV).
- Uncertainty Avoidance (UAI).
- Long-term orientation (LTO).
- Secrecy (SEC).
- Generic Types of Culture (TYP).

### *6.4.4 Description of the Political Data*

The political data applied are the Employment Laws Index (ELI) and the EPI. Botero *et al.* (2003) apply ELI, which is provided by the International Institute of Corporate Governance at the Yale School of Management (Botero *et al.*, 2003, p. 46). Employment laws deal with individual employment contracts at a national country level. The index contains scores between 0.80 and 2.40. High level of national regulation relates to high scores, and *vice versa*.

ELI is an average of scores of the following items:

- Alternative employment contracts.
- Cost of increasing hours worked.
- Cost of firing workers.
- Dismissal procedures.

EPI is an index that contains 25 indicators on environmental government policies, on a single aggregated index. The EPI covers policy categories of "environmental public health and ecosystem vitality" (see Environmental Policy Index, 2010). These indicators are scored from 0 to 100. EPI is measured at a national government level of how countries reach their environmental policy goals. High environmental performance relates to high scores, and *vice versa*.

In this section sample, variables and data are described. In the next section I describe how I analyse the data statistically.

## 6.5 Description of the Statistical Methods applied

The statistical methods applied are discussed in three separate subsections, 6.5.1 to 6.5.3. The statistical methods applied are the methods applied in FA and SA research. These methods are briefly assessed for usefulness with regard to the data. Data transformation and extra assessments with methods that better fit the regular methods are analysed.

### *6.5.1 Descriptive Statistics and Correlations*

Basic figures are provided to describe the data: means, standard deviations and medians. Bivariate Pearson correlations between independent variables, sorted per hypothesis, are shown. These include statistical significances. The Pearson correlations are, in addition to the descriptiveness, an initial assessment of the direction of the suggested relationship between the dependent and independent variables.

### *6.5.2 Bivariate Analysis with T-tests*

T-tests are applied to determine differences in CSD scores between corporations that are from countries with different institutional conditions, as is suggested by the hypotheses of this study. In statistics, differences between different groups are studied if the differences can provide input for conclusions on causal relations (Field 2005, p. 269). Independent t-tests are performed because two independent groups are studied; the groups of corporations are from countries that score high or low on institutional issues, or they differ otherwise. The t-tests are specifically designed to find differences in CSD levels between groups of corporations with high and low institutional scores. T-tests are parametric tests that require normally distributed data and homoscedasticity with regard to the variances. Normality of the data is discussed in subsection 6.6. Homoscedasticity and its opposite counterpart are taken care of by adjusted tests with the use of Levine's test. The results of Levine's tests are untabulated; only the results of the relevant t-tests are shown.

### 6.5.3 *Multivariate Analysis with Regression Models*

To be able to verify the existence of suggested theoretical relationships in a robust manner, regression models are set-up and tested. In all models CSD levels are the dependent variables and institutional data are the independent variables. For each suggested theoretical relationship given as hypotheses, several models are constructed. More than one model is constructed if a hypothesis consists of somewhat broad concepts. All separate variables are combined in one overall model, which is applied to assess all conclusions drawn prior to the testing of that model.

All models are assessed on normality, multicollinearity and homoscedasticity. The validity of the models is assessed with significances of models and of separate variables. The model significance is assessed with the analysis of ANOVA and its F-change significance. The latter is seen as a significance of the model tested, as is mentioned by Field (2005, p. 190). A similar analysis is done by Archambault and Archambault (2003, p. 190). The significance of the variables is assessed with the regression model coefficients.

In this section the statistical methods are described. In the next section the distribution of the data is discussed, as this is relevant for application of the statistical methods.

## 6.6 Distribution of Data

The proposed statistical analysis by regression and the t-test[33] relies on assumptions with regard to the data and data distribution. These assumptions that can be checked, according to Field (2005, p. 64-65), are normality of distribution and homogeneity of variance.

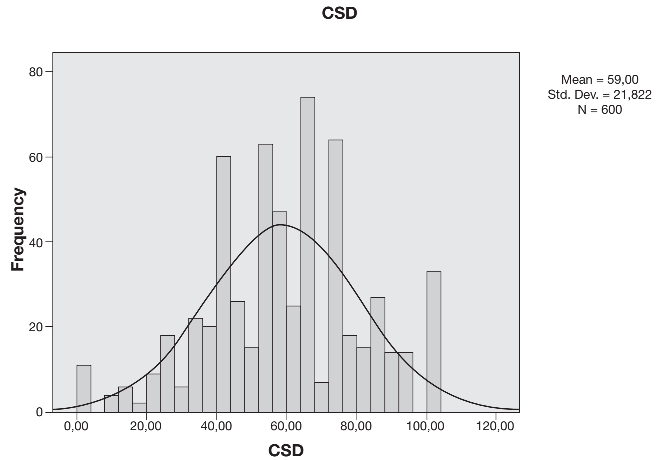
Normality is checked with a visual check of the distribution curve in combination with skewness and kurtosis scores. Skewness is the degree of asymmetry of a distribution. Kurtosis is the degree of peakedness of a distribution. Significances of skewness and kurtosis are not relevant because of the size of the sample, which exceeds 200. Field (2005, p. 72) mentions a statistical rule regarding samples larger than 200. He states that with larger samples, significances are easily disturbed.

The frequency histogram of the CSD scores in figure 6-1 shows the distribution of CSD data compared with a normally distributed Gauss curve. The CSD data are not clearly normally distributed.

The analysis of the normality of the CSD data starts with Field (2005). He describes (2005, p. 92) similar distributions as "fairly normal". Figure 6-2 shows the comparison with the normal Gauss curve and transformed CSD data. These frequencies show greater similarity with the Gauss curve.

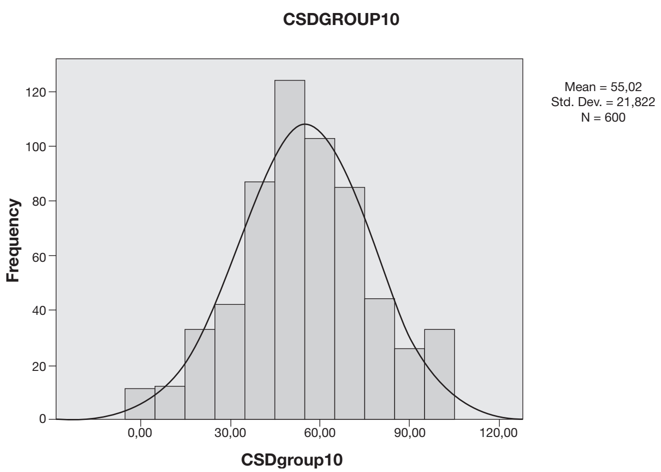
The transformed data are applied in chapter 7 to assess possible problems with the possible lack of normality. The data are transformed by grouping the data in groups with a range of 10. Kurtosis and skewness scores for the CSD data and the transformed CSD data are shown in table 6-3. Kurtosis scores and skewness scores between -1 and +1 are assumed to be normal by approximation.[34]

*Figure 6-1 Distribution of CSD data*




Source: Sustainalytics data analysed with use of SPSS 16.0.

*Figure 6-2 Distribution of transformed CSD data grouped by 10*




Source: Sustainalytics data analysed with use of SPSS 16.0.

According to table 6-3, the skewness of the transformed data is better than that of the original CSD data:

-0.180 vs. -0.032. The kurtosis data are similar for CSD and transformed CSD data. The normality of the original data is near 0 and is assumed to be acceptable.

*Table 6-3 Descriptive CSD data*

| | **CSD** | **CSD Grouped by 10** |
|---|---|---|
| Mean | 58.9987 | 55.0167 |
| Std. Error of Mean | 0.89089 | 0.90568 |
| Median | 57.6923 | 50.000 |
| Mode | 64.62 | 50.000 |
| Std. Deviation | 21.82233 | 22.18453 |
| Variance | 476.214 | 492.153 |
| Skewness | -0.180 | -0.032 |
| Std. Error of Skewness | 0.100 | 0.100 |
| Kurtosis | -0.104 | -0.118 |
| Std. Error of Kurtosis | 0.199 | 0.199 |
| Range | 100.00 | 100.00 |
| Minimum | 0.00 | 0.00 |
| Maximum | 100.00 | 100.00 |

Source: Sustainalytics data analysed with the use of SPSS 16.0.

In the field of FA and SA, researchers tend to ignore distribution issues, while using similar data. Hope (2003b) and Hope *et al.* (2008) ignore distribution issues. In these studies especially similar institutional data are used, which are less likely to be normally distributed, as these are similar within nations.

When data distribution issues are mentioned in prior studies, the authors sometimes ignore the adjustment of distribution problems. Ball and Brown (1968, p. 169) mention: "The empirical distributions of the stock return residuals appear to be described well by symmetric, stable distributions that are characterized by tails longer than those of the normal distribution". Instead of transforming their data to adjust for non-normality, they add a chi-square test to support their analysis.

Guthrie and Parker (1990) apply chi-square tests, which are normally applied to overcome normality problems, as this is a non-parametric test, but they ignore this. They ignore normality problems, although these are a likely reason for applying chi-square tests.

Van der Laan Smith *et al.* (2005) try to deal with the problem by the application of logistic regression. They mention (2005, p. 145): "The goal of logistic regression is to predict the category of an outcome based on a set of predictor variables. It is useful for this analysis since the predictors do not have to be normally distributed, linearly related, or contain equal variances within groups."

Soppe (2006) applies similar CSD data as this study in a sustainable finance study. He finds skewness (Soppe, 2006, p. 140) and removes observations to reassure normality of the distribution of CSD data. He further eliminates variables that cause heteroscedasticity.

The problem of heteroscedasticity, the lack of homoscedasticity of variances, is a previously mentioned assumption for parametric tests. Homoscedasticity may be secured by transformation of data. This is mentioned by Tacq (1997, p. 131). Data transformation can be done in several ways and is not limited to the following: taking the square roots of dependent data or natural logarithm or log10. The transformation of the data of this study has shown to cause severe violation of normality to the data. This has not been shown in a separate figure.

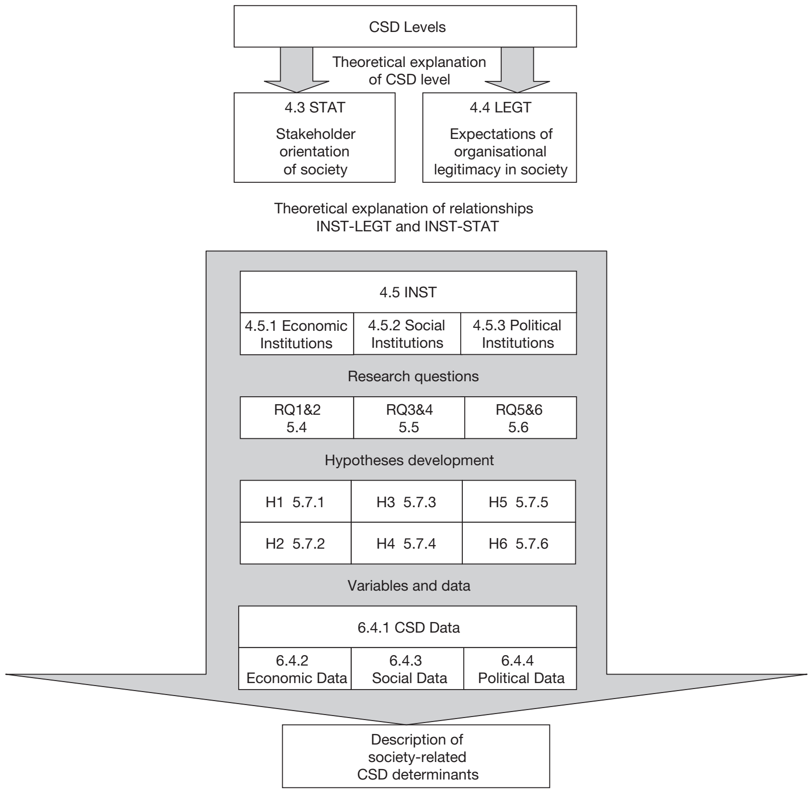
The transformation of data by taking square roots or logarithms is not a viable option for this study, as normality violations occur. The opportunity of the application of logistic regression mentioned by Van der Laan Smith (2005) is limited. They apply binary logistic regression which is only possible with binary dependent variables. Transformation by the application of weights is an option mentioned by the SPSS help routine to deal with heteroscedasticity.

If heteroscedasticity may be problematic in the statistical analysis of this study, it is solved by STATA statistical software package.

## 6.7 Summary of the Chapter

Research methods are discussed in this chapter. Variables are discussed that directly represent the institutions or proxies of the institutions. The data that relate to the variables are also explained. The statistical methods applied that are described are descriptive statistics, correlations, t-tests and regressions. Distributions of the data are discussed, as these cause some reason for attention. Figure 6-2 shows the position of the variables and data in the analysis, as presented so far in this dissertation.

*Figure 6-3 Position of data and variables in the analysis*




- CSD is Corporate Social Disclosures.
- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legìtimacy Theory.

# 7 Results and Hypothesis Testing

## 7.1 Introduction

In this chapter I show data, descriptive statistics, statistical results and testing of the hypotheses. The statistical tests are sorted by hypotheses in order to be able to provide a sequential overview of the analysis per hypothesis. An overall analysis is done in the end of the chapter.

All data are given in section 7.2, except for corporation-specific CSD data. These CSD data are described statistically. These data cannot be shown in full as the database is very large.

The shown data are relevant for this study as they are institutional data that can be applied in an outside-in approach.

The statistical tests are chosen because of the usual application of these tests in the research paradigms of SA and also FA, which is explained in chapter 6. The hypotheses tested are the hypotheses presented in chapter 5.

The contents of the sections of this chapter are as follows: Section 7.2 contains institutional data, sensitive industry membership (SIM) data and descriptive statistics and correlations. Section 7.3 contains t-tests on all hypotheses, including subhypotheses. Section 7.4 contains the analysis of the data with (mainly) multivariate regression models related to the hypotheses. Section 7.5 contains the hypothesis testing; the concrete linking of theory and results. Section 7.6 contains an overall analysis of all relationships suggested by the theoretical framework, which is shown by the testing of a combination model, of all prior assessed variables.

In section 7.7 I provide the summary of the chapter. All sections are sorted by hypothesis.

In table 7-1, I further provide an overview of the operationalisations to be applied, including mentioning of the variables, sorted by hypothesis. These are derived from table 6-1 and details from sections 6.3 to 6.5.

*Table 7-1 Overview of operationalisations per hypothesis*

| INST | STAT | LEGT |
|---|---|---|
| **Economic institutions** | Subhypothesis 1.1:<br>Legal origin.<br>The variable is referred to as COM.<br>The subgroups of code-law countries are:<br>FRE for French Code Law.<br>GER for German Code Law.<br>NOR for Nordic Code Law.<br><br>Subhypothesis 1.2:<br>Free-market ideology has its proxy economic freedom scores.<br>The variable is referred to as FRM. | Hypothesis 2:<br>Free-market ideology.<br>The variable is referred to as FRM.<br>Controlled by a dummy for sensitive industry membership.<br>The variable is referred to as SIM.<br>Legal origin, COM, is added as a general variable of corporate governance, an economic institution. |
| **Social institutions** | Subhypothesis 3.1:<br>Secrecy.<br>The variable is referred to as SEC.<br>It relates to Hofstede's national culture scores as SEC = UAI + PDI – IDV.<br><br>Uncertainty Avoidance.<br>The variable is referred to as UAI.<br><br>Power Distance.<br>The variable is referred to as PDI.<br><br>Individualism.<br>The variable is referred to as IDV.<br><br>Subhypothesis 3.2:<br>Generic types of culture.<br>The variable is referred to as TYP.<br>It relates to Hofstede's national culture scores as TYP = IDV – PDI.<br><br>Subhypothesis 3.3:<br>Masculinity.<br>The variable is referred to as MAS.<br><br>Subhypothesis 3.4:<br>Long-term orientation.<br>The variable is referred to as LTO.<br><br>Legal origin, COM, is added as a general stakeholder variable. | Hypothesis 4:<br>The variables for hypothesis 3 are also applicable for hypothesis 4 – MAS, IDV, PDI, UAI, LTO, SEC and TYP.<br>Controlled by a dummy for sensitive industry membership.<br>The variable is referred to as SIM. |

*Table 7-1 Overview of operationalisations per hypothesis, continued*

| INST | STAT | LEGT |
|---|---|---|
| **Political institutions** | Hypothesis 5: Freedom level. The variable is referred to as FRD. Legal origin, COM, is added as a general stakeholder variable. | Hypothesis 6: Employment (Employment laws index) and environmental legislation level (Environmental Performance Index) are applied as proxies for political institutions. The variables are referred to as EPI and ELI. Controlled by a dummy for sensitive industry membership. The variable is referred to as SIM. |

- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.
- COM is Common law countries.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy.
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-Term Orientation.
- TYP is Generic types of culture.
- EM is Equality matching.
- AR is Authority ranking.
- MP is Market pricing.
- FRD is Freedom score.
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- n.a. is Not available.

The operationalisations from table 7-1 are applied in the statistical descriptions and testing in later parts of this chapter in sections 7.2 to 7.6.

## 7.2 Descriptive Statistics and Correlations

This section contains data on institutions and sensitive industry membership in table 7-2. Further, I provide descriptive statistics of these data and correlations between the variables in table 7-3.

The descriptive statistics are mean, maximum and minimum levels and standard deviations of variables. Correlations are bivariate Pearson correlations between the variables, which are shown in table 7-4.

*Table 7-2 All data on institutions and sensitive industry membership*

| | | | **Economic** | | | | | **Social** | | | | | **Political** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | N | COM or COD | FRM | SIM No. | SIM Perc. | MAS | IDV | PDI | UAI | LTO | TYP | FRD | EPI | ELI |
| 1 | Australia | 9 | Common law | 79.9 | 2 | 22% | 61 | 90 | 36 | 51 | 31 | n.a. | 1 | 65.7 | 0.9 |
| 2 | Austria | 5 | Code law, German | 71.1 | 1 | 20% | 79 | 55 | 11 | 70 | n.a. | n.a. | 1 | 78.1 | 0.8 |
| 3 | Belgium | 7 | Code law, French | 71.8 | 4 | 57% | 54 | 75 | 65 | 94 | n.a. | Other | 1 | 58.1 | 1.8 |
| 4 | Canada | 15 | Common law | 77.4 | 3 | 20% | 52 | 80 | 39 | 48 | 23 | n.a. | 1 | 66.4 | 1.2 |
| 5 | Denmark | 7 | Code law, Nordic | 75.4 | 3 | 43% | 16 | 74 | 18 | 23 | n.a. | EM | 1 | 69.2 | 1.0 |
| 6 | Finland | 7 | Code law, Nordic | 72.9 | 0 | 0% | 26 | 63 | 33 | 59 | n.a. | EM | 1 | 74.7 | 1.7 |
| 7 | France | 38 | Code law, French | 61.1 | 6 | 16% | 43 | 71 | 68 | 86 | n.a. | n.a. | 1 | 78.2 | 1.6 |
| 8 | Germany | 38 | Code law, German | 70.8 | 9 | 24% | 66 | 67 | 35 | 65 | 31 | EM | 1 | 73.2 | 1.6 |
| 9 | Greece | 3 | Code law, French | 60.1 | 0 | 0% | 57 | 35 | 60 | 112 | n.a. | n.a. | 1.5 | 60.9 | 1.9 |
| 10 | Hong Kong | 10 | Common law | 88.6 | 1 | 10% | 57 | 25 | 68 | 29 | 96 | n.a. | 3.5 | 49 | 0.8 |
| 11 | Ireland | 7 | Common law | 82.2 | 1 | 14% | 68 | 70 | 28 | 35 | n.a. | EM | 1 | 67.1 | 1.0 |
| 12 | Italy | 24 | Code law, French | 62.0 | 2 | 8% | 70 | 76 | 50 | 75 | n.a. | Other | 1 | 73.1 | 1.5 |
| 13 | Japan | 43 | Code law, German | 73.3 | 6 | 14% | 95 | 46 | 54 | 92 | 80 | AR | 2 | 72.5 | 1.4 |
| 14 | Netherlands | 20 | Code law, French | 75.4 | 6 | 30% | 14 | 80 | 38 | 53 | 44 | n.a. | 1 | 66.4 | 1.7 |
| 15 | Norway | 6 | Code law, Nordic | 67.9 | 3 | 50% | 8 | 69 | 31 | 50 | 30 | EM | 1 | 81.1 | 1.3 |
| 16 | Portugal | 4 | Code law, French | 62.9 | 0 | 0% | 31 | 27 | 63 | 104 | n.a. | Other | 1 | 73 | 2.4 |
| 17 | Singapore | 2 | Common law | 88.0 | 0 | 0% | 48 | 20 | 74 | 8 | 48 | n.a. | 4 | 69.9 | 0.9 |
| 18 | Spain | 17 | Code law, French | 68.2 | 3 | 18% | 42 | 51 | 57 | 86 | n.a. | Other | 1 | 70.6 | 2.2 |
| 19 | Sweden | 18 | Code law, Nordic | 70.9 | 0 | 0% | 5 | 71 | 31 | 29 | 33 | EM | 1 | 86.0 | 1.1 |
| 20 | Switzerland | 71 | Code law, German | 78.9 | 14 | 20% | 70 | 68 | 34 | 58 | n.a. | n.a. | 1 | 89.1 | 1.3 |
| 21 | UK | 82 | Common law | 80.4 | 18 | 22% | 66 | 8 | 35 | 35 | 25 | MP | 1 | 74.2 | 1.0 |
| 22 | USA | 167 | Common law | 81.2 | 39 | 23% | 62 | 91 | 40 | 46 | 29 | MP | 1 | 63.5 | 0.9 |

*Table 7-2 All data on institutions and sensitive industry membership, continued*

- COM is Common law countries.
- COD is Code law countries.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy, in numbers per country (no.) and as a percentage (perc.) of numbers per country.
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-Term Orientation.
- TYP is Generic type so of culture here is the original definition.
- EM is Equality matching.
- AR is Authority ranking.
- MP is Market pricing.
- FRD is Freedom score.
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- n.a. is Not available.
- Other is Other types of culture, not analysed.

Sources: COM, FRE, GER and NOR: La Porta *et al.* (1997).
FRM: Heritage Foundation (2010).
SIM: based upon Sustainalytics data.
MAS, IDV, UAI and LTO: Hofstede (1983, 2001).
TYP: Gannon (2001).
FRD: McColm *et al.* (1993).
EPI: Environmental Performance Index (2010).
ELI: Botero *et al.* (2003).

The data from table 7-2 are analysed in the remainder of this chapter, starting with the descriptive statistics in table 7-3. In table 7-3 I provide the descriptive statistics.

*Table 7-3 Descriptive statistics*

| | N | Minimum | Mean | Median | Maximum | SD |
|---|---|---|---|---|---|---|
| CSD | 600 | 0.0000 | 58.9987 | 57.6900 | 100.0000 | 21.8220 |
| COM | 292 | 0.0000 | 0.4867 | 0.0000 | 1.0000 | 0.5000 |
| FRE | 109 | 0.0000 | 0.1883 | 0.0000 | 1.0000 | 0.3860 |
| GER | 157 | 0.0000 | 0.2617 | 0.0000 | 1.0000 | 0.4400 |
| NOR | 42 | 0.0000 | 0.0633 | 0.0000 | 1.0000 | 0.2554 |
| FRM | 600 | 60.1000 | 76.0063 | 78.9000 | 88.6000 | 6.7329 |
| SIM | 600 | 0.0000 | 0.2017 | 0.0000 | 1.0000 | 0.4020 |
| MAS | 600 | 5.0000 | 59.3467 | 62.0000 | 95.0000 | 19.3930 |
| IDV | 600 | 20.0000 | 75.4833 | 76.0000 | 91.0000 | 16.4880 |
| PDI | 600 | 11.0000 | 41.8417 | 40.0000 | 74.0000 | 11.4130 |
| UAI | 600 | 8.0000 | 55.9117 | 48.0000 | 112.0000 | 19.9420 |
| LTO | 404 | 23.0000 | 36.2995 | 29.0000 | 96.0000 | 18.8210 |
| SEC | 600 | -33.0000 | 22.2700 | 7.0000 | 140.0000 | 40.4320 |
| TYP | 600 | -54.0000 | 33.6417 | 41.0000 | 56.0000 | 23.8910 |
| FRD | 600 | 1.0000 | 1.1258 | 1.0000 | 4.0000 | 0.4380 |
| EPI | 600 | 49.0000 | 71.7407 | 72.5000 | 89.1000 | 9.1510 |
| ELI | 600 | 0.7600 | 1.2271 | 1.0500 | 2.3600 | 0.3370 |
| CSDenv | 600 | 0.0000 | 67.5141 | 70.0000 | 100.0000 | 25.0604 |
| CSDempl | 600 | 0.0000 | 62.4763 | 70.0000 | 100.0000 | 2.7855 |

- CSD is Corporate Social Disclosures.
- COM is Common law countries.
- FRE is French code law countries.
- GER is German code law countries.
- NOR is Nordic code law countries.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy (sorted under the economic institutions).
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-Term Orientation.
- SEC is Secrecy.
- TYP is Generic Types of Culture.
- FRD is Freedom score.
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- CSDenv is Corporate social disclosure levels on environmental issues.
- CSDempl is Corporate social disclosure levels on employment issues.

Sources: CSD: Sustainalytics.
COM, FRE, GER and NOR: La Porta *et al.* (1997).
FRM: Heritage Foundation (2010).
SIM: based upon Sustainalytics data.
MAS, IDV, UAI and LTO: Hofstede (1983, 2001).
TYP: Gannon (2001).
FRD: McColm *et al.* (1993).
EPI: Environmental Performance Index (2010).
ELI: Botero *et al.* (2003).

A narrative analysis of the numbers from tables 7-2 and 7-3 is given in subsections per hypothesis in combination with the correlations shown in table 7-4 below.

*Table 7-4 Correlations between CSD data, data on institutions and sensitive industry membership*

| | | | | **Economic** | | | | | | | **Social** | | | | | **Political** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CSD | COM | FRE | GER | NOR | FRM | SIM | MAS | IDV | PDI | UAI | LTO | SEC | TYP | FRD | EPI | ELI |
| CSD | 1.000 | | | | | | | | | | | | | | | | |
| COM | -0.025 | 1.000 | | | | | | | | | | | | | | | |
| FRE | 0.201** | -0.459** | 1.000 | | | | | | | | | | | | | | |
| GER | -0.209** | -0.580** | -0.280** | 1.000 | | | | | | | | | | | | | |
| NOR | 0.106** | -0.267** | -0.129** | -0.163** | 1.000 | | | | | | | | | | | | |
| FRM | -0.177** | 0.732** | -0.723** | -0.075 | -0.213** | 1.000 | | | | | | | | | | | |
| SIM | 0.258** | 0.042 | -0.011 | -0.016 | -0.04 | 0.06 | 1.000 | | | | | | | | | | |
| MAS | -0.191** | 0.156** | -0.360** | 0.517** | -0.653** | 0.247** | -0.011 | 1.000 | | | | | | | | | |
| IDV | 0.137** | 0.657** | -0.160** | -0.512** | -0.163** | 0.393** | 0.090* | -0.091* | 1.000 | | | | | | | | |
| PDI | -0.018 | -0.215** | 0.602** | -0.149** | -0.232** | -0.481** | -0.054 | 0.046 | -0.448** | 1.000 | | | | | | | |
| UAI | 0.021 | -0.681** | 0.540** | 0.403** | -0.176** | -0.731** | -0.037 | 0.243** | -0.574** | 0.634** | 1.000 | | | | | | |
| LTO | -0.220** | -0.512** | 0.093 | 0.552** | -0.038 | -0.212** | -0.071 | 0.351** | -0.885** | 0.869** | 0.632** | 1.000 | | | | | |
| SEC | -0.051 | -0.664** | 0.501** | 0.365** | -0.086* | -0.656** | -0.07 | 0.170** | -0.818** | 0.778** | 0.906** | 0.913** | 1.000 | | | | |
| TYP | 0.103* | 0.556** | -0.398** | -0.282** | -0.002 | 0.501** | 0.088* | -0.085* | 0.904** | -0.787** | -0.699** | -0.931** | -0.936 | 1.000 | | | |
| FRD | -0.232** | -0.044 | -0.121** | 0.202** | -0.079 | 0.140** | -0.064 | 0.276** | -0.676** | 0.467** | 0.129** | 0.869** | 0.471** | -0.690** | 1.000** | | |
| EPI | 0.023 | -0.619** | 0.011 | 0.561** | 0.229** | -0.317** | -0.054 | -0.001 | -0.238** | -0.212** | 0.176** | -0.064 | 0.124** | -0.063 | -0.235** | 1.000 | |
| ELI | 0.158** | -0.772** | 0.663** | 0.259** | 0.064 | -0.761** | -0.032 | -0.190** | -0.561** | 0.452** | 0.771** | 0.339** | 0.737** | -0.603** | -0.053 | 0.285** | 1.000 |

- CSD is Corporate social disclosure levels.
- COM is Legal system dummy, common law.
- FRE is French code law countries.
- GER is German code law countries.
- NOR is Nordic code law countries.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy (sorted under the economic institutions).
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-Term Orientation.
- SEC is Secrecy.
- TYP is Generic Types of Culture.
- FRD is Freedom score.
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- *** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD: Sustainalytics;
COM, FRE, GER and NOR: La Porta *et al.* (1997);
FRM: Heritage Foundation (2010);
SIM: based upon Sustainalytics data;
MAS, IDV, UAI and LTO: Hofstede (1983, 2001);
TYP and SEC: based upon Hofstede (1983) data;
FRD: McColm *et al.* (1993);
EPI: Environmental Performance Index (2010);
ELI: Botero *et al.* (2003).

The data shown in table 7-4 are explained in subsections sorted by hypothesis. Some general remarks on the correlations are made in this section. CSD correlates statistically significant with variables from all institutions: legal origin variables FRE, GER, NOR, freedom of markets FRM, cultural variables MAS, IDV and LTO and political variables FRD and EPI. CSD does not correlate with legal origin variable COM, cultural variables PDI, UAI, SEC and political variable EPI.

An important remark concerns the high correlations between variables within the group of social institutional variables. This may cause multicollinearity within regression models. These issues are discussed with the analysis of the regression models.

### *7.2.1 Economic Institutions and Stakeholder Theory*

In this subsection I describe the variables that relate to subhypotheses 1.1 and 1.2. These subhypotheses suggest relationships between CSD levels and economic institutions, which can be explained by STAT. The variables that are assessed with these statistics are:

- CSD levels.
- COM, common law dummy variable.
- FRE, French code law subgroup dummy variable.
- GER, German code law subgroup dummy variable.
- NOR, Nordic code law subgroup dummy variable.
- FRM, freedom of markets variable by Heritage Foundation (2010).

Data on the above-mentioned variables from tables 7-2 to 7-4 provide input for the discussion below. Data is provided by La Porta *et al.* (1997) and the Heritage Foundation (2010).

The highest scoring countries on freedom of markets, Hong Kong and Singapore, have a common law legal origin. The lowest, two southern European countries, France and Greece, have a French code law legal origin.

Table 7-4 shows statistically significant correlations between the code law subgroups and levels of CSD. The distinction between common law and code law is a binary dummy variable. This dummy variable, shown as COM, does not correlate significantly with CSD levels. All three separate code-law subgroups correlate highly significantly with CSD levels. French and Nordic legal origin correlate positively and German negatively (no expected sign of the correlation suggested).

The correlation between CSD levels and freedom of markets is clearly significant. The direction of the correlation is negative. Freedom of markets shows statistically significant correlations with the legal origin dummies – with common law and the code law subgroups.

### 7.2.2 Economic Institutions and Legitimacy Theory

In this subsection I describe the variables that relate to hypothesis 2. These are based upon the same data as the freedom of markets data from subsection 7.2.1, except for the sensitive industry

(SIM). SIM is a legitimacy-specific variable. It is scored as a dummy variable per corporation.

Table 7-2 shows the number and percentage of sensitive industry memberships per country. The spread of corporations from sensitive industries over the 22 countries in the sample differs greatly between the countries: from 0% in 5 of the 22 countries, to the maximum of 57% in Belgium.

Sensitive industry membership correlates significantly with CSD levels.

In addition to freedom of markets and SIM, the main corporate governance variable COM is added in the multivariate analysis as an economic institution. The applied variables are:

- CSD levels.
- FRM, freedom of markets variable by Heritage Foundation (2010).
- COM, legal origin.

### 7.2.3 Social Institutions and Stakeholder Theory

In this subsection I describe the variables that relate to subhypotheses 3.1, 3.2, 3.3 and 3.4, as shown in tables 7-2 to 7-4. The hypotheses suggest relationships between CSD levels and social institutions, which can be explained by STAT. The variables that are assessed with these statistics are CSD levels and national culture dimensions and measures that are combinations of national culture dimensions.

Legal origin is also applied as a variable, as it is the main stakeholder-related variable by Ball *et al.* (2000) and Simnett *et al*. (2009).

The applied variables are:

- CSD levels.
- MAS, masculinity.
- IDV, individualism.
- PDI, power distance.
- UAI, uncertainty avoidance.
- LTO, long-term orientation.
- SEC, secrecy (= UAI + PDI – IDV).
- TYP, generic types of culture (= IDV – PDI).

In addition there is the legal origin variable:

- COM, legal origin.

Table 7-2 contains data on culture, as these are scored by Hofstede (1983) and Hofstede and Bond (1988). In table 7-3 descriptive statistics of the data are given. Table 7-4 shows Pearson correlations between all available national culture dimensions and the combined measures of national culture dimensions applied in this study, SEC and TYP. All correlations are tested with N=600, except for LTO N=404, as this national culture dimension is not available for all countries. The national culture dimensions of MAS (negative, expected negative), IDV (positive, no direction expected) and LTO (negative, expected positive) correlates significantly with CSD levels. LTO correlates strongly with IDV, PDI and TYP, which is a combination of IDV and PDI. The results of other statistical tests with LTO may be disturbed by these high correlations. With regard to TYP, the combination of IDV and PDI, the correlation of TP and CSD is probably caused by the correlation between IDV and CSD. Within the variable TYP the non-significant variable PDI disappears in favour of IDV, due to the significance of IDV.

### *7.2.4 Social Institutions and Legitimacy Theory*

In this subsection I describe the variables that relate to hypothesis 4. These variables are the same as with hypotheses 3.1-3.4 from subsection 7.2.3, with the addition of the sensitive industry membership dummy variable.[35]

The applicable variables are:

- CSD levels.
- MAS, masculinity.
- IDV, individualism.
- PDI, power distance.
- UAI, uncertainty avoidance.
- LTO, long-term orientation.
- SEC, secrecy (= UAI + PDI – IDV).
- TYP, generic types of culture (= IDV – PDI).
- SIM, sensitive industry membership dummy.

The correlation between the culture variables and SIM is added. Table 7-4 shows statistically significant correlations between sensitive industry membership and the cultural dimension IDV and cultural measure TYP. The correlation with TYP is likely to be caused by the large influence of IDV on TYP.

A statistically significant correlation exists between SIM and CSD levels in the expected direction: the relation is positive as the sensitive industry may have a positive effect on the corporation to perform well on CSD.

### 7.2.5 Political Institutions and Stakeholder Theory

In this subsection I describe the variables that relate to hypothesis 5. This hypothesis suggests relationships between CSD levels and political institutions, which can be explained by STAT. The variables that are assessed with these statistics are CSD levels and freedom scores by Freedom House (McColm, 1993 and Freedom House, 2006). Table 7-2 shows that 18 of the 22 countries have the highest freedom score of 1; high freedom relates to a low score, low freedom to a high score. These data are originally from 1993 by McColm and they are updated annually and published by Freedom House. I apply the 2006 data (Freedom House, 2006). In the regression analysis the main stakeholder variable legal origin is added.

The applied variables are:

- CSD levels.
- FRD, freedom score.
- COM, legal origin.

A large part of the sample, 542 corporations, is from countries with the maximum score. There are 58 corporations from countries with other scores. The largest provider country of corporations that has no maximum score is Japan. A small number of corporations with high scores are from the less free countries Singapore and China (here: Hong Kong).

Table 7-4 shows that freedom correlates significantly with CSD levels. The correlation has a negative sign. This is also expected to be negative, as high freedom relates to low freedom scores.

### 7.2.6 Political Institutions and Legitimacy Theory

- In this subsection I describe the variables that relate to hypothesis 6. These suggest relationships between CSD levels and political institutions, which can be explained by LEGT. SIM is added to control for industry differences.

  The variables that are applied are:
- CSD levels.
- CSD environment levels.
- CSD employee levels.
- EPI, environmental performance index.
- ELI, employment laws index.
- SIM, sensitive industry membership dummy.

Table 7-2.7-3 and 7-4 show data for this hypothesis. An extra table is provided to approach the analysis of relationships on a deeper level, table 7-5. The deeper level is the introduction of specific CSD levels for environment and employment issues.

Table 7-2 shows the spread of the countries and the ELI and EPI data per country. Spain and Portugal have the most protective employment laws in place in favour of employees within the group of countries in the sample. They score above 2. Australia, Austria, Denmark, Hong Kong, Singapore and the US score below or equal to 1, and they have the lowest level of employee protection of all countries in the sample.

The environmental performance index scores of countries in the sample are also shown in table 7-2. The index shows the commitment of a nation to its environmental regulations. Norway, Sweden and Switzerland have the highest score and therefore commitment to their environmental laws. The lowest score and commitment is in Hong Kong. None of the other countries come close. Both the indices are discussed in subsection 6.4.4.

Table 7-4 shows that CSD levels do not correlate significantly with EPI. CSD levels correlate with ELI (positive, expected to be positive).

*Table 7-5 Correlations of CSD, CSD environment, EPI, CSD employment and ELI*

| | **CSD** | **CSDenv** | **EPI** | **CSDempl** | **ELI** | **SIM** |
|---|---|---|---|---|---|---|
| CSD | 1.000 | | | | | |
| CSDenv | 0.752*** | 1.000 | | | | |
| EPI | 0.023 | 0.156*** | 1.000 | | | |
| CSDempl | 0.791*** | 0.577*** | 0.023 | 1.000 | | |
| ELI | 0.158*** | 0.182*** | 0.285*** | 0.071* | 1.000 | |
| SIM | 0.258*** | 0.231*** | -0.054 | 0.234*** | -0.032 | 1.000 |

– CSD is Corporate social disclosure levels.
– CSDenv is Corporate social disclosure levels on environmental issues.
– CSDempl is Corporate social disclosure levels on employment issues.
– EPI is Environmental Performance Index.
– ELI is Employment Laws Index.
– SIM is Sensitive industry membership dummy.
– *** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD, CSDenv and CSDempl: Sustainalytics.
EPI: Environmental Performance Index (2010).
ELI: Botero *et al.* (2003).
SIM: Based upon Sustainalytics data.

The information in table 7-5 CSD environment levels correlate significantly with EPI (positive, expected to be positive). CSD employee levels correlate significantly with ELI (positive, expected to be positive). SIM correlates significantly with CSD, CSD environment and CSD employee. Table 7-2 shows that the corporations from sensitive industries are spread over different countries. The definition of sensitive industries is given in section 5.7.2.

## 7.3 Bivariate Analysis with T-tests

T-tests tests are applied to determine differences between groups of corporations from different countries with different levels of institutional scores. The tests that relate to legitimacy issues also use corporate-level data as control variables. Tests are performed per hypothesis.

### *7.3.1 Economic Institutions and Stakeholder Theory*

Subhypothesis 1.1 suggests a relationship between legal origin and CSD levels. The t-test in this subsection measures the differences in mean CSD levels between groups of corporations from countries with different legal origins. The difference in legal origin confirmed as being relevant in prior studies is the distinction between code law and common law legal origin. Added in this analysis is the analysis of the code-law subgroups, which are mentioned in section 5.7. Prior to the test no suggested sign can be given, as only differences between code-law subgroups are tested. No specific difference between the subgroups can be explained theoretically.

*Table 7-6 T-tests of CSD and legal origin*

| **Test** | **d.f.** | **t-statistic** | **Signi-ficance (2-tailed)** | **Median** | **CSD mean, first mentioned** | **CSD mean, second mentioned** | **Expected direction of difference** | **Direction of difference** |
|---|---|---|---|---|---|---|---|---|
| COM-COD | 598 | 0.647 | 0.518 | n.a. | 58.4087 | 59.5544 | Negative | Negative |
| FRE-GER | 264 | 5.869 | 0.000 | n.a. | 68.2992 | 51.3523 | n.a. | n.a. |
| FRE-NOR | 88.238 | 0.238 | 0.812 | n.a. | 68.2992 | 67.3993 | n.a. | n.a. |
| GER-NOR | 83.68 | -4.715 | 0.000 | n.a. | 51.3523 | 67.3993 | n.a. | n.a. |

- CSD is Corporate social disclosures levels.
- COM is Legal system dummy, common law.
- COD is Code law countries.
- FRE is French code law countries.
- GER is German code law countries.
- NOR is Nordic code law countries.
- Sample size is 600.
- The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
- D.f. is Degrees of freedom.
- Two-tailed t-test.
- n.a. is not applicable.

Sources: CSD: Sustainalytics.
COM, FRE, GER and NOR: La Porta *et al.* (1997).

Table 7-6 shows no significant differences between means of CSD levels of corporations from common law countries compared with code law countries. The differences between corporations from different code law subgroups are statistically significant, except for the French and Nordic subgroups: these show both high mean CSD levels, which do not differ significantly. Based upon theoretical reasoning, nothing can be said about the expected differences between the groups of countries, except for the difference between code law and common law countries, as that difference is suggested to relate to stakeholder and shareholder orientation of nations. As was suggested by theory, different means of CSD levels would be expected between common law and code law countries. This cannot be shown in this test. No heteroscedasticity was found, as was assessed with Levine's test (non-tabulated), and as is described in subsection 6.5.2

*Table 7-7 T-test of CSD levels and freedom of markets*

| **Variable** | **d.f.** | **t-statistic** | **Significance (2-tailed)** | **Median** | **CSD mean, if measure or dimension >= median** | **CSD mean, if measure or dimension < median** | **Expected direction of difference** | **Direction of difference** |
|---|---|---|---|---|---|---|---|---|
| FRM | 598 | -3.385 | 0.001 | 79 | 56.4545 | 62.5122 | Negative | Negative |

– CSD is Corporate social disclosure levels.
– FRM is Freedom of markets.
– Sample size is 600.
– D.f. is Degrees of freedom.
– Two-tailed t-test.

Sources: CSD: Sustainalytics.
FRM: Heritage Foundation (2010).

Table 7-7 shows that the mean of CSD levels from low freedom of markets countries is significantly higher than the mean of CSD levels from high freedom of markets countries, as was expected on the basis of theoretical reasoning. No heteroscedasticity was found, as was assessed with Levine's test (non-tabulated).

### 7.3.2 Economic Institutions and Legitimacy Theory

Most of the data and statistical tests necessary to be able to test hypothesis 2 are the same data as the data to test hypothesis 1 from subsection 7.3.1. Data on SIM are added, as this is a legitimacy-related variable. These SIM data are given in table 7-2. The SIM variable is a dummy for membership of sensitive industries or not.

*Table 7-8 T-test of CSD and sensitive industry membership*

| **Variable** | **d.f.** | **t-statistic** | **Significance (2-tailed)** | **Median** | **SIM** | **Non-SIM** | **Expected direction of difference** | **Direction of difference** |
|---|---|---|---|---|---|---|---|---|
| SIM | 599 | 6.502 | 0.000 | n.a. | 70.1844 | 56.2295 | Positive | Positive |

- CSD is Corporate social disclosure levels.
- SIM is Sensitive industry membership.
- Sample size is 600.
- The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
- D.f. is Degrees of freedom.
- Two-tailed t-test.

Sources: CSD: Sustainalytics.
SIM: Based upon Sustainalytics data.

The sensitive industry membership dummy shows the expected CSD mean level difference, as is shown in table 7-8. They have statistically significant higher levels of CSD than CSD from corporations from non-sensitive industries. No heteroscedasticity was found, as was assessed with Levine's test (non-tabulated).

### 7.3.3 Social Institutions and Stakeholder Theory

The tests in this subsection are similar to those of Orij (2010). For each national culture dimension and constructed measures (secrecy and generic types of culture) a separate t-test is performed, as is shown in table 7-9. The corporations in the groups, of which the means are compared, score below and above the median of the total sample on the respective national culture dimension or constructed measure.

Also in table 7-9, the three groups of generic types of culture are assessed – means of CSD levels of groups of corporations from MP countries, AR countries and EM countries are compared. The sample tested are 249 corporations from MP countries, 43 from AR countries and 87 from EM countries. All other corporations are from other or non-relevant types of cultures. Types of cultures are described in table 7-2 and subsection 5.7.3. Tests are adjusted for heteroscedasticity where necessary.

The data on these types of cultures is given in table 7-2.

*Table 7-9 T-tests of CSD, cultural measures and national culture dimensions*

**Panel A**

| Variable | d.f. | t-statistic | Significance (2-tailed) | Median | CSD mean, if measure or dimension >= median | CSD mean, if measure or dimension < median | Expected direction of difference | Direction of difference |
|---|---|---|---|---|---|---|---|---|
| MAS | 598 | -2.792 | 0.005 | 62 | 57.4881 | 63.0486 | Negative | Negative |
| IDV | 536 | 2.923 | 0.004 | 76 | 61.4754 | 56.2245 | Positive | Positive |
| PDI | 564 | -1.682 | 0.093 | 40 | 57.5653 | 60.5830 | Negative | Negative |
| UAI | 576 | -0.219 | 0.827 | 48 | 58.8084 | 59.1968 | Negative | Negative |
| LTO | 402 | -4.610 | 0.000 | 29 | 56.3879 | 66.9947 | Positive | Negative |
| SEC | 564 | -1.921 | 0.055 | 7 | 57.3562 | 60,7428 | Negative | Negative |
| TYP | 548 | 2.222 | 0.003 | 41 | 60.9077 | 56.9177 | Positive | Positive |

**Panel B**

| Test | d.f. | t-statistic | Signi-ficance (2-tailed) | MP CSD mean | AR CSD mean | EM CSD mean | Expected direction of difference | Direction of difference |
|---|---|---|---|---|---|---|---|---|
| MP-AR | 50.742 | 2.046 | 0.046 | 60.6048 | 52.5159 | n.a. | Positive | Positive |
| AR-EM | 128 | -2.064 | 0.041 | n.a. | 52.5159 | 61.1770 | Negative | Negative |
| MP-EM | 333 | -0.245 | 0.807 | 60.6048 | n.a. | 61.1770 | Negative | Insignificant |

- CSD is Corporate social disclosure levels.
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power distance.
- LTO is Long-term orientation.
- SEC is Secrecy.
- TYP is Generic types of culture.
- n.a. is not applicable.
- MP is Market pricing.
- AR is Authority ranking.
- EM is Equality Matching.
- Sample size for all tests in panel, except LTO is 600. Sample size for LTO is 404.
- Sample size in panel B is: 292, 130 and 336.
- The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
- D.f. is Degrees of freedom.
- Two-tailed t-test.

Sources: CSD: Sustainalytics.
MAS, IDV, UAI and LTO: Hofstede (1983, 2001).
SEC: Based upon Hofstede (1983) data.
TYP: Based upon Hofstede (1983) data.

Table 7-9 shows that differences in scores on MAS, IDV, PDI, SEC and TYP relate to significant different means in the expected direction. The full sample is split into two groups: high and low scores. High scores are assumed to be higher than the median; low scores are lower than the median. High and low UAI does not relate to a significant difference in CSD levels and LTO does not show a difference in the expected direction.

Unexpected differences occur between correlations and t-tests on one variable: PDI does not correlate significantly with, but t-tests show a bivariate relationship with, CSD.

Table 7-9 shows also that the mean of CSD levels of corporations from MP countries differs significantly from the mean of CSD levels of corporations from AR countries. The same is seen in the comparison between AR and EM, but no significance was found in the comparison of CSD levels means between corporations from MP and EM countries. This test is performed to show the relevance of Gannon's (2001) TYP measure in relation to CSD.

Heteroscedasticity was found, as was assessed with Levine's test (non-tabulated).

### *7.3.4 Social Institutions and Legitimacy Theory*

The data and statistical tests necessary to be able to test hypothesis 4 are the same as from subsections 7.3.2 and 7.3.3. From 7.3.2 I apply the t-test with SIM. From 7.3.3 I apply all t-tests that search for different means with cultural variables. The results in table 7-8 show that SIM matters as a determinant of CSD, and also some of the cultural variables tested.

### 7.3.5 Political Institutions and Stakeholder Theory

The testing of hypothesis 5 is done with a t-test that assesses the relationship between CSD and political institutions. The institutional political variable consists of the Freedom House civil and political freedom score, as applied by McColm *et al.* (1993). It is suggested that freedom relates positively to CSD levels.

*Table 7-10 T-tests of CSD and freedom*

| **Variable** | **d.f.** | **t-statistic** | **Significance (2-tailed)** | **CSD mean, if measure or dimension >= median** | **CSD mean, if measure or dimension < median** | **Expected direction of difference** | **Direction of difference** |
|---|---|---|---|---|---|---|---|
| FRD | 598 | 4.648 | 0.000 | 60.3307 | 46.5517 | Positive | Positive |

– CSD is Corporate social disclosure levels.
– FRD is Freedom score.
– Sample size is 600.
– The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
– D.f. is Degrees of freedom.
– Two-tailed t-test.

Sources: CSD: Sustainalytics.
FRD: McColm *et al.* (1993).

In table 7-10 it is shown that corporations from high freedom countries have higher mean CSD levels than other corporations. The mean difference in table 7-10, which is highly statistically significant, shows a CSD levels mean difference in the expected direction.

No heteroscedasticity was found, as was assessed with Levine's test (non-tabulated).

### 7.3.6 Political Institutions and Legitimacy Theory

The t-tests to determine mean differences on the basis of differing political institutions use two proxies that cover legal areas related to CSD – government policies, and regulations on environmental and employment issues. These variables, EPI and ELI, are also tested on their specific type of social disclosure.

*Table 7-11 T-tests of CSD, EPI and ELI*

| Variable | d.f. | t-statistic | Significance (2-tailed) | Median | CSD mean, if measure or dimension >= median | CSD mean, if measure or dimension < median | Expected direction of difference | Direction of difference |
|---|---|---|---|---|---|---|---|---|
| EPI | 588.467 | 2.782 | 0.064 | 72.50 | 60.4396 | 58.8583 | Positive | Positive |
| ELI | 589.926 | -0.171 | 0.864 | 1.05 | 57.1649 | 59.1562 | Positive | Negative |

- CSD is Corporate social disclosure levels.
- EPI is Environmental performance index.
- ELI is Employment laws index.
- Sample size for all tests is 600.
- The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
- D.f. is Degrees of freedom.
- Two-tailed t-test.

Sources: CSD: Sustainalytics.
EPI: Environmental Performance Index (2010).
ELI: Botero *et al.* (2003).

Table 7-11 shows that mean CSD levels of corporations from countries with high and low EPI scores differ statistically significantly. The test with EPI shows a significant different mean at 0.064, in the expected direction; the higher the EPI, the more politics in society is committed to improvement of environmental laws. The higher the score, the more likely the social orientation of society, and the higher the CSD levels suggested. The test with EPI also shows that the expected direction is confirmed. These are mixed results, as the correlation between CSD and ELI shows the expected direction.

ELI test scores show insignificant t-tests in an unexpected direction.

Tests are adjusted for heteroscedasticity, if necessary, which was found in both tests in this subsection.

The barely significant difference for EPI and the non-significance of ELI scores suggests that a focused approach may show better results. The General CSD levels are replaced by CSD environment levels for EPI and CSD employment levels for ELI. The results of the specified t-tests are shown in table 7-12.

*Table 7-12 T-tests of CSD environment and EPI*

| **Variable** | **d.f.** | **t-statistic** | **Significance (2-tailed)** | **Median** | **CSDenv mean, if measure or dimension >= median** | **CSDenv mean, if measure or dimension < median** | **Expected direction of difference** | **Direction of difference** |
|---|---|---|---|---|---|---|---|---|
| EPI | 531.384 | 2.820 | 0.006 | 72.50 | 65.3869<br>SIM | 58.9583<br>Non-SIM | Positive | Positive |
| SIM | 598 | 7.704 | 0.000 | n.a. | 79.6281 | 65.1151 | Positive | Positive |

- CSDenv is Corporate social disclosure levels on environmental issues.
- EPI is Environmental performance index.
- SIM is Sensitive industry membership dummy.
- Sample size for all tests is 600.
- The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
- D.f. is Degrees of freedom.
- Two-tailed t-test.

Sources: CSD: Sustainalytics.
EPI: Environmental Performance Index (2010).
SIM: based upon Sustainalytics data.

Table 7-12 shows that mean CSD environment levels of corporations from countries with low and high EPI scores differ statistically significant. The difference has the expected direction. Sensitive industry membership dummy does surprisingly not show any significant mean CSD environment level differences.

*Table 7-13 T-tests of CSD employee and ELI*

| **Variable** | **d.f.** | **t-statistic** | **Significance (2-tailed)** | **Median** | **CSDempl mean, if measure or dimension >= median** | **CSDempl mean, if measure or dimension < median** | **Expected direction of difference** | **Direction of difference** |
|---|---|---|---|---|---|---|---|---|
| ELI | 573.603 | -2.030 | 0.043 | 1.05 | 65.9968<br>SIM | 70.1038<br>Non-SIM | Positive | Negative |
| SIM | 189.449 | 2,500 | 0.013 | | 68.0992 | 61.1587 | Positive | Positive |

- CSDempl is Corporate social disclosure levels on employment issues.
- ELI is Employment laws index.
- SIM is Sensitive industry membership dummy.
- Sample size for all tests is 600.
- The significance number shown as 0.000 is not exactly 0, but this represents a number smaller than 0.0001.
- D.f. is Degrees of freedom.
- Two-tailed t-test.

Sources: CSD: Sustainalytics.
ELI: Botero *et al.* (2003).
SIM: Based upon Sustainalytics data.

Table 7-13 shows that mean CSD employment levels of corporations from countries with low and high EPI scores do differ statistically significantly, with a significance of 0.043. The table shows that the CSD employee levels mean difference does not have the expected direction. ELI higher than median is expected to be related with high levels of CSD. For corporations in sensitive industries the CSD employment levels differ in the expected direction.

Heteroscedasticity was found, as was assessed with Levine's test (non-tabulated). This was solved by SPSS.

### *7.3.7 Overview of Results of T-tests*

In this subsection an overview of all t-test results is given. In table 7-14 all tested variables are mentioned, together with the t-test result, statistically significant or not, combined with the suggested direction of the mean difference.

*Table 7-14 Overview of results of T-tests per variable*

| Variable | Sub-/ Hypothesis | Table | Tested being significant | Direction confirmed | Overall t-test confirmation |
|---|---|---|---|---|---|
| COM | 1.1 | 7-6 | No | Yes | No |
| FRE | 1.1 | 7-6 | Partially (differs from GER) | n.a. | Yes |
| GER | 1.1 | 7-6 | Yes | n.a. | Yes |
| NOR | 1.1 | 7-6 | Partially (differs from GER) | n.a. | Yes |
| FRM | 1.2 and 2 | 7-7 | Yes | Yes | Yes |
| SIM | 2, 4 and 6 | 7-8 | Yes | Yes | Yes |
| MAS | 3.3 and 4 | 7-9 | Yes | Yes | Yes |
| IDV | 3.1, 3.2 and 4 | 7-9 | Yes | Yes | Yes |
| PDI | 3.2 and 4 | 7-9 | Yes | Yes | Yes |
| UAI | 3.1 and 4 | 7-9 | No | Yes | No |
| LTO | 3.4 and 4 | 7-9 | Yes | No | No |
| SEC | 3.1 and 4 | 7-9 | Yes | Yes | Yes |
| TYP | 3.2 and 4 | 7-9 | Yes | Yes | Yes |
| FRD | 5 | 7-10 | Yes | Yes | Yes |
| EPI | 6 | 7-11 and 7-12 | Yes (with CSDenv) | Yes (with CSDenv) | Yes |
| ELI | 6 | 7-11 and 7-13 | Yes (with CSDempl) | No | No |

- COM is Legal system dummy, common law.
- FRE is French code law countries.
- GER is German code law countries.
- NOR is Nordic code law countries.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy.
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-Term Orientation.
- SEC is Secrecy.
- TYP is Generic Types of Culture.
- FRD is Freedom score..
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- CSDenv is Corporate environmental disclosure levels.
- CSDempl is Corporate employment disclosure levels.
- n.a. is not applicable.

Most of the variables are confirmed to be significant and with the suggested direction, except for UAI, LTO and ELI. The detailed tests related to TYP; the differences between AR, MP and EM from table 7-9 are not shown in table 7-14.

## 7.4 Multivariate Analysis with Regression Models

Regression model tests are performed to assess the suggested theoretical relationships, the hypotheses. The models contain previously mentioned variables. Most models are multivariate models, but within subsections a development from univariate to multivariate models is shown. Each subsection contains models that relate to a separate theoretical relationship, the hypothesis. Variables are applicable in multiple models.

### *7.4.1 Economic Institutions and Stakeholder Theory*

The model that is constructed to assess the relationship between CSD and economic institutions on the basis of STAT contains a variable on freedom of markets, which is confirmed to be relevant in the t-tests above. The legal origin dummy from hypothesis 1.1 is added to the model to look for any further relationship between stakeholder related variables, although that variable was not confirmed to be relevant in determining CSD mean differences. The models constructed the models 1 to 4, as shown below.

$$CSD = a + b_1COM + e \quad (1)$$

Model 1 only contains the legal origin dummy, common/code law, COM, which explains CSD levels. The COM variable is seen as the major representation of a stakeholder orientation of nations by Simnett el al. (2009).

Model 2 contains the freedom of markets variable, which is the variable that may confirm the relationship suggested by hypothesis 1 – freedom of markets as a negative influence on a stakeholder orientation of nations.

$$CSD = a + b_1FRM + e \quad (2)$$

Model 3 is a combination of models 1 and 2; it contains the legal origin dummy and the freedom of markets variable.

$$CSD = a + b_1COM + b_2FRM + e \quad (3)$$

Model 4 is a specification of the univariate model with the legal origin dummy, model 1, as it suggests that differences within the group of code law countries might explain CSD levels.

$$CSD = a + b_1COM + b_2FRM + b_3FRE + b_4GER + b_5NOR + e \qquad (4)$$

The results of the tests of models 1 to 4 are shown in table 7-15.

*Table 7-15 Regression models of CSD, legal origin and freedom of markets*

| | **Model 1** | **Model 2** | **Model 3** | **Model 4 (restated)** |
|---|---|---|---|---|
| **Variables** | **CSD levels predicted by COM** | **CSD levels predicted by FRM** | **CSD levels predicted by COM and FRM** | **CSD levels predicted by FRM, FRE, GER and NOR** |
| FRM | | -0.574*** | -1.107*** | -0.507* |
| | | (-4.546) | (-5.329) | (-1.732) |
| FRE | | | | 2.070 |
| | | | | (0.393) |
| GER | | | | -10.07*** |
| | | | | (-3.553) |
| NOR | | | | 3.759 |
| | | | | (0.883) |
| COM | -1.108 | | 9.795*** | |
| | (-0.625) | | (3.479) | |
| Constant | 59.54*** | 102.6*** | 138.3*** | 99.55*** |
| | (43.55) | (10.65) | (9.455) | (4.202) |
| Sample size | 600 | 600 | 600 | 600 |
| Adjusted R-squared | -0.00167 | 0.02938 | 0.051384 | 0.069688 |
| F. | 0.535 | 19.354*** | 17.289*** | 13.307*** |

- CSD is Corporate social disclosure levels.
- COM is Legal system dummy, common law.
- FRE is French code law subgroup.
- GER is German code law subgroup.
- NOR is Nordic code law subgroup.
- FRM is Freedom of markets score.
- F. is F statistic of the ANOVA.
- Variable: First line is coefficient. Second line is robust t-value.
- *** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD: Sustainalytics.
COM, FRE, GER and NOR: La Porta *et al.* (1997).
FRM: Heritage Foundation (2010).

Table 7-15 shows the results of four regression models that deal with subhypotheses 1.1 and 1.2. Model 1 contains the statistically insignificant tested legal origin dummy, COM. The model does have an extremely low adjusted R-squared. Model 2 contains only the freedom of markets variable, which is highly significant. The Adjusted R-squared is low, 0.02938. Model 3, which is a combination of models 1 and 2, shows that both variables are statistically significant with an Adjusted R-squared of 0.051834, which is higher than the separate univariate models. Model 4 shows a low significance for the French and Nordic code legal origins and freedom of markets variable.

Out of the four models that are tested, one model, model 3, shows all significant variables, but has a somewhat low Adjusted R-squared. The positive effect on the significance by the addition of the freedom of markets variable on the legal origin suggests that the combination of these two variables may provide insights while doing any further analysis.

Models1 and 2 have heteroscedasticity problems, as was tested with an untabulated Levine's test. A robust test of the model has solved the problem of heteroscedasticity. Model 1 also has variable significance problems. The combination of models 1 and 2 gives model 3, which has none of these problems.

All models except model 1 show model significances by the F-statistic of the ANOVA. The testing of model 1 is performed here, although it is shown to be non-relevant for this analysis. The bivariate analysis of CSD levels and the main legal origin variable (here: COM) have been performed successfully by others, e.g. Ball *et al.* (2000) and Simnett *et al.* (2009). Their results cannot be confirmed.

The statistical testing of model 4 excludes variable COM. It lacks contribution to the model.

The restated model 4 is:

$$CSD = a + b_1FRM + b_2FRE + b_3GER + b_4NOR + e \qquad \text{(4 restated)}$$

Only model 3 has none of the problems stated above and has full significant variables.

### *7.4.2 Economic Institutions and Legitimacy Theory*

The majority of data and statistical tests necessary to be able to test hypothesis 2 are the same as from subsection 7.4.1. The same models are assessed as in the previous subsection, but one model is added. That model includes the control variable sensitive industries membership. This is a dummy variable related to legitimacy, shown in prior literature to be related with industry variables, for example in Adams *et al.* (1998, p. 7).

The initial model for this subsection, model 5, is the model that contains the freedom of markets variable and the legitimacy dummy control variable sensitive industry membership. Freedom of markets is the theoretically relevant variable.

$$CSD = a + b_1\,FRM + b_2\,SIM + e \qquad (5)$$

Model 5 is designed to be able to compare LEGT with STAT as explanatory theories for CSD levels. Hypothesis 2 competes with subhypothesis 1.2 for confirmation on the basis of the relationship between CSD and freedom of markets. To be able to arrange for the comparison, I integrated the basic model of subhypothesis 1.2 with the legitimacy-related dummy control variable SIM.

$$CSD = a + b_1FRM + b_2COM + b_3SIM + e \qquad (6)$$

Model 6 is designed to show whether the stakeholder variable legal origin improves the explanatory power of the model that contains freedom of markets. COM is a dummy variable for the economic institution corporate governance systems.

It is suggested that if the stakeholder-related variable legal origin does not support any improvement of the explanatory power of the model, STAT is not better than LEGT in predicting CSD levels.

The results of the tests of models 5 and 6 are shown in table 7-16.

*Table 7-16 Regression models of CSD, legal origin, freedom of markets and sensitive industry membership*

| | **Model 5** | **Model 6** |
|---|---|---|
| **Variables** | **CSD levels predicted by FRM, controlled by SIM** | **CSD levels predicted by FRM and COM, controlled by SIM** |
| FRM | -0.626*** | -1.161*** |
| | (-5.116) | (-5.841) |
| SIM | 14.64*** | 14.66*** |
| | (7.549) | (7.571) |
| COM | | 9.834*** |
| | | (3.667) |
| Constant | 103.7*** | 139.5*** |
| | (11.08) | (9.934) |
| Sample size | 600 | 600 |
| Adjusted R-squared | 0.104008 | 0.122606 |
| F. | 34.535*** | 28.975*** |

– CSD is Corporate social disclosure levels.
– FRM is Freedom of markets score.
– SIM is Sensitive industry membership dummy.
– COM is Legal origin dummy, common law.
– F. is F statistic of the ANOVA.
– Variable: First line is coefficient. Second line is robust t-value.
– *** p<0.01, ** p<0.05, * p<0.1..

Sources: CSD: Sustainalytics.
COM: La Porta *et al.* (1997).
FRM: Heritage Foundation (2010).
SIM: Based upon Sustainalytics data.

Table 7-16 shows the tests of models. Freedom of markets is shown to contribute statistically significantly to model 5. The variables of model 6 are all three statistically significant. Freedom of markets has a negative sign, even in this combination with the dummy control variable of sensitive industry membership. The negative sign is expected by LEGT, and the SIM variable makes the LEGT-related model out of the original STAT-related model. LEGT suggests a positive relationship between CSD and freedom of markets. The legal origin improves the explanatory power of the model, which suggests a relationship that can probably be explained by the relationship between FRM and COM.

All models in this subsection show model significances by the F-statistic of the ANOVA.

### *7.4.3 Social Institutions and Stakeholder Theory*

Orij (2010) serves as an example of the tests in this subsection. The models that are constructed to assess the relationship between CSD and social institutions on the basis of STAT contain all relevant variables, as were tested in the t-tests. There is one exception – the LTO variable is also added. LTO is only scored for 11 of the 22 countries, or 404 of the 600 corporations.

The first model in this section, model 7, contains all data available for the largest part of the sample. This means N=600 and the test with CSD as the dependent variable and the four original national culture dimensions as independent variables. This model contains the variables that are assumed to be the basic variables, as these were Hofstede's (1983, p. 52) initial full set of national culture dimensions.

$$CSD = a + b_1 MAS + b_2 IDV + b_3 PDI + b_4 UAI + e \quad (7)$$

Model 8 also includes LTO as an independent variable. The test of this model is undertaken with the smaller sample of 404 corporations. The model is as follows:

$$CSD = a + b_1 MAS + b_2 IDV + b_3 PDI + b_4 UAI + b_5 LTO + e \quad (8)$$

The goal of the set-up of model 8 is to assess the relevance of the dimension of long-term orientation added later.

A major limitation of the basic model, model 7, is the large proportion of US companies in the sample. 167 of the 600 companies are from the US. As Hofstede's dimensions are set per country and all US companies in the sample score equally on all dimensions, a third regression is tested with the remaining 433 non-US companies.

$$CSD_{excludingUS} = a + b_1 MAS + b_2 IDV + b_3 PDI + b_4 UAI + e \quad (9)$$

Model 10 is based upon Hope's (2003b) suggestion that tests of models applying national culture dimensions in relation to financial disclosures should include a control variable for the legal origin in countries, which can be classified as code or common law. Simnett *et al.* (2009) apply the legal origin as a proxy for a shareholder or social orientation of a country. A dummy variable for the legal origin is added in this model as the theoretically most appropriate STAT variable, according to Ball *et al.* (2001) and Simnett *et al.* (2009).

$$CSD = a + b_1MAS + b_2IDV + b_3PDI + b_4UAI + b_5COM + e \qquad (10)$$

Model 11 is intended to assess cultural CSD determinants for countries which contribute to the sample only with a small number of corporations. Countries that contribute to the sample with less than 15 corporations were excluded. 542 of the original 600 corporations remained in the adjusted sample.

$$CSD_{excludingSMALL} = a + b_1MAS + b_2IDV + b_3PDI + b_4UAI + e \qquad (11)$$

Model 12 contains the variables MAS and SEC. In this model most national culture dimensions are included, directly or indirectly. LTO is not included, as an exception.

- Directly: MAS.
- Indirectly through SEC: IDV, PDI and UAI.

$$CSD = a + b_1MAS + b_2SEC + e \qquad (12)$$

Model 13 contains the variables TYP, MAS and UAI. By combining these variables most national culture dimensions from the basic model 7 is similar to model 1. LTO is not included.

$$CSD = a + b_1MAS + b_2UAI + b_3TYP + e \qquad (13)$$

The results of the tests of models 7 to 13 are shown in table 7-17.

*Table 7-17 Regression models of CSD and cultural dimensions and measures*

| | **Model 7** | **Model 8** | **Model 9** | **Model 10** | **Model 11** | **Model 12** | **Model 13** |
|---|---|---|---|---|---|---|---|
| **Variables** | **CSD levels explained by MAS, IDV, PDI and UAI** | **CSD levels explained by MAS, IDV, PDI, UAI and LTO** | **Basic model, US excluded** | **CSD levels explained by MAS, IDV, PDI, UAI and COM** | **Basic model, small countries excluded** | **CSD levels explained by MAS and SEC** | **CSD levels explained by MAS, UAI and TYP** |
| MAS | -0.255*** | 0.0891 | -0.211*** | -0.285*** | -0.227*** | -0.211*** | -0.262*** |
| | (-5.586) | (1.115) | (-4.436) | (-4.477) | (-4.364) | (-4.622) | (-5.715) |
| IDV | 0.307*** | 0.302** | 0.504*** | 0.268*** | 0.330*** | | |
| | (5.487) | (2.064) | (7.023) | (3.379) | (5.052) | | |
| PDI | -0.115 | -1.991*** | 0.0103 | -0.180 | -0.0273 | | |
| | (-1.218) | (-5.033) | (0.102) | (-1.446) | (-0.233) | | |
| UAI | 0.271*** | -0.151 | 0.229*** | 0.335*** | 0.243*** | | 0.291*** |
| | (5.072) | (-1.609) | (4.334) | (3.274) | (3.561) | | (5.729) |
| LTO | | 0.766*** | | | | | |
| | | (3.290) | | | | | |
| COM | | | | 3.017 | | | |
| | | | | (0.729) | | | |
| SEC | | | | | | -0.0101 | |
| | | | | | | (-0.450) | |
| TYP | | | | | | | 0.246*** |
| | | | | | | | (6.500) |
| Constant | 40.61*** | 89.20*** | 23.39*** | 43.02*** | 34.86*** | 71.73*** | 49.93*** |
| | (5.614) | (5.965) | (2.826) | (5.409) | (4.012) | (25.99) | (12.74) |
| Sample size | 600 | 404 | 433 | 600 | 543 | 600 | 600 |
| Adjusted R-squared | 0.074822 | 0.155955 | 0.118111 | 0.074273 | 0.061600 | 0.033774 | 0.073359 |
| F. | 13.193*** | 14.495*** | 16.042*** | 10.668*** | 0.210*** | 11.352*** | 16.759*** |

*Table 7-17 Regression models of CSD and cultural dimensions and measures, continued*

- CSD is Corporate Social Disclosure levels.
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-term orientation.
- COM is Legal origin dummy, common law.
- SEC is Secrecy.
- TYP is Generic types of culture.
- F. is F statistic of the ANOVA.
- Variable: First line is coefficient.
  Second line is robust t-value.
- *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Sources: CSD: Sustainalytics.
MAS, IDV, UAI and LTO: Hofstede (1983, 2001).
TYP and SEC: Based upon Hofstede (1983) data.
COM: La Porta *et al.* (1997).

The results of the test of the models, as provided in table 7-17, show that model 7 can be applied to test hypothesis 3, except for the variable PDI. The explanatory power of the model is higher than the original model, but significances change by adding this dimension. With this model there is a chance of multicollinearity in the case of LTO, as is shown by the levels of the Pearson correlation and the discussion on Confucianism. In comparison with model 7, several variables of model 8 lose their significance, while adding long-term orientation – the dimensions masculinity, individualism and uncertainty avoidance. The significance of power distance improves. The high Pearson correlation between LTO and PDI can be a reason for the disturbance of the significances.

In model 9 all variables are highly significant, except for PDI. This is similar to the model with the basic data, model 7. However, the explanatory power of model 9 is better than the basic data model 7.

Model 10 shows insignificance of variables PDI and legal origin, which suggests that legal origin is not a valuable addition to the model. The explanatory power of model 10 is better than the basic model, but less strong than the model that includes LTO, the second model. Model 10 shows similarities with model 9: excluding US corporations with a common law background, or controlling for the legal system of the largest country in the sample shows similar outcomes.

In model 11 only MAS and IDV contribute significantly, suggesting that the selection of countries in the sample needs attention, but no clear conclusion can be drawn from these figures.

Model 12 shows that the contribution by SEC is insignificant. Model 13, which assesses the generic types of culture measure combined with the remaining national culture dimensions MAS and UAI, is the only model in this subsection, for which all the variables are significant. The explanatory power is lower than for the other models.

All models in this subsection show model significances by the F-statistic of the ANOVA.

### *7.4.4 Social Institutions and Legitimacy Theory*

The data and statistical tests necessary to be able to test hypothesis 4 are the same as from subsection 7.4.3. An addition to the data and tests from subsection 7.4.3 is the inclusion of the legitimacy control variable dummy of sensitive industry membership. This is applied to the models – the basic variable model, the model that contains SEC, as this was related to legitimacy issues by Newson and Deegan (2002) and the model that contained all significant variables, MAS, UAI and TYP.

Model 14 is the basic model for this subsection with the four original national culture dimensions, with the addition of the control variable for sensitive industry membership.

$$CSD = a + b_1MAS + b_2IDV + b_3PDI + b_4UAI + b_5SIM + e \quad (14)$$

Model 15 is set up because of the testing of SEC, which has been suggested in prior literature as a cultural measure that is related to legitimacy issues (Newson and Deegan, 2002).

$$CSD = a + b_1SEC + b_2MAS + b_5SIM + e \quad (15)$$

Model 16 contains all four original dimensions: MAS and UIA and, hidden in the TYP formula, PDI and IDV. This model is controlled by SIM for legitimacy purposes. This is the LEGT-equivalent of model 13. If SIM contributes to an increased explanatory power of model 13, it is assumed that LEGT has explanatory power in the relationship between CSD levels and social institutions.

$$CSD = a + b_1MAS + b_2UAI + b_3SIM + b_5STYP + e \quad (16)$$

The results of the tests of the models 14 to 16 are shown in table 7-18.

*Table 7-18 Regression models of CSD, cultural dimensions and measures and sensitive industry membership*

| | **Model 14** | **Model 15** | **Model 16** |
|---|---|---|---|
| **Variables** | **CSD levels explained by MAS< IDV, PDI, UAI and SIM** | **CSD levels explained by MAS< SIM and SEC** | **CSD levels explained by MAS, UAI, SIM and TYP** |
| MAS | -0.252*** (-5.776) | -0.211*** (-4.877) | -0.258*** (-5.886) |
| IDV | 0.275*** (5.021) | | |
| PDI | -0.0970 (-1.072) | | |
| UAI | 0.258*** (4.974) | | 0.277*** (5.555) |
| SIM | 13.17*** (6.869) | 13.89*** (7.367) | 13.23*** (6.939) |
| SEC | | -0.000434 (-0.0198) | |
| TYP | | | 0.219*** (6.008) |
| Constant | 40.12*** (5.714) | 68.73*** (26.30) | 48.78*** (13.05) |
| Sample size | 600 | 600 | 600 |
| Adjusted R-squared | 0.132761 | 0.097780 | 0.130192 |
| F. | 19.285*** | 22.485*** | 23.512*** |

- CSD is Corporate Social Disclosure levels.
- MAS is Masculinity.
- IDV is Individualism.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- SEC is Secrecy.
- TYP is Generic types of culture.
- SIM is Sensitive industry membership dummy.
- F. is F statistic of the ANOVA.
- Variable: First line is coefficient.
  Second line is robust t-value.
- *** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD: Sustainalytics.
COM: La Porta *et al.* (1997).
SIM: Based upon Sustainalytics data.
MAS, IDV, UAI and LTO: Hofstede (1983, 2001).
TYP and SEC: based upon Hofstede (1983) data.

The results of the test of model 14, as provided in table 7-18, show that the model can be applied to assess hypothesis 4, except for the variable PDI. The testing of model 15 shows that SEC does not relate to CSD in this prediction model, controlled by SIM. All four variables of model 16 are statistically significant. The explanatory power of the model is 0.136. The explanatory power of model 14, which is shown by the Adjusted R-squared, increased with the addition of the dummy control variable for sensitive industry membership (model 7 in section 7.4.3).

The results of the testing of models 14 to 16 show that several cultural dimensions and measures can predict CSD levels significantly – MAS, IDV, UAI and TYP.

All models in this subsection show model significances by the F-statistic of the ANOVA.

### *7.4.5 Political Institutions and Stakeholder Theory*

The basic model 17 that is constructed to assess the relationship between CSD and political institutions on the basis of STAT contains a variable on (political) freedom. The legal origin dummy is added to the model to look for any further relationship between stakeholder related variables.

The basic model 17 is as follows:

$$CSD = a + b_1 FRD + e \tag{17}$$

Model 18 is similar to model 17, but includes the legal origin dummy common law as the main STAT-related variable.

$$CSD = a + b_1 FRD + b_2 COM + e \tag{18}$$

Model 19 is similar to model 18. COM is replaced by the code law subgroups:

$$CSD = a + b_1 FRD + b_2 FRE + b_3 GER + b_4 NOR + e \tag{19}$$

The results of the tests of models 17 to 19 are shown in table 7-19.

*Table 7-19 Regression models of CSD, freedom and legal origin*

| | Model 17 | Model 18 | Model 19 |
|---|---|---|---|
| **Variables** | **CSD levels explained by FRD** | **CSD levels explained by FRD and COM** | **CSD levels explained by FRD, FRE, GER and NOR** |
| FRD | -11.57***<br>(-7.039) | -11.65***<br>(-7.170) | -9.118***<br>(-4.970) |
| FRE | | | 9.027***<br>(3.867) |
| GER | | | -5.548**<br>(-2.464) |
| NOR | | | 8.001***<br>(2.675) |
| COM | | -1.554<br>(-0.903) | |
| Constant | 72.03***<br>(34.73) | 72.87***<br>(31.44) | 68.52***<br>(29.51) |
| Sample size | 600 | 600 | 600 |
| Adjusted R-squared | 0.052418 | 0.051834 | 0.102003 |
| F. | 34.047*** | 10.829*** | 17.968*** |

- CSD is Corporate social disclosure levels.
- FRD is Freedom score.
- COM is Legal origin dummy, common law.
- FRE is French code law subgroup.
- GER is German code law subgroup.
- NOR is Nordic code law subgroup.
- F. is F statistic of the ANOVA.
- Variable: First line is coefficient.
  Second line is robust t-value.
- *** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD: Sustainalytics.
FRD: McColm *et al.* (1993).
COM, FRE, GER and NOR: La Porta *et al.* (1997).

The results of the test of model 17 in table 7-19 show that political freedom contributes statistically significantly to the model that explains CSD levels. The explanatory power of the model is low. Political freedom contributes statistically significantly to the model, but the regular legal origin variable COM does not. Legal origin does not increase explanatory power of the model either. The legal origin variable with a more detailed analysis with the code law subgroups shows promising outcomes. Model 19 is added to the analysis to assess the contribution of these code law subgroups. All variables contribute significantly to the model and the Adjusted R-squared is increased almost 100% by the addition of the code law subgroup dummies: from 0.051834 to 0.102003.

Heteroscedasticity may cast doubts on the usefulness of models 17 to 19. A robust test of the model has solved the problem of heteroscedasticity. All models in this subsection show model significances by the F-statistic of the ANOVA.

### *7.4.6 Political Institutions and Legitimacy Theory*

The model that is constructed to assess the relationship between CSD and political institutions on the basis of LEGT contains the variables EPI and ELI. These both tested insignificant in the t-test to determine different means of CSD levels. EPI tested significant with the t-test on CSD environment, which means that it may be useful to predict CSD at some level. The models are controlled by a sensitive industry membership dummy variable. This variable itself did not test significant on the t-test for CSD environment mean differences, but shows significant mean differences with CSD.

Model 20 was set up with the environmental performance index and controlled by a sensitive industry membership dummy. EPI is more clearly related with CSD levels than ELI, as is shown in subsection 7.3.6, which means that EPI is a basic variable in this section, combined with the dummy control variable SIM for legitimacy issues.

$$CSD = a + b_1 EPI + b_2 SIM + e \tag{20}$$

In model 21 ELI is added, although it is clear from other tests that ELI does not relate clearly to CSD, as was suggested by theory (counter-theoretical direction in t-test).

$$CSD = a + b_1 EPI + b_2 ELI + b_3 SIM + e \tag{21}$$

The results of the tests of models 20 and 21 are shown in table 7-20.

The test of model 20 in table 7-20 shows that the EPI does not contribute to the prediction of CSD levels, contrary to what was expected after the t-tests in section 7.3.6. On the basis of the t-tests, the addition of ELI was not expected to change the basic model 20 in a positive direction. ELI, though, does contribute statistically significantly to model 21 in the expected direction.

Heteroscedasticity may cast doubts on the usefulness of the models 19 and 20. A robust test of the model has solved the problem of heteroscedasticity. All models in this subsection show model significances by the F-statistic of the ANOVA.

*Table 7-20 Regression models of CSD, EPI, ELI and sensitive industry membership*

| Variables | **CSD explained by EPI and SIM** | **CSD explained by EPI, ELI and SIM** |
|---|---|---|
| EPI | 0.0872 | **-0.0279** |
| | (0.812) | (-0.248) |
| SIM | 14.12*** | 14.27*** |
| | (7.237) | (7.312) |
| ELI | | 10.99*** |
| | | (4.017) |
| Constant | 49.90*** | 44.64*** |
| | (6.513) | (6.029) |
| Sample size | 600 | 600 |
| Adjusted R-squared | 0.064878 | 0.089440 |
| F. | 21.715*** | 20.658*** |

- CSD is Corporate social disclosure levels.
- EPI is Environmental Performance Index.
- ELI is Employment laws index.
- SIM is Sensitive industry membership dummy.
- F. is F statistic of the ANOVA.
- Variable: First line is coefficient.
  Second line is robust t-value.
- *** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD: Sustainalytics.
SIM: Based upon Sustainalytics data.
EPI: Environmental Performance Index (2010).
ELI: Botero *et al.* (2003).

### 7.4.7 *Overview of Results of Tests of Regression Models*

In this subsection an overview of regression model tests results is given. In table 7-21 all tested models are mentioned, whether statistically significant or not, combined with the confirmation of the suggested direction of the contribution to the model.

Table 7-21 shows that most of the variables are confirmed to be useful for further application, except for PDI, LTO and ELI.

*Table 7-21 Overview of results of testing of regression models*

| **Model** | **Hypothesis** | **Sign. F** | **Variables** | | | | | **Significant variables** | **Direction confirmed** |
|---|---|---|---|---|---|---|---|---|---|
| **1** | 1.1 | No | COM | | | | | n.a. | n.a. |
| **2** | 1.2 | Yes | FRM | | | | | FRM | FRM |
| **3** | 1 | Yes | COM | FRM | | | | COM and FRM | FRM |
| **4** | 1 | Yes | FRM | FRE | GER | NOR | | FRM and GER | FRM, no suggested direction for GER |
| **5** | 2 | Yes | FRM | SIM | | | | FRM and SIM | FRM and SIM |
| **6** | 2 | Yes | FRM | COM | SIM | | | FRM, COM and SIM | FRM and SIM |
| **7** | 3 | Yes | MAS | IDV | PDI | UAI | | MAS, IDV and UAI | MAS, IDV and UAI |
| **8** | 3.2 ,3.3 and 3.4 | Yes | MAS | IDV | PDI | UAI | LTO | IDV, UAI and LTO | IDV, UAI and LTO |
| **9** | 3 and 3.3 | Yes | MAS | IDV | PDI | UAI | | MAS, IDV and UAI | MAS, IDV and UAI |
| **10** | 3 | Yes | MAS | IDV | PDI | UAI | | MAS, IDV and UAI | MAS, IDV and UAI |
| **11** | 3 | Yes | MAS | IDV | PDI | UAI | COM | MAS, IDV and UAI | MAS, IDV and UAI |
| **12** | 3.1 and 3.3 | Yes | MAS | SEC | | | | MAS | MAS |
| **13** | 3.2 and 3.3 | Yes | MAS | UAI | TYP | | | MAS, UAI and TYP | MAS, UAI and TYP |
| **14** | 4 | Yes | MAS | IDV | PDI | UAI | SIM | MAS, UAI, IDV and SIM | MAS, UAI, IDV and SIM |
| **15** | 4 | Yes | SEC | MAS | SIM | | | MAS and SIM | MAS and SIM |
| **16** | 4 | Yes | MAS | UAI | SIM | TYP | | MAS, UAI, SIM and TYP | MAS, UAI, SIM and TYP |
| **17** | 5 | Yes | FRD | | | | | FRD | FRD |
| **18** | 5 | Yes | FRD | COM | | | | FRD | FRD |
| **19** | 5 | Yes | FRD | FRE | GER | NOR | | FRD, FRE, GER and NOR | FRD, no suggested direction for FRE, GER and NOR |
| **20** | 6 | Yes | EPI | SIM | | | | SIM | SIM |
| **21** | 6 | Yes | EPI | ELI | SIM | | | ELI and SIM | ELI and SIM |

- COM is Legal system dummy, common law.
- FRE is French code law subgroup.
- GER is German code law subgroup.
- NOR is Nordic code law subgroup.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy.
- MAS is Masculinity.
- UAI is Uncertainty Avoidance.
- IDV is Individualism.
- PDI is Power Distance.
- LTO is Long-Term Orientation.
- SEC is Secrecy.
- TYP is Generic Types of Culture.
- FRD is Freedom score.
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- n.a. is not applicable.
- Sign. F. is significant F-statistic.

## 7.5 Hypothesis Testing

In this section the hypotheses are tested with the application of the data and test results from the previous sections 7.2 to 7.4. The testing of the hypotheses is done in a narrative manner, with input from the results sections. The hypotheses are developed on the basis of the research questions in section 5.7. The research questions are derived from the theoretical framework. In section 3.2 the positive phrasing of the hypotheses is motivated. The negative phasing with the use of a null-hypothesis is normally not applied in accounting research, although this is formally incorrect, as Hines (1988, 657) states. She mentions that the positive phrasing by accounting scholars is based upon a misunderstanding of what positive research methodology means – positive research does not lead to positively phrased hypotheses. Table 7-22 shows an overview of the statistical results from the previous sections.

### *7.5.1 Economic Institutions and Stakeholder Theory*

Theory suggests a relationship between CSD levels and economic institutions, to be explained by STAT. Economic institutions have their relevance for CSD levels, as was discussed by Adams (2002, p. 227). She suggested a relationship between governments' free market ideology and CSD levels based upon societal expectations of organisational legitimacy and not based upon stakeholder accountability issues.

Further, prior literature by Ball *et al.* (2000) and Simnett *et al.* (2009) has shown possible relationships between CSD and corporate governance systems, represented by its proxy legal origin. Legal origin is assumed to be responsible for the distinction between shareholder and stakeholder orientations of nations. In this study, governments' free market ideology is also suggested to be related with a shareholder orientation of society. A high level of free market ideology relates to a shareholder orientation in nations, which contrasts with a stakeholder orientation in nations. The previous reasoning has led to two subhypotheses, 1.1 and 1.2. These are assessed separately and in a later stage combined into hypothesis 1.

*Table 7-22 Overview of the statistical results*

| H. | Variables | Correlation; sign. and sugg. dir. conf. | Correlation tables | T-tests Sign. and sugg. dir. | T-test tables | Regr. models, sign. F | Variables in regr. models; sign. and sugg. dir. conf. | Regression tables | Doubted variables |
|---|---|---|---|---|---|---|---|---|---|
| **1.1** | COM, FRE, GER and NOR | FRE, GER and NOR | 7-4 | FRE, GER and NOR | 7-6 | 1,2, 3 and 4 | FRE, GER and NOR | 7-14 | COM |
| **1.2** | FRM | FRM | 7-4 | FRM | 7-7 | 2,3 and 4 | FRM | 7-14 | n.a. |
| **1** | COM, FRE, GER, NOR and FRM | FRE, GER, NOR and FRM | 7-4 | FRE, GER, NOR and FRM | 7-6 | 1, 2,3 and 4 | FRE, GER, NOR and FRM | 7-14 | COM |
| **2** | FRM and SIM | SIM | 7-4 | SIM | 7-7 and 7-8 | 5 and 6 | SIM | 7-15 | FRM (direction, related to LEGT) |
| **3.1** | SEC | SEC | 7-4 | SEC | 7-9 | 12 | n.a. | 7-16 | SEC |
| **3.2** | TYP | TYP | 7-4 | TYP | 7-9 | 13 | TYP | 7-16 | n.a. |
| **3.3** | MAS | MAS | 7-4 | MAS | 7-9 | 7, 9, 10 and 11 | MAS | 7-16 | n.a. |
| **3.4** | LTO | n.a. | 7-4 | n.a. | 7-9 | 8 | LTO | 7-16 | LTO |
| **3** | | SEC, TYP and MAS (and IDV) | 7-4 | SEC, TYP and MAS | 7-9 | 7, 8, 9, 10, 11, 12 and 13 | | 7-16 | SEC and PDI |
| **4** | MAS, IDV, PDI, UAI, SEC, TYP and SIM | MAS, IDV, SEC, TYP and SIM | 7-4 | MAS, IDV, PDI, SEC, TYP and SIM | 7-9 | 14, 15 and 16 | MAS, IDV, TYP, and UAI | 7-17 | n.a. |
| **5** | FRD and COM | FRD | 7-4 | FRD | 7-10 | | FRD | 7-18 | COM |
| **6** | EPI, ELI and SIM | EPI, ELI and SIM | 7-4 and 7-5 | EPI and SIM | 7-11 and 7-13 | | | | ELI |

- H. is Hypothesis.
- COM is Legal system dummy, common law.
- FRE is French code law subgroup.
- GER is German code law subgroup.
- NOR is Nordic code law subgroup.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy.
- IDV is Individualism.
- MAS is Masculinity.
- PDI is Power Distance.
- UAI is Uncertainty Avoidance.
- LTO is Long-Term Orientation.
- SEC is Secrecy.
- TYP is Generic Types of Culture.
- FRD is Freedom score .
- EPI is Environmental Performance Index.
- ELI is Employment Laws Index.
- n.a. is not applicable.
- Sign. is significant.
- Sugg. is suggested.
- Dir. is direction.
- Conf. is confirmed.

*Subhypothesis 1.1: CSD levels are related to the legal origin of the home country of corporations.*

The statistical tests in subsections 7.2.1, 7.3.1 and 7.4.1 show that legal origin is related to CSD levels, but less closely than suggested by prior literature and theory. The distinction between code law and common law legal origin does not relate to CSD levels. A further specification of the legal origin data into subgroups of code law countries shows that these subgroups relate to CSD levels. The subgroups do not represent differences in corporate governance systems. The suggested relationship between CSD and legal origin, initially established by differences in corporate governance systems between code law and common law countries, is related to the distinction of communitarianism and contractarianism in societies. This is analogous to the distinction between stakeholder and shareholder orientations of nations, as was suggested by Bradley *et al.* (1999), Ball *et al.* (2000) and applied by Simnett *et al.* (2009). A full confirmation of hypothesis 1.1 cannot be given as the explanatory basis of communitarianism cannot be applied to explain the shown distinctions between the corporations from the subgroups of code law countries, as no theoretical relationship is known.

*Subhypothesis 1.2: CSD levels are negatively related to government ideology on freedom of markets in the home country of corporations.*

The results of the statistical tests related to subhypothesis 1.2 clearly show that freedom of markets is related to levels of CSD. The direction of the relationship is negative, as is expected on the basis of STAT. This means that high freedom of markets relates to low CSD levels, which results in a linear relationship between CSD levels and freedom of markets.

The suggestion is made that this relationship has its basis in the shareholder orientation of nations.

A further analysis shows some concern for ambiguity on the confirmation of subhypothesis 1.2. This ambiguity is caused by the opposite predictions of hypotheses 1.2 and 2, which are explained by different theories, STAT and LEGT. For further explanations see subsection 7.5.2, the discussion on hypothesis 2.

The prediction capacity of a combination of freedom of markets and legal origin variables is not disturbed by the legal origin variable. Although the relationship between CSD levels and legal origin cannot be confirmed, it does not negatively influence the suggested and confirmed relationship between CSD levels and freedom of markets. The combined analysis of legal origin and freedom of markets also shows significant results. On the basis of the aforementioned discussion, subhypothesis 1.2 can be confirmed.

*Hypothesis 1: CSD levels are related to economic institutions in the home country of corporations.*

Subhypotheses 1.1 and 1.2 combined are the operationalised and subdivided version of research question 1. On the basis of the discussion above on the subhypotheses, confirmation of hypothesis 1 can only be done weakly. The results show that a relationship between CSD levels and the freedom of markets is visible. The suggestion that CSD levels and freedom of markets is explained by a stakeholder orientation of nations can be confirmed. That influence on CSD levels is not related to legal origin, which has been mentioned before in other studies, for example Van der Laan Smith *et al.* (2005).

In summary, it can be stated that a relationship between CSD levels and economic institutions exists, but that relationship cannot be confirmed for economic institutions in general. With this remark, it can be concluded that hypothesis 1 can partially be confirmed, specifically for the part on freedom of markets.

### *7.5.2 Economic Institutions and Legitimacy Theory*

Theory suggests a relationship between CSD levels and economic institutions, to be explained by LEGT, as was mentioned by Adams (2002, p. 227). She suggests a relationship between governments' free market ideology, or freedom of markets, and CSD levels based upon societal expectations of organisational legitimacy. This relationship suggests that a strong support by government of a free market ideology causes corporations to increase CSD levels, which means that a positive relationship is suggested. This has led to the following hypothesis:

*Hypothesis 2: CSD levels are positively related to government ideology on freedom of markets in the home country of corporations.*

The results of the tests in subsections 7.2.2, 7.3.2 and 7.4.2 show a negative relationship, instead of the suggested positive relationship. In table 7-20 the relevant results of hypotheses 1.2 and 2 have been copied from table 6-1, which supported the discussion on the ambiguity concerning the two opposing hypotheses 1.2 and 2. The relevance of the information from table 6-1 relates to the negative outcomes of the relationship between CSD levels and freedom of markets.

*Table 7-23 Possible outcomes of opposing hypotheses 1.2 and 2*

| **Possible strengths of suggested relationships** | **Possible empirically found relationship** | **Suggested conclusion** |
|---|---|---|
| Positive legitimacy effect is stronger than negative stakeholder effect on CSD levels. Overall effect is suggested to be positive. | Negative relationship between government free-market ideology and CSD levels | The positive legitimacy effect is suggested to overrule the negative stakeholder effect. As the empirical test shows that the negative effects are stronger than the positive effects, both H1.2 and H2 cannot be confirmed. |
| Positive legitimacy effect is weaker than negative stakeholder effect. Overall effect is suggested to be negative. | Negative relationship between government free-market ideology and CSD levels | The negative stakeholder effect is suggested to overrule the positive legitimacy effect. The empirical test shows that the negative effects are stronger than the positive effects. The positive legitimacy effect can be confirmed, but the negative stakeholder effect cannot be confirmed; H2 cannot be confirmed, but H1.2 can be confirmed. |

Table 7-23 shows that hypothesis 2 can only be confirmed if the positive free-market legitimacy effect is weaker than the negative free-market stakeholder effect. The strengths of the legitimacy and stakeholder effects cannot be determined, which means that hypothesis 2 cannot be confirmed due to lack of information. The lacking information cannot be collected because of the lack of consensus on the application of STAT and LEGT to explain the relationship between CSD levels and economic institutions. The regression models that were designed to test for legitimacy and stakeholder effects may provide some insights. The legitimacy variable of sensitive industry membership that was used as a control variable increases the explanatory power of the model and the significance of the model, which gives an indication that legitimacy may be important. If this means that legitimacy is more important than stakeholder salience, hypothesis 2 cannot be confirmed, but 1.2 can be confirmed, as can be seen in subsection 7.5.1.

### *7.5.3 Social Institutions and Stakeholder Theory*

Social institutions are in this study represented by culture. Culture is represented by national culture dimensions and two constructed measures, using national culture dimensions. Because there is no single score that can represent culture or social institutions, four subhypotheses have been created to assess the suggested relationship between CSD levels and social institutions. The subhypotheses are numbered 3.1 to 3.4. The contents of this subsection are based upon Orij (2010). The results of the statistical tests are found in the subsections 7.2.3, 7.3.3 and 7.4.3.

*Subhypothesis 3.1: CSD levels are negatively related to secrecy as a combination of national culture dimensions in the home country of corporations.*

Prior literature on the relationship between corporate disclosures and culture and the stakeholder-theoretical concept of a social orientation of societies suggests a negative relationship between SEC and CSD levels. Secrecy was suggested by S.J. Gray (1988) as a combination of the national culture dimensions of PDI, IDV and UAI. There is some evidence that corporations from countries with a low level of secrecy provide a higher level of CSD compared with corporations from countries where SEC scores higher. This suggests a negative association between SEC and CSD levels, but because of a lack of a significant correlation between SEC and CSD, it can be concluded that the relation is not likely to exist. The SEC component of UAI presumably has a nonlinear relationship with CSD and causes the lack of linearity. Due to a lack of correlation, subhypothesis 3.1 cannot be confirmed.

*Subhypothesis 3.2: CSD levels are related to generic types of culture as a combination of the national culture dimensions individualism and power distance in the home country of corporations.*

Based on theory and prior literature, the concept of generic types of culture is operationalised as TYP, which is a combination of positive IDV and negative PDI scores. The proposed model, the characteristics of the components of the model, and an implied positive association with the social orientation of society suggest a positive relation between the operationalised types of cultures measure and CSD levels. The validity of the equation is confirmed, but clear CSD differences between the cultures are only partially found. In particular, the CSD level differences between EM and MP cultures, which were found by Van der Laan Smith *et al.* (2005), are not confirmed. Subhypothesis 3.2 can partially be confirmed for the equation TYP = IDV – PDI. Instead of a comparison between two nations, a scaled relationship between generic types of culture and CSD levels is found with the confirmation of the t-tests and testing of regression models including the variable TYP. Tests have shown that this is caused by the strong significance of IDV, which overrules the non-significance of IDV.

*Subhypothesis 3.3: CSD levels are negatively related to masculinity as a national culture dimension in the home country of corporations.*

Theoretical reasoning suggests that MAS is likely to be negatively related to a social orientation of societies and therefore has a negative relationship with levels of CSD. Tests on MAS show clear differences in means of CSD levels between corporations from high and low masculine cultures. High MAS corporations show different CSD levels in comparison with low MAS corporations. Combined with the positive significant Pearson correlation between CSD and MAS, there is a strong indication for a linear relationship between CSD and MAS. Subhypothesis 3.3, which suggests that companies in countries with a high masculinity show lower levels of CSD in comparison with companies from countries with low masculinity, can be confirmed.

*Subhypothesis 3.4: CSD levels are positively related to long-term orientation in national cultures in the home country of corporations.*

Prior literature suggests that a social orientation of societies relates to a long-term orientation of corporations in society and a positive relationship with levels of CSD. The national culture dimension of LTO tested, which is related to Confucianism, has features that are negatively related to a social level of societies, especially the combination with high PDI and low IDV.

The direction of the CSD mean difference between high and low LTO corporations is counter to expectations. This suggests that the association between the social orientation of society and CSD levels is strongly related to the social components of Confucianism with an effect that is opposite to long-term sustainability effects, which are mentioned in prior literature. Subhypothesis 3.4 cannot be confirmed. A positive relationship between CSD levels and LTO is not likely to exist. Because of the strong correlation between IDV and PDI, subhypothesis 3.4 is negatively related to subhypothesis 3.2. The confirmation of subhypothesis 3.2 must be followed by a rejection of subhypothesis 3.4, because of the correlation with IDV and PDI.

*Hypothesis 3: CSD levels are related to national cultures of the home country of corporations.*

Subhypotheses 3.1 to 3.4 combined are the operationalised and subdivided version of research question 3. On the basis of the discussion of the subhypotheses, the confirmation of hypothesis 3 can be partially done. There is a visible relationship between most tested elements of culture in nations and CSD. Not all aspects of culture are found to be related and to be explained by STAT, but clearly a relationship between culture and CSD levels exists. Hypothesis 3 can therefore be partially confirmed.

### 7.5.4 Social Institutions and Legitimacy Theory

Theoretically, the only suggestion that can be given on the basis of LEGT is that differences exist between levels of CSD between nations because of different cultures (Newson and Deegan, 2002).

They stated that cultural differences, as shown by five national culture dimensions and secrecy, partially determine the acceptance of CSD level differences (Newson and Deegan, 2002, p. 191) which related to expectations of organisational legitimacy in society. The legitimacy-related risk of certain industries is taken into consideration by corporations when disclosing social information.

*Hypothesis 4: CSD levels vary with national cultures of the home country of corporations.*

Most of the national culture dimensions and constructed cultural measures show that they determine CSD levels in home countries of corporations, except for UAI and LTO. The most interesting variable and the one most related directly to disclosures that was also mentioned by Newson and Deegan (2002) is secrecy. Secrecy causes limitations to CSD levels, which can be confirmed by the outcomes of the tests.

The confirmation of hypothesis 4 can be done and it means that the licence to operate of corporations differs because of culture. The relevant publics have different expectations due to different cultures, which confirms Newson and Deegan's statement on this issue (2002, p. 186). The results of the statistical tests are found in subsections 7.2.4, 7.3.4 and 7.4.4.

Although the analysis remains superficial, it is likely that the suggested relationship between the social institution culture and CSD levels has to do with legitimacy issues and therefore hypothesis 4 can be confirmed. In particular, the effect of a sensitive industry membership increased the strength of culture as a CSD determinant (see for example Patten, 1991, p. 301), as is suggested by LEGT.

### 7.5.5 Political Institutions and Stakeholder Theory

The relationship between CSD and political institutions is assessed with the theory-based suggestion that political and civil freedom relate to a stakeholder orientation of nations and the assumption that a stakeholder orientation is positively related with CSD levels. This has led to the following hypothesis:

*Hypothesis 5: CSD levels are positively related to the level of freedom in the home country of corporations.*

The results of the statistical tests found in subsections 7.2.5, 7.3.5, and 7.4.5 show clearly that CSD levels differ when levels of freedom differ. The tests also show that a higher level of freedom relates to a higher level of CSD. Out of the sample of 600, a sub-sample of 542 corporations originate from countries with the highest level of freedom. The mean level of CSD of these 542 corporations differs significantly from the mean level of CSD from the remaining 58 corporations. The institutional characteristic freedom is related to the levels of CSD of the corporations, which is suggested by a stakeholder orientation of society. Hypothesis 5 can be confirmed. The suggested theoretical explanation – the stakeholder orientation of nations that may be related with freedom in a nation – can also be confirmed. A linear relationship between CSD levels and freedom cannot be confirmed as the regression models and the data cannot provide robust evidence of linearity.

### *7.5.6 Political Institutions and Legitimacy Theory*

Theoretically, the suggestion that can be given on the basis of LEGT is that differences exist between levels of CSD between nations because of different political institutions that are legal and regulatory.

> *Hypothesis 6: CSD levels are positively related to the level of existing social and environmental legislation in the home country of corporations.*

The relationship between CSD levels and political institutions can be confirmed. Prior literature on the relationship, especially Luft Mobus (2005), suggested that political institutions, with its proxies of environmental and employment policies and laws, relate to CSD levels. The results of the statistical tests are found in subsections 7.2.6, 7.3.6 and 7.4.6.

While the proxies are social-issue specific (environment, employee), the assessment has been performed on the detailed level per social issue: CSD environment is analysed in relation to EPI and CSD employee levels were analysed using the ELI. The relationships between CSD and EPI and ELI were analysed. The latter relationship between EPI, ELI and CSD is weak, which provides reasons for doubts on the general relationship between CSD and political institutions based upon LEGT. EPI and CSD are related, but the evidence is weak. The legitimacy-linked sensitive industry membership disturbs the relationship between EPI and CSD levels, which casts doubts on EPI.

There is a more strongly confirmed link between CSD on environment and EPI. The link between CSD and ELI is less clear. Stricter employment laws do not lead to higher CSD employee levels, but show lower levels. If EPI is accepted as a full proxy of political institutions, hypothesis 6 can be confirmed. To be on the safe side, I confirm hypothesis 6 partially.

## 7.6 Overall Analysis

In this section an analysis is performed that combines all previously assessed variables. The analysis is based upon a systems-orientation, which means that a full institutional perspective is added to the previous models.

All previous models assessed separately suggested theoretical relationships, the hypotheses, but this model combines all relevant variables. The combining of the variables suggests that the variables are interrelated.

This additional analysis finds its rationale in the system orientation of this study. The system covers the full spectrum of studied institutional relationships with CSD levels explained by STAT and LEGT. All relevant variables are put in an overall model. TYP and SEC are left out of the analysis. These are combined measures. SEC is shown to be irrelevant, but TYP is relevant, although only because of the contribution of IDV as a separate variable. The suggested model 22 is:

$$CSD = a + b_1\,FRE + b_2GER + b_3NOR + b_4FRM + b_5SIM + b_6MAS + b_7UAI + b_8IDV + b_9PDI + b_{10}\,EPI + b_{11}\,ELI + b_{12}\,FRD + e \qquad (22)$$

The model contains four economic variables (FRE, GER, NOR and FRM), which are related to legal origin and freedom of markets. It further contains the sensitive industry variable (SIM) and four cultural variables that represent social institutions (MAS, UAI, IDV and PDI). The model also contains three variables related to political institutions, of which two stand for legislative levels in countries (ELI and EPI) and one for level of freedom (FRD). Table 7-24 contains the test results of model 22.

Table 7-24 shows the results of model 22. It can be confirmed that the model is useful in explaining theoretically suggested relationships, as is shown by the significance of the F-statistic. A robust test of the model has solved the problem of heteroscedasticity. The robustness relates to the removal of heteroscedasticity with the data. The model shows the usefulness of the theoretical framework as a whole to explain CSD levels. Within this model no separation is made for LEGT and STAT. The prior analysis in sections 7-3 to 7-4 has shown that operationalisations of the theoretical relationships and also the variables, do not clearly differentiate between the theories. Therefore this overall analysis is mainly based upon a general system-theoretical view. The analysis is done per group of institutional determinants.

*Table 7-24 Overall institutional CSD model*

| | | Model 22 |
|---|---|---|
| | **Variables** | **CSD explained by all relevant variables** |
| Economic | FRE | -15.54* |
| | | (-1.825) |
| | GER | -34.43*** |
| | | (-4.730) |
| | NOR | -10.7 |
| | | (-0.935) |
| | FRM | -0.696* |
| | | (-1.936) |
| | SIM | 14.18*** |
| | | -8.019 |
| Social | MAS | -0.0134 |
| | | (-0.0971) |
| | UAI | 0.360* |
| | | -1.905 |
| | IDV | 0.693*** |
| | | -3.334 |
| | PDI | -0.969*** |
| | | (-3.722) |
| Political | EPI | 0.756*** |
| | | -3.827 |
| | ELI | 37.52*** |
| | | -5.175 |
| | FRD | 28.32*** |
| | | -3.578 |
| | Constant | -41.63 |
| | | (-0.921) |
| | Observations | 600 |
| | Adjusted R-squared | 0.239 |
| | F | 13.387*** |

- CSD is Corporate social disclosure levels.
- FRE is French code law subgroup.
- GER is German code law subgroup.
- NOR is Nordic code law subgroup.
- FRM is Freedom of markets score.
- SIM is Sensitive industry membership dummy.
- MAS is Masculinity.
- UAI is Uncertainty Avoidance.
- IDV is Individualism.
- PDI is Power Distance.
- FRD is Freedom score .
- EPI is Environmental Performance Index.
- F. is F statistic of the ANOVA.
- Variable: First line is coefficient.
  Second line is robust t-value.

*** p<0.01, ** p<0.05, * p<0.1.

Sources: CSD: Sustainalytics.
COM, FRE, GER and NOR: La Porta *et al.* (1997).
FRM: Heritage Foundation (2010).
SIM: Based upon Sustainalytics data.
MAS, IDV, UAI and LTO: Hofstede (1983, 2001).
TYP and SEC: Based upon Hofstede (1983) data.
FRD: McColm *et al.* (1993).
EPI: Environmental Performance Index (2010).
ELI: Botero *et al.* (2003).

The economic institutional variables show a significant contribution to the model. The variables French and German code law, freedom of markets and sensitive industry membership show significant contributions to the model.

This analysis confirms the theoretically suggested relationship between CSD levels and economic institutions. On the basis of the prior analysis in sections 7.3 to 7.5, this confirmation is likely to be based upon stakeholder theoretical foundations. Freedom of markets in particular has a positive sign in model 22. Legitimacy theory suggests a negative sign.

The social variables contribute to the model, except for masculinity. Masculinity was confirmed to be significant in separate social models in sections 7-3 to 7-5.

The significance of PDI in the expected direction differs from the analysis of the separate social models. Based upon the social variables of the model, a clear relationship between CSD levels and social institutions can be confirmed.

The political variables all contribute to the model in their expected direction, ELI and EPI in a positive direction and FRD in a negative direction. The relationships between CSD levels and political variables are more convincing than in separate political models. The model also supports the confirmation of the existence of societal determinants of CSD, which is the topic of this study.

## 7.7 Summary of the Chapter

In this chapter, data analysis and hypotheses testing is performed. Descriptive statistics are shown and analysis with t-tests and OLS techniques is performed. Out of a total of six full hypotheses, two can fully be confirmed on the basis of the collected data and the performed tests, three partially confirmed and one not confirmed. Matrix table 7-25 gives an overview of the outcomes of the hypothesis testing. The hypotheses related to STAT are almost all confirmed, except for two. One hypothesis that suggests the relationship between CSD levels and economic institutions, represented by a general legal origin variable – legal origin – cannot clearly be confirmed. Another exception is the one element of the list of cultural dimensions and measures – long-term orientation. The theoretical relations suggested by LEGT can be confirmed less definitely. None of them can be confirmed without any doubts. There are indications that the relationship between CSD levels and social institutions culture can be explained by LEGT. The same counts for the relationship between CSD levels and political institutions. The overall model for the theoretical framework is statistically significant as a model, which indicates that the theoretical framework is useful in explaining CSD levels.

Table 7-25 provides an overview of the confirmations and non-confirmations of hypotheses. Brief summarising remarks are made on the relationships between CSD levels and institutions. Also the explanatory power of the theories applied is mentioned. A conclusion of the analysis is done in the next chapter.

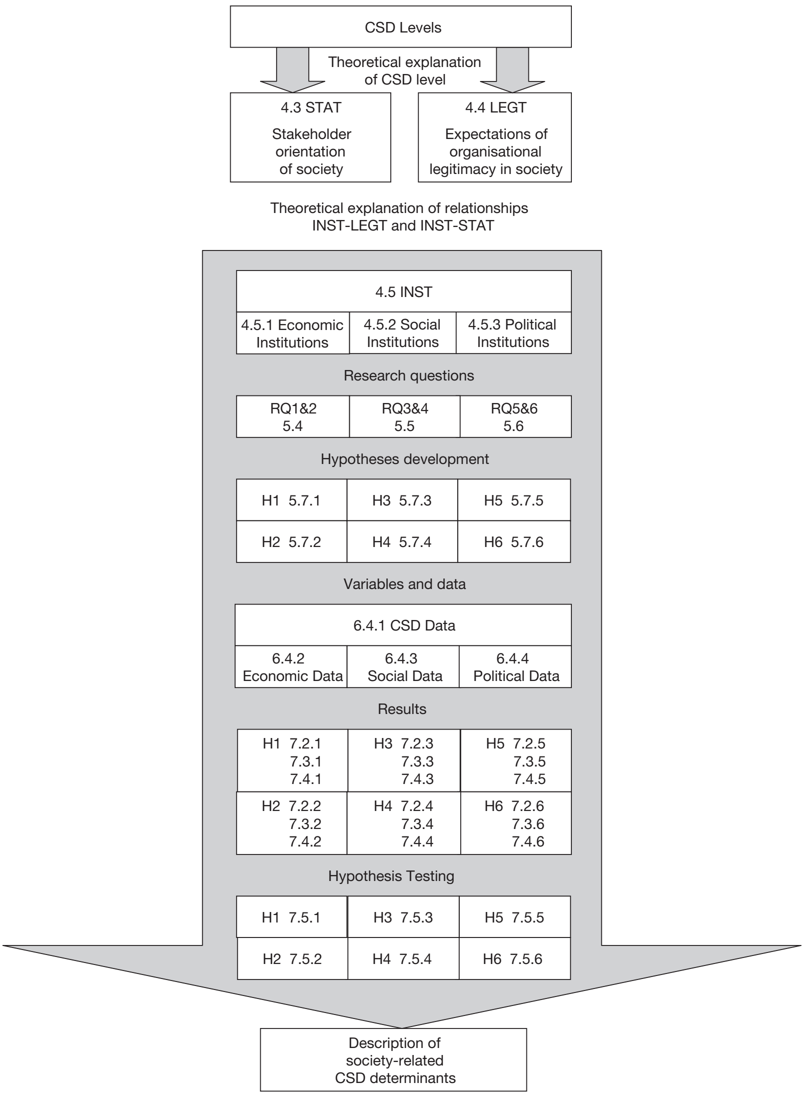
*Table 7-25 Confirmation, partial or non-confirmation of hypotheses*

| INST | STAT | LEGT | Overall relationship with CSD |
|---|---|---|---|
| **Economic Institutions** | Subhypothesis 1.1 Not confirmed<br>Subhypothesis 1.2 Confirmed<br>Hypothesis 1 Partially Confirmed | Hypothesis 2 Not confirmed | There is a relationship visible, but not for all possible economic institutions tested. The relationship is determined by stakeholder salience and government's freedom of markets ideology and therefore politically driven |
| **Social Institutions** | Subhypothesis 3.1 Not confirmed<br>Subhypothesis 3.2 Partially confirmed<br>Subhypothesis 3.3 Partially confirmed<br>Subhypothesis 3.4 Not confirmed<br>Hypothesis 3 Partially Confirmed | Hypothesis 4 Confirmed | There is a clear relationship visible between CSD levels and certain cultural aspects of society. |
| **Political Institutions** | Hypothesis 5 Confirmed | Hypothesis 6 Partially confirmed | There is a clear relationship visible between CSD levels and some political institutions, but not for all political institutions tested. |
| | STAT is shown to have explanatory power with regard to suggested relationships between CSD levels and institutions | LEGT is shown to have slight explanatory power with regard to suggested relationships between CSD levels and institutions | |

- CSD is Corporate Social Disclosures.
- STAT is Stakeholder Theory.
- LEGT is Legitimacy Theory.

Figure 7-1 shows the results and hypothesis testing in the analysis, as presented up to this point in this study.

*Figure 7-1 Position of results and hypothesis testing in the analysis*




– CSD is Corporate Social Disclosures.
– INST is Institutional Theory.
– STAT is Stakeholder Theory.
– LEGT is Legìtimacy Theory.

# 8 Concluding Chapter

## 8.1 Introduction

In this chapter the conclusions of this dissertation are drawn, initialised by the research problem and analysed with the application of the research methodology and methods, the data, the statistical testing and the hypotheses testing. The research problem that was proposed in chapter 1 is: the search for determinants of the relationship between corporate social disclosure levels and the national, societal context of corporations in an international comparison. The national and societal context of corporations is the institutional context of corporations.

This search for institutional determinants of managerial decisions on corporate disclosure levels asks for an outside-in approach. The outside-in approach, as defined by Burritt and Schaltegger (2010), suggests that the outside influences managerial decisions on social accounting issues.

This study is done from the perspective of society, which means that the analysis of empirical data is performed by taking a view on 'the bigger picture'. Societal theories are applied to explain the empirical data that look at corporations as part of the system society. This bigger picture takes into consideration the mainstream view in the financial accounting research paradigm that all corporate reporting aims at decision usefulness for shareholders. Social accounting research does not fully apply the research methodology of financial accounting mainstream research. The specific methodology of this study and the social accounting research paradigm differs from mainstream financial accounting research with regard to ideas concerning reality, the ontology: mainstream financial accounting research assumes an objective reality based upon empirical evidence, and social accounting research assumes a socially created reality.

The search for a social reality, with regard to the society-related determinants of corporate social disclosures, is performed by the analysis of the institutional context of corporations and stakeholder-oriented and legitimising social disclosures of corporations. These issues are especially suitable for the search for a social reality. They are part of social realities. The institutional context itself is a socially created context. Legitimising and stakeholder-oriented behaviour by corporations is part of a social reality.

This study applies a positive empirical research approach. Data and relationships between data are explained by theoretically suggested hypotheses. Six hypotheses suggest that corporate social disclosure levels are related to the institutional organisation of society.

The remainder of this chapter is organised as follows: An overview of the theoretical framework is given in section 8.2. The conclusions of the empirical study are laid out in section 8.3. That section starts in a general way and further subsections contain sub-conclusions for each institutional context. Section 8.4 contains the limitations of this study. In section 8.5 some general reflections are made and suggestions for further research are provided. Section 8.6 contains a summary of the chapter. Acronyms mentioned earlier in the text are written in full to make the conclusion a separately readable text.

## 8.2 Theoretical Framework

The applied theoretical framework of society-related theories is a combined set of theories, including the institutional context of corporations. The previously mentioned 'bigger picture' relates to the assumption of a system orientation of social accounting research. That orientation connects with system theory or systems-oriented theories. Systems-oriented theories are applied to describe the empirical findings. These theories are stakeholder theory, legitimacy theory and institutional theory.

Stakeholder theory on a national level is applied in this study. The application of stakeholder theory on a national level is seen as communitarianism. Communitarianism is related to a stakeholder orientation of societies. Stakeholder orientation of societies is suggested to be related to the institutional organisation of society. Stakeholder theory is closely related to the concept of accountability.

Legitimacy theory is applied in this study on a national level, similar to stakeholder theory. It is suggested that expectations of organisational legitimacy of corporations can explain corporate social disclosure levels. Legitimacy theory is less developed than stakeholder theory, although more often applied in corporate social disclosure studies. The national application of legitimacy theory has not often been applied in prior studies, but is shown to be a useful part of the theoretical framework.

The institutional context is derived from institutional theory. The framework differs from mainstream financial accounting in the 'big picture', which opposes decision usefulness of accounting information for shareholders.

This study does not aim at the falsification of theories, nor does it try to confirm the appropriateness of theories as such. The appropriateness of theories is only discussed in order to create a theoretical framework that can describe the empirical data found.

## 8.3 Conclusions of the Empirical Study

One general conclusion reached is that it matters to corporate social disclosure levels how society is organised. Society is organised along institutional lines. The results of this study show that broadly the expected and suggested outcomes can be confirmed. The main conclusion is that corporate social disclosure levels are related at least partially to the way society is organised on a meso-level. The answer to the problem question is that national institutions are determinants of corporate social disclosure levels. CSD is a type of corporate behaviour and it deals with stakeholder accountability and legitimacy issues. Legitimacy-seeking behaviour and the use of social information as a way to deal with stakeholder salience are assumed to be the drivers of corporate social disclosures.

Corporate social disclosure levels may be related to a socialisation process. The way society is organised is the institutional context of corporations. Institutions are socially constructed. Following that reasoning, a methodological conclusion can be drawn regarding the ontology of social accounting research. The reality studied that relates to corporate social disclosure decisions is socially constructed, because the context in which corporations operate is socially constructed.

For this study the institutional context of corporations is subdivided into economic, social and political institutions. The reason for corporations to determine corporate social disclosure levels in relation to the institutional context is that institutions function as boundaries for corporate behaviour. Theory suggests that corporate social disclosure levels are motivated by stakeholder-oriented and legitimising behaviour. Corporate social disclosure activity is part of that behaviour within the boundaries of the institutional context. The conclusions are further discussed for each institution.

Stakeholder theory and legitimacy theory can explain the relationships between levels of corporate social disclosures and institutions. Corporations want to gain, maintain or repair legitimacy, for which they disclose corporate social information, while taking into account the institutional context. The institutional context in a country partially determines how corporations search for legitimacy.

Corporations deal with stakeholder salience of different levels and in this study the national institutional level is studied. Stakeholder theory on a national level, or communitarianism, can explain levels of corporate social disclosures in relation to the institutional context. It is confirmed that the institutional context has an effect on how corporations deal with stakeholder salience.

The corporate social disclosure levels that are not explained by institutional environment, legitimacy and stakeholder issues are outside the scope of this study.

### 8.3.1 Corporate Social Disclosure Levels determined by Economic Institutions

Economic institutions are weakly related to corporate social disclosure levels. The relationships that were suggested by theory and by some of the prior literature were weakly and partially confirmed. In particular, the relationship between corporate social disclosure levels and corporate governance systems that were represented by legal origin cannot be established clearly. A detailed study applying code law subgroups confirms the relevance of legal origin, although the subgroup distinction is not clearly a corporate governance distinction.

The general suggestion that economic institutions can be linked to corporate social disclosure levels is contrary to suggestions in prior literature. That general suggestion may also be contrary to the misspecification of the relationship between certain economic issues and corporate social disclosure levels, such as a relationship between decisions usefulness for investment purposes and corporate social disclosure levels.

The found relationship between corporate social disclosure levels and governmentally supported freedom of markets is one that has not been studied before. That relationship can be explained by stakeholder theory, especially communitarianism. It is suggested that freedom of markets is a proxy for a stakeholder or shareholder orientation of nations. Another proxy for communitarianism, the distinction between code law and civil law countries, was applied by others. That proxy is not found to be relevant to explain corporate social disclosure levels.

The explanation that stakeholder theory provides for the relationship between economic institutions and corporate social disclosure levels has two angles. The first is that economic institutions are related to communitarianism. Secondly, an explanation related to stakeholder theory is that the way corporations deal with stakeholder salience is related to economic institutions. Both explanations relate to the stakeholder orientation of society. Theory suggests that the orientation towards stakeholders is positively related with corporate social disclosure levels.

Legitimacy issues certainly play a role as a determinant of corporate social disclosure levels, as is discussed in other parts of this study, but not in relation to economic institutions. There is no relationship found between corporate social disclosure levels and economic institutions that can be explained by legitimacy theory.

### 8.3.2 Corporate Social Disclosure Levels determined by Social Institutions

In this study, culture is the social institution assessed in relation to corporate social disclosure levels. The found relations are explained by stakeholder theory and legitimacy theory. Culture is applied as the main social institution.

The relationship described between corporate social disclosure levels and national cultures is, for the majority of the hypotheses, consistent with the associations suggested by stakeholder theory. National cultures are represented by Hofstede's national culture dimensions separately or combined in constructed cultural measures. The explanatory framework consists of a social or stakeholder orientation of societies and how corporations deal with stakeholder salience as a situational factor. The relationship between secrecy and levels of corporate social disclosure can be described as negative, although this relationship is not linear. Secondary stakeholders are likely to be left out of the circle of well-informed primary stakeholders.

Generic types of cultures, a measure by Gannon (2001), relates to corporate social disclosure levels. This newly constructed measure, based on Gannon (2001), includes a positive relationship with individualism and a negative relationship with power distance. This combination of individualism and power distance is suggested to be a descriptor of a social level of societies. A scaled relationship is shown to be significant, although the significance is almost fully based upon the contribution of individualism.

With regard to masculinity in a country's society, it is negatively related to levels of corporate social disclosure. Masculinity is negatively related to a social orientation of society.

The national culture dimension of long-term orientation is not related to corporate social disclosure. The theoretically predicted relationship between long-term orientation and corporate social disclosure is not confirmed, when assuming that long-term orientation is similar to management's long decision horizon. It is likely that long-term orientation differs from management's long decision horizon, which is clearly related to high corporate social disclosure levels in prior studies. The long-term orientation dimension is expected to be similar to Chinese values by Confucius. Long-term orientation may be part of this set of values, but Confucianism is certainly more than just long-term orientation. Long-term orientation correlates strongly and significantly with power distance and collectivism, as predicted. This strong correlation disturbs the predictive value of the models that include long-term orientation.

In earlier studies, evidence is found for a relationship between the national culture dimensions and the legal system. In other studies, for example Simnett *et al.* (2009), the legal system is suggested to be a proxy for the stakeholder orientation of countries. A relationship between corporate social disclosure levels and the legal system based upon the distinction between code law and common law legal origin and national cultures is not found in this study.

The relationship between corporate social disclosure levels and social institutions, specifically culture, can be explained by legitimacy theory. Culture is related to the way corporations deal with legitimacy issues. That conclusion was drawn in prior literature and confirmed again in this study.

The explanatory capacity of legitimacy theory relates to the association between different levels of corporate social disclosure and different cultures. In this study, similar confirmations of the relationship between culture and corporate social disclosure levels are given. Culture is suggested and confirmed to cause legitimising behaviour by corporations using corporate social disclosures.

Legitimacy has been related in the past mainly with corporate characteristics company size and sensitive industry membership. As this study only applies data on large corporations measured by market capitalisation, sensitive industry membership remains as the main relevant corporate legitimacy variable. The sensitive industry membership variable causes the models with social institutional variables to improve.

### *8.3.3 Corporate Social Disclosure Levels determined by Political Institutions*

Political institutions that are assessed on the basis of their relationship with corporate social disclosure levels are political and civil freedom and politically imposed legislation. Freedom data are Freedom House data per nation for civil and political freedom. Legal data applied are scores on environmental and labour legislation.

The relationship between freedom and corporate social disclosure levels is described by applying stakeholder theory. Stakeholder theory states that the influence that stakeholders can have on the corporation depends on the salience of their needs. Further, previous literature stated that a stronger stakeholder orientation in countries is related to a stronger focus on stakeholder salience by corporations. A stakeholder orientation of societies was also described as a social orientation of societies. In this study, levels of freedom are assumed to be theoretically related to the stakeholder or social orientation of societies, which is confirmed.

The relationship between corporate social disclosure levels and political institutions can also be explained by legitimacy theory. Political institutions are related to the way corporations deal with legitimacy issues. Differing political institutions between nations show different levels of corporate social disclosures. Legitimacy theory explains these differing political institutions being related to differing expectations of corporate legitimacy in nations, which is expressed in differing legislation.

The relationship between corporate social disclosure levels and national legislation is also confirmed. The legislation mentioned is related to the topic of the disclosure and not to the disclosure itself. It is suggested that strictness of environmental and labour laws relate positively to corporate social disclosure levels. Cautiousness is needed as the data are not controlled for mandatory disclosures.

In detail, clear relations are found between corporate environmental disclosure levels and national environmental performance indices. This relationship is explained by the aversion of negative legitimacy effects of breaching environmental laws. Corporations wish to comply with environmental laws and therefore perform positively on environmental issues. The corporations are eager to disclose positive performance. This means that environmental legislation, as a political threat to corporations, relates to corporate environmental disclosures.

A relationship between corporate employment disclosure levels and national employment law indices is difficult to confirm, nor is this relationship found with general corporate social disclosure levels.

Relationships between generic corporate social disclosure levels and environmental and employment laws were found. Only the specific relationship for environmental disclosures was confirmed as being related to certain legislation on the basis of legitimacy.

### *8.3.4 Corporate Social Disclosure Levels determined by Institutions in General*

Meso-level institutions have shown to be determinants of corporate social disclosure levels. The overall model that combines all suggested institutional relationships is shown to be significant. The systems-oriented framework is applicable in explaining relationships between levels of corporate social disclosure and the institutional environment.

## 8.4 Limitations of the Study

Limitations of this study relate to the data and the methodology applied. With regard to the data, Hofstede's dimensions were identified and established around 40 years ago and there has been no further development with dimension scores. It can be assumed that most countries might have experienced changing national culture dimensions. Nonetheless, Hofstede's scores are still applied in this type of research.

The observation that all companies in a country have the same score is inherent to data on national institutions. This may reduce the validity of the models for specific companies.

The large proportion of US companies in the dataset reflects the importance of US companies in the world, but causes data problems. Leaving US companies out of the initial test sample improves results compared with testing the full sample. Excluding smaller contributing countries does not provide a better model. The same extension can be made for the heavy weighting in the sample of financial and consumer discretionary sectors, but industries are outside the current research scope. This issue has been assessed on all culture tests, but no problems were found.

Some remarks need to be made on the application of stakeholder theory. According to the separation thesis, managers' morality and actions can be studied separately. Managers' morality in relation to stakeholders is not studied. There are theorists who question the separation of morality and management actions. However, this separation is widely accepted in social accounting, although in many cases only implicitly. The potential limitations of the application of stakeholder theory need to be taken into account.

Limitations with regard to the research methodology relate to the discussion on social realities. Social realities change. Institutions change. The data studied date back to 2006. It can also be assumed that institutions have changed since then as was already mentioned with regard to the cultural data.

## 8.5 Some Reflections and Suggestions for further Research Directions

The conclusions of this study relate to the 'bigger picture'. The existence of the 'bigger picture' is part of the accepted methodology in social accounting. A suggestion can be made for further development of accounting methodology. This suggestion relates to the ontology and epistemology of mainstream financial accounting research. If in social accounting a socially created reality is accepted, with the confirmation of the suggested relationships, then a social reality in financial accounting research may also be appropriate. Hines (1989, p. 55) already suggested that one of the roles of accounting may be the "construction and maintenance of a social reality", although she does not confirm that this is already true. Examples of mainstream studies that implicitly accept a social reality are the studies by Hope (2003a, 2003b) and Hope *et al.* (2008). In those studies, social institutions are found to be related to accounting numbers, which suggests a social reality. The acceptance of a social reality, explicitly or implicitly, may lead to the epistemological acceptance of subjectivity of knowledge. The discussion on the subjectivity of ontological and epistemological terms in financial accounting has been held in, for example, Mouck (2004) Arnold (2009) and Mattessich (2009). A pure mathematical-economic reality has been confirmed not to exist with the emergence of the subprime mortgage crisis in 2008. Also, the sole application of neoclassical economic theory, which is associated with the mathematical-economic reality, is disputed by Arnold (2009). On the basis of the prior arguments, the existing risk models of financial institutions may need an update for a social reality that is found outside the regular risk models in order to be able to deal with unexpected events.

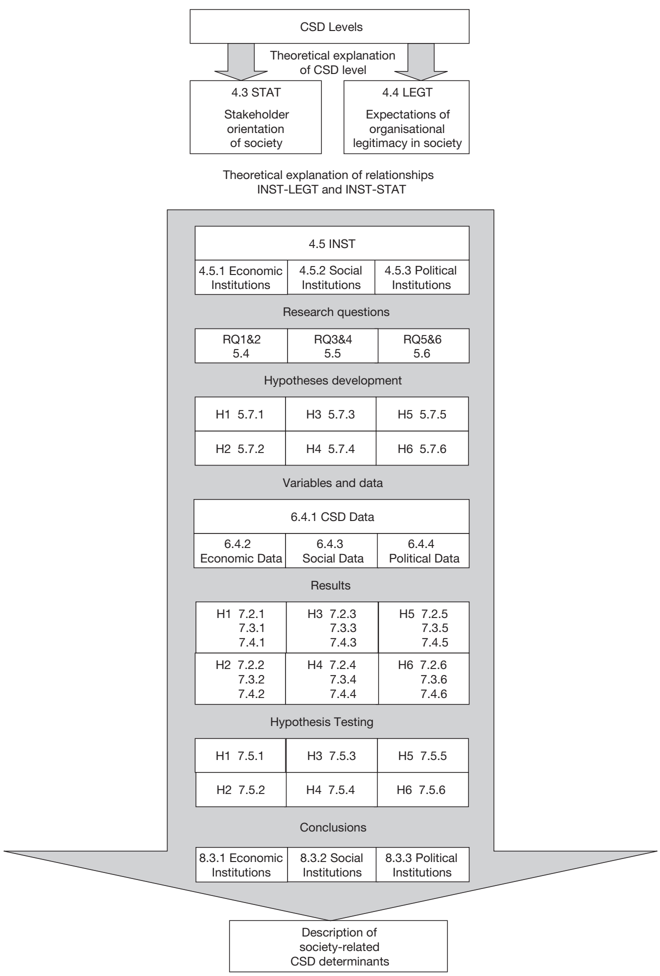
The changed social reality suggests that recent data are the most appropriate data to be applied in studies with a changing context. Future empirical research may have to contain checks on the validity of the applied data with regard to changes over time. Longitudinal studies may be preferred, but data availability may hinder such studies.

## 8.6 Summary of the Chapter

A summary of the concluding chapter contains a brief summary of the whole study. This study contains the search for society-related determinants of corporate social disclosures. I have found three groups of determinants that relate to economic, social and political institutions. These institutions are derived from institutional theory. Further applied theories are stakeholder theory and legitimacy theory, both systems-oriented theories. This study has confirmed the existence of the socially created 'bigger picture' of the corporate context in relation to corporate social disclosure levels.

Figure 8-1 gives an overview of the analysis of this study.

*Figure 8-1 Full overview of the analysis*




- CSD is Corporate Social Disclosures.
- INST is Institutional Theory.
- STAT is Stakeholder Theory.
- LEGT is Legìtimacy Theory.

# End Notes

1 The concept of the social contract refers to Rousseau's work. Rousseau describes the social contract as a collective agreement that determines societal legitimacy of the political community. In this study it may be referred to as a social contract between corporations and society.

2 The Financial Accounting field of science contains multiple paradigms, according to Belkaoui, (2004), which is discussed in chapter 3.

3 See Cowen *et al.* (1987), p. 117. They do not explain what is meant by "number of disclosures", as they built upon prior data, that have determined this "number of disclosures".

4 Hofstede called his national culture dimensions framework "a research-based theory" (Hofstede, 1983, p. 46).

5 The level mismatch relates to the analysis of corporate issues with the use of s framework that is related to national levels.

6 "Publics" is the term applied by Neu *et al.* (1998), p. 278.

7 A sector is a grouping of industries.

8 Belkaoui (1983) applied data from the 1978 version of the "Freedom in the World" survey by Freedom House, of which McColm *et al.* (1993) edited the latest version. Recent data are found on www.freedomhouse.org

9 See for example Hope *et al.* (2008), who applied a measure for secrecy.

10 CIFAR data are not available anymore.

11 See Hofstede (1983, 1984a, 1984b, 2001): masculinity, power distance, individualism and uncertainty avoidance. Long-term orientation was not added by Archambault and Archambault (2003), as it shows a strongly negative correlation with individualism.

12 Those groups are Catholics, Protestants, Buddhists, Jews and Muslims; see Archambault and Archambault (2003), p. 183. Hinduism was not mentioned.

13 This may seem surprising, because R. Gray (2007) mentions that he does not value methodology very much for his own research, but he accepts the need for a good research design for developing scholars.

14 Ryan *et al.* (2002) describe financial research as finance research, financial accounting research and management accounting research. They see SA research as a part of FA research.

15 Instrumentalism is not discussed here.

16 This table contains paradigm shifts, which have occurred in US FA research.

17 Scott (2006) does not specifically identify paradigms, but shows categories of theories in separate chapters.

18 Value-neutral in the meaning of non-normative.

19 In R. Gray's 2004 and 2007 articles both are not full research articles, but preparations of an earlier article, R. Gray (2002). Both 2004 and 2007 articles are written in a personal reflective style.

20 R. Gray makes this remark with several dots behind it. He presumably means that this is his personal view and that other mainstream researchers do not accept this yet.

21 In this quote the meaning of the acronym is corporate social reporting.

22 For stewardship, see chapter 2.

23 In the case of China, Hong Kong data are assessed. Other countries with Chinese influence are Singapore and Japan.

24 Hofstede mentions the Netherlands as an example of a country other than China-related countries that scores high on LTO.

25 The sorting in chapter 2 initially relates to the approach and in chapter 5 to the type of institution only.
26 La Porta is not mentioned in my prior literature discussion before, as it is not an accounting study for disclosures.
27 See for the models S.J. Gray (1988) and Gannon (2001) and the discussion on these models in chapter 6.
28 S.J. Gray does not use the term stakeholders, but calls them "those closely involved with the firm rather than external parties" (see S.J. Gray, 1988, p. 11).
29 Eesley and Lenox (2006) discuss the influence of secondary stakeholders.
30 Gannon mentions as individual non-economic goals such factors as love of nature and self-development, which are social goals rather than economic or shareholder-related.
31 This study was not mentioned before as it is not a disclosure study.
32 Statistical analyses are done with the use of SPSS 16.0.
33 Regression and t-test are parametric tests.
34 See http://www.let.leidenuniv.nl/history/RES/stat/html/les6.html
35 The similarity between the applied tests and data between hypotheses 3 and 4 requires a clear statement on the position of the data and tests in subsection 7.2.4.

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# Nederlandse Samenvatting

## Maatschappelijke determinanten van maatschappelijke ondernemingsverslaggeving

Dit is een onderzoek naar maatschappelijke determinanten van maatschappelijke verslaggeving door ondernemingen. In dit onderzoek wordt verondersteld dat ondernemingen rekening houden met maatschappelijke instituties bij het vaststellen van de inhoud en hoeveelheid informatie in hun maatschappelijke verslagen. Het is een internationaal vergelijkend onderzoek, waarbij een verband wordt gezocht tussen de gegevens over de maatschappelijke verslaggeving van 600 ondernemingen uit 22 landen en de gegevens over nationale instituties uit die landen. De bestudeerde nationale instituties zijn economische, sociaal-culturele en politieke instituties.

Dit onderzoek maakt deel uit van het onderzoeksterrein van de maatschappelijke verslaggeving, dat weer deel uitmaakt van het vakgebied externe verslaggeving. Het gebruikelijke onderzoek in de hoofdstroming van externe verslaggeving richt zich op het nut voor de financieel georiënteerde gebruiker van het uit de jaarrekening verkregen inzicht in vermogen en resultaat van een onderneming. Economische modellen worden gebruikt om het gebruiksnut weer te geven. In de literatuur op het gebied van maatschappelijke ondernemingsverslaggeving wordt verondersteld dat maatschappelijke verslagen geen informatie verschaffen voor financiële beslissingen.

Het theoretisch kader dat voor dit onderzoek is ontwikkeld stelt dat ondernemingen op twee manieren rekening houden met maatschappelijke instituties, uitgelegd aan de hand van twee theorieën. De eerste theorie is de belanghebbendentheorie. Deze stelt dat ondernemingen verschillende relaties hebben met belanghebbenden en dat hun belangen op verschillende manieren worden gediend. De tweede theorie is de legitimiteitstheorie. Deze stelt dat die de maatschappij druk uitoefent op ondernemingen om hun bestaansrecht waar te maken.

In dit onderzoek worden deze theorieën op een mesoniveau toegepast. Die toepassing zorgt dat een analyse op nationaal-institutioneel niveau mogelijk is. De belanghebbendentheorie op nationaal niveau stelt dat een bepaalde gerichtheid op belanghebbenden in brede zin kan bestaan, die anders is dan een gerichtheid op onderlinge contractuele verhoudingen en aandeelhouders. De legitimiteitstheorie op nationaal niveau stelt dat de maatschappij in een bepaald land op een andere manier druk kan uitoefenen op ondernemingen dan de maatschappij in een ander land.

Dit theoretisch kader is ontwikkeld vanuit een systeemvisie, die stelt dat ondernemingen deel uitmaken van het grotere geheel dat de maatschappij is. Dat grotere geheel is groter dan het in de externe verslaggeving gebruikelijke perspectief dat ondernemingsgedrag, aangestuurd door managers, wordt bepaald door verwachtingen van aandeelhouders en de financiële markten. Het toepassen van de systeemvisie is gekoppeld aan een enigszins afwijkende onderzoeksvisie van onderzoekers op dit terrein ten opzichte van onderzoekers in de hoofdstroming van het onderzoek naar de externe financiële verslaggeving van ondernemingen.

Het hiervoor genoemde theoretisch kader is gebruikt om de statistisch vastgestelde verbanden te verklaren. De uitkomsten van het empirisch-statistisch onderzoek laten zien dat institutionele verschillen tussen landen determinanten zijn van maatschappelijke verslaggeving. In deze dissertatie is aangetoond dat die verschillen vooral kunnen worden uitgelegd aan de hand van de belanghebbendentheorie. Van de economische instituties valt op dat ondernemingsvrijheid in een land, ofwel een sterke marktwerking, een negatieve invloed heeft op de maatschappelijke verslaggeving. Sociaal-culturele verschillen zijn zeker ook bepalend. Politieke instituties als politieke en burgerlijke vrijheden blijken ook van belang te zijn. Indien de verschillen in verslaggeving worden uitgelegd aan de hand van de druk die de maatschappij uitoefent, dan lijken vooral verschillen tussen bedrijfstakken hier voor te zorgen; bedrijfstakken, die gevoelig zijn voor maatschappelijke druk.

Er is met dit onderzoek aangetoond dat ondernemingen een sociale realiteit ervaren, waarschijnlijk naast een economische realiteit. Deze door economische modellen gedicteerde economische realiteit verschilt daarvan, want daarbij wordt de maatschappij niet als verklaring voor ondernemingsgedrag aangemerkt. In dit onderzoek is aangetoond dat een systeemvisie bruikbaar is om ondernemingsgedrag in de vorm van maatschappelijke verslaggeving te verklaren. De veronderstelling dat ondernemingsbeslissingen alleen gericht zijn op het dienen van de belangen van de aandeelhouders, is daarmee niet de volledige realiteit.

# Index

# Curriculum Vitae

René Orij is lecturer and researcher at the Centre for Business Studies at Leiden University, the Netherlands. He teaches financial accounting, corporate finance, financial management and entrepreneurship. Before he came to work at Leiden University in 2004, he taught similar topics at Inholland University for Professional Education in Diemen, the Netherlands, from 2002.

Between 1999 and 2002 René spent two and a half years in the development sector, first as a trainer and advisor on microfinance issues for SNV Netherlands Development Organisation at Vietnam Bank for Agriculture and Rural Development in Dong Hoi, Quang Binh, Vietnam, and later for a short period as a financial advisor at Oxfam Novib in The Hague, the Netherlands.

For the first seven years of his career, between 1992 and 1999, René was a credit risk manager at several divisions of Deutsche Bank group, first at Deutsche Centralbodencredit-AG in Cologne, Germany, then at Europäische Hypothekenbank S.A. in Luxemburg and finally at Deutsche Bank, Amsterdam Branch, the Netherlands.

Between 1986 and 1992 René studied Business Economics at the University of Amsterdam, majoring in financial accounting and corporate finance. In 1992 he also spent a semester on the MBA programme of St. Edward's University, Austin, Texas. He received his secondary education at Han Fortmanncollege in Heerhugowaard, the Netherlands, from 1980 to 1986.

René is internationally oriented, politically engaged and an active participant of university life as a member of the faculty council. He has a wife and three children.

Castricum, January 2012.

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