



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Research Commons

<http://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

Voluntary Disclosure of Listed Chinese Companies~2008-2012

An Empirical Study

A thesis
submitted in partial fulfilment
of the requirements for the degree

of

Master of Management Study

at

The University of Waikato

by

Tao Qin

University ID: 1161862



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2014

Abstract

The Chinese stock exchanges are an integral part of Chinese and global economy having a combined market capitalization of 3697 billion USD at end of year 2012. Due to their size and economic impact it is important that they maintain growth and stability. Writers have maintained that voluntary corporate disclosure can help to achieve growth and stability thus the aim of this research is to examine recent Chinese listed companies' voluntary disclosure practice. The purpose of this study is to investigate voluntary disclosure level of top 50 listed Chinese companies on Shanghai Stock Exchange during 2008-2012 period.

This study primarily utilizes a quantitative approach. The author constructs a Voluntary Disclosure Index (VDI) based on legislative/regulatory consideration, investor demand, investor sophistication and previous studies. This VDI score is then used to measure companies' voluntary disclosure level.

The results of this study indicate that the overall voluntary disclosure level did not increase during 2008-2012, rather it dropped. Some interesting findings about disclosure level and individual disclosure item scores in certain disclosure categories stood out; for example, nearly all companies detached their CSR report or sustainability report from their annual reports in 2010, resulted a sharp decline in voluntary disclosure level in certain related disclosure category. Further there was little employment information disclosed particularly of note are the areas of minority and gender, and little forward looking corporate focused financial information as opposed to general economic expectations was disclosed.

By using more recent data and considering the changes in China's corporate disclosure regulation system in recent years, this study addresses certain gaps from previous Chinese studies. This study also explores some regulatory loopholes in China's disclosure regulation system and certain insufficiencies in investors' education, thus this study can be of value to policy makers. Overall it is hoped that this study can lead to greater engagement between Chinese corporations and investors particularly in the area of voluntary disclosure.

Table of Content

Abstract	ii
List of Tables	iv
List of Figures	v
List of Abbreviations	vi
Chapter One: Introduction.....	1
1.1 Background	1
1.2 Issues Concerning Voluntary Disclosure in China	2
1.3 Objectives.....	3
1.4 Method	3
1.4 Outline.....	3
1.5 Scope.....	4
Chapter Two: Literature Review	5
2.1 International Studies.....	5
2.1.1 Theories of Voluntary Disclosure-Agency Theory.....	5
2.1.2 Theories of Voluntary Disclosure-Legitimacy Theory.....	6
2.1.3 Theories of Voluntary Disclosure-Institutional Theory	8
2.1.4 Summary of Theory	10
2.1.5 What drives voluntary disclosure activities?	11
2.1.6 What is stopping firms from voluntarily disclosing information?	13
2.1.7 Content of voluntary disclosure.....	15
2.1.8 Quality of Voluntary Disclosure	18
2.1.9 Factors Affecting the Level of Voluntary Disclosure	18
2.1.10 Economic Consequences of Voluntary Disclosure	20
2.2 Chinese Studies on Voluntary Disclosure.....	22
2.2.1 Theoretical Chinese Studies on Voluntary Disclosure.....	22
2.2.2 Empirical Chinese Studies on Voluntary Disclosure	24
2.3 Chapter Summary.....	28
Chapter Three: Setting the Research Scene.....	30
3.1 Chinese Listed Company VID System.....	30
3.1.1 A Brief History of Chinese Listed Company Information Disclosure System.....	30
3.1.2 Regulators and how are they doing their job?	31
3.1.3 Problems with the monitoring and guidance system	34
3.2 The State Own Enterprises (SOEs) and Ownership Structure	39
3.2.1 Definition of SOE	39
3.2.2 The leaders of SOEs answer to what or who?.....	42
Individual Investors' Education	42
Chapter Summary.....	44
Chapter Four: Development of Analytical Framework	46
4.1 Legitimacy Theory Factors	47
4.1.1 Social Responsibilities and Sustainable Development	47
4.2 Institutional Theory Factors	48
4.3 Agency Theory Factors	49
4.4 Chapter Summary.....	50

Chapter Five: Method	51
5.1 Testing Period and Sample Selection	51
5.1.1 <i>Selecting the 2006-2012 Reporting period</i>	51
5.1.2 <i>Selecting the Top 50 companies by market capitalization listed on ShangHai Stock Exchange A-share sector</i>	51
5.1.3 <i>Choosing Annual Reports as source</i>	53
5.2 The Content of Voluntary Disclosure	53
5.2.1 <i>Premise Check-Excluding Mandatory Disclosure Items</i>	55
5.2.2 <i>Relativity Check-Investors' Needs</i>	56
5.3 Construction of Voluntary Disclosure Checklist	57
5.3.1 <i>VD1-Forward Looking Financial Information</i>	58
5.3.2 <i>VD2-Human Resource</i>	59
5.3.3 <i>VD3-Corporate Governance</i>	60
5.3.4 <i>VD4-Management Strategy</i>	61
5.3.5 <i>VD5-R&D</i>	62
5.3.6 <i>VD6-Society and Environment</i>	62
5.4 VDI calculation	63
5.5 Chapter Summary.....	64
Chapter Six: Results.....	66
6.1 Company Categorization.....	66
6.1.1 <i>Industry Proportion</i>	66
6.1.2 <i>Ownership Proportion</i>	67
6.2 VDI Results.....	68
6.2.1 <i>VD0 and Overall Comparison of Sector Average</i>	68
6.2.2 <i>VD1-Forward looking Financial Information</i>	72
6.2.3 <i>VD2-Human Resource</i>	75
6.2.4 <i>VD3-Corporate Governance</i>	77
6.2.5 <i>VD4-Management Strategy</i>	80
6.2.6 <i>VD5-Research and Development</i>	83
6.2.7 <i>VD6-Society and Environment</i>	86
Chapter Seven: Discussion.....	90
7.1 VD1	90
7.2 VD2.....	91
7.3 VD3.....	94
7.4 VD4.....	95
7.5 VD5.....	96
7.6 VD6.....	97
7.7 VD0 and Overall Discussion.....	98
7.7 Comparative Discussion.....	100
7.8 Problems and Suggestions.....	102
7.9 Implications.....	104
7.9.1 <i>Implications for future studies</i>	104
7.9.2 <i>Implications for development Chinese stock market voluntary disclosure regulation and guidance system</i>	105
Chapter Eight: Conclusion	107

Appendix 1: Chinese Corporate Disclosure Regulations	111
Appendix 2: Influential Power of SOEs.....	115
Appendix 3: Two Cases on Investor Education and Sophistication	119
The HangXiao Steel Structure Scandal-Power of SOEs and suspicious investors	119
<i>Case Review</i>	119
<i>Case Analysis</i>	120
The ChangJiu Bio-Chemical Co Ltd Scandal, 2013-History repeats.....	121
<i>Case Review</i>	121
<i>Case Analysis</i>	124
Appendix 4: Comparability Concerns.....	125
Appendix 5: Unconditionally Enforceable Disclosure Laws	128
Appendix 6: Initial Disclosure Check List and Screening	129
Appendix 7: Scoring Standard	135
Appendix 8: CSRC Industry Classification Code	145
Appendix 9: Individual Item Score of VD4	160
Appendix 10: 2009-2010 Disclosure Anomaly	161
Appendix 11: Top 50 Listed Companies' Market Capitalization as % to All Listed Companies' Market Capitalization Year 2012.....	163
Appendix 12: Raw Data Year 2008.....	164
Appendix 13: Raw Data Year 2009.....	166
Appendix 14: Raw Data Year 2010.....	168
Appendix 15: Raw Data Year 2011	170
Appendix 16: Raw Data Year 2012.....	172
References	174

List of Tables:

Table 1 Summary of Literature undertaken on the Content of VD	16
Table 2: Summary of Theoretical Chinese studies undertaken on voluntary disclosure...	23
Table 3]: Summary of empirical Chinese studies undertaken on Voluntary Disclosure ...	26
Table 4 : Example of the screening process of disclosure items reviewed in previous studies	58
Table 5 Example of scoring standard	63
Table 6 Industry Spread of Selected Sample.....	66
Table 7 Ownership Structure Spread of Selected Sample.....	67
Table 8 Industry type spread among private controlled listed companies	67
Table 9 VD0 during 2008-2012	68
Table 10 VD0 during 2008-2012 categorized by ownership structure	69
Table 11 VD1 during 2008-2012	72
Table 12 VD1 during 2008-2012 categorized by ownership structure	73
Table 13 VD2 during 2008-2012	75
Table 14 VD2 during 2008-2012 categorized by ownership structure	75
Table 15 VD3 during 2008-2012	77
Table 16 VD3 during 2008-2012 categorized by ownership structure	78
Table 17 VD4 during 2008-2012	80
Table 18 VD4 during 2008-2012 categorized by ownership structure	81
Table 19 VD5 during 2008-2012	83
Table 20 VD5 during 2008-2012 categorized by ownership structure	84
Table 21 VD6 during 2008-2012	86
Table 22 VD6 during 2008-2012 categorized by ownership structure	87

List of Figures:

Figure 1 Disclosure regulation system of Chinese stock exchanges.....	31
Figure 2 Disclosure Regulation Power Hierarchy	32
Figure 3 Controlling Structure of an SOE	40
Figure 4 Ruling Hierarchy of SOEs.....	41
Figure 5 Analytical Framework	46
Figure 6 Voluntary Disclosure check list	58
Figure 7 Average VD0 by ownership.....	69
Figure 8 Average VD0 by ownership for Financial Service Industry	70
Figure 9 Average VD0 by industry type	70
Figure 10 Average VD0-VD6 during 2008-2012.....	71
Figure 11 Average VD0-VD6 during 2008-2012 by ownership structure	71
Figure 12 Average VD0-VD6 during 2008-2012 by ownership structure in Industry J ...	72
Figure 13 Average VD1 by ownership.....	73
Figure 14 Average VD1 by ownership for Financial Service Industry	74
Figure 15 Average VD1 by industry type.....	74
Figure 16 Average VD2 by ownership.....	76
Figure 17 Average VD2 by ownership for Financial Service Industry	76
Figure 18 Average VD2 by industry type.....	77
Figure 19 Average VD3 by ownership.....	78
Figure 20 Average VD3 by ownership for Financial Service Industry	79
Figure 21 Average VD3 by industry type.....	79
Figure 22 Average VD4 by ownership.....	81
Figure 23 Average VD4 by ownership for Financial Service Industry	81
Figure 24 Average VD4 by industry type.....	82
Figure 25 Average VD5 by ownership.....	84
Figure 26 Average VD5 by ownership for Financial Service Industry	85
Figure 27 Average VD6 by industry type:	85
Figure 28 Average VD6 by ownership.....	87
Figure 29 Average VD6 by ownership for Financial Service Industry	88
Figure 30 Average VD6 by industry type:	88
Figure 31 Employment Fairness Item Score Count	92
Figure 32 Individual item score count of corporate governance category	94

List of Abbreviations:

Association of Investment Management and Research-----	AIMR
Center for International Financial Analysis and Research-----	CIFR
China Banking Regulatory Commission-----	CBRC
Chinese Communist Party-----	CCP
China Insurance Regulatory Commission-----	CIRC
China Security Regulatory Committee-----	CSRC
International Oil Company-----	IOC
Multi National Corporations-----	MNC
State Owned Asset Supervision and Administration Commision---	SASAC
State Owned Enterprises-----	SOE
Shanghai Stock Exchange-----	SSE
Shenzhen Stock Exchange-----	SZE
Voluntary Disclosure Index-----	VDI

Chapter One: Introduction

On the first operational day (19th of December 1990) of the Shanghai Stock Exchange (SSE), only eight shares were listed. Total market capitalization of the Chinese stock market by the end of 1991 was only 5 billion RMB¹, however by the end of 2012, the two Chinese stock exchanges Shanghai and Shenzhen ranked 7 and 16 among the 21 largest stock exchanges with a combined market capitalization of 3697 billion USD (CSRC, 2013). The expansion of the Chinese stock market during the last three decades is astonishing. The Chinese stock market is now an integral part of the Chinese and global economy, and therefore it is vital Chinese stock market maintain a healthy level of growth and reasonable stability. Voluntary corporate disclosure as a type of disclosure made by corporations over and above mandatory requirements (Qu et al, 2012) can help to achieve both growth and stability (Botosan, 1997; FASB, 2001; Healy and Palepu, 2001; Botosan and Plumlee 2002; Kristandl and Bontis, 2007; Liang, 2011), therefore voluntary disclosure is important to the Chinese stock market and global economy.

1.1 Background

The building and development of the Chinese stock market and its corporate information disclosure regulatory/monitoring system has been following the principle of “Feeling the riverbed stones while crossing the river”; which means to take one step at a time and deal with problems as they occur. This was an inevitable choice for the Chinese economy system, for the stock market and for its corporate voluntary disclosure system as well. No one had established a “socialist market economy” before. There were no models to follow, China’s investors and corporations are very different compare to the west, everything had to be created and improved along the way as problems occur. Issues

¹ The author could not find an official exchange rate between USD and RMB of that time, so no precise USD equivalent can be given. It is roughly around 0.4 billion USD.

concerning Chinese listed companies' voluntary disclosure activities have to be addressed as the stock market develop as well, therefore it is necessary to investigate recent years' Chinese listed companies' voluntary disclosure level and reveal issues surrounding it.

1.2 Issues Concerning Voluntary Disclosure in China

Issues with the information voluntarily disclosed by Chinese corporations include: the amount of information disclosed (Qu and Leung, 2006); difficulty to understand the information Chinese corporations disclosed (Leung et al, 2005); and falsification or fabrication of information (Shi and Weisert, 2002). Studies in the area have investigated issues relating to amount of information disclosed (Qu et al, 2012; Liang, 2011); explanation of the causes of certain disclosure issues such as understandability and falsification (Xiao and Yuan, 2007; Liang, 2011; Qu and Leung, 2006). Numerous studies have been done regarding the relationship between voluntary disclosure levels and certain company properties and economic rewards (Qiao, 2003; Wang and Jiang, 2004; Wang, Sewon, and Claiborne, 2008); for example, Qiao (2003) found Chinese listed companies' voluntary disclosure level is not related size, which is quite different comparing western companies.

However most of the previous empirical studies' testing periods cover reporting periods prior to 2008. Since then, China's mandatory corporate information disclosure system has changed significantly. Thus, there could be a need to analyze more recent data. Therefore the author consider there is need to further investigate the voluntary disclosure level of Chinese listed companies in recent years and to better understand some of their disclosure practices.

1.3 Objectives

The overriding objective of this study is: to investigate voluntary disclosure level of top 50 listed Chinese companies on Shanghai Stock Exchange during 2008-2012 period. In order to achieve this objective, this study will: review previous studies on voluntary disclosure; analyze the Chinese corporate disclosure system; analyze government influence in corporate disclosure regulation system and in state owned enterprises (SOE); develop an analytical framework to aid the understanding of certain voluntary disclosure behavior; construct a voluntary disclosure index for listed Chinese companies.

1.4 Method

This study mainly adopts a quantitative approach to analyze voluntary disclosure level. By examining empirically the voluntary disclosure made by 50 listed firms² between the 2008 and 2012 financial reporting periods listed on ShangHai Stock Exchange. The author constructs a Voluntary Disclosure Index (VDI) based on legislative consideration, investor demand, investor sophistication and previous studies. This which contains 6 categories and 31 disclosure items in total, each items is given a score of 0, 1, 2 or 3. Each category's VD and the overall VDI score is then calculated.

1.4 Outline

This study is to be organized as follow. In chapter two, the author conduct a literature review of previous international and Chinese studies on voluntary disclosure. In chapter three, the author reviews the history of China's stock market information disclosure regulatory framework and the problems associated with it. The governance mechanism and the influence of state owned

² 50 companies each year over five year period

enterprises (SOE) are reviewed as well as the education and investment behavior of Chinese individual investors. In chapter four, the analytical framework is developed and in chapter five the author outline detail methodology for the construction and calculation of VDI in this study. Chapter six presents the empirical results with chapter seven offering a discussion on the results and partially reflects on earlier cases as well, chapter eight presents the conclusion.

1.5 Scope

This study offers certain insights into corporate disclosure system of listed Chinese companies through the combination of literature review, analysis of Chinese corporate disclosure regulation system, analysis of the SOE governance system and the author's knowledge of Chinese culture and language³. Utilizing constructed voluntary disclosure index, this study measures 50 top Chinese listed companies voluntary disclosure level in more recent years. Combining the theoretical and empirical findings, this study helps to identify problems associated with local listed Chinese companies' voluntary disclosure activity and source of these problems.

³ This is not to say the author will use un-scholarly personal "understanding" of China. The author is Chinese and thus be able to study Chinese documents/studies with ease.

Chapter Two: Literature Review

This chapter focuses on two sections. The first section reviews international studies conducted on voluntary disclosure; with particular emphasis on: theories for voluntary disclosure; drivers of voluntary disclosure activities; content of voluntary disclosure; factors affecting the extent of voluntary disclosure; economic consequences of voluntary disclosure; regulation of voluntary disclosure; others. The second section review past Chinese studies undertaken on voluntary disclosure; this section is subdivided into two subparts: theoretical studies and empirical studies.

2.1 International Studies

2.1.1 Theories of Voluntary Disclosure-Agency Theory

Agency theory has a focus on what is called rational self-interested economic behavior of shareholders, creditors and managers (Jesen and Meckling, 1976; Watts and Zimmerman, 1986). This theory is widely used in accounting literature to provide explanations about some disclosure choices made by the managers.

Based on the research of Fama & Miller (1972), agency theory was first formally proposed by Jensen & Meckling (1976). The agency theory views complex hierarchical organizations as “Nexus of contracts” (Alchian and Demsetz 1972; Jensen and Meckling, 1976). These contracts involve agency relationship between the principals (shareholders of the firm) and the agents (managers), principals would make contracts with agents to perform services on the principals’ behalf (Jensen and Meckling, 1976; Bricker and Chandat, 1998). Agents are assumed to maximize their own utilities in both pecuniary and

non-pecuniary terms; they may not act in the best interests of the principal (Holmstrom, 1979; Antle, 1984; Watts and Zimmerman, 1986). Thus, the spirit of contracts designing here is to provide certain incentives to the agent and to provide for the agent to share in the outcomes of his/her actions (Bricker and Chandat, 1998). However, for the principals to monitor and ensure the agents' execution of contract is indeed in line with such spirit rather than purely focusing on the agents' own interests, there will be costs, these costs are called monitoring costs and they lower the benefits agents receive (Jensen and Meckling, 1976). Therefore, the agents have an incentive to voluntarily disclose information regard to their management activities and results to the principals in order to minimize monitoring costs (Jensen and Meckling, 1976; Liang, 2011).

2.1.2 Theories of Voluntary Disclosure-Legitimacy Theory

Agency theory reviewed above provides some insights into manager's choices to voluntarily disclose information, but does not consider disclosure behavior in a more complicated and embracing social context (Chalmers and Godfrey, 2004). Disclosure behavior can be heavily influenced by social environment (Chau and Gray, 2002), and China's social system had undergone huge changes in the past three decades in areas like economic condition, social values, political/regulatory systems. Therefore, it is reasonable to think these changes in China's social system would have some impact on the disclosure behavior of Chinese listed companies.

Legitimacy theory acknowledges that entities are influenced by and will influence the society that they operate in, and this theory considers entities continually try to make sure or try to say that they operate within bounds and norms of the society (Deegan, 2002; O'Donovan, 2002). For an entity to be considered as legitimate by the society, it needs to understand the society's expectations, and then identify and manage possible legitimacy gaps (Chalmers and Godfrey, 2004).

Things that threaten an entity's legitimacy can be created by regulatory pressure, institutional pressure, social awareness, crises and media exposure (Suchman, 1995). Voluntarily disclosing information with regard to corporations' environmental and social contribution had been considered by many as means utilized by corporations to establish, maintain or repair their legitimacy (Campbell et al, 2003; Milne and Patten, 2002; Deegan, 2002; Deegan et al, 2002; Guthrie et al, 2006). Tilling and Tilt (2010) considered there to be two main layers of legitimacy theory. The first layer of legitimacy theory, also considered as institutional legitimacy theory focuses on how organizations as a whole gain acceptance by society at large (Suchman, 1995). Accounting research utilizing this layer generally consider business environment as a given and static context within which research is conducted. (Tilling and Tilt, 2010). Another layer other than institutional level is organizational legitimacy (Driscoll and Crombie, 2001). Legitimacy on this level is considered as a process, organizational legitimacy here is not static, it is subject to change (Kaplan and Ruland, 1991; Dowling and Pfeffer, 1975; Pfeffer and Slancik, 1978; Deegan, Rankin & Voght, 2000). It is this level that this report draws its understanding of legitimacy theory.

To consider entities would try to operate within the bounds and norms of the society under legitimacy theory, entities would need to inform society about their activities, thus they may voluntarily disclose information that is not required by laws and regulations (Guthrie et al, 2006; Milne and Patten, 2002). To further consider organizational legitimacy as a process means information voluntarily disclosed by entities that aimed at create, maintain or repair organizational legitimacy can be changing from time to time. Therefore, legitimacy theory could provide explanations about changes in voluntary disclosure.

2.1.3 Theories of Voluntary Disclosure-Institutional Theory

Carpenter and Feroz (2001) find that in institutional context, organizations adopt management practices that are considered as legitimate by others (Carpenter and Feroz, 2001; Othman et al, 2011), and institutional environment plays a very important role in influencing organizations to adopt accounting/reporting practices (Tsamenyi et al, 2006). Chalmers and Godfrey (2004) also point out deviations from intra-industry create uncertainty into stakeholders' minds and thus may potentially undermine organizations' legitimacy.

DiMaggio and Powell (1983) find that as “institutional pressures become visible in patterns of diffusion among organizations through isomorphism, many organizations adopt similar structures or similar disclosure practices” (DiMaggio and Powell, 1983, pg 147). These isomorphisms are then categorized in three forms, which are coercive isomorphism, normative isomorphism and mimetic isomorphism (DiMaggio and Powell, 1983, pg 150).

DiMaggio and Powell (1983) consider that coercive isomorphism is the result of pressures exerted on organizations by other entities that they are dependent and by cultural expectations in society that organizations function in. These pressures could be felt as force, persuasion or as invitations to join in collusion (DiMaggio and Powell, 1983). Under some circumstances, organizational change can be a response to government mandate (DiMaggio and Powell, 1983); for example, companies adopt certain environmental friendly technologies to conform to environmental laws and regulations mandated by government; companies report their CSR activities to conform to disclosure regulations. Some legal or technical requirements mandated by the state such as financial reporting standards that would ensure organizations' eligibility for state contracts or funding shape organization behavior (Pfeffer and Salancik, 1978; DiMaggio and Powell, 1983). Some also argued that as state and other large

rational organizations extend their dominating influence over wider areas of social life, organizational structures increasingly reflect regulations that are institutionalized by the state (Meyer and Rowan, 1977; Meyer and Hannan, 1979; DiMaggio and Powell, 1983).

The normative source of isomorphism comes primarily from professionalization (DiMaggio and Powell, 1983). Professionalization here is considered as a collective attempt of people of certain occupation to define the environment and methods of their job. There are two aspects of professionalization which are important to isomorphism; the first one is the raising of education and legitimation in a cognitive base; the second one is growth of professional network (DiMaggio and Powell, 1983).

Not all institutional isomorphism come from authority, the mimetic isomorphism derives from uncertainty. Uncertainty encourages imitation, when goals are poorly understood or when the environment creates uncertainty, organizations may model themselves based on the behaviors of other organizations (DiMaggio and Powell, 1983). Organizations attempt to model themselves after other organizations in their relevant field which they perceive as more legitimate (Meyer, 1981).

In an institutional context, organizations adopt management practices that are considered as legitimate by others (Carpenter and Feroz, 2001; Othman et al, 2011), and institutional environment plays a very important role in influencing organizations to adopt accounting/reporting practices (Tsamenyi et al, 2006). Information disclosure is a type of management practice, therefore institutional theory can offer explanations about some voluntary disclosure changes; for example, organizations voluntarily disclose their CSR activities to conform to disclosure regulation.

2.1.4 Summary of Theory

The above three sections reviewed three theories that will be used to analyze voluntary disclosure choices and behaviors. The agency theory focus on the contractual relationship between the managers and the shareholder, and considers the agents have an incentive to voluntarily disclose information regard to their management activities and results to the principals in order to minimize monitoring costs (Jensen and Meckling, 1976; Liang, 2011). The legitimacy theory considers business organizations' disclosure behavior in a more complicated and embracing social context (Chalmers and Godfrey, 2005), companies may voluntarily disclose information to create, maintain or repair their legitimacy. Institutional theory suggests that institutional pressures may also shape organizational behavior. Dimaggio and Powel (1983) finds that as institutional pressures become visible in patterns of diffusion among organizations through isomorphism, many organizations adopt similar structures or similar disclosure practices (Dimaggio and Powell, 1983, pg 147).

The three theories provide theoretical support for understanding and analyzing of voluntary disclosure in a changing environment over a time period. These three theories can lead several more detail fields of voluntary disclosure study, they include: motivations for voluntarily disclosing information, the question here is what drives organizations to voluntarily disclose information; obstructions or de-motivations for voluntary disclosure, what is stopping organizations from voluntarily disclosing information; voluntary disclosure behaviour change, this field includes contents of voluntary disclosure, the quality of these contents, factors affect the content and level of voluntary disclosure. Previous voluntary disclosure studies about these more detail fields will be reviewed in the following sections.

2.1.5 What drives voluntary disclosure activities?

Healy and Palepu (2001) undertook a comprehensive summary of previous studies and revealed there are four possible forces that drive managers' decision to voluntarily disclose information. The first one is capital market transactions. Myers and Majluf (1984) found if information asymmetry remains unsolved, firms with such problems will consider making public equity offers costly for current shareholders. Merton (1987) had similar findings, that premium investors demand managers to bear information risk if there is information asymmetry between managers and investors. Healy and Palepu (1995) hypothesized that the way in which investors perceive a firm is very important to managers that want to issue public debt or equity or company acquisition in stock transaction.

The second is contests over corporate control. This was motivated by observations that board of directors and investors often hold managers accountable for companies' current stock performance. Poor stock performance could lead to manager turnover(Weisbach, 1988; DeAngelo, 1988). Thus, this branch of voluntary disclosure theory hypothesizes that should there be risk of job loss due to poor stock performance, managers use disclosure to reduce chances of undervaluation of stock performance. However there had been little empirical findings to support this reason.

The third is stock compensation, which originated from a fact that many managers receive reward in the form of stock-based compensation, such plans would give managers incentives to voluntarily disclose information. Aboody and Kasznik (2000) indicate companies purposefully delay disclosure of good news and speed up the disclosure of bad news just before stock option award dates to reduce risk of misvaluation, and so to insure stock price is a reasonable estimation of company value.

The fourth is litigation cost. Legal actions against managers for inadequate disclosure could lead to increase of disclosure. Skinner (1994) suggested and found those managers of companies with bad performance have an incentive to disclose bad news to reduce the cost of litigation. However, empirical evidence from Francis et al (1994) suggest that many companies were actually sued due to inaccurate forecasts, they also found 87% of their no-litigation sample companies' stock price dropped after earning decline forecasts, thus they concluded voluntary disclosure of forecasting information may not be a deterrent to litigation.

Also, scholars like Bens (2002) have been finding evidence suggesting corporate disclosure and corporate governance substitute or complement each other. Bens (2002) found a positive relation between voluntary disclosure and increasing in monitoring activities from shareholders. This suggests good corporate governance complement voluntary disclosure. Fan and Wong (2002) examined the relation between voluntarily disclosed earning information and ownership structure in seven east asia countries. They found concentrated ownership structure leads to low informativeness of earning information. Hope and Thomas (2008) tested whether or not managers have incentives to act in a way that benefit them but damage shareholder's benefit. They found despite USA MNCs no longer needed to disclose earnings by geographic area, some still do disclose such information; and the ones do disclose such information experience have higher foreign profit margin and higher firm value. Ali et al (2007) found firms still controlled by their funding families are more likely to disclose warnings when facing bad news. Karamanou and Vafeas (2005) found firms that have effective governance mechanisms disclose more management forecast, especially ones associate with bad news. This suggests better corporate governance could lead to more or/and better corporate voluntary disclosure.

2.1.6 What is stopping firms from voluntarily disclosing information?

Besides the analyzing of what drives firms to voluntarily disclose information, some previous studies also covered what is stopping firms from doing so. There appears to be two major factors.

The first one is disclosure cost. Managers may attempt to maximize companies' value⁴ by voluntarily disclosing information, however if the benefit of doing so is not sufficiently favorable⁵ compare to the cost of doing so, then managers may choose not to disclose (Jovanovic, 1982; Dye, 1986; Lanen and Verrecchia, 1987). Managers may well not disclose unfavorable information due to the possibility that they can get higher payoffs by costs associate with such disclosure (Beyer et all, 2010). One type of disclosure cost have been studied by many, this is costs resulting from possible proprietary nature of information (Verrechia, 1983; Wagenhofer, 1990, Verrecchia, 2001; Fischer and Verrecchia, 2004; Suijs, 2005). These studies focus on the balance between the cost of disclosing such proprietary information and cost of withhold such information, their findings generally indicate disclosure costs that occur due to proprietary nature of information could but not always prevent voluntary disclosure. For example, Suijs (2005) found managers disclose favorable and unfavorable information but does not disclose "intermediate" information if disclosure costs are low.

The second aspect is uncertainty in investors' response. If the investors' response to managers' decision to disclose or not disclose information is unknown to managers, then managers may withhold the decision to disclose information (Dye, 1998; Dutta and Trueman, 2002; Fishman and Hagetry 2003; Suijs, 2007). In the study of Dutta and Trueman (2002), authors allowed

⁴ This is referring to firm value as perceived by investors.

⁵ There had been little study done to define what is favorable, Jorgensen and Kirschenheiter (2003) define it as " when information reveals firm values are high but with low risk associate with it.

investors to gain private information with regard to the demand for company's product; and found investors that had the information that indicates there is a high demand for the firm's product interpret high inventory levels as positive information due to the fact that they consider high inventory level as an indication of the company's ability to meet high future demand; however, where investors had information which indicates that the demand for company's product is low, high inventory level is seen as bad news, because to those investors that means the company have issues in selling their products. The result of varied interpretations would cause managers to disclose information that is either high or low (Dutta and Trueman, 2002). Suijs (2007) on the other hand did not allow tested investors to gain such private information yet still found managers who are uncertain about investor response to disclosures became cautious when deciding what to disclose, and may limit voluntary disclosure. Fishman and Hagerty (2003), framed their model as a firm disclosing information about product quality found "unsophisticated investors" just "observe" but did not "process" disclosure; and because unsophisticated investors would be very suspicious about disclosures⁶, managers may simply choose not to disclose. The core hypothesis of this concept is that the target audience for disclosure is important to disclosure strategy, and the characteristics can be an explanatory force for companies' disclosure behavior

From these researches, two key aspects are important. First, investors' and interested parties'⁷ interpretation or how they perceive disclosure and the absence of disclosure is important to managers' decision to voluntarily disclose information or not. If investors rationally think managers disclose information only if doing so benefits them, then investors interpret disclosure or absence of disclosure based on their perception or knowledge of managers' incentives and the company's basic economics (Beyer et al, 2010). The reality is investors are

⁶ The term sophisticated investors vary a lot in legal studies and accounting/finance studies, the term will be reviewed in details in later chapters. Here suspicious means these unsophisticated investors believes only those companies with low value or have problems make a disclosure (Dye, 1998)

⁷ Or other relevant parties

not certain about many things: whether or not managers' have information they can not access; how managers receive information; what exactly are managers' so called incentives. Second, the company does not make the disclosure decision, the managers do. And because of this, the costs of disclosure and the benefit of disclosure both associate with the manager's utility or disutility. The utility of managers are their reward packages and corporate governance, when management reward package and corporate governance structure are being designed with the purpose of maximizing investor return, they would have/should have taken into account how governance and manager's personal incentives would affect disclosure decision and thus firm value (Core, 2001).

2.1.7 Content of voluntary disclosure

One major challenge of voluntary disclosure studies is to decide about the scope and depth of voluntary disclosures. Previous researchers adopted two major proxies to measure the content of voluntary disclosure, these include⁸: metrics originated from certain database such as the Association for Investment Management and Research (AIMR) database (Welker, 1995; Lang and Lundhold, 2000; Sengupta, 1998; Healy et al, 1999; Brown and Hillegeist, 2007), and some self-constructed measures (Botosan, 1997⁹).

Data provided by AIMR gives some general measure on extent of voluntary disclosure, but it is a not clear how AIMR select firms to be included in their ratings and any possible bias may have occurred during the selection (Healy and Palepu, 2001; Lang and Lundhold, 1993). Also, AIMR discontinued the disclosure rankings in 1997, so it is no longer usable as empirical measurement tool for voluntary disclosure. During 1990s, the Center for International Financial Analysis and Research (CIFAR) created a listed company annual report evaluation system. Their sample included 856 companies from 18

⁸ But no limit to, due to limitations of this article and the limitations of the researchers (time, length and

⁹ There are too many to be listed here, they will be reviewed in following paragraphs

different industries in 34 countries. However, this system evaluates all information, both mandatory and voluntary. Price Waterhouse & Coopers issued a report on The Opacity Index in 2001, this index measures how hard it is for investors to acquire various types of information about a company; however, this index does not solely focus on voluntary disclosure.

The self-constructed type of measure system face its challenges too. Since the authors create their own metric, it could be created just intended to capture what the authors intend to capture. Healy and Palepu (2001) criticized these self-created proxies to be of “endogeneity” in nature and “noisy”.

However, many studies that analyzed voluntary disclosure still developed these “check-lists” to measure the content of voluntary disclosure. For example, Meek et al (1995) investigated the voluntary disclosure of USA, British and European firms. They constructed a voluntary disclosure checklist and divided voluntary disclosure information into three categories: strategic information; non-financial information and financial information. This checklist contains 85 disclosure items in total. Another example can be PwC surveyed the 82 largest Swiss firms¹⁰, the results indicate 70% of managers surveyed consider voluntary disclosure should focus on demonstrating the “core competency” and “competitive advantage” to better describe the future of the company. A summary of some studies developed these “voluntary disclosure check-lists” is as below:

Table 1 Summary of Literature undertaken on the Content of VD

Authors	Year	Research Method/Data Collection Range	Findings
FASB-Steering Committee	2001	N/A	Divided voluntary disclosure information into six categories in FASB (2001) ¹¹ : business data; management’s analysis of business data; forward looking information; information about management and shareholder;

¹⁰ Reproduced from He (2003) <Voluntary disclosure of listed companies>, research report presented to the ShenZhen Stock Exchange Research Institute.

¹¹ The full list can easily be found in the report FASB: “Improving Business reporting: Insights into Enhancing Voluntary Disclosure”, Steering Committee Report, Business Reporting Research Project; this report can be found and accessed by going to www.Fasb.org.

			background about the company; information about unrecognized intangible assets.
Singleton and Globerman	2002	Investigated voluntary disclosure behavior of Japanese companies listed in Tokyo stock exchange since 1990,	Japanese companies' voluntary disclosure information can be divided into five categories: background information; summary of historical results; key non-financial information; projected information; management discussion and analysis (explanations for changes must be provided)
Newson and Deegan	2002	Surveyed 150 institutional investors from USA, Canada, Europe and Japan	Their results indicate listed companies' voluntary disclosure effort focus on companies' core competencies and achieve the demonstration of companies' competitive advantage through disclosing information regard to human capital, strategy, profit forecast and environmental protection
Chau and Gray	2002	Analyzed HongKong and Singapore's listed companies' voluntary disclosure efforts of year 1997	They categorized voluntary disclosure information into: general corporate information; corporate strategy; acquisitions and disposals; research and development; future prospects; information about directors; employee information; social policy and value added information; segmental information; financial review; foreign currency information; stock price information
Leventis and Weetman	2004	analyzed 87 Greek companies voluntary disclosure efforts	Divided their voluntary disclosure information into the following category: company environment information, this includes economic environment company faces, company background, information about board of directors; social responsibility information, this includes employment information and social policy; financial information, this includes branch and subsidiary information, financial ratios, analysis of current financial conditions and information about current market conditions
Peterson and Plenborg	2006	selected 36 Denmark companies and analyzed their voluntary disclosure efforts during 1997-2000	Divided voluntary disclosure information into the following categories: strategic information, competition and future information, product information, marketing strategy information and human capital information.
Agca and Onder	2007	Analyzed 51 listed Turkey companies 2003 voluntary disclosure information	Categorized voluntary disclosure information as follow: strategic information, this includes company background, company strategy, research and development, future outlook; non-financial information, this includes information about board of directors, staff information, social policy information, value-added information; financial information, this includes stock price information, foreign currency information and financial analysis information

The studies reviewed in this sub section indicates that when studying the scope and depth of voluntary disclosure, there seems not to be an universal set of disclosure items to look for. Corporate information disclosed that can be considered as voluntary seems to vary across time periods, and in different countries. Therefore, it is necessary for the author to construct a voluntary disclosure checklist for this study. However, the content of voluntary disclosure

reviewed in these studies did reveal that information regard to the “core competency” of companies seems to be considered as very important voluntary disclosure information. This will be useful for construction of a voluntary disclosure checklist for this study.

2.1.8 Quality of Voluntary Disclosure

While the previous studies focused on self-constructed tools to measure the content of voluntary disclosure generally gave a numerical score to measure “how much” companies disclosed as well as the quality of their disclosure¹², some researchers have adopted natural language processing methods to measure the quality of disclosures. DeVilliers and Summerheys (2010) measured the number of sentences in oil companies annual reports relating their environmental information, they found after the gulf of mexico oil spill, major International Oil Companies (IOCs) disclosure volume all increased. Li (2008) provided evidence about the factors that determine and the implications of vocabular properties of company disclosure. In this article, he examined annual report readability and other vocabular features of annual reports for current performance; he found companies with bad performance provide annual reports that are harder to read. The evidence he presented also suggest manager do behave in an opportunistic way—they structure annual reports to hide adverse information about investors. Li (2010) examined the tone and content of forward looking information in American 10-K and 10-Q files, the author found companies with better current performance, smaller size and less profit volatility generally sound more positive in forward looking statements.

2.1.9 Factors Affecting the Level of Voluntary Disclosure

There are many factors that may affect the level of voluntary disclosure, and there are many studies undertaken in this area. Chow and Wong (1987), studied

¹² For example, 0 for non disclosure of environmental initiatives, 1 for simply mention such matters and 2 or qualitative and quantitative information regard to the matter

52 manufacturing firms in Mexico, found company size is positively related to voluntary disclosure level, but the relationship with financial leverage and voluntary disclosure level was not significant. Cooke (1992) used annual reports to conduct empirical analysis on Japanese listed companies' mandatory and voluntary disclosure; and found company size, listing condition and industry type have significant impact on the level of voluntary disclosure; the article also found manufacturing firms and firms listed in multiple locations tend to disclose more information. Mckinnon and Dalimuthe (1993) analyzed 65 Australian companies and found company size and industry type have significant impact on voluntary disclosure level made by the companies, however, they found financial leverage has no significant impact on disclosure level. Mitchell et al (1995) conducted empirical research on what influences listed companies' voluntary disclosure of segment information, use Australian oil industry as sample base, they found company size and financial leverage have significant impact on disclosure level. Hossain et al (1995) conducted empirical analysis on 55 New Zealand listed companies' voluntary disclosure; the results from their cross-sectional regression analysis showed that firm size, foreign listing status and leverage significantly relate to the extent of voluntary disclosure; assets in place and type of auditors are not strong explanatory variables. Meek et al (1995) selected 46 European MNCs, 64 British MNCs and 116 USA MNCs, and conducted empirical analysis on factors affecting voluntary disclosure in their annual reports; they found company size, the country where the firm is located, listing condition and industry type are the most significant influencing factors. They also found for voluntarily disclosed strategic information, firm's location and listing condition are the most significant influencing factors, the firms listed in foreign countries and European firms are more willing to provide strategic information. In their findings, they also indicate British and European firms tend to disclose more non-financial information than USA firms; and firms in heavy pollution industry like oil or chemical tend to disclose more non-financial information as well. Kahra et al (1994) tested factors that influence voluntary

disclosure policy and compulsory disclosure policy adopted by non-financial companies listed in Helsinki Stock Exchange during the period 1985-1993; they found company size, company type, capital structure and company growth determine voluntary disclosure policy. Chau and Gray (2002) found insider control and family control over firms affect disclosure level. Chen, Denford and Park (2002)'s empirical study revealed firm's profit stability, fluctuation of share price significantly affect the disclosure level.

Voluntary disclosure activities themselves may affect voluntary disclosure. Dye and Sridhar (1995) found voluntary disclosure activities of some companies would trigger similar activities in other companies, they would cause other firms to make similar disclosures. In their initial findings, it would appear disclosures happen as if in "herds", and refer to this as "herding" behavior in that managers try to influence the financial market's perception about the firms (Dye and Sridhar, 1995). Some firms' disclosure may influence market's perception, lead the market into believing other firms in the same industry acquired firm value-relevant information which they just haven't disclosed, and this could force other firms to voluntarily disclose information resulting the "herding" behavior. (Dye and Sridhar, 1995).

It would appear the most commonly agreed factor found is company size¹³, the second most commonly agreed factor is industry type. Other factors include listing condition, leverage, capital growth, corporate control, profit stability, fluctuation of share price and voluntary disclosure activities of other companies. These factors will be interesting to consider when comparing the VD level results of this study to results of other studies.

2.1.10 Economic Consequences of Voluntary Disclosure

Healy and Palepu (2001) found there are three general economic consequences

¹³ 7 out of 9 studies reviewed in the first paragraph of this sub section

of voluntary disclosure. The first one is improved stock liquidity. Kim and Verrecchia (1994) argued that since voluntary disclosure leads to the reduction of information asymmetry among investors, corporations that have high level of disclosure can have the investors' confidence in the corporations' share transactions to be at fair price. This leads to better liquidity of the corporations' stock. Gelb and Zarowin (2000) provide empirical evidence when they find that corporations which demonstrate a high level of disclosure have good stock price even their current earning performance is not great. Leuz and Verrecchia (2000) analyzed bid-ask spreads of corporations listed on Neuer Market, and found these firms' bid-ask spreads to be lower than those listed on Frankfurt Exchange, they explained the reason as Neuer Market have higher disclosure requirements and that more disclosure led to better liquidity of stock. The second one is that cost of capital would be reduced. Botosan's (1997) findings provide some support, she found those firms with low analyst following have a negative relationship between cost of capital and the amount of information they voluntarily disclose. Botosan and Harris (2000) found further evidence when they found that there is a negative cross sectional relationship between the cost of capital of a firm and firm's annual report disclosure rankings. However, they did also find investor relations' activities are unrelated to cost of capital. The third is the increase of information intermediation.

Lang and Lundholm (1996) argued that voluntary disclosure reduces the analysts' cost for acquiring information, and would lead to increase in the supply of information by the analysts. However, the effect of voluntary disclosure level on demand for the analysts services is not clearly discussed. Healy et al (1999) found corporations that receive an increase in analyst rating for their disclosure level also receive more analysts coverage. This adds further support for the third economic consequence of voluntary disclosure.

2.2 Chinese Studies on Voluntary Disclosure

Compared to international studies conducted on voluntary disclosure, Chinese researchers have only begun to study voluntary disclosure in the last decade. The lack of information makes it hard to systematically summary and categorize prior Chinese studies in this field similar to the international studies. However it is possible to divide these studies into two main types: theoretical and empirical.

2.2.1 Theoretical Chinese Studies on Voluntary Disclosure

Li and He (2002) discussed possible economical explanations for voluntary disclosure behavior, the motives of voluntary disclosure and why it could be difficult to voluntarily disclosure information. They summarized and analyzed the content of voluntary disclosure made by foreign corporations. They recommend China should encourage corporations to voluntarily disclose information, and “relevant regulatory agencies” should put more effort into monitoring and auditing of voluntary disclosure information. They also recommend guidance should be given to corporations about voluntary disclosure.

He (2003) reviewed the evolution of information disclosure, the properties of voluntary disclosure, the effect of voluntary disclosure; he recommended Chinese listed companies should plan for voluntary disclosure and monitoring agencies should have certain schemes in regulations and laws to encourage and protect voluntary disclosure.

Chen (2004) discussed mandatory and voluntary disclosure of accounting information from an economic perspective, her conclusion was that mandatory and voluntary disclosure should supplement of each other and there needs to be a balance point between the two. Wang (2005) reviewed international studies and discussed that voluntary disclosure purely driven by economic incentives

could have issues of selective disclosure, delayed disclosure, false disclosure. Therefore he consider certain punishment mechanisms need to be built base on managers' fame and law to ensure the quality of voluntarily disclosed information.

Liang (2011) conducted a study on China stock market's regulation mechanisms on voluntary disclosure and investors' education level in relation to voluntary disclosure; she found the lack of a "Safe-Harbor" clause and strict punishment rules could be the reason behind the lack of voluntary disclosure among Chinese firms; she also found that due to the fact China's stock market is still young compare to the west, individual investors lack education and experience, thus may not be able to make reasonable decision compare to investors in countries had a stock market for decades, this made the firms cautious about what they disclose.

The theoretical Chinese studies on voluntary disclosure are mainly based on previous international studies. These studies recognize the importance of voluntary disclosure from a theoretical perspective, and they analyzed some flaws of China's corporate voluntary disclosure system. However, most of these studies pin certain failures of Chinese corporate voluntary disclosure system like selective disclosure or disclosure deficiency on the young age of Chinese corporate disclosure system. They didn't examine certain fundamental reasons; for example, the regulators of corporate voluntary disclosure activities are also the owners of certain corporation which create great conflict of interest. This study seeks to fill this gap in the literature.

Table 2: Summary of Theoretical Chinese studies undertaken on voluntary disclosure

Authors	Year	Purpose	Finding/Recommendation
Li and He	2002	To explore possible economical explanations for voluntary disclosure behavior, the motives of voluntary disclosure and why it could be	China should encourage corporations to voluntarily disclose information, and "relevant regulatory agencies" should put more effort into

		difficult to voluntarily disclosure information	monitoring and auditing of voluntary disclosure information. They also recommend guidance should be given to corporations about voluntary disclosure.
He	2003	To the evolution of information disclosure, the properties of voluntary disclosure, the effect of voluntary disclosure	Concluded Chinese listed companies should plan for voluntary disclosure and monitoring agencies should have certain schemes in regulations and laws to encourage and protect voluntary disclosure
Chen	2004	To discuss mandatory and voluntary disclosure of accounting information from an economic perspective	Concluded that that mandatory and voluntary disclosure should supplement of each other and there needs to be a balance point between the two
Wang	2005	Reviewed international studies and discussed that voluntary disclosure purely driven by economic incentives	Consider certain punishment mechanisms need to be built base on managers' fame and law to ensure the quality of voluntarily disclosed information
Liang	2011	Analyze China stock market's regulation mechanisms on voluntary disclosure and investors' education level in relation to voluntary disclosure	Lack of a "Safe-Harbor" clause, strict punishment rules and insufficient investor education could be the reasons behind the lack of voluntary disclosure among Chinese firms;

2.2.2 Empirical Chinese Studies on Voluntary Disclosure

Qiao (2003) analyzed the 2001 annual reports of Chinese listed companies. He constructed a model for listed companies voluntary disclosure in annual report and had the following empirical findings: Chinese companies' voluntary disclosure level is not related to company size; the disclosure level is positively related to the company's ability to generate profit; companies listed both in

China and overseas tend to voluntarily disclose more information due to tighter regulations and these firms want to build a good image for Chinese companies. His general findings also indicate that the overall level of voluntary disclosure among Chinese companies is low and the quality is poor.

Wang and Jiang (2004) selected 516 companies first listed in Shanghai Stock Exchange before 2002 as sample and after controlling company size and financial risks, they found voluntary disclosure would lead to reduction in cost of equity capital. Li et al (2004) selected 117 companies listed in the A shares as sample, analyzed their 2002 annual reports and found voluntary disclosure level is not significantly related to the number of independent directors but is significantly relate to the size of the company. Zhang et al (2005) first constructed a voluntary disclosure index for Chinese listed companies and used this index to analyze the credibility of voluntary disclosure made by Chinese listed companies during 1998-2003 period. Their results indicate: Chinese companies voluntary disclosure level had been increasing; bigger and more profitable companies tend to voluntarily disclose more information; corporate governance factors are not strong explanatory variables for voluntary disclosure level of Chinese companies; companies also listed in foreign countries disclose more compare to ones only listed in China. Wang and Yuan (2006) selected 524 companies listed on ShenZhen Stock Exchange as sample and found the voluntary disclosure of “future managerial plans” is significantly related profit generating ability and publish time of annual reports, but not significantly relate to company size and market competition. Fan (2006) selected 176 firms listed on ShenZhen Stock Exchange as sample, analyzed their 2004 data. He analyzed the impact of company size, financial leverage, management stock compensation schemes, profitability and auditing fees on voluntary disclosure level of Chinese companies. His findings indicate Chinese listed companies lack both internal and external motivation to voluntarily disclose information. Yu and Zhang (2007) empirically analyzed the relationship between the quality of

voluntary disclosure made by Chinese listed companies and borrowing cost. Their findings indicate the two are negatively related, also the greater market risk is, the more significant the two are related.

A study by Wang et al (2008) used dataset contains 110 public listed companies offer both A and B shares in China found no evidence suggesting companies benefit from voluntary disclosure increase in the form of equity/debt capital cost reduction. This finding was refined and broadened in the latest study of Lan, Wang and Zhang (2013), the authors sampled 1066 Chinese firms listed on Shanghai and Shenzhen Stock exchange which represent 80% of all public listed companies in China. They found certain evidence that differs from previous studies. First, they found company size, leverage, asset-in-place, ROE and ownership diffusion are positively related to voluntary disclosure level; however, they found increase in voluntary disclosure does not lead to less cost of equity capital and auditor type is negatively relate to voluntary disclosure.

Table 3]: Summary of empirical Chinese studies undertaken on Voluntary Disclosure

Authors	Purposes	Sample Size	Data Source	Findings
Qiao	To investigate the relation between Voluntary Disclosure Level and certain corporate characteristics	200 Companies	Annual Reports	Chinese companies' voluntary disclosure level is not related to company size; the disclosure level is positively related to the company's ability to generate profit; companies listed both in China and overseas tend to voluntarily disclose more information due to tighter regulations and these firms want to build a good image for Chinese companies. His general findings also indicate that the overall level of voluntary disclosure among Chinese companies is low and the quality is poor.
Wang and Jiang	To investigate if voluntary disclosure lead to reduction of cost of equity capital for Chinese listed companies	516 companies	Annual Reports	voluntary disclosure would lead to reduction in cost of equity capital
Li et al	To investigate the relation between Voluntary Disclosure	117 companies	Annual Reports	voluntary disclosure level is not significantly related to the number of independent directors but is significantly relate to the size of the company

	Level and certain corporate characteristics			
Zhang et al	To construct a VDI for Chinese listed companies and to investigate credibility of voluntary disclosure made by Chinese companies during 1998-2003	500 Companies	Annual Reports	Chinese companies voluntary disclosure level had been increasing; bigger and more profitable companies tend to voluntarily disclose more information; corporate governance factors are not strong explanatory variables for voluntary disclosure level of Chinese companies; companies also listed in foreign countries disclose more compare to ones only listed in China
Wang and Yuan	To investigate the relation between Voluntary Disclosure Level and certain corporate characteristics	524 companies	Annual Reports	voluntary disclosure of “future managerial plans” is significantly related profit generating ability and publish time of annual reports, but not significantly relate to company size and market competition
Fan	To investigate the relation between Voluntary Disclosure Level and certain corporate characteristics	176 companies	Annual Report	Chinese listed companies lack both internal and external motivation to voluntarily disclose information
Yu and Zhang	To investigate the relation between Voluntary Disclosure Level and certain corporate characteristics	216 Companies	Annual Report	Quality of voluntary disclosure made by Chinese listed companies and borrowing cost are negatively related
Wang et al	How can voluntary disclosure benefit listed companies	110 companies	Annual Report	found no evidence suggesting companies benefit from voluntary disclosure increase in the form of equity/debt capital cost reduction
Lan, Wang and Zhang	To investigate the relation between Voluntary Disclosure Level and certain corporate characteristics	1066 Companies	Annual Report	Company size, leverage, asset-in-place, ROE and ownership diffusion are positively related to voluntary disclosure level; increase in voluntary disclosure does not lead to less cost of equity capital and auditor type is negatively relate to voluntary disclosure.

2.3 Chapter Summary

This chapter is divided into two main parts, international studies and Chinese studies. As for international study part, it breaks down further into seven sectors: theory for voluntary disclosure; what drives voluntary disclosure; what stops voluntary disclosure; content of voluntary disclosure; quality of voluntary disclosure; factors affect the extent of voluntary disclosure and economic consequences of voluntary disclosure. The three theories reviewed are agency theory, legitimacy theory and institutional theory; these three theories will be used to guide this study. There are four possible forces that drive managers' decision to voluntarily disclosure information. The first one is capital market transactions; the second one is contests over corporate control; the third is stock compensation; the fourth is litigation cost. There appear to be two factors that stop managers from voluntarily disclosing information: disclosure costs and uncertain investor response. The review on the content of voluntary disclosure indicate a need to use content analysis method to construct a voluntary disclosure check list for this study and "core competency" should be an important information type. As for the quality of voluntary disclosure, majority of studies reviewed give a numerical score to various disclosure items to derive a final score to measure disclosure quality, but some researchers have adopted natural language processing methods to measure the quality of disclosures. There are many factors found to have an effect on the extent of voluntary disclosure: company size, financial leverage, listing condition, industry type, capital structure and the disclosure choice of other companies. There appears to be three major economic consequences of voluntary disclosure: improved stock liquidity; reduced cost of capital; increase of information intermediation.

As for the Chinese studies conducted by Chinese scholars, it would appear many Chinese studies focused on factors affecting the extent of voluntary disclosure (Qiao, 2003; Wang, 2004; Li et al, 2004; Zhang et al, 2005; Wang and Yuan,

2006; Fan, 2006). Many of the Chinese studies are purely theoretical and basically just a summary of previous international studies. Some constructed models and voluntary disclosure index applicable only to Chinese companies, but many of these studies are very closely modeled on results found in other international studies. For example, Zhang et al (2007) built the voluntary disclosure index very closely based on Botosan (1997); Fan (2006) simply divided voluntary disclosure information into strategic information, non-financial information and financial information, which is very similar to the work done by Cooke (1992) and Botosan (1997). This presented a problem: though there had been ample amount of studies done internationally about the motives, affecting factors and economic consequences of voluntary disclosure, but these studies are based on a market and system very different from China's; thus, some findings, models or index or at least part of them may not be appropriate for China's objective circumstances.

Chapter Three: Setting the Research Scene

The expansion of the Chinese stock market in such a short period of time¹⁴ under unique institutional/social environment presents several issues which must be examined in order to gain an appropriate understanding about voluntary disclosure activities of publicly listed Chinese companies. This chapter examines such issues and sets the research scene of this study.

This chapter first gives a brief review of the history of Chinese listed companies' information disclosure system. Secondly, it reviews several unique problems of this system and discuss how it might impact voluntary disclosure. Third, this chapter discusses a significant part of Chinese economy and of the sample of this study, the State Owned Enterprises (SOEs). This third part will give SOE a defining boundary, demonstrate its significance and discuss the way these SOEs are managed affect voluntary disclosure activities of these SOEs. Fourth, this chapter argues Chinese individual investors' education may not be sufficient and Chinese individual investors may prefer certain information over other. Overall, this chapter attempts to capture certain unique situations China has that might affect Chinese listed companies' voluntary disclosure activities.

3.1 Chinese Listed Company VID System

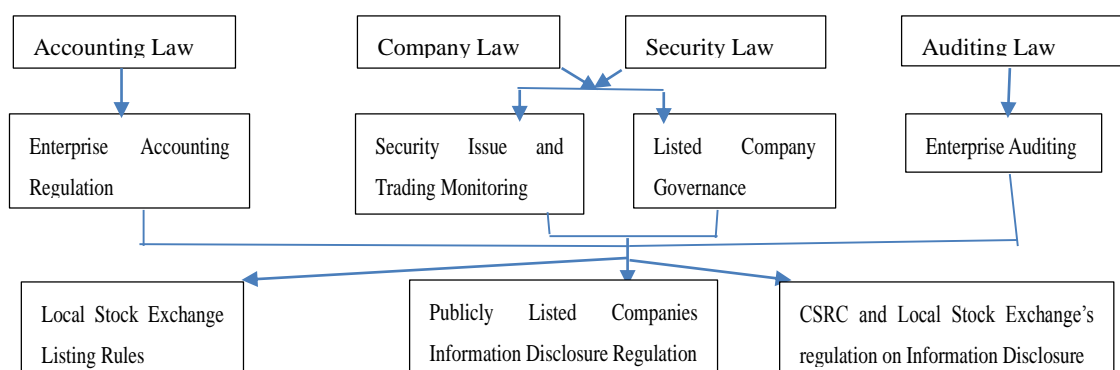
3.1.1 A Brief History of Chinese Listed Company Information Disclosure System

In 1993, China Security Regulatory Committee (CSRC) issued Publicly Listed Company Information Disclosure—Format and Content, the difference between mandatory disclosure and voluntary disclosure began to surface for Chinese companies from a regulation perspective. In 1995, the CSRC further issued Notice about Strengthen Information Disclosure through Company Law. By the

¹⁴ Comparing to the first stock exchange set up in Amsterdam in 1680

1st of July 1999, the Securities' Law of People's Republic of China finally came, besides giving the security market an independent layer of legislation, it also established punishment mechanisms for personnel that caused harm to individuals, institutions and market by means of information disclosure for the first time. When it got to just before 2000, information disclosure regulation became more detailed, made the line between mandatory and voluntary disclosure clearer for Chinese listed companies comparing to the 1990-1993 period. In 2005, the State Council, the supreme government authority issued <Improve the Quality of Listed Companies>, the document required information disclosed by listed companies to have the following quality: True, Accuracy, Integrity and On Time. After that, series of laws, administrative regulation, department regulation and self-regulations had been developed, they formed a system to regulate listed companies' disclosure activities, this system can be demonstrated as below:

Figure 1 Disclosure regulation system of Chinese stock exchanges



Source: Drawn by the author after the study of relevant laws and systems

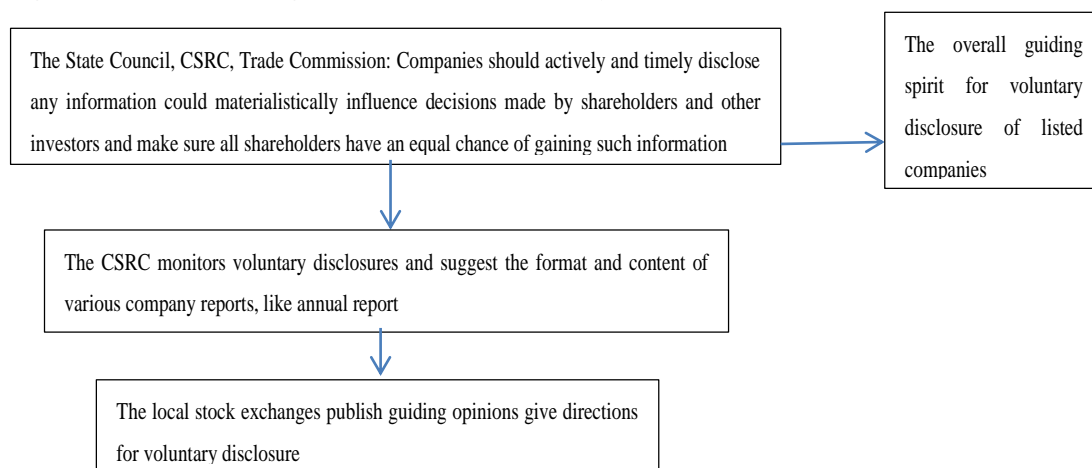
3.1.2 Regulators and how are they doing their job?

As can be observed in Figure [1], the preparation of accounting information, the governance of companies, the issue of securities and the auditing process are governed by their own laws. These laws are then referred to in specific disclosure regulations. However, despite these laws are in position, they do not offer much of help to individual investors. There had been only one successful civil lawsuit over false/misleading financial information during the first decade

of the Chinese stock market (Chen et al, 2005). In China, it is virtually impossible to have class action lawsuits, thus for individual investors to bring a lawsuit against a listed company is costly and such actions would not have a high chance of success (Chen et al, 2005). The questions are: who can offer investors protection and who is in the best place to do so? It is suggested by some scholars that in such situation where the markets are still merging and legal system is weak, regulators are effective substitute for weak legal enforcements.

The CSRC issues regulations and provides guidance on the format and content of information disclosure made by listed companies through various documents¹⁵, the use of “but not limit to” in these CSRC regulations give freedom to voluntary disclosure; the two stock exchanges would publish “guiding opinions” that suggest companies should, may, or can voluntarily disclosure only certain information in some possible forms. How listed companies get monitored and receive guidance for their voluntary disclosure through regulators can be demonstrated as below:

Figure 2 Disclosure Regulation Power Hierarchy



Source: Drawn by author after relevant study

The first and the fundamental purpose of China’s corporate disclosure

¹⁵ For detail on these regulations, please go to Appendix [1]

framework put forward by the CSRC in 1996 was to “improve stock market efficiency and offer protection for investors’ interests” (CSRC, 1996). As for the content of annual reports, <Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (Revised in 2012)> (Standards 2) is the official regulatory document from CSRC, this document has been amended in 1998, 1999, 2001, 2002, 2004, 2007 and latest in 2012. There has been several major historic developments in these amendments. First of all, the independent role of accountants and auditors has been strengthened. Second, commercial banks, security trading company, insurance companies have additional disclosure regulations attached. Third, heavy pollution industries need to disclose environmental rule violations and major environmental damage. Fourth, earning distribution information had been explicitly required; usage plan of undistributed dividends needs to be issued to the shareholders. Overall, it would appear the CSRC had been strongly and constantly suggesting companies to voluntarily disclose information relevant to investment decisions:

*“The information required by these documents are barely of minimum standards, any information may materialistically impact the investors’ economic decision making **shall** be disclosed no matter if such information is required by these documents”* (Evident in all Standards 2 official final versions including 1993, 2001, 2004, 2007 and 2012 and in all temporal drafts)

*“Companies **shall** voluntarily and timely disclose information that may materialistically affect shareholders/stakeholders in addition to mandatory disclosure effort, and they shall make sure all shareholders/stakeholders have equal access to such information”* (Corporate Governance for Listed Companies, 2001)

Corporate governance has been specially strengthened by the issue of <Corporate Governance for Listed Companies> from CSRC, extra guiding opinions regard to independent directors were issued in 2001. And as Tomasic

and Andrews (2007) suggested, establishment of independent directors contribute in a positive way to the credibility of information disclosed by corporations.

From 2001 onward, according to People's Daily, CSRC issues about 20 policies each year (People's Daily, 2005). CSRC "declared" its vertical power over regional supervisory panels and institutions of the stock market and claimed its major responsibilities are to supervise stock market. According to the news, companies that don't provide the stock market with adequate and transparent information on time will face serious penalties from the CSRC (People's Daily, 2005). Problems, however still exist. The author will discuss the problems below.

3.1.3 Problems with the monitoring and guidance system

Problems still exist, the first being that despite that the fact that the CSRC claimed its responsibilities were to "monitor, supervise and guide" in various CSRC documents regard to information disclosure As in November 2013, Xiao Gang, the new head of the CSRC publicly made the following statement¹⁶:

" We must transform from someone who examine and give approvals to someone truly monitor and supervise."

This statement appears to indicate that the CSRC does not have the supreme authority in legislation and legal enforcement regarding information disclosure, CSRC simply examines the information supplied to them and give approval. Should a disclosure related case arise, it has to pass through multiple authorities: local stock exchange, CSRC, the courts and possibly the State Owned Assets Supervision and Administration Commission (SASAC) if the situation involves a major SOE. Also, the legal enforcement lies within the criminal law. Resulting in extremely low regulation efficiency. In Zhang (2007), the author found it

¹⁶ <http://finance.china.com.cn/stock/zqyw/20131121/1988528.shtml>

takes an average of 729.1 days, maximum of 4094 days for punishment to be actually executed. That means it would take an average of two years to proceed from initial establishment of a disclosure case to punishment in a disclosure case in Chinese stock market; this is supported by Peking University Financial Law Research Centre (2006). This could seriously compromise the effectiveness of investigation and punishment.

The second problem is the degree of punishment. The CSRC does not have the legal authority to punish disclosure violations by means of financial or imprisonment. By the year end of 2006, around 65% of all punishments on listed companies made during 1994-2006 period fell into the disclosure category¹⁷; and around 33% of these punishments were “public censure”, and 15% were administrative punishment. The power to punish those who damage the interests of shareholders/investors and those who hurt the market by means of disclosure violation is with the <Criminal Law of People’s Republic of China>. It is stated that listed companies that seriously damaged shareholders and other related parties’ interests by means of falsification of accounting information or hiding significant information or fail to disclose vital information as regulated shall be punished. These punishments are carried out against directly responsible personnel, they include: No more than 3 years in prison and or fine between 20,000~200,000 RMB. The degree of punishment is severely low: only direct personnel will be punished, this means they can only target a small amount of people and usually these cases don’t just involve that few; 200,000 RMB and 3 year in prison is seriously not enough. If one is to compare how Shell got punished for inaccurately reporting of their oil reserve, the Chinese punishments are nothing.

The disclosure monitoring system Chinese listed companies need to face is confusing for them, the CSRC claimed authority but may be not be able to

¹⁷ Data obtained and processes by using the CSRC and SSE data, retrievable from their websites

execute regulating power in some circumstance and the two stock exchange and CSRC issue separate guiding opinions; the investigation for disclosure activities that harmed interested parties is seriously inefficient and the punishment is insignificant. Therefore, companies may not have clear and useful guidance on voluntary disclosure. And due to low investigation efficiency and low degree of punishment, some companies may find it easy to use information disclosure to benefit only their own interests, this could damage investors' faith in quality of information disclosed by companies, this could affect companies' voluntary disclosure activities.

More problems are caused by regulations and guiding opinions, the documents themselves. Besides those guiding opinions issued by the local stock exchange, there is no official guiding or regulating document just for voluntary disclosure from the CSRC, not even the slightest hint about how to do it. The < Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public> No1 to No 6 issued by the CSRC simply just leave space for voluntary disclosure by using "but not limit to" and state that "Information required by these documents are barely of minimum standards, any information may materialistically impact the investors **shall** be disclosed", they offer no guidance at all. Plus the wording in these six documents is punishingly confusing in certain area:

"Article 22(2) The company Shall disclose the strategic development plan of the company. The company Shall do so by disclosing industry barrier, core technology..."

"Article 9 Within four months from the end of every financial year, the company shall publish its full annual reports on the website/websites designated by the CSRC..."

These two articles are taken from the No.2 of those Standards, the one regulate the format and notice the two set of information are both connected to the word

“Shall”. The first one is considered by many as voluntary disclosure (Meek et al, 1995, Botosan, 1997, Long, 2008; Gao et al, 2010) and would be difficult to disclose as discussed in previous chapter due to proprietary costs and other issues; the second one is reasonable enough to be considered as a blunt simple instruction. In English, the word “shall” has the specific use of expressing an order or instruction, it does not have a weak suggestive nature; yet still in the English version of these documents they are used on every disclosure item¹⁸; but how can they possibly be ordered to disclose their core technology? And in empirical evidence perspective, after examination of 250 annual reports, the author found some would disclose their strategic development plan (CNPC annual report 2010), some would not (KwaiCho MaoTai Co Ltd, 2012). This happened not because the Chinese mind interpret the word shall differently, it is because in the Chinese version the word that “Shall” was translated from is “Ying-Dang(应当)”, the most common translation into English for this is “should”; and in the mind of Chinese legal professionals, this word¹⁹:

1. Take into account the legislator’s subjective opinion, is rather a general requirement
2. It represents weak responsibility
3. Comparing to the word “must”, the use of word “Ying-Dang” is of guiding nature.
4. Ying Dang indicates “conditional responsibility”, which means the execution of such responsibilities are conditional and subject to interpretation
5. Responsibilities associate with Ying Dang sometimes carry no corresponding legal consequences.

Even the word “Ying-Dang” was translated into “shall”, to the Chinese manager who use that document, the word does not carry the same weight as “shall”. And certainly to legal professionals, the word does not mean the same thing “shall” means. So basically, all six< Standards for the Content and Format of

¹⁸ This is an accurate description after the author read the whole document

¹⁹ Legal Logic and Regulation Logic, Jin, 2010, <China Legal Study>

Information Disclosure by Companies that Offer Securities to the Public> are of guiding nature based on wording, common understanding and legal logic. Of course this would be absurd, because they would have certain basic requirements, such as the language, numericals; this creates major confusion for the readers and users of these documents. The confusion just discussed may further weaken guidance Chinese listed companies receive.

With all these ambiguity though, one particular disclosure item is monitored tightly by the CSRC with detailed regulation, that is forecasting information especially profit forecasting²⁰. The US is also quite strict on forecasting information, but they have the “safe harbor rule” from SEC designed to limit or eliminate liability as long as good faith is demonstrated. This provides protection for forecasting information. Such encouragement does not exist in the Chinese stock market but the monitoring is tight for voluntary forecasting information, especially profit forecasting.

The last problem is that despite the State Council, Trade Commission and CSRC all demand companies actively and timely disclose any information could materialistically influence decisions made by shareholders and other investors and make sure all shareholders have an equal chance of gaining such information, there is no specific “fair disclosure” clause. The Securities Law forbids insider trading activities, but selective disclosure does not equal to insider trading. This can create loopholes for voluntary disclosure activities in legal perspective.

²⁰ In annual reports, if the forecasted profit is 10 % or more lower than actual value, the company must detail explain why; if the forecasted profit is 20% or more higher than the actual value, the company must detail explain why; if the actual profit is 10%~20% lower than forecasted figure, the company and the Chartered Accountants they contacted must make a public apology; if the actual profit is 20% or more than 20% lower than the forecasted figure, the CSRC will investigate and should there be false forecasting or forecasting with the intention to mislead investors, punishments will follow

3.2 The State Own Enterprises (SOEs) and Ownership Structure

These SOEs are still significant economic forces in China, and as for the stock market, they are some of the biggest players in the stock market²¹. There are many things unique and interesting about SOEs, but for the purpose of this study, focus will be placed only on:

1. Definition of SOE
2. Influence of government on SOEs and
3. The reward systems in SOEs

3.2.1 Definition of SOE

The official definition for Chinese SOEs from the Chinese government is simple: enterprises wholly owned by the state (Chinese National Bureau of Statistics, 2002). In the official Chinese statistics, SOEs only include wholly stated funded companies; companies that have majority of their shares owned by government are excluded from this definition. However, the author thinks that since China has joined the World Trade Organization and taking up an important role in global economy, a more internationalized definition should be adopted. In WTO (2010), the WTO provided extension for the definition of Chinese SOEs in their trade policy review based on the concern of “Controlling influence”. The extension is state-Controlled Enterprises (SCEs); the importance of the variation is that it extent the substantive coverage of SOEs to those enterprises which:

“...the State, or another SOE, holds more than 50% of equity; or, if the share of the equity is less than 50%, the State or another SOE has controlling influence on its management and operation...”

However, it is unfortunate that the World Trade Organization (WTO) did not define what exactly this “controlling influence” is, nor did they give a clear set of conditions to identify such influence. Luckily, after the author reviewed 250

²¹ Please refer to Appendix [2] for a brief review on the influential power of SOEs in China

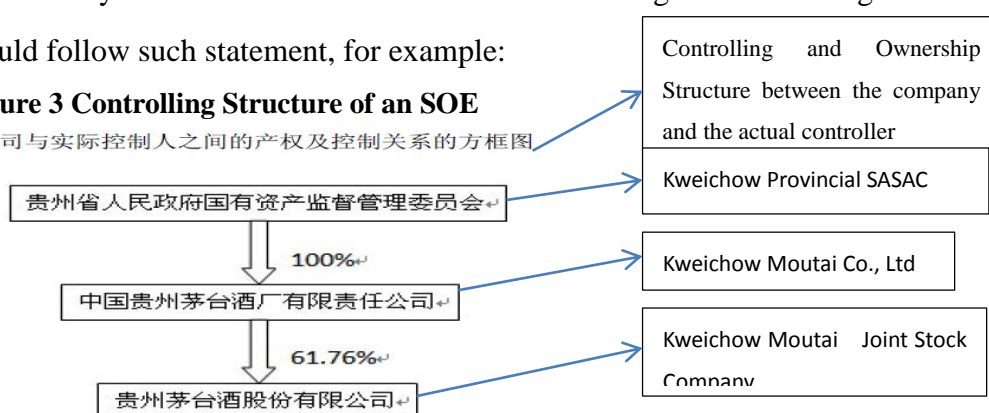
annual reports during the 2008-2012 period, the term “Actual Controlling Party (Shi Ji Kong Zhi Ren-实际控制人)” was found in every report. This term appears to resemble the spirit of the WTO term “controlling influence”, for example:

“The company’s controlling shareholder Kweichow Moutai Co., Ltd is a company controlled by Kweichow Provincial SASAC” (Kweichow Moutai²² Joint Stock Company, Annual report 2010, pg 7)

And usually a flowchart demonstrates the shareholding and controlling structure would follow such statement, for example:

Figure 3 Controlling Structure of an SOE

公司与实际控制人之间的产权及控制关系的方框图



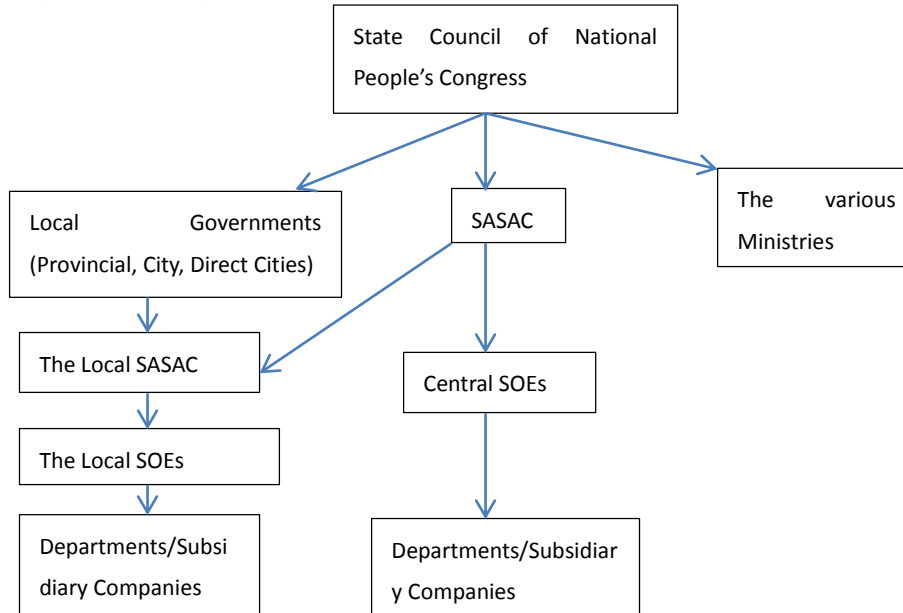
Source: Kweichow Moutai JSC

annual report 2010

There are two general types of SOEs if one is to classify them by who the controlling party is, the ones owned by central government and the ones owned by local governments. The departments or agents manage the centrally controlled SOEs include the State Owned Assets Supervision and Administration Commission (SASAC); China Securities Regulatory Commission (CSRC); China Banking Regulatory Commission (CBRC); China Insurance Regulatory Commission (CIRC); and they are monitored/regulated also by Ministry of Science and Technology, Ministry of Commerce and many others ministries one for each industry type. The local SOEs report to their central equivalents, these “entangled” relationships are best demonstrated by the following figure:

²² This company ranks 11 in terms of market capitalization by year end 2010 among all firms listed on Shanghai Stock Exchange, it is one of the sample firm)

Figure 4 Ruling Hierarchy of SOEs



Source: Drawn by the author after relevant study

To a different/western view point, it is best to see them as similar to holding companies: they hold the SOEs' shares which were held directly by the state before. After reading the National Statistics²³, the author identified roughly²⁴ 320 SASACs, around about 30 of these are provincial SASACs. And combining figure [3] and figure [4] we can see the SOEs are tightly controlled by the central government through two layers of controlling mechanisms, the central SASACs and the local government is one layer and the local SASACs is the other layers. It is also important to keep in mind that even it is similar to holding companies regarding to controlling function, but the people who operate SASACs are government employees, they are not like employees in a private firm. Also, it should be noted:

1. That the local SASACs, the ones who have direct control over the local SOEs are controlled by two different government agencies.
2. This may create inefficiency in regulation, management and monitoring.
3. However they all appear to be under the central government's control.

²³ Data obtained from National Bureau of Statistics website 2010 data

²⁴ The amount of data was vast and I could missed some due to this was a single man effort.

In short, SOEs are business entities established and actually controlled by the government; and they have a complex, possibly overlapping and confusing governance system. In voluntary disclosure context, this system create chaotic institutional environment; even these SOEs essentially answers to the central government, orders or guidance passed down from the central government will have to go through this chaotic environment and maybe seriously distorted. This could eventually lead to chaotic disclosure behaviour. As previously discussed, the disclosure regulation environment for all Chinese listed companies are not so strong, from an institutional theory perspective, Chinese companies may try to look for “guidance” on disclosure activities from other companies more than regulatory bodies and laws. And since these SOEs are some of the biggest players in the market, other companies look up to them, this could further distort voluntary disclosure activities of Chinese listed companies.

3.2.2 The leaders of SOEs answer to what or who?

The leaders of SOEs are monitored and evaluated by the SASAC and the SASAC do so on behalf of the state council; for the top SOEs (like China National Petroleum Corporation), the one decide their fate is the COD, the CCP’s human resource department. Should there be a conflict of interests between non-state shareholders and state interests, it is most likely the leaders of SOEs will chose the state. Their whole career path and financial rewards depends on how tight and well they follow the central government after all.

Individual Investors’ Education

An issue with institutions that invest in Chinese stock market is primarily the absence of fair disclosure regime, they may acquire information earlier than individual investors or they may acquire information individual investors can not get; but in terms of perception, the ones making decisions are still individuals, even though as an organization they might not share some cognition

errors or judgment errors individuals may have. Individual investors are also much vulnerable than institutional investors when facing risks and inappropriate disclosure behavior. Also, according to statistics released by the SSE, during 2007, individual investors hold 60% of the shares circulating in ShangHai Stock Exchange²⁵. Thus it is important to understand how they were educated to act in stock market because information intake affect behaviors.

Ever since the establishment of the two stock exchanges, individual investor education had been an important task for the government; by 2001, CSRC started to officially oversee this sector. However, the CSRC lacked the funding to operate these education facilities nationwide, thus some of the effort was take up by security trading institutions. So now there are two main types of individual investor education facilities in terms of who is the host: the CSRC host lessons at trading offices across the nation and investors schools founded and ran by security trading institutions/companies. After review the courses and course materials from both types²⁶, the author found two issues: order and time.

It is in this author's opinion that for one to trade on stock market, one should first gain basic economic knowledge, learn market condition, learn risks, establish one's own investment concept and know him/herself by legal measure. Then one learns how to analyze fluctuations, predict movement and make trading decisions. However, the education offered to investors came in just the reverse order, risk and investment concept came in last. And it is not just what is

²⁵ According to <Analyze of Chinese Stock Market Investors' Surveys>, a study conducted by China Securities Association published in 2007: retired, unemployed and self-employed people takes up 35% of the survey population; percentage of individual investors with high school (please note, Chinese high school is the equivalent to Year 11~13 period in New Zealand high school) qualifications or lower is 43%; 70% of the surveyed individual investors earn less 5000 RMB a month, that is around 800 NZD, 5000 RMB at 2008 would not qualify as high income. These are dangerous signs: a lot of individual investors are perhaps not educated enough to interpret information disclosed by companies with sufficiency or reasons; a lot of them do not earn much from income generating activities other than stock trading, this makes them rely on it and because they possibly rely on stock trading for basic income to sustain their life, they could be very skeptical or have a gambling mindset. The skeptical and/or gambling mindset individual investors have is evident in two cases, the Hangxiao Steel Frame case and the Changjiu Bio-Chemical Case. The detail of these two cases can be found in Appendix [3].

²⁶ Course materials are selected from what the schools put on the internet, the author also watched 10 educational videos and class recordings.

taught first seems reverse, what gets taught more also seems unbalanced. How to read price fluctuations on site and gain profit in short term weighs more than everything else.

Chapter Summary

As reviewed in this chapter, Chinese stock market disclosure regulation system has improved since its establishment, but it still has many flaws. These include: over complex, inefficient and un-independent regulatory system; insufficient investor protection mechanisms; insufficient punishment mechanisms; unclear wording and legal logic in regulatory documents; absence of “safe harbor” protection mechanisms; absence of “fair disclosure” clause. This chaotic environment could lead to irregular voluntary disclosure patterns and serious discourage voluntary disclosure.

The SOEs have great influence over voluntary disclosure activities of Chinese listed companies as well as they have influence over the stock market itself. However, SOEs’ voluntary disclosure choices are affected by a confusing governance system and the leaders answers to the central government directly. The only certain thing these SOEs and SOEs’ leaders can follow are instructions flow down from the central government. However, as far as it is known, the Chinese central government rarely did issue and is not responsible for issuing clear guidance for voluntary disclosure. To summarize, these SOEs make their disclosure decisions based on their own understasndings of the central government’s “spirit”. Therefore, the voluntary disclosure pattern of these SOEs could be chaotic; and because other companies are quite likely to mimetic them, Chinese listed companies’ voluntary disclosure activities could be chaotic.

As for agency theory, an important question is: who is the real principal? After reviewing the governance structure of SOEs, it is inevitable to conclude that

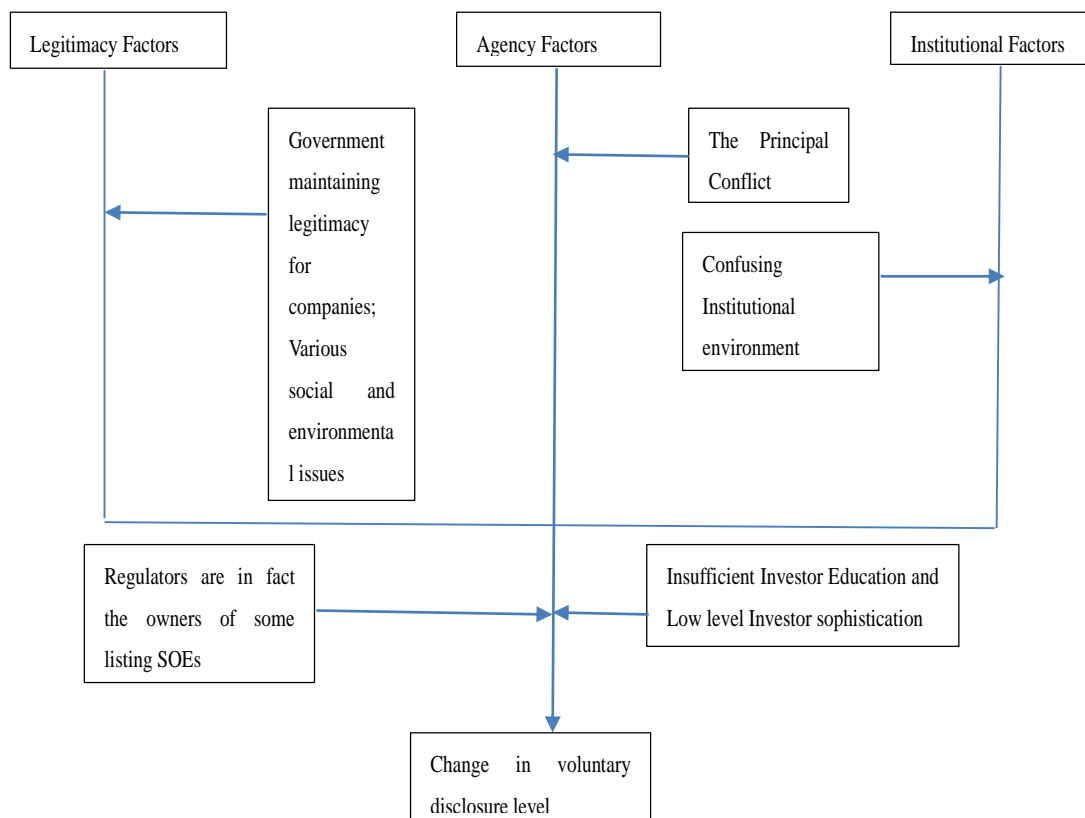
these SOE leaders respond to the government rather than the classical shareholder concept in the agency theory. This creates two problems. First, SOE leaders will try to meet government expectations; however, due to the complicated political structure, such expectations may not be funneled to the SOE leaders accurately enough, nor the author suspect there will be unity in understanding those expectations. This could affect SOE leaders' choices of voluntary disclosure.

Companies disclose information to maintain legitimacy, but do SOEs need to do this? They are controlled by the government and as the government is determined to maintain control over certain industry sectors, they will certainly not allow these SOEs to fall nor will the government allow SOEs to be perceived as "not legit". If it is the government that will do this for the SOEs, what is the incentive for the SOE to disclose information relate to legitimacy? There could be none.

Chapter Four: Development of Analytical Framework

This chapter seeks to develop an analytical framework for this study. This analytical framework draws from the three theories (agency/legitimacy/institutional) reviewed in chapter two and the findings in chapter three. The framework provides assistance towards understanding of Chinese listed companies' voluntary disclosure behavior; it also provides structure for analysis of changes in voluntary disclosure level of top 50 Chinese companies listed on Shanghai Stock Exchange. The framework is depicted as follow:

Figure 5 Analytical Framework



Source: Drawn by the author

4.1 Legitimacy Theory Factors

4.1.1 Social Responsibilities and Sustainable Development

China's economy has been booming, however in some aspects²⁷ it have not been doing for the best of its people. The Gini coefficient (GINI), a statistical measure tends to capture the income distribution gap among a nation's residents had not been looking good for China for past few years. According to the World Bank data, China's GINI of 2005 was 0.425, 2008 this figure became 0.426, it dropped to 0.421 in 2009²⁸. According to China's official government data released in 2013 after 13 years of silence on this matter, this figure had been: 0.491 for year 2008, 0.49 for year 2009, 0.481 for year 2010, 0.477 for year 2011 and 0.474 for year 2012. Despite these two sets of data are different in numbers, they are all above the 0.4 threshold. There had been media reports of increasing income or wealth gap in China²⁹. This degree of social inequality is causing a lot of social anger against the wealthy people in general population; one of the top reasons causing this inequality as the mass population believe is corruption, a few people accumulate wealth just for their own interest. The top 50 companies that have a lot of the wealth accumulated may want to demonstrate to the society that they are giving something back by voluntarily disclosing they help to improve communities' well-being. This could specially be important to these top Chinese companies as a lot of them are SOEs, enterprises owned by government; their contribution to society besides fulfilling basic economic target can serve as a mean to improve government image and ease the social anger.

²⁷ Not limit to these aspects

²⁸ From World Bank website: <http://data.worldbank.org/indicator/SI.POV.GINI>, data beyond 2009 was not available.

²⁹ For a list of these exposures: <http://www.china.com.cn/chinese/zhuanti/249739.htm>;

<http://money.hexun.com/2009-06-26/119035123.html>;

<http://news.sina.com.cn/c/2010-09-14/013121094611.shtml>;

http://www.ce.cn/macro/more/201212/10/t20121210_23922300.shtml. These are some of the credible news or analysts websites.

Another consequence of rapid economic development besides wealth gap is pollution. From a policy perspective, the State Council issued series of notices about pollution control, the latest one was issued in September 2013³⁰, and these environmental protocols are to be carried out across the nation, even the financial service industry had been either given the order or strongly suggested to give low pollution enterprises priority regard to funding. From a people's perspective, media exposure of environmental issues has been rising. And ironically enough just one month after the State Council's air pollution notice, the Harbin Smog incident happened, raised public concern about environment issues even more³¹. There had also been rising concerns about product safety in China, from the milk powder scandals to medicines that kill, from exploding watermelons caused by chemical usage³² to the use of "Gutter Oil"³³, China's industries had been experiencing product safety and quality crisis (Liu, 2009). The service industries did not have these safety or quality issues, but the State Council still issued official documents with the purpose of promoting service equality (State Council-Guiding Opinions about accelerating the development of service industry, 2007³⁴).

4.2 Institutional Theory Factors

This section draws upon the review of institutional theory literature in chapter two and the background information about Chinese stock market regulation reviewed in chapter three. Institutional theory considers how organizations are affected by forces beyond their control; the institutional environment plays a key role in shaping organizational behavior. Since CSRC had been constantly and strongly suggest companies to disclose information and to assume the CSRC has over-riding power over the Chinese stock market, this regulatory agent would

³⁰ http://www.gov.cn/zwggk/2013-09/12/content_2486773.htm

³¹ <http://english.peopledaily.com.cn/90882/8433264.html>, people's daily is the official government newspaper, considered by Chinese as the voice of the government

³² <http://news.sohu.com/20110513/n307419550.shtml>

³³ http://www.bjreview.com.cn/nation/txt/2011-11/14/content_405509.htm;

³⁴ http://www.gov.cn/zwggk/2007-03/27/content_562870.htm

have created coercive pressure in forms of corporate governance regime and regulation enforcement. As for resource dependency, it would appear this dependency is reflected in three main aspects: Temporary Halt of Listing, De-Listing decisions, and IPO processing (CSRC 2009; CSRC 2013). Therefore, it is safe to consider the Chinese listed companies will respond to these institutional pressures in order to remain operational and active in the stock market.

4.3 Agency Theory Factors

This section drew from the review of agency theory literature in chapter two and the background information about SOE governing reviewed in chapter three. In the classical agency theory, the agency relationship is between the principals---shareholders and the managers. However as reviewed in chapter three, in a Chinese SOE context, the principals are not the shareholders in a classical sense; the principals or to be more accurate, the dominating principals are effectively the state. And by tracing that power chain, the dominating principals are effectively the central government. As reviewed, the managers (or leaders to be more precise) also have a contract with the government, this contract is very strict, and it is related to their benefit and entire career; these contracts certainly provide incentives to these leaders and make them share the outcome of their actions. However, the monitoring costs here are very tricky, the SOE managers do not have to bear the monitoring costs as direct as private firms' managers do, as it is standard procedure for them to be regularly monitored and it is the government that dispatches monitoring personnel; eventually these monitoring costs link back to the managers, because economic value SOEs generate goes to the state and the state pay them their wages with these values they generated and possibly with other tax payers' money. The author hypothesize this relationship with the government may put an extra layer of pressure on SOE managers and could make them to act more actively to

regulations and suggestions or initiatives government/regulatory agencies propose.

4.4 Chapter Summary

This chapter developed an analytical framework used to analyze disclosure level of some top listed Chinese companies. The three theories reviewed in chapter two, namely the agency theory, the institutional theory and the legitimacy theory form the main body of this analytical framework. Several issues that need to be considered when analyzing disclosure behavior of Chinese listed companies are added to this framework so the three classic accounting theories can be effectively used to analyze Chinese listed companies. These issues include legitimacy theory factors, institutional theory factors and agency theory factors. For legitimacy theory, escalating social and environment issues could pressure Chinese listed companies to voluntarily disclose more information about social responsibilities and environmental efforts. For institutional theory, increasing pressure from the CSRC could lead to more voluntary disclosure in certain sectors such as corporate governance, core competency and social responsibilities; however the confusing institutional environment could decrease the effectiveness of these institutional pressures and may cause an irregular pattern in disclosure level. For agency theory, it is mainly the principal conflict because for some listed Chinese companies the principal is effectively the state; this could put an extra layer of pressure on SOE managers and could make them to act more actively to regulations and suggestions or initiatives government/regulatory agencies propose; however, because the state owns these SOEs and at the same time they control the monitoring/regulatory agent-the CSRC, this could create a serious conflict of interests due to self-monitoring.

Chapter Five: Method

This work is essentially of empirical nature; this study examines the content of the voluntary disclosure of annual reports and as such follows the scientific methodology. This study investigates voluntary disclosure of the top 50 listed companies by market capitalization that list on ShangHai Stock Exchange A-Share sector during 2006-2008 period. Disclosure levels are tested longitudinally (across the 5 year period) and horizontally (across different industry types), this study also compares the disclosure levels of SOEs and private companies across testing period as well.

5.1 Testing Period and Sample Selection

5.1.1 Selecting the 2006-2012 Reporting period

A five year period was selected due to the following reasons. First, the CSRC revised Standards 2 in 2007 with some non-minor changes, thus some of the findings of previous studies could use an update. Second, the 11th five year plan ended in 2010, this provide a good chance to observe the impact of the government economic policy changes on voluntary disclosure under China's unique situation, even these changes may be a bit blurry to be put into a detail hypothesis. Third, product safety, wealth gap, environmental issues, all these social concerns had been increasing in this period, choosing this period would provide a good opportunity to see if these top companies are responding to public concerns.

5.1.2 Selecting the Top 50 companies by market capitalization listed on ShangHai Stock Exchange A-share sector

The primary reason for selecting a single stock exchange is because the two stock exchanges ShangHai and Shenzhen, issue separate documents about

disclosure, despite that these are merely of guiding nature. In order to increase comparability between companies' disclosure levels, a single stock exchange was selected. There are primarily two reasons for selecting SSE. First, the total market capitalization of the SSE have been greater than that of SZE³⁵. Second, besides SSE has more large/mega cap share listed there, nine out of ten of the top ten weighted stock of Chinese stock market are also listed there³⁶.

As for selecting the A-share sector, it is because these are the shares traded by domestic Chinese, local Chinese investors can not trade B Shares; the A-shares is where the majority of Chinese investors concentrate. The reason for using market capitalization as selection criterion is simple. Because it is the share price times the number of shares outstanding, it may be used as a measuring proxy for how the public view a company's worth, it reflects the equity value of a company. The top 50 was selected mainly due to fact in 2012, these 50 combined market capitalization takes up 60.51% of all listed companies total market capitalization, and they are a very significant market influencing sector.

In some previous studies, banks and security trading companies were excluded from sample because it was considered:

“Firms must belong to an industry classification other than banking and financial institutions, which are subject to a different accounting system and disclosure requirements in China” (Wen et al, 2012, pg 35)

These two categories were usually not included in the sample (Wen et al, 2012; Qiao, 2003; Wang and Jiang, 2004; Fan, 2006; Yu and Zhang, 2007). This study does not exclude these companies from the sample due to two reasons. First, after examining the “different disclosure requirements” for the above two categories, the author found such extra information required does not affect

³⁵ all data retrived from official SSE and SZE websites

³⁶ According to official SSE and SZE website data

comparability³⁷. Second, banks and security trading companies are important forces in Chinese stock market.

However, it is worthy to notice disclosure regulations do require banks and security trading companies to disclose that they have accounting firms evaluating their internal risk control mechanisms. This could lead to extra voluntary disclosure of risk management information, the author will test this in this study.

5.1.3 Choosing Annual Reports as source

There are several reasons for choosing annual reports. First, despite the rapid growth of the internet as disclosure media, information that are disclosed on the internet is not audited and can be manipulated much easier compare to information disclosed in annual reports. Second, as Li and LI (2012) revealed, the most important quality of information to Chinese investors is “if this information comes from authority”. Third, even though many Chines investors go to websites for information, the website they visit the most are official websites including the statistics bureau, the stock exchange and the CSRC (Li and Li, 2012); and the majority of information disclosed there are in the annual report as well because such disclosure on those websites are required by law. Fourth, annual reports summarize what half year reports, quarter reports disclose.

5.2 The Content of Voluntary Disclosure

As previously reviewed in chapter two, a major limitation in voluntary disclosure studies is how to decide the content of voluntary disclosure. This study chooses to use self-constructed measure for three primary reasons. First, there is no official government or professional association built database that

³⁷ Please go to Appendix [4] for details

would provide a set of voluntary disclosure items like the AIMR. Second, the author found recent Chinese studies on voluntary disclosure mostly did not have a set of clear boundaries on the content of voluntary disclosure; they simply adopted or referred to previous international studies or how they differentiate voluntary disclosure from mandatory disclosure is not sufficient due to changes in legal requirements (Qiao, 2003; Wang and Jiang, 2004; Li et al, 2004; Wang and Yuan, 2006; Fan, 2006; Liang, 2010; Wang and Zhang, 2013). Three, China's stock market is unique comparing to some western stock markets; government control is still tight, many investors are not so sophisticated, legal reinforcements are relatively weak and regulations are not strong either. These three reasons compelled the author to self-construct a voluntary disclosure index (VDI).

However, VDI constructed by previous scholars were still consulted as they offer valuable insights; just certain checks need to be passed. First, as discussed in introduction, voluntary disclosure is disclosure activity that not required by the law; thus, relevant laws and regulations must be examined first to rule out mandatory disclosure; the author considered this to be the **premise check**. Second, unlike mandatory disclosure where companies answer to the demand of authorities, investors' needs must be considered when formatting a voluntary disclosure index. Voluntary disclosed information should be relative to information users' economic decision making, it is not the more the better; if there is too much information, and investors' decision making process could be distorted. Also, the information must be relative to the stock market's objective conditions that may affect the market, such as government intervention, investors' ability to interpret information and social concerns. The author considers this is the **relativity check**. The information disclosed in annual reports must first pass the premise check, then the relativity check will further determine what will be examined.

5.2.1 Premise Check-Excluding Mandatory Disclosure Items

All latest unconditionally³⁸ enforceable disclosure regulations are checked, any information falls under these regulations are not considered voluntary. The information required by the <Security Law>, <Company Law>, <Accounting Law> and the <Auditing Law>³⁹ are ruled out first due to the mandatory nature⁴⁰

As previously discussed in chapter three; the wording in Standards 2 is confusing which makes it hard to determine what is really “mandatory”. The following information deemed as “Ying-Dang” to be disclosed by Standards 2 is categorized as mandatory. First, disclosure items have association with unconditionally enforceable legislation⁴¹.

Such associate with unconditionally enforceable legislations with detail conditions eliminate the suggestive nature of the word [Ying-Dang], making such Articles in Standards 2 no longer indicate a weak responsibility, acting not

³⁸ As reviewed, the CSRC disclosure regulation documents use “conditional enforcement “ from a Chinese legal perspective

³⁹ For a list of what articles govern annual report disclosure in these Laws, please go to Appendix [5]

⁴⁰ <Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (Revised in 2012)> (Standards 2) issued by the CSRC stated:

*“Article 1 With a view to standardizing the annual report preparation and information disclosure of the listed companies and protecting the legal interests of the investors, these Standards shall be formulated in accordance with the **Company Law** of the People’s Republic of China, the **Securities Law** of the People’s Republic of China and other laws and regulations as well as the relevant regulations of the China Securities Regulatory Commission (hereinafter referred to as the “CSRC”).”*

*“Article 2 The joint stock limited company/companies (hereinafter referred to as the “Company/Companies”) that issue shares to the public and are listed on the main board (including small and middle enterprise board) of the stock exchanges within the territory of the People’s Republic of China in accordance with the **Company Law** of the People’s Republic of China and the **Securities Law** of the People’s Republic of China shall prepare and disclose their annual reports pursuant to the provisions of these Standards.”*

⁴¹ For example, Article 37 of Standards 2 state:

“Company [Ying-Dang] disclose any other important events happened during the reporting period in accordance with Article 67 of the Securities Law and Article 30 of the Listed Company Information Disclosure Regulation...”

“.....the following conditions are considered as important events:...(a list of events) (Article 67 of the Securities Law)

in accordance with such Article will have unconditional legal consequences thus is mandatory to the reporters. Also, Articles that have specific quantitative requirements are mandatory. A specific quantitative requirement would make the Article not subject to interpretation, makes it more of an instruction rather than of guiding nature⁴².

The author tested this setting by reviewing the 250 annual reports across the five year period and found that disclosure items in Standards 2 that had specific quantitative requirements had been disclosed accordingly. Also, companies failed to comply with these articles had been asked to amend their annual reports. For example, a company which failed to disclose the [Ying-Dang] content in Article 21(4) for their 2012 report has been asked by the ShangHai Stock Exchange to amend their annual reports⁴³ and it did. This supports the researcher's method for deciding what is mandatory. The researcher also tried⁴⁴ to review these amendment notices issued by the SSE, by reviewing these notices and comparing them to Standards 2 and actual annual report disclosure, the author identified what has been considered by the CSRC and SSE as "rather suggestive" and what has been considered rather as instructions need to be followed unconditionally. By doing so, the author further identify what is mandatory disclosure in annual reports of listed Chinese companies according to the CSRC standards.

5.2.2 Relativity Check-Investors' Needs

Jiang and He (2008) and Li and Li (2012) both used content analysis method and analyzed questions asked by investors about the stock market and listed

⁴² For example, Article 21(4) on research and development cost:

"Company shall [Ying-Dang] disclose and elaborate the purpose, progress and target of R&D projects within the reporting period and predict its impact on future company development. The Company shall [Ying-Dang] disclose the R&D/Net Asset and R&D/operational revenue ratios, if such ratios fluctuate more than 30%, the Company shall [Ying-Dang] disclose reasons for such fluctuation."

⁴³ The original document can be retrieved from

<http://www.cninfo.com.cn/finalpage/2013-05-31/62539273.PDF>

⁴⁴ The SSE website only offers a limited amount of archived historic notices, thus I could only try to review as many as possible for the 5 year period.

companies⁴⁵ in year 2008 and 2012 respectively. Both studies provide insights⁴⁶ regarding to investors' information needs. The author used the findings of these two studies to answer the question "what do the investors want to know?" As for government intervention information, investor interpretation capabilities and social concerns, they will be briefly discussed along with the final 31 disclosure items in the VDI in the following section.

5.3 Construction of Voluntary Disclosure Checklist

Disclosure index can be considered as:

"A qualitative-based instrument designed to measure a series of items which, when scores for the items are aggregated, gives a surrogate score indicative of the level of disclosure in the specific context for which the index was devised" (Coy, 1995)⁴⁷

Many previous studies used disclosure index to study various sectors of voluntary disclosure in annual reports (Yi and Davey, 2010; Singleton and Globerman, 2002; Chau and Gray; Wang and Jiang, 2004; Liang, 2011; Lan, Wang and Zhang, 2013). First, a preliminary list of 57 voluntary disclosure items were identified based on prior Chinese literature (Zhang et al, 2005; Wang and Jiang, 2004; Liang, 2011; Lan, Wang and Zhang, 2013) and Non-Chinese literature (Botosan, 1997; Chau and Gray, 2002). Second, these items pass the two checks discussed in **section 5.2**. An example is depicted as follow⁴⁸:

⁴⁵ These questions were asked on two major investor communication websites, they are: <http://www.cninfo.com.cn/etc/callcenter.html> and <http://zhidao.hexun.com>

⁴⁶ Both studies have reasonable sample size and selection, they did not select or random select questions, they simply analyzed all questions asked until their data gathering data which were 2008 and 2011 respectively. The two websites where they gathered data are well respected in China and the author considers their research methods (particularly coding) reasonable

⁴⁷ Reproduced from Yi and Davey, 2010

⁴⁸ The full screen process can be found in Appendix [6]

Table 4 : Example of the screening process of disclosure items reviewed in previous studies

General/Overall Corporate Information	Removal	Re-Categorization
Corporate History	Y-As required by The Company Law	
Corporate Structure	Y-AS required by The Company Law	
Statement of financial strategy and objectives		Re-categorized into VD1-Financial Information, under item [Advantage and Difficulties]
Statement of marketing strategy and objectives		Re-categorized into VD4-Management and Strategy under item [Branding]
Statement of social strategy and objectives		Re-categorized into VD6-Society and Environment, under item [Corporate culture]
Strategic plan and barriers may encounter		Re-Categorized into VD 4-Management and Strategy, under any item

Source: created by author

Further modifications after initial screening process are discussed in section 5.3.1 to 5.3.6. The final 31 disclosure items are divided into six categories, they are: forward looking financial information; human resource; corporate governance; management strategy; research and development; society and environment. The list is depicted as follow:

Figure 6 Voluntary Disclosure check list

VD1-Financial Information					VD4-Management And Strategy							
Revenue	Cost/Capital Expenditure	Profit	Cash Flow	Turn Over	Impact of Macro Economic s or policy Risk on financials	Impact of Market Risk on financials	Advantage and Difficulties	Competitor Analysis	Client's Time	Strategic Frame	Continuity and Stability	Impact of Strategy Current Performance
Forecast	Forecast	Forecast	Forecast	Forecast	ls	ls	Branding		Analysis	Analysis		
VD2-HR					VD5-Product and Service Development							
Training and/Progression	Welfare and Insurance	Recruitment and Layoff	Employment Fairness				Development Initiatives	Results	Advantage			
VD3-Corporate Governance					VD-6Society and Environment							
Auditing Committee	Risk Management/Committee/Monitoring	Independent Director	Disclosure Policy	Investor Relation			Quality and Safety	Environmental	Corporate Culture	Community Relation	Common Good Donation	

Source: Drawn by author

5.3.1 VD1-Forward Looking Financial Information

Information in this category has the following characteristics: they all discuss

company's future financial performance; they describe expectation for the future; they can be very subjective; some of them have reasonable basis of estimation. After the initial screening process discussed previously, current Chinese individual investors' interpretation capabilities was taken into account and ratio forecasts were excluded from the list because they could be misleading to untrained minds; for example, service-centered industries (software development) ROE could hold different meaning comparing to capital intensive industry. Two items were added and one item was modified. The two items added are: impact of macroeconomics/policy on company future financial performance; impact of market risk on future financial performance. These two were both frequently asked by investors and the government along with part of the market it controls does influence financial performances as discussed previously. The item modified was cost forecast; it was modified into cost/capital investment forecast to cover wider company future spending and capital investment is something also frequently asked by Chinese investors.

5.3.2 VD2-Human Resource

The initial list for human resource contained only two items after eliminating mandatory items: Training and employee welfare. Then after considering government intervention and social concerns, two items were added and one item was modified. The item added due to social concerns is employment fairness a detailed discussed in chapter four. The item added due to government intervention is recruitment and layoff information. Chinese government intervention in recruitment/layoff had been like V shape, initially after the founding of PRC all jobs are assigned, there are retirements but no redundancy; after the reform and the market started to open up, government intervention in employment sector faded a bit; but in recent years, the government is starting to step in to control unemployment rate. Thus, recruitment/layoff information is important to investors in a sense that it indicates how much government intervention there is in a certain company. Training was modified into

training/career progression due to investors have started to care about career progression not just technical training, they are starting to realize the companies now compete for good human resource and how companies attract employees with career progression is important.

5.3.3 VD3-Corporate Governance

For corporate governance category, the initial list after screening out mandatory items contains three items: audit committee; nominating committee; strategic committee. After taken into considering of investor's need, two items were removed and two items were added. The two items removed are nominating committee and strategic committee, it would appear the investors do not demand information regarding to these two committees. The two items added are disclosure policy and investor relation. After considering government intervention, independent director item was added. It is worth to mention independent director was first screened out due to legal requirement as article 49 of the Code of Corporate Governance of Publicly Listed Company states "Companies should establish independent director system according to relevant regulations" and article 123 of the <Company Law>; however after examining government intervention evidence, this item was added back; the reason is discussed in the following paragraph.

As previously discussed⁴⁹, articles in Standards 2 associate with unconditionally enforceable legislation that have a set detail conditions that must be satisfied are considered mandatory. However, article 123 of the Company Law has no details at all, it simply state companies must have independent directors and all details are for the state council to decide. Thus, as agency answer directly to the state council, CSRC holds the power; but the words are ambiguous in relevant CSRC articles in the 2007 version, the word "Ying (just a shorter way of saying Ying-Dang)" was used. And the information suggested does not include the

⁴⁹ Referring to section 5.2.1

qualifications/work experience/expertise of independent directors, which is the information this thesis look for regard to voluntary disclosure. In the 2011 trial version and the 2012 version, regard to what information companies should disclose about their independent directors, the phrase “but not limit to” was added, further emphasized its voluntary nature. Thus, independent director was added back. Risk management committee (or anything with similar nature and function just a different name) was added simple due to the fact some sort of risk management mechanisms are suggested multiple time in corporate governance code issued to listed companies.

5.3.4 VD4-Management Strategy

Before the economic reform in 1978, companies basically function through orders that come down from central government. Companies did not have to care about how to brand themselves, because goods they produced or service they provide were rather “distributed” than “sold”. Companies did not need to consider any matter relating to competitors and clients; they did not have to consider the management of their advantages and difficulties, because eventually it is the state that will deal with them. Now days, the story is different; companies must decide on their own how to run their business. Therefore, it is important that investors know how business function and/or improve; this is the information this disclosure segment intend to capture. The initial list contained three items: Advantage of current management/Difficulties management will soon face; competitor analysis; client analysis. After considering government intervention, strategic time frame was added; this item measures information disclosed about timeframe needed to complete a current strategy. After considering social concerns, branding was added due to man product quality safety crisis China had been having. After considering investors’ need, continuity and impact of strategy on current performances are added; the first one focus on information about company’s ability to continue its current course of business.

5.3.5 *VD5-R&D*

The speed with which information spread and intangible factors within organizations have changed (Yi and Davey, 2010). Technology is more easily accessible (Wong and Gardner, 2005); and thanks to the improvement of information sharing technology, development of new technology becomes faster due to that knowledge is more easily and faster shared. Thus, it is important for companies to have a focus on research and development of new technology. During the initial stages of China's economic reform, the Chinese economy was still labor intensive. No country can remain as the world's low cost factory forever, because as the economy develops, shifts take place to higher value areas; for example, marketing, product design and the manufacturing of more sophisticated products. According to Farrell and Grant (2005), China's manufacturing sector cut down 15 million jobs from 1995 to 2002 alone. This makes the advantage from research and development ever more important for Chinese companies. Also, as reviewed in chap two, core competency is of great importance go companies and important to voluntary disclosure activities, research and development is part of core competency enhancing effort. This disclosure segment capture research and development information voluntarily disclosed by companies in their annual report. The initial list contained three items: R&D initiatives; R&D results; Advantages brought by R&D. The author decides to keep the three items after considering government intervention, social concerns and investors' need.

5.3.6 *VD6-Society and Environment*

As reviewed in chapter two, corporations must establish, maintain or repair their legitimacy in order to continue to operate within society; and as discussed in chapter four, Chinese corporations has been facing many issues that could threat their legitimacy. These issues include safety and quality of their products/services, environmental damages, generation of wealth gap. Thus it is

reasonable to consider corporations have the need to voluntarily disclose information as response to these rising concerns; this disclosure segment intend to capture disclosure activities regard to such information. All six items in this category are based on social concerns, they are: Product/service quality and safety; Environmental protection; corporate culture influence; community relation and donations.

5.4 VDI calculation

The detail how each item receive a score of either 0, 1, 2, or 3 is provided in Appendix [7]. Each of the 31 disclosure items receive either 0, 1, 2, or 3. An example of this scoring standard is shown below:

Table 5 Example of scoring standard

Item-6 Impact of Macro Economics/Policy Risk on Company Performance:

1.	Simply mention macro economic risk or policy risk could impact company performance. Example: “2011 will be the start of the new five year project, this will likely lead to more sales...(no support to back up this claim”---<China SANY group 2010 annual report>
2.	Such claim above made above is supported by reasons. Example: “In the new five year plan, the national government plans to build ...miles of new rail roads, thus the company expect an increase in the company’s transport capabilities...”---<China Rail 2010 annual report>
3.	Such claim is supported by reasons and described in quantitative terms. Note 1—Qualifying Conditions: To qualify a score 3, there has to be a reasonable strong logic connection between the quantitative descriptions and qualitative descriptions. Example Qualify: The State Assets Administration Committee decided to increase the Molybdenum extraction cap in 2011, thus the company expect to see the company

	<p>molybdenum production level of 2011 increase by roughly 10 percent ---<Jinzhui City Molybdenum Co 2010 Annual Report></p> <p>Note 2 Avoid Double Counting with scores of Item1-5: Should Macro Economics risk or policy risks impact on items (1)-(5), and when the influencing factors and the company performance figure influenced both are described in quantitative terms and logically linked together, a 3 point is given to this item but not items 1-5.</p>
--	---

The calculation formula is:

$$VD_n = \text{SCORE}_n / (3 \times K_n)$$

VD_n represents the voluntary disclosure index; n equals to 0~6, represents overall voluntary disclosure index, forward looking financial information, human resource, corporate governance, management strategy, R&D, and society & environment respectively. SCORE_n represents raw score of voluntary disclosure, which equals to disclosure items' individual scores added, the extent of n here is same as in VD_n. K_n represents the number of disclosure items, the extent of n is same as in VD_n.

This study uses non-weighted methods; no different weights were assigned to different items (Gray et al, 1995). This should help to reduce the subjectivity result from giving different weights manually.

5.5 Chapter Summary

This chapter established the research method for this study. The testing period is selected as period 2008~2012 mainly due to that CSRC regulation updates, government policy changes and rising social/environmental issues provide a good chance to observe more recent voluntary disclosure efforts of listed Chinese companies. A single stock exchange was selected mainly because of

that two Chinese stock exchanges do issue separate disclosure guiding documents; Shanghai Stock Exchange was selected over the ShenZhen Stock Exchange mainly due to SSE is more significant in terms of market capitalization and number of weighted stock listed. The A share sector is selected because these are the shares traded by domestic Chinese, local Chinese investors can not trade B Shares; the A-shares is where the majority of Chinese investors concentrate. Annual reports are selected as source mainly due to the credibility they have, the authority they resemble and the investors' faith in them.

For the content of voluntary disclosure and the construction of a Voluntary Disclosure Checklist, an initial list was first developed after review of previous studies and content analysis of Chinese listed companies' annual report. Then the premise check and relativity check were carried out to ensure that information of following nature was screened out: mandatory, low/non demanding information and information which could be relatively sophisticated/confusing for Chinese individual investors; and to ensure information of following nature was considered: highly demanded information and information which is very important to the Chinese society.

A non-weighted method was established. The scoring procedure attempted to measure disclosure effort more accurately comparing to simply giving 1 for disclosure and 0 for non-disclosure. This procedure also attempted to be more accurate than giving an extra point simply for adding data to qualitative support; there must be reason and logic in qualitative claims and quantitative support for such claims must link closely to the claims and have credible/official source.

Chapter Six: Results

This chapter presents the empirical results and is organized as follows. First, the company categorization and ownership proportion of the testing period. Second, VDI results⁵⁰ of the six disclosure category plus VD0 results for all companies are presented; also, the separate sets of VDI results covering six categories and VD0 are also presented base on ownership structure and on industry categorization.

6.1 Company Categorization

6.1.1 Industry Proportion

The CSRC group all listed companies into 19 categories⁵¹. According to this classification⁵², the sample companies during 2008-2012 testing period can be categorized as follow:

Table 6 Industry Spread of Selected Sample

2008		2009		2010		2011		2012	
Industry Code	% as of Companies	Industry Code	% as of Companies	Industry Code	% as of Companies	Industry Code	% as of Companies	Industry Code	% as of Companies
B(Mining)	18%	B	18%	B	20%	B	16%	B	16%
C(Manufacturing)	24%	C	20%	C	22%	C	20%	C	20%
D- Electric Power, Heat, Gas and Water Production and Supply	8%	D	6%	D	2%	D	8%	D	4%
E- Construction	4%	E	8%	E	8%	E	4%	E	8%
G- Transport, Storage and Postal Service	8%	G	8%	G	10%	G	6%	G	6%
I- Information Transmission, Software and	2%	I	2%	I	2%	I	2%	I	2%

⁵⁰ Including Maximum, Minimum, Average and Standard Deviation

⁵¹ The list is in Appendix [8]

⁵² The CSRC official list can be retrieved from its website: http://www.csrc.gov.cn/pub/csdc_en/

Information Technology									
J- Financial Services	32%	J	36%	J	36%	J	42%	J	40%
K- Real Estate	2%	K	2%			K	2%	K	2%
N- Water Conservancy, Environment and Public Facility Management	2%							S-Diversified/General	2%

Source: Created by author based on CSRC classification ruling

During the five year period, category B-Mining, category C-Manufacturing and category J-Financial Services are the three leading industry clusters; the one category I company stayed on list for five years is China Telecom, the state own telecommunication giant; the one category K-Real Estate company stayed on list for 4 years except year 2010 is BaoLi Real Estate, company belongs to the BaoLi group. Besides one category N company in 2008, no real estate company made into the list in 2010 and one category S company made into the list in 2012, industry types in the sample remained the same. The composition percentage varied, but financial service industry maintained the heaviest proportion, manufacturing industry comes in second and mining has been third place.

6.1.2 Ownership Proportion

Using previously discussed method, the ownership of the companies was also investigated, the results are presented below:

Table 7 Ownership Structure Spread of Selected Sample

2008	No.	2009	No.	2010	No.	2011	No.	2012	No.
SOE	41	SOE	40	SOE	42	SOE	40	SOE	39
Private	9	Private	10	Private	8	Private	10	Private	11

Source: Created by author based on previously established definition of SOE

And the industry proportion among private controlled listed companies is as follow:

Table 8 Industry type spread among private controlled listed companies

2008	No.	2009	No.	2010	No.	2011	No.	2012	No.
C-Manufacture	1	C	1	C	1	C	1	C	1

ing									
J-Financial Services	8	J	9	J	7	J	9	J	9
								S-Diversified/General	1

Source: Created by author based on official SSE data

Government control remained dominant among the top 50 listed companies at ShangHai Stock Exchange A-Share sector. For private controlled company, only two types of industries managed to squeeze into the top 50 during 2008-2011 period, and among these private controlled companies, financial service companies maintained dominant position. The private manufacturing company in 2008 sample was TBEA Co Ltd, a company specialize in electricity transmission related equipment; after that it had always been SANY-company specialize in heavy industry equipment. A category S company made into the list in 2012, its mainstream business covers energy and mining.

6.2 VDI Results

This section presents the empirical voluntary disclosure results, it is divided into seven subparts covering the six disclosure categories and the overall result. Each subpart presents the maximum, minimum, average disclosure score of the selected companies during the five year period; the disclosure score categorized by ownership structure; and by industry type; trend analysis of average disclosure score, as well as by ownership structure and industry type.

6.2.1 VDO and Overall Comparison of Sector Average

Table 9 VDO during 2008-2012

	Max	Min	Avg	SD
2008	0.763441	0.354839	0.559355	0.095448
2009	0.795699	0.258065	0.516129	0.115443

2010	0.741935	0.193548	0.419785	0.10944
2011	0.655914	0.150538	0.417419	0.116596
2012	0.645161	0.258065	0.425806	0.09615

All maximum VDO are above 60%, highest value of 0.795 indicate there are companies disclosed nearly 80% of all information covered by the disclosure index this study constructed. The best performers' performances are good but the lowest minimum score of 0.15 indicates some companies only disclosed 15% of all information which is a poor result.

Table 10 VDO during 2008-2012 categorized by ownership structure

2008		Private	
SOE		max	0.645161
max	0.763441	min	0.354839
min	0.365591	avg	0.545998
avg	0.562287	sdv	0.088306
sdv	0.097733		
2009		Private	
max	0.795699	max	0.591398
min	0.258065	min	0.27957
avg	0.527419	avg	0.470968
sdv	0.117082	sdv	0.101605
2010		Private	
max	0.741935	max	0.688172
min	0.193548	min	0.354839
avg	0.404762	avg	0.498656
sdv	0.102363	sdv	0.118341
2011		Private	
max	0.655914	max	0.580645
min	0.150538	min	0.258065
avg	0.410215	avg	0.446237
sdv	0.118105	sdv	0.111429
2012		Private	
max	0.645161	max	0.516129
min	0.258065	min	0.311828
avg	0.42349	avg	0.434018
sdv	0.100858	sdv	0.080935

The highest VDO all belonged to SOEs, but 4 out of 6 years' minimum value also belonged to SOEs. The difference between maximum value and minimum value had been smaller for private companies than that of SOEs except year 2008. This observation combined with what is seen in previous six disclosure categories suggest SOEs tend to polarize a bit more than private companies regarding to disclosure behavior.

Figure 7 Average VDO by ownership

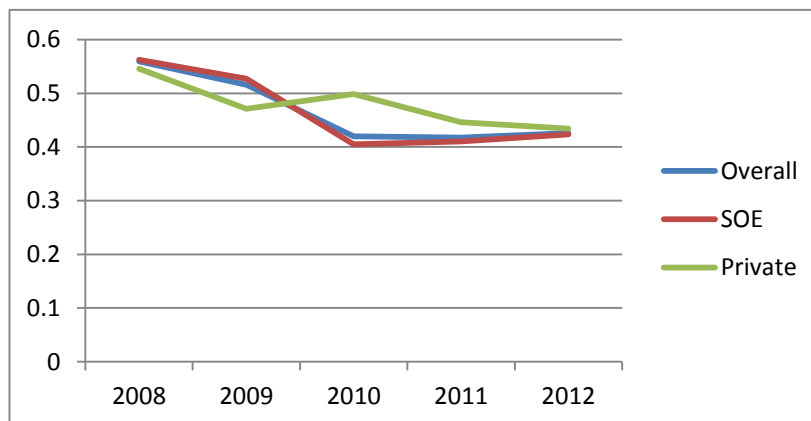
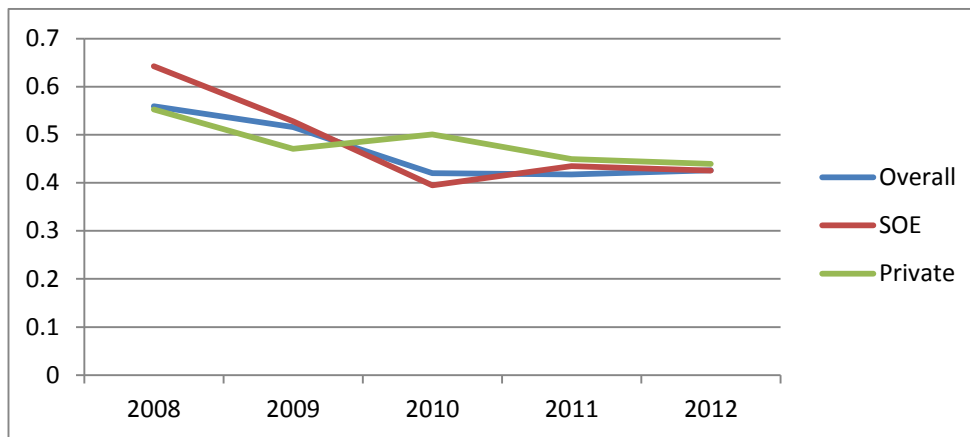
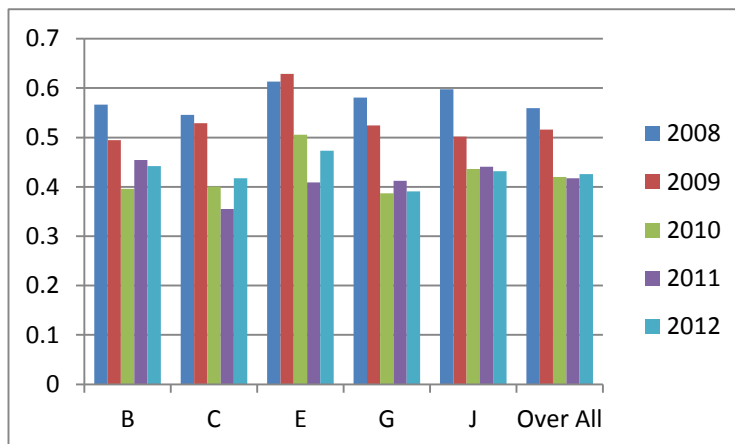


Figure 8 Average VD0 by ownership for Financial Service Industry



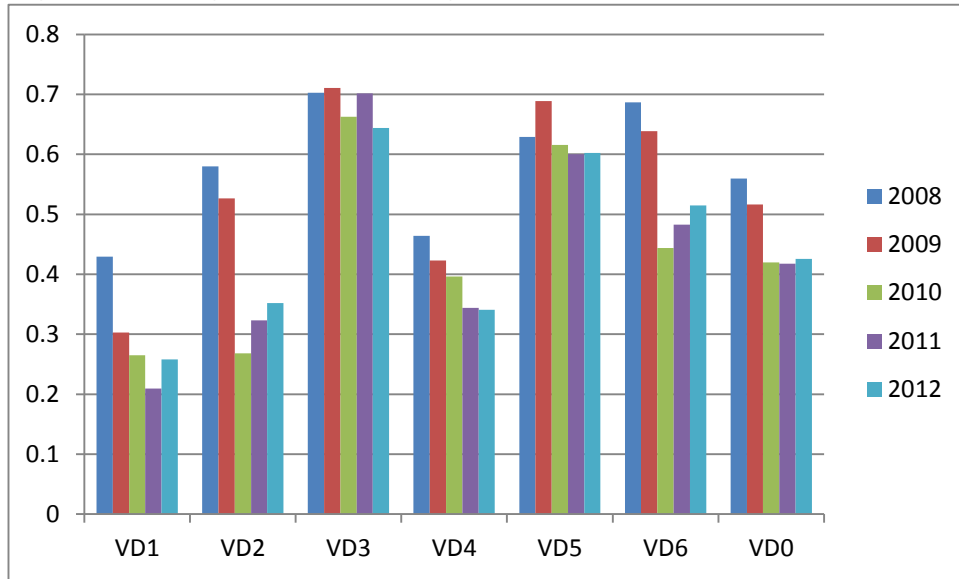
From these two figures it can be seen that private companies' average VD0 was lower than SOEs and overall level prior to 2010. However, during the 2010 period, while SOE and overall average declined, private companies' level increased and from 2010 onward, situation was reserved. And the overall disclosure did not increase during 2008-2012.

Figure 9 Average VD0 by industry type



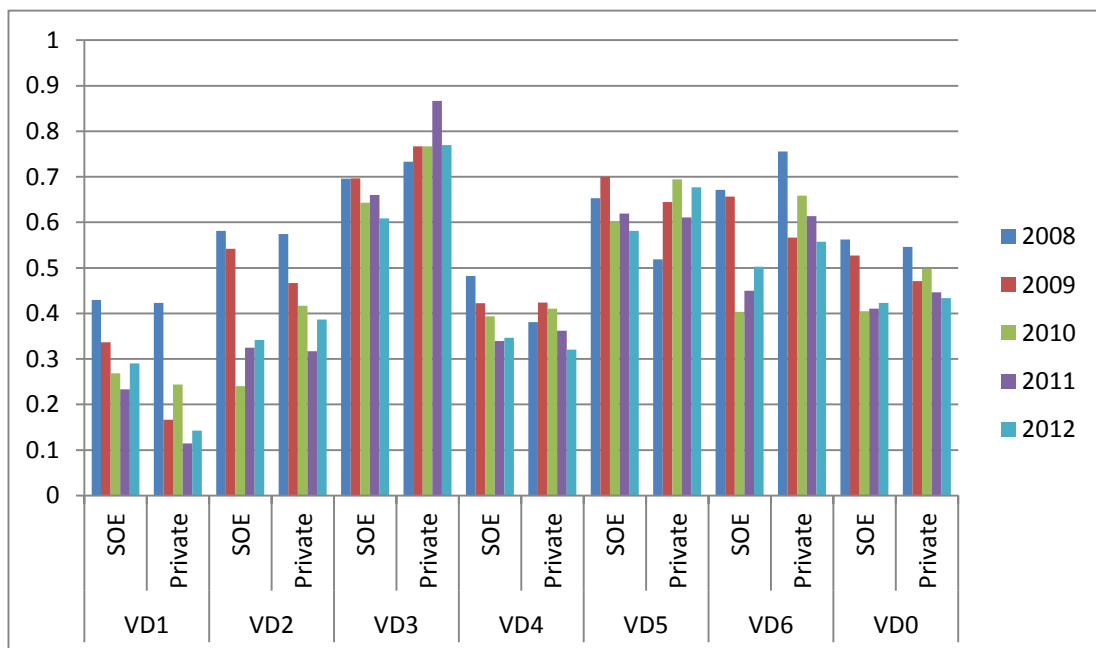
Only manufacturing industry follows exactly the same movement pattern of overall VD0. The highest VD0 belongs to construction industry in 2009. The one common trend can be spotted is that disclosure level dropped in 2010. From an overall perspective, VD0-the total voluntary disclosure index for the top 50 A-Share companies in SSE remained rather still after 2010; however if strictly speaking from numbers, overall disclosure level was on a four year decline streak during 2008-2011, it slightly rose back a bit in 2012.

Figure 10 Average VD0-VD6 during 2008-2012



VD3 average is higher than other disclosure categories during the periods. Considering the coercive institutional pressure the CSRC has over companies and extra regulation on corporate governance disclosure compare to other disclosure items discussed before, this result comes as no surprise. VD1 average is lower than other disclosure sector possibly due to the punishment on disclosing inaccurate forecasting information and the absence of a “safe harbor” protection clause.

Figure 11 Average VD0-VD6 during 2008-2012 by ownership structure



VD3 for SOE and private companies are higher than other categories respectively during the year except SOE's 2009 VD3 is slightly lower than SOE's 2009 VD5. This further confirms that coercive institutional pressure affect Chinese listed companies' disclosure behavior. VD1 for SOE and private companies are all lower than other categories respectively during the 2008-2012; once again, it is quite possible the punishment for inaccurate disclosure of forecast information combine with no safe harbor clause resulted this.

Figure 12 Average VD0-VD6 during 2008-2012 by ownership structure in Industry J

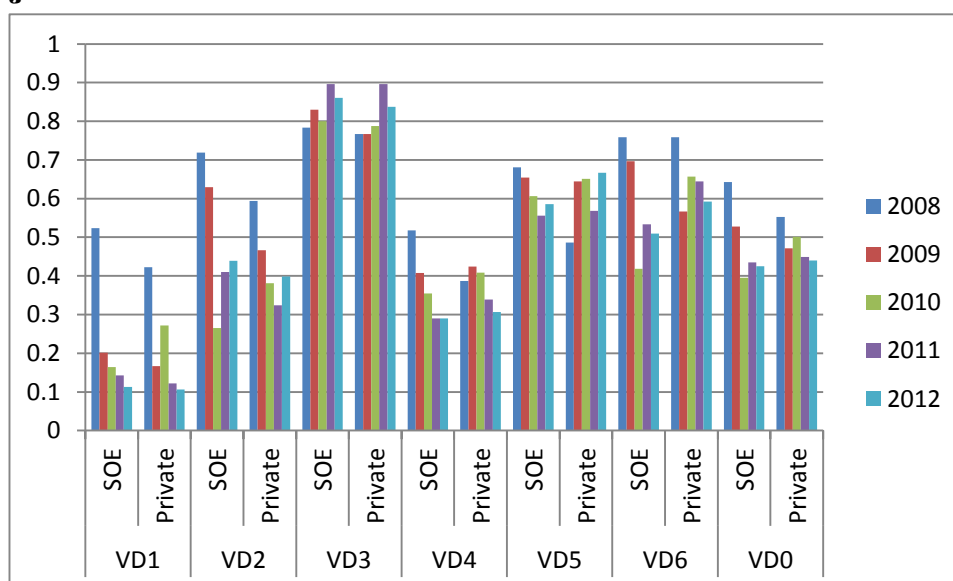


Figure 12 add further support to the two possible findings discussed in the previous paragraph.

6.2.2 VD1-Forward looking Financial Information

Table 11 VD1 during 2008-2012

	Max	Min	Avg	SD
2008	0.714286	0.142857	0.42928	0.139974
2009	0.809524	0.047619	0.302857	0.194267
2010	0.809524	0.047619	0.264762	0.189297
2011	0.619048	0.047619	0.209524	0.147793
2012	0.761905	0.047619	0.258095	0.19363

The maximum VD1 value during the 2008-2012 reporting periods are quite high considering. However, despite maximum values are reasonable high, the gap between maximum VD1 and minimum VD1 is big during the periods. The

biggest differences are in year 2009 and 2010 where the maximums are 0.761905, which is even bigger than the maximum of 2008. Average value had not been above 50%; and in 2011 the figure is only 0.209, which means there are companies only disclosed about 20% of the total information that could have been disclosed.

Table 12 VD1 during 2008-2012 categorized by ownership structure

2008			Private	
SOE			max	0.619048
max	0.714286		min	0.142857
min	0.142857		avg	0.42328
avg	0.42928		sdv	0.153279
sdv	0.138922			
2009				
max	0.809524		max	0.285714
min	0.047619		min	0.047619
avg	0.336905		avg	0.166667
sdv	0.199536		sdv	0.084739
2010				
max	0.809524		max	0.47619
min	0.047619		min	0.047619
avg	0.268707		avg	0.244048
sdv	0.197272		sdv	0.14937
2011				
max	0.619048		max	0.238095
min	0.047619		min	0.047619
avg	0.233333		avg	0.114286
sdv	0.152427		sdv	0.075125
2012				
max	0.761905		max	0.380952
min	0.047619		min	0.047619
avg	0.290598		avg	0.142857
sdv	0.202854		sdv	0.092827

All maximum values belonged to SOEs, this indicate to some degree that SOEs disclose more financial forecast information than private companies. This is could be that due to the fact that SOE managers have to sign a contract with the state which contains certain production/financial target, which presents them with a much clearer estimate of the future compare to their private counterpart. Minimum values are retained by SOEs and private companies both during the 2008-2012 periods. The movement of average value is shown below:

Figure 13 Average VD1 by ownership

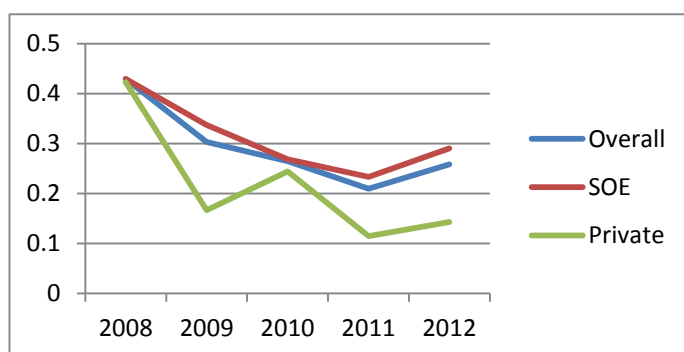
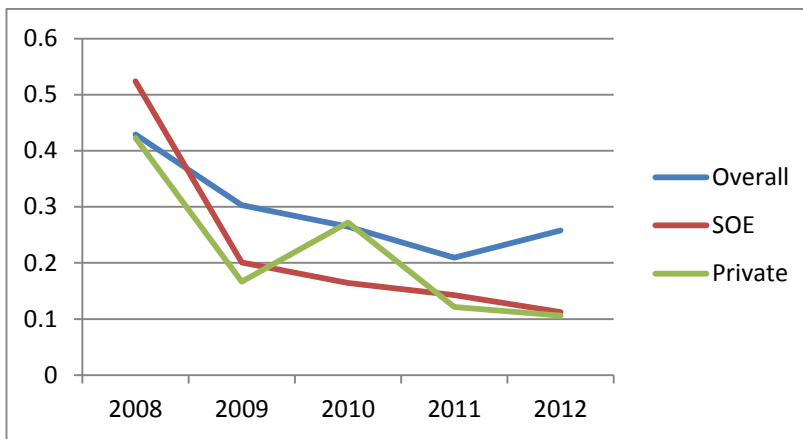
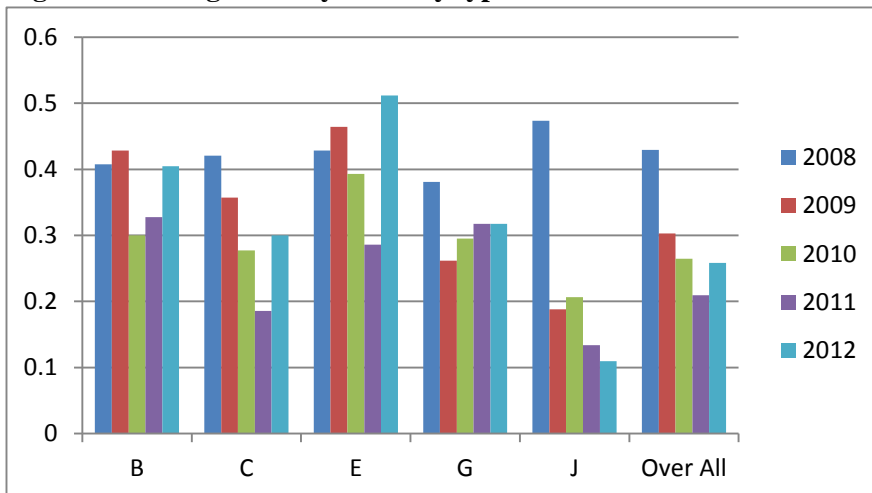


Figure 14 Average VD1 by ownership for Financial Service Industry



Before controlling SOE/private proportion and narrow down to financial service industry, SOEs' average and all companies' overall are both higher than private companies' average. However as Figure 13&14 above show, situation is a bit different after controlling process, private companies' average was higher than SOEs' and all companies' overall in year 2010 while during other years it is still lower than the two. Also during 2009-2010, private company's average value increased while SOEs' average and overall average decreased. Once again, year 2010 stands out.

Figure 15 Average VD1 by industry type



Excluding 2008, industry categories B/C/E/G average value had all been higher than industry j (the financial service industry); while industry J has private companies other industry categories are all made up of SOEs. The highest average value belongs to construction industry in 2012, but the financial service

industry's highest average in 2008 is not much lower than that (0.473 compare to 0.511). Overall, the SOEs did voluntarily disclose more forwardlooking financial information than private companies during 2008-2012. However, no confirmation was found that disclosure level in this category increased during 2008-2012 periods from ownership perspective, overall perspective and industry type perspective. The findings in this sector indicate SOEs average disclosure level is higher compare to private companies in this disclosure category.

6.2.3 VD2-Human Resource

Table 13 VD2 during 2008-2012

	Max	Min	Avg	SD
2008	0.916667	0.083333	0.58	0.194132
2009	1	0.083333	0.526667	0.255573
2010	1	0	0.268333	0.227932
2011	1	0	0.323333	0.239662
2012	0.833333	0.083333	0.351667	0.183109

This is another disclosure category with significant difference between maximum value and minimum value during 2008-2012. The biggest differences were in 2010 and 2011 with a value of 1, which means there were companies disclosed nothing while there were companies provided qualitative information with quantitative support for disclosure items measured: Training/Career Progression, Welfare, Insurance, Recruitment and Layoff, Employment Fairness. This is also the only category where minimum disclosure level did not exceed 0.1 in all five years. Overall average value decreased by 50% in 2010 and slowly rose back a bit.

Table 14 VD2 during 2008-2012 categorized by ownership structure

2008		Private	
SOE		max	0.75
max	0.916667	min	0.416667
min	0.083333	avg	0.574074
avg	0.581301	sdv	0.146986
sdv	0.204539		
2009		Private	
max	1	max	0.833333
min	0.083333	min	0.083333
avg	0.541667	avg	0.466667
sdv	0.262847	sdv	0.226351
2010		Private	
max	1	max	0.833333
min	0	min	0.083333
avg	0.240079	avg	0.416667
sdv	0.205119	sdv	0.295468
2011		Private	
max	1	max	1
min	0	min	0.6
avg	0.66	avg	0.866667
sdv	0.194394	sdv	0.121716
2012		Private	
max	0.833333	max	0.75
min	0.083333	min	0.083333
avg	0.34188	avg	0.386364
sdv	0.183169	sdv	0.187353

The maximum values belonged to SOE only except 2011, the minimum values belonged to SOE alone except 2009 and 2012. The difference between maximum value and minimum value had been smaller for private companies than that of SOEs. The average value movement is shown below:

Figure 16 Average VD2 by ownership

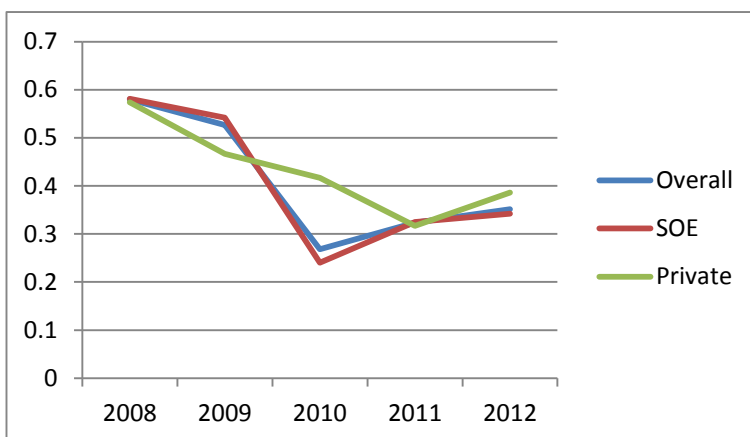
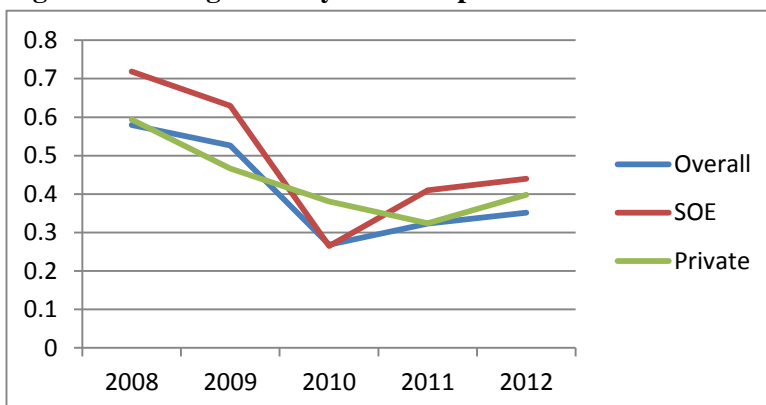
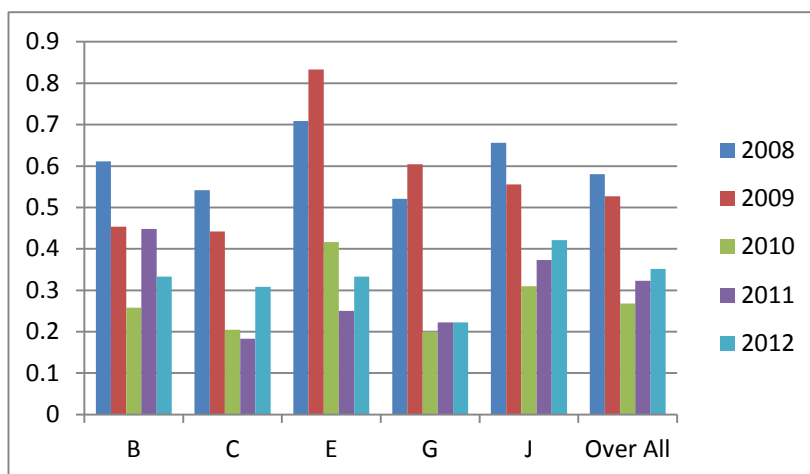


Figure 17 Average VD2 by ownership for Financial Service Industry



The average value moving pattern is the same before and after controlling number of companies and industry; but after controlling, the SOEs' average VD2 is higher than overall average and private companies' average value during 2011-2012. A sharp decline during 2009-2010 can be observed for SOEs and overall, though private companies' average VD2 declined during that period and other periods as well, the decline rate is much lower. As for SOEs, if state controlled financial services companies are included, as graph 10 shows, in 2010 their average VD2 is even lower than overall average.

Figure 18 Average VD2 by industry type



Except for the financial service industry, no other major industries selected shows the same moving pattern of average value when compared to that of the overall average value's moving pattern. The highest average value belongs to the construction industry in 2009; the smallest average value belongs to the manufacturing industry in 2011. Transportation industry's average VD2 did not fluctuate much if compared to other industry. And for mining industry, during 2011-2012 its average VD2 decreased while others increased. The author could not confirm disclosure level in this category increased during 2008-2012 periods from ownership perspective, overall perspective and industry type perspective; third, the findings in this sector indicate that the SOEs average disclosure level is not higher compare to private companies in this disclosure category in 2010 when sample size and industry is controlled.

6.2.4 VD3-Corporate Governance

Table 15 VD3 during 2008-2012

	Max	Min	Avg	SD
2008	0.933333	0.4	0.702667	0.127213
2009	1	0.466667	0.710667	0.147302
2010	0.933333	0.333333	0.662667	0.171645
2011	1	0.333333	0.701333	0.199428
2012	1	0.133333	0.644	0.229209

The maximum value remained high during 2008-2012 periods with the smallest maximum value of 0.933 and for three years out of five years there are

companies score 1. The biggest gap between maximum value and minimum value is in year 2012 with a value of 0.867. The smallest minimum value comes from a state owned mining company where the company only scored 1 for independent director item and 1 for auditing committee item, and 0 for the rest. The average values during the periods remained above 50% and they has not increased since 2008.

Table 16 VD3 during 2008-2012 categorized by ownership structure

SOE			Private	
max	0.933333		max	0.866667
min	0.4		min	0.466667
avg	0.695935		avg	0.733333
sdv	0.126534		sdv	0.133333
2009				
max	1		max	0.933333
min	0.466667		min	0.466667
avg	0.696667		avg	0.766667
sdv	0.140775		sdv	0.167037
2010				
max	0.933333		max	0.933333
min	0.333333		min	0.533333
avg	0.642857		avg	0.766667
sdv	0.171599		sdv	0.138013
2011				
max	1		max	1
min	0.333333		min	0.6
avg	0.66		avg	0.866667
sdv	0.194394		sdv	0.121716
2012				
max	0.933333		max	1
min	0.133333		min	0.333333
avg	0.608547		avg	0.769697
sdv	0.225912		sdv	0.203008

As table 16 illustrates, the differences between SOEs' and private companies' maximum values had been rather not significant during the periods. The minimum average VD3 of SOE and private companies remained roughly the same for 2008 and 2009; but in 2010, the SOEs' minimum VD3 dropped while the private companies' minimum VD3 increased. From 2010 and onward, SOEs' minimum VD3 had been lower than private companies' equivalent. The average value movement is shown below:

Figure 19 Average VD3 by ownership

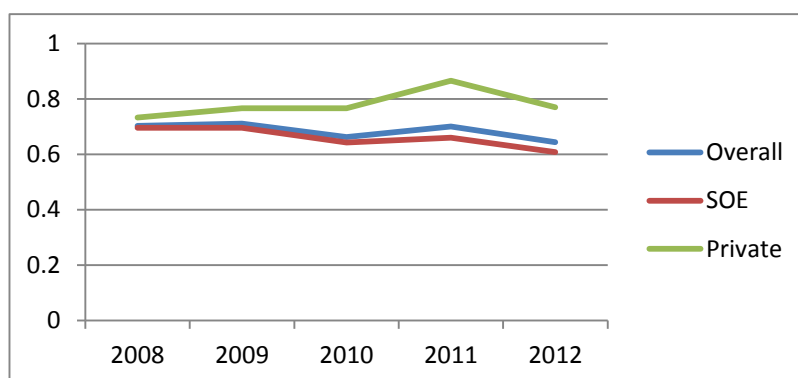
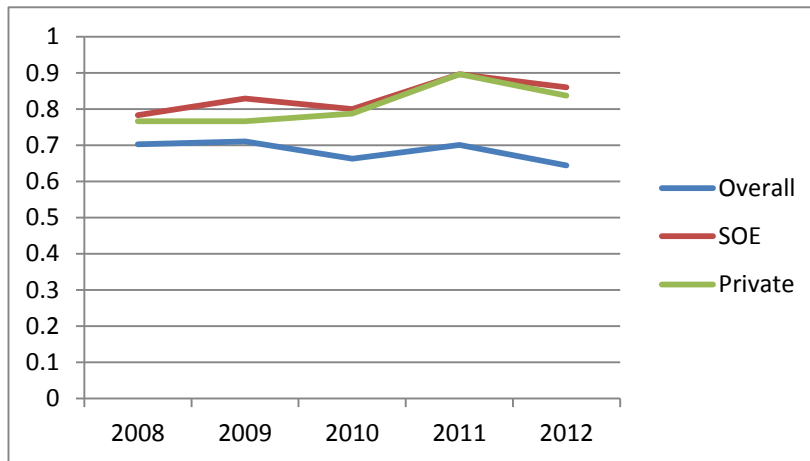
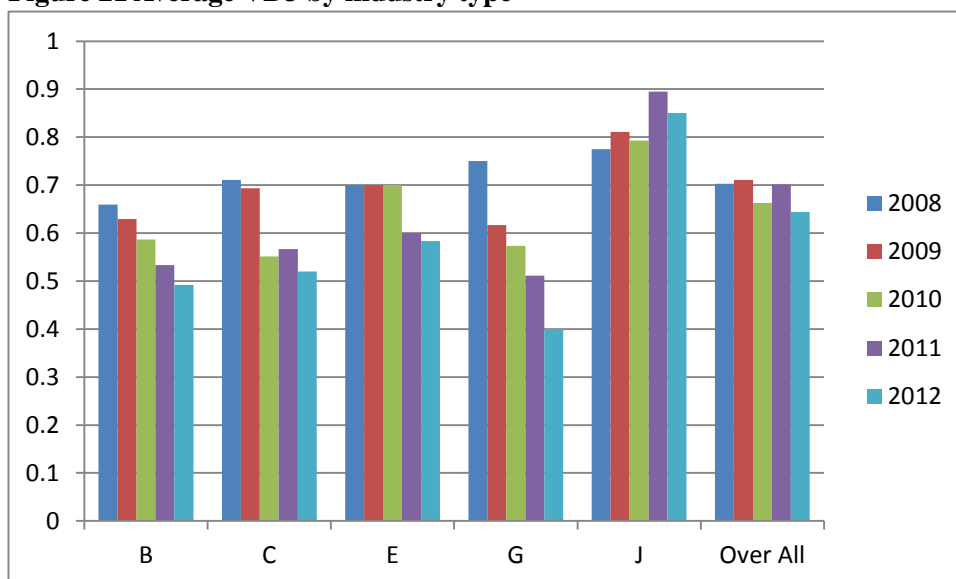


Figure 20 Average VD3 by ownership for Financial Service Industry



It would appear after controlling the number of companies under the SOE category and private category and focus on one industry, the SOEs' voluntary disclosure level of corporate governance information is higher comparing to equivalent private companies' 2008-2012 reporting periods; if the controlling procedures are ignored, the private companies being a small number on average disclose more corporate governance information than SOE. On average, companies had not been increasing corporate during 2008-2012; from Figure 19&20 shown above, it is safe to conclude average VD3 dropped in 2009-2010 and 2011-2012 period.

Figure 21 Average VD3 by industry type



The financial service industry stands out in corporate governance category; its average is higher than other major industries'; and its average is higher than

overall average during 2008-2012 periods as well; it is also the only industry has the same average value moving pattern as the overall pattern. It is even possible that the financial service industry is pulling the overall average figure up and affected overall fluctuation pattern consider the industry's dominating proportion in the sample. The highest average belongs to financial service industry in 2011 which was 0.895; the lowest belongs to transportation industry in 2012 which was 0. Overall, The author could not confirm disclosure level in this category increased during 2008-2012 periods from ownership perspective, overall perspective and industry type perspective. Disclosure level had not increased during 2008-2012 periods; third, the SOEs average disclosure level is higher compare to private companies in this disclosure category when sample size and industry is controlled.

6.2.5 VD4-Management Strategy

Table 17 VD4 during 2008-2012

	Max	Min	Avg	SD
2008	0.761905	0.238095	0.46381	0.140344
2009	0.666667	0.238095	0.422857	0.100275
2010	0.809524	0.190476	0.39619	0.111548
2011	0.571429	0.095238	0.34381	0.120656
2012	0.571429	0.142857	0.340952	0.101066

The maximum value fluctuated greatly compared to the previously discussed two disclosure categories, maximum value at 2010 was 0.810 it dropped by 0.239 in 2011. The gap between the biggest maximum value of the periods and smallest minimum value is not as big when compared to VD5, yet still significant with a figure of 0.715, this means some companies disclosed nearly 81% of the information in this category and there are also companies barely disclosed 10%. The average VD4 showed a declining trend during the 2008-2012 periods with average of 0.464 in 2008 dropped to 0.341 in 2012. None of the five years average was above 0.5.

Table 18 VD4 during 2008-2012 categorized by ownership structure

2008		Private	
SOE		max	0.428571
max	0.761905	min	0.285714
min	0.238095	avg	0.380952
avg	0.481998	sdv	0.05324
sdv	0.147233		
2009		Private	
max	0.666667	max	0.52381
min	0.238095	min	0.285714
avg	0.422619	avg	0.42381
sdv	0.104098	sdv	0.088235
2010		Private	
max	0.809524	max	0.52381
min	0.190476	min	0.238095
avg	0.393424	avg	0.410714
sdv	0.113791	sdv	0.104754
2011		Private	
max	0.571429	max	0.571429
min	0.095238	min	0.142857
avg	0.339286	avg	0.361905
sdv	0.118711	sdv	0.133182
2012		Private	
max	0.571429	max	0.47619
min	0.142857	min	0.238095
avg	0.346764	avg	0.320346
sdv	0.10701	sdv	0.077051

It is interesting to notice here that except year 2011, all years maximum values belong to the SOEs and at the same time the SOEs scored all the minimum values as well. The gap between maximum and minimum is more significant among SOEs than that of private companies. The movement of average VD4 value during the periods is shown below:

Figure 22 Average VD4 by ownership

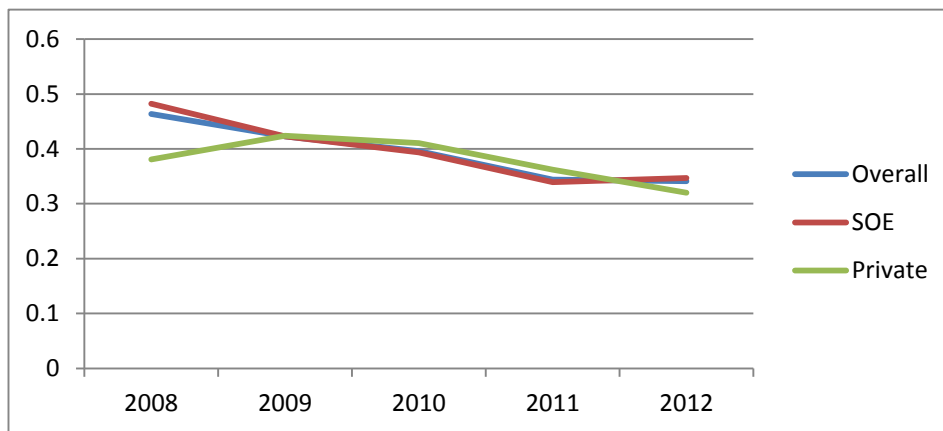
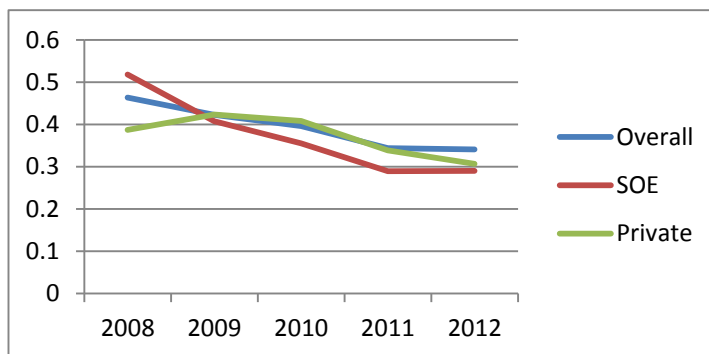


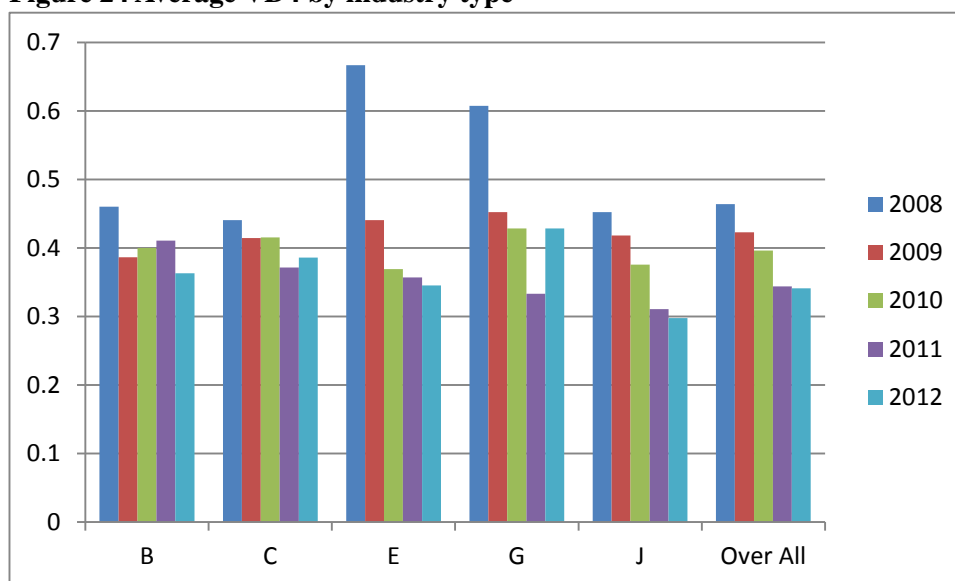
Figure 23 Average VD4 by ownership for Financial Service Industry



Once again, before and after isolating the financial service industry where

numbers of SOE and private companies are closer, the SOEs and the overall average during the periods show similar trend; both had been decreasing during the periods. In 2008, the private companies' average VD4 was lower than overall average and SOE average and then it increased while the other two decreased during 2008-2009. However, this time, the private companies' average did not increase in 2009-2010 while SOE average and overall average decreased, it decreased as well.

Figure 24 Average VD4 by industry type



The construction industry and the financial service industry display the same pattern when compared to overall average movement, they all show a five year decline. Transport industry and manufacturing industry shared similar pattern, they both decreased during 2008-2011 and increased in 2012. The mining industry's pattern is unique when compared to others, although its average VD4 decreased in 2008-2009, but during 2009-2011 while all others decreased, it increased. The largest average figure belongs to the construction industry in 2008. The lowest value belongs to financial service industry in 2012.

Average disclosure level increased for private companies in 2008-2009, after that from ownership perspective and overall perspective, the average VD4 declined; the SOEs' decline rate is higher than private controlled companies. The mining sector shows inverted trend in 2009-2-11 when comparing to other

major industry sectors. And interestingly, the private sector's trend during 2009-2010 is not the opposite of overall trend, it declined as well. The author could not confirm disclosure level in this category increased during 2008-2012 periods from the two perspectives mentioned above and industry type perspective, disclosure level had not increased during 2008-2012 periods; third, the SOEs average disclosure level is not higher compare to private companies in this disclosure category

6.2.6 VD5-Research and Development

Table 19 VD5 during 2008-2012

	Max	Min	Avg	SD
2008	1	0.111111	0.628889	0.22178
2009	1	0.111111	0.688889	0.255945
2010	1	0.111111	0.615556	0.282352
2011	1	0	0.6	0.263702
2012	1	0.111111	0.602222	0.256033

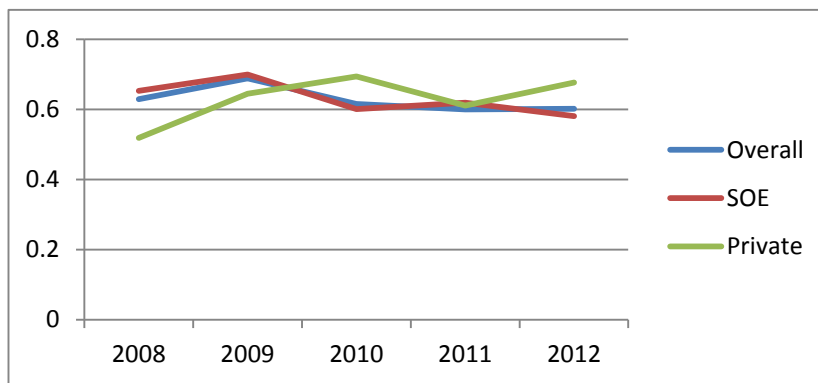
The maximum value during this period remained high; peak value of 1 was maintained for 2008-2012 period indicating there are companies disclosed 100% of total amount of information in this sector. However, as table 19 demonstrates the gap between maximum value and minimum value is significant with biggest gap of 1, this is almost the maximum value of year 2011. There are companies disclosed qualitative information supports by quantitative evidence regard to their development initiative, R& D results and advantage from these R&D projects and there are companies disclosed nothing. The co-existing of two extreme ends: everything and nothing (or almost nothing) persisted during the periods. Average value had not been increasing constantly during 2008-2012 periods, but it had been above 50% for the periods.

Table 20 VD5 during 2008-2012 categorized by ownership structure

2008			Private	
SOE			max	0.888889
max		1	min	0.222222
min	0.111111		avg	0.518519
avg	0.653117		sdv	0.260579
sdv	0.208159			
2009				
max		1	max	1
min	0.111111		min	0.222222
avg	0.7		avg	0.644444
sdv	0.2593		sdv	0.250103
2010				
max		1	max	1
min	0.111111		min	0.222222
avg	0.600529		avg	0.694444
sdv	0.288346		sdv	0.25022
2011				
max		1	max	1
min	0		min	0.333333
avg	0.619444		avg	0.611111
sdv	0.312135		sdv	0.183324
2012				
max		1	max	1
min	0.111111		min	0.444444
avg	0.581197		avg	0.676768
sdv	0.270323		sdv	0.188919

The results after ownership categorization review more details. Maximum values of 1 were spotted in both SOE and private companies for all periods except 2008 where the maximum VD5 for private companies that year was 0.889. The minimum value of 0 belongs to SOE and the minimum values of private companies had been higher than SOEs' during the periods. The movement of average VD5 value during the periods is shown below:

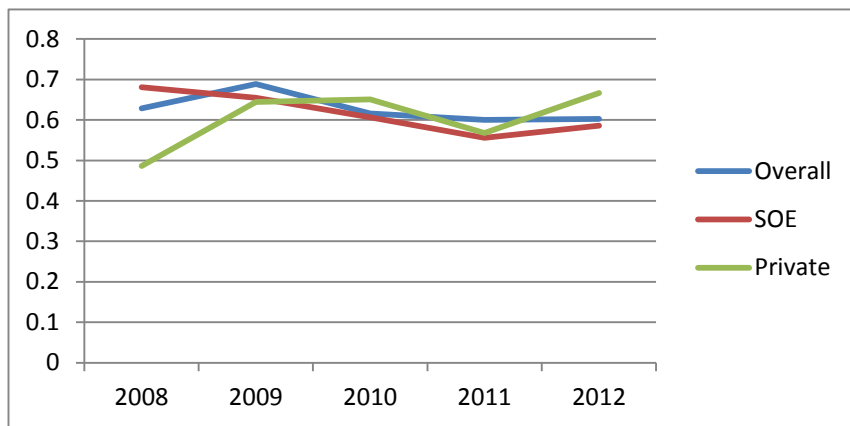
Figure 25 Average VD5 by ownership



As Figure 25 indicates that the average VD5 had not been constantly increasing regardless of ownership structure. The SOE's average value and overall average value share very similar trend, but private companies behaved differently. Again, during the 2009-2010 period, where overall average and SOE average decreased, the private company average increased; except 2010-2011 period, private companies' average had been going upward. Due to majority of the sample companies are SOEs and private companies mainly concentrate in financial

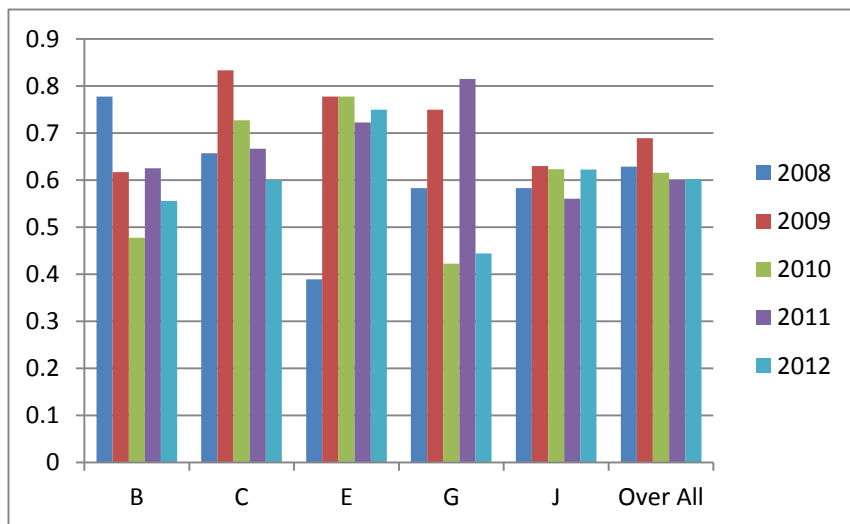
service sector, the author analyzed financial service sector (J) as well:

Figure 26 Average VD5 by ownership for Financial Service Industry



Graph 20 shows a different situation. After isolating the population down to just financial service industry, similarities between three trends decreased even more. State controlled companies' average disclosure level declined except for 2011-2012, private companies' average disclosure level fluctuated more violently before isolation. However it is worth to notice, private companies' trend in 2009-2010 remain upward while the overall average and SOE average declined.

Figure 27 Average VD6 by industry type:⁵³



After categorization by industry type, other than the financial service industry and construction industry showed similar trend to overall trend, there are no

⁵³ Industries that only have one company present are excluded for this graph due to this is an average of multiple companies' VDI; D category industry is also excluded here due to they were not present in 2010 sample

similarities in disclosure level movement except almost all industry sectors included showed their VD5 average dropped in 2010; construction industry's disclosure level of this category did not drop in 2010, it remained the same compare to 2009. The highest average VD5 figure 0.83 belongs to manufacturing industry in 2009; the lowest 0.389 belongs to construction industry in 2008. It is worth to notice the manufacturing industry is the only industry cluster has average higher then all companies' overall VD5 during 2008-2011 (and there is only 0.002 different between the two in 2012); this could indicate as manufacturing industry rely on innovations more than mining, construction, transportation and financial service industry.

Overall, it would appear that after 2010, private companies averagely disclose more information in this disclosure sector when compared to SOEs'; situation in 2008 and 2009 are the opposite. This observation stands after the figures get isolate down to financial service sector, where most private companies concentrate; the private financial service companies disclosed more information than state controlled ones after 2010. There is no common pattern except in 2010 we can observe there is an average disclosure level drop from overall perspective and industry type perspective. The author could not confirm disclosure level in this category increased during 2008-2012 periods from the two perspectives mentioned above and ownership perspective.

6.2.7 VD6-Society and Environment

Table 21 VD6 during 2008-2012

	Max	Min	Avg	SD
2008	0.933	0.133	0.687	0.198
2009	0.933	0.133	0.639	0.214
2010	0.933	0.133	0.444	0.219
2011	0.933	0.067	0.483	0.245
2012	0.867	0.200	0.515	0.190

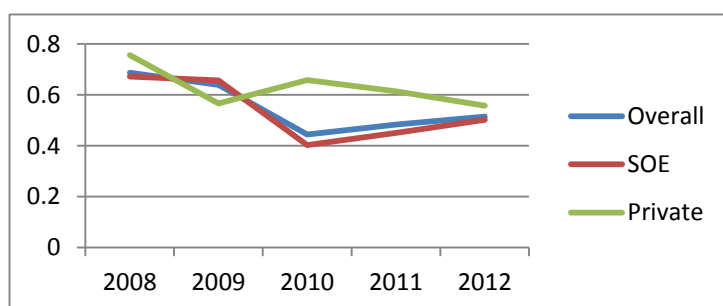
The maximum value during the period remained high; peak value of 0.933 was maintained for 2008-2011 period and dropped slightly in 2012 to 0.867 indicating there are companies disclosed 93.3% and 86.7% of total amount of information in this sector. However, as table 21 demonstrates the gap between maximum value and minimum value is significant with biggest gap of 0.866, this is almost the maximum value of year 2012. Average value had not been increasing; rather it decreased during 2008-2010 and slightly increased in 2011 and 2012.

Table 22 VD6 during 2008-2012 categorized by ownership structure

2008			Private	
SOE				
max	0.933333		max	0.866667
min	0.133333		min	0.533333
avg	0.671545		avg	0.755556
sdv	0.211024		sdv	0.1
2009				
max	0.933333		max	0.866667
min	0.133333		min	0.266667
avg	0.656667		avg	0.566667
sdv	0.219063		sdv	0.183922
2010				
max	0.933333		max	0.933333
min	0.133333		min	0.266667
avg	0.403175		avg	0.658333
sdv	0.194756		sdv	0.223784
2011				
max	0.933333		max	0.933333
min	0.066667		min	0.2
avg	0.45		avg	0.613333
sdv	0.219167		sdv	0.307599
2012				
max	0.866667		max	0.8
min	0.2		min	0.2
avg	0.502564		avg	0.557576
sdv	0.185967		sdv	0.20928

The results after ownership categorization are slightly different in some values and shed more insights. Except 2010 and 2011, maximum VD6 value belonged to SOE only; however, except for 2012, all minimums belonged to SOE as well. Private companies had higher minimum values than SOEs other than 2012; the difference in minimum value between SOE and private companies was most evident in 2008 with a difference of 40%. The average is shown below.

Figure 28 Average VD6 by ownership



As Figure 28 shows, average VD6 had not been always increasing regardless of ownership structure. However it is worth to notice the SOE's average value and overall average value share very similar trend, but private companies behaved differently. Private companies' average VD6 value showed inverted trend during 2009-2012 when compared to SOE's trend and overall trend. Due to majority of the sample companies are SOEs and private companies mainly concentrate in financial service sector, the author analyzed financial service sector (J) as well:

Figure 29 Average VD6 by ownership for Financial Service Industry

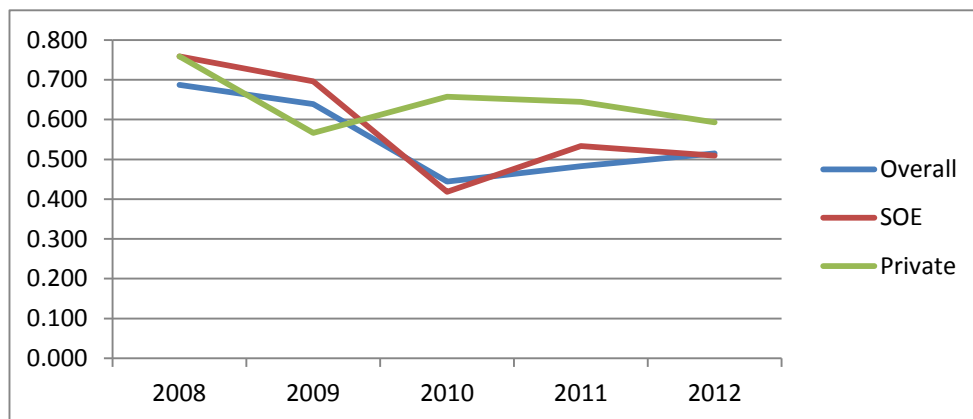
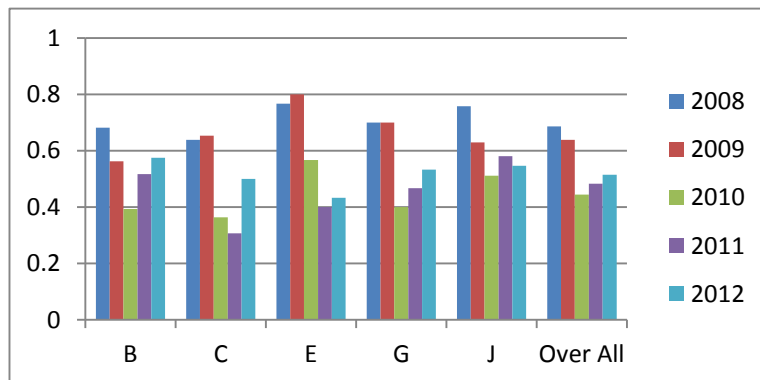


Figure 29 shows slightly different situation, while the private companies' trend is still inverted compare to SOE and overall during 2009-2011, average of private controlled companies and SOEs in this industry sector actually both showed declining trend in 2011-2012. Both private and SOE financial service companies' trends declined in 2012 while the overall trend of all companies went up.

Figure 30 Average VD6 by industry type:⁵⁴



⁵⁴ Industries that only have one company present are excluded for this graph due to this is an average of multiple companies' VDI; D category industry is also excluded here due to they were not present in 2010 sample

It would appear after breaking figures down into industry groups, there is no common trend except all industry sectors included showed their VD6 average dropped in 2010; category-C, manufacturing industry decreased the most by 44%; category-J, financial service sector decreased the least by 18%; all companies overall VD6 dropped 30% in 2010. The highest average VD6 figure 0.8 belongs to construction industry in 2009; the lowest 0.3 belongs to manufacturing industry in 2011.

Overall, it would appear that private companies averagely disclose more information in this disclosure sector when comparing to SOEs. This observation partially stands after the figures get isolate down to financial service sector, where most private companies concentrate; the private banks disclosed more information more than state controlled banks in four years except in year 2008 and 2009. There is not common pattern except in 2010 we can observe there is an average disclosure level drop from overall perspective and industry type perspective. The author could not confirm disclosure level in this category increased during 2008-2012 periods from the three perspectives mentioned above. Disclosure level had not been increased during 2008-2012 periods; third, the SOEs average disclosure level is not higher compare to private companies in this disclosure category.

Chapter Seven: Discussion

Following the presentation of the results, this chapter presents a discussion of these results. Each of the six disclosure categories will be discussed. There will be a section which compares some results of this study to other international and Chinese studies. After this, a section focusing on other relevant useful disclosure findings that may not be relevant to the disclosure categories will also be presented.

7.1 VD1

As hypothesized; the average disclosure level of forward looking financial information is lower than other disclosure categories previously discussed and the SOEs do disclose more forecasting information than the private companies. Even though there were no correlation tests conducted, the author still holds the opinion that the serious punishment, lack of a “safe harbor” clause contributed towards this situation. With punishment for incorrect results but no protection for good intention, companies would not feel motivated to disclose such information, yet forecast information is demanded by investors. This confirms that institutional environment shapes voluntary disclosure behavior.

These companies all disclosed information about how macro economics/policy and market risk may impact their financial performances; though these disclosures are usually hollow and lack quantitative or even qualitative support. The change in policies is the most frequent asked question, investors’ demand behavior and companies’ disclosure behavior add to the support that government’s influence on the market is still significant. Despite policies are important to share price in China, the investors’ may lack the ability to interpret these policies, this could lead to misinterpretation of information which will decrease the credibility of the companies, the government and disclosure media.

7.2 VD2

Once again, the difference in disclosure level between those companies which disclose the most and those which disclose the least is big. And it would appear the companies tend to put human resource information in their CSR or sustainability report, average VD2 declined greatly in 2010 because of this. Also if one is to look at all companies categorized by ownership structure not just the financial service industry, private companies' VD2 level is higher than SOEs except year 2008 and 2009. After detail reading of the annual reports, the author found this situation is mainly due to SOEs all disclosed how they contributed towards "stabilizing the economy during the financial crisis as them answering the call of the government". If this information is removed, then SOEs human resource information will be lower than private companies' over all years. As the main point of this category's information is to demonstrate how well companies manage one of corporate's most important capital-human capital and how well they treat their employees, this indicates SOEs are not doing too well in this area or they just simply don't care about demonstrate to the society they are good employers? The author think the reason is the latter.

SOEs are basically government's enterprise branch, and their employees are materialistically---civil service personnel of the PRC, a branch of government employees that will never be fired unless they committee a serious legal or civil offence. In 2011, 2.17 million people participated civil service personnel exams knowing the government will only hire 15290, that is a pass ratio of 59:1⁵⁵; by 2013 it gets even more crazy, 180000 people participated in a single civil service personnel exam knowing there are only 3354, among these people there were 103 people with a Doctor degree. The author does not wish to go detail analyze why is this happening, but the certain thing is that SOEs are branches of the government do not have the need to attract talented employees as much as

⁵⁵ <http://edu.sina.com.cn/official/2011-10-11/1805315056.shtml>

private companies do. The results here support this.

Another disturbing set of figure is the individual scores of the employment fairness item shown as below:

Figure 31 Employment Fairness Item Score Count

		Employment Fairness	
2008	No. 3		26
	No. 2		10
	No. 1		6
	No. 0		8
2009	No. 3		11
	No. 2		5
	No. 1		12
	No. 0		21
2010	No. 3		3
	No. 2		0
	No. 1		
	No. 0		
2011	No. 3		0
	No. 2		0
	No. 1		5
	No. 0		45
2012	No. 3		0
	No. 2		0
	No. 1		5
	No. 0		45

Source: Count of original data

China is a country with 56 ethnic groups with the Han as the majority group and the other 55 as the minority race, these are the 56 group recognized by the Chinese central government. Since the founding of the PRC, the government officially recognized the importance of ethnic minority groups and provided protection for minority groups' rights in political, economy, legal and administration⁵⁶. Since the 1980s, government policy further increased various benefits to these minority groups, such as ease of restrictions on family planning, or preferential treatment in education⁵⁷ and hiring (Sautman, 1998). Also, much of China's land area (roughly around 64%) is designated as ethnic minority regions (State Ethnic Affairs Committee, 2003), and much of these regions are of vital interests to the nation: the northwestern, the northeastern and the southwestern. For example, the Northwestern is where the current economic development effort is going (Lu and Neilson, 2004) and it is also a political sensitive boarder area (Fazio, Hughes and Zhang, 2010). Due to the significance of these issues, the author separate racial equality in employment from other corporate social responsibility hypotheses and consider: it would be reasonable

⁵⁶ <http://cpc.people.com.cn/GB/162983/9701504.html>, CCP official website on <CCP's fundamental opinion towards racial equality

⁵⁷ The author experienced this first hand

think that some of the largest companies in China would want to demonstrate to the society that they offer fair or even preferential treatment regard to minority ethnic group employment opportunities.

By year 2010, 48.56% of China's population is women (National Bureau Statistics of China, 2010). Ever since the founding of PRC in 1949, progress had been made in achieving gender equality in social security, employment, education due to the strong state intervention. Several legislations have been passed to ensure female worker's rights, such as the <Female Employees Labor Protection Regulations> in 1988 and the <Law on Protecting Women's Rights and Interests> in 1992. They are hard workers; the majority of them works full-time through most of their working life and tends to only be interrupted by a short maternity leave (Cooke, 2013). Despite the importance of these two special employee groups, companies' disclosure regard to them had actually been shrinking. From an legitimacy theory perspective, such disclosure behavior should not exist as ethnic and gender fairness issue should be very important in evaluating the legitimacy of business corporations. However, such disclosure behavior does exist. This is very disturbing, these biggest companies with majority of them as SOEs represent China's central government's attitude towards certain issues. This could be explained by considering agency theory with China's unique situation. For the SOEs, the principal is effectively the central government; and considering government influence over the economy, it could be reasonable to think that to a certain extent that the central government is the principal for big companies as well because there is no way to grow big without acting in line with the government. If the principal does not demand to see such issues disclosed, then there could be no incentive to disclose such information. From an institutional theory perspective, this could mean there is not enough institutional pressure on companies to make them disclose such information. The government certainly has enough institutional power over business corporations, but they could be not pressuring these issues.

7.3 VD3

The higher level of corporate governance information disclosed is proof that more guidance and regulation from regulatory agencies can improve voluntary disclosure level. This supports institutional theory. First, the CSRC issued a code for corporate governance, this detail guide decrease confusion for companies, making it easier to disclose such information. Second, as previously discussed, legislation giving power to CSRC to regulate the set up of independent directors contribute to results. Thirdly, despite Standards 7 and 8 being of guiding nature only, these standards that provide extra guide for commercial banks and security trading company contributed to financial service industry’s high corporate governance disclosure level. This further adds support to the idea that more guidance and regulation from regulatory agencies can improve voluntary disclosure level. A detail score count reveals more insights:

Figure 32 Individual item score count of corporate governance category

		Auditing Committee	Risk Management/Committee/Monitoring	Independent Director	Disclosure Policy	Investor Relation
2008	No. 3	41	5	36	7	17
	No. 2	7	15	9	27	19
	No. 1	1	20	5	16	13
	No. 0	1	10	0	0	1
2009	No. 3	33	14	33	7	14
	No. 2	11	15	13	24	23
	No. 1	5	18	4	18	13
	No. 0	1	3	0	1	0
2010	No. 3	30	7	32	7	17
	No. 2	14	10	16	19	13
	No. 1	6	23	2	24	19
	No. 0	0	10	0	0	1
2011	No. 3	29	21	33	11	21
	No. 2	19	4	15	13	9
	No. 1	2	17	2	26	14
	No. 0	0	8	0	0	6
2012	No. 3	28	22	23	8	17
	No. 2	19	1	25	7	8
	No. 1	3	14	2	33	17
	No. 0	0	13	0	2	8

Source: Created by author

Even though the CSRC had not stated that companies “must” disclose information regard to their independent director system, companies still responded to the corporate governance code and the legislative power given to the CSRC. The independent director item is the only item where all companies disclosed information across the entire 2008-2012 period. Another item worth

mentioning is the auditing committee item, despite the voluntary nature of the item, the majority of companies disclosed this item. The primary reason for this is that companies have detail guide on how to set up such committee and they know what to disclose about this committee in their annual reports.

7.4 VD4

This category was the least affected by the disclosure anomaly in 2010, its overall average only decreased by 0.03. SOEs obtained both the maximum scores and minimum scores during the periods at the same time presents an interesting issue matter in terms of agency theory. As previously discussed, the “principals” for these SOE managers are supposed to be the state; then the question is, if these managers truly answer to the same principal, then why their disclosure behavior varies so much? One possible explanation is the multi-layer control system the state has over the SOEs causes confusion for the SOE managers, making them unclear what they should disclose to ease the monitoring costs. Another explanation is to assume they have the same set of expectation from the principal, which is the CSRC document; however, as reviewed before, the CSRC lacks over-riding power and the guiding words in Standards 2 are confusing from a legal perspective. Thus, with a unified confusing standard, managers make their own interpretation of what the principal expect and create variance in disclosure choices. What more interesting is the choice of one disclosure item over another/

It would appear⁵⁸ managers of these top 50 companies are not found to disclose information with respect to how company strategy might impact their current performance and how long it will take to carry out the current strategy (strategic time frame). These two items are highly demanded by the investors based on questions asked on the internet about company performance. This indicates a

⁵⁸ Quantitative data relate to this claim is in Appendix [9]

possible lag between the companies' view of China's economic reform status and investors' view of the China's economic reform. For people who are still affected by planned economy system, these two figure would be important and natural to disclose because the government would have decided or at least heavily influenced these; but as companies move towards market economy, these two figures would be increasingly difficult to disclose. Considering China central government still issues "five year plan" to guide the economy, this could be a sign of change. Companies seem to care about how to sustain their business, even though many of them disclose quantitative information to support their concerns or claims. The claims on advantages or difficulties are ambiguous; there is usually very little quantitative evidence to support relevant claims.

7.5 VD5

The data indicated that most of the top listed companies do care to demonstrate their R&D efforts and advantages. For the period reviewed a large number of companies scored 1 in this category; however, there are also companies every year disclose nothing or near nothing. Predominately these scores came from two companies: Poly Real Estate Group and China Life Insurance; with 2010 being the exception. In 2010, there were three companies scored 0.111, they are: Petro China, Shanghai Port and Shandong Gold. Even though they are not heavily technology oriented, it is surprising to find that they basically disclose no information in this area. Private companies showed different moving trend compare to SOEs, it is possibly because the private sector in this sample is primarily made of financial service companies and they rely on technology innovation to provide more efficient and better service; thus while other SOEs can choose not to disclose such information, these private financial service companies still feel the need to demonstrate their core competency by disclosing R&D information.

7.6 VD6

Data indicated that the private companies' disclosure level increased while the SOEs' and overall level decreased. A major reason for this was that most companies simply stopped including a copy of sustainability report or CSR report in their annual reports while disclosing these reports on websites designated by the CSRC. In 2009, there were only 9 companies did not include such reports in their annual reports, this number spiked to 34 in 2010. Thus, a lot of the information that was originally in these reports was just gone, for example, environmental information. This could also be considered as the primary reason why many other disclosure categories level dropped in 2010. The author could not find a direct explanation⁵⁹ for this strange change as there are no changes in CSRC's disclosure policy documents, CSRC officers did not make any public announcement encouraging companies to take their sustainability or CSR reports out of their annual reports, nothing came down from the state council or other high rank Chinese Communist Party (CCP) agencies.

The overall average disclosure performance during 2008-2012 is not inadequate. The lowest average disclosure from these top companies is still around 45% which indicates at the lowest point, which is 2010; companies still averagely disclose around 45% information as to how they benefit the society and environment. This could possibly indicate some companies still see annual reports as important and direct information sources for investors. It is a surprise that the mining industry, primarily made up of coal extraction and processing companies averagely disclosed even less information in this category than the financial service sector in year 2008, 2009, 2010 and 2011. With the China's pollution problem, especially air pollution was actually getting worse in those years, according to legitimacy theory, these coal giants would have more incentives than the financial service providers to disclose information to

⁵⁹ A possible reason can be found in Appendix [10]

maintain environmental legitimacy. Once again these Chinese companies did not act according to legitimacy theory.

The results obtained here could answer a question asked in chapter three: do SOEs really need to disclose information to the public to maintain legitimacy? The answer is probably not, as it would appear that their legitimacy is not separated from the government; they probably don't have to separately maintain their legitimacy if the people truly still see they are part of the government despite those reform efforts. From an agency theory perspective, if the government is the principal, the SOE leaders don't really have an incentive to reduce monitoring costs in a classical way. The monitoring costs to the government is really "Are they tightly following the policies and regulations we gave them?", in this sense, after regulation stated CSR/sustainability report should be separated from annual reports, the SOEs leaders will try to response to it as quickly as possible.

7.7 VD0 and Overall Discussion

The overall disclosure level throughout the testing period is not inadequate considering the max value is close to 80% and the lowest average value is still nearly 42%. With development of disclosure regulatory system and rising social concerns/awareness, voluntary disclosure level should have been increasing. However, the average disclosure level had not been increasing with average value of 0.559 in 2008 dropped to 0.425 in 2012. This could mean in this period, the disclosure regulatory system for Chinese companies had not been improving. The guidance corporations receive on how to disclose and what to disclose had not been improving; the ambiguity in wording in guiding documents have not been mitigated; and the matter of fact that the CSRC, the SEC equivalent of China did not have regulatory and monitoring power as it should have had. The fact that the government, who is effectively the actual owner of SOEs also

completely controls the CSRC could possibly lead to some self-regulation issues.

It is interesting to notice the overall disclosure level of SOEs decreased while the private firms' overall disclosure level increased in 2009-2010. A major political event happened in China in 2010 was Chairman Xi Jinping was "confirmed"⁶⁰ to be the next chairman leading the nation as he received the title of vice-chairman of China Central Military Commission. Even though there is not direct relation between this event and SOEs' disclosure behavior anomaly, the author suspect this political event could be the reason. Looking back on PRC's political history, each generation of government has its unique "moto" and usually different government regime brings different priorities to the nation; for example, Deng Xiao Ping's famous "Gai-Ge-Kai-Fang (Reform and Open Up) and Hu Jin Tao's "He-Xie (Harmony)". From agency theory and institutional theory perspectives, considering the great influence government has over corporations and especially SOEs, government regime change could mean uncertainty for company leaders. They would feel uncertain about what information to disclose beyond mandatory, specially when they think a new government regime is coming but yet do not know for sure.

The Chinese listed companies' disclosure behavior seems not to be following a track that can be safely predicted by some classic accounting theories; and it would appear rather than governmental policies guide corporations to act and disclose better, it is the disclosure of corporations that lead to better understanding of government policies, or perhaps one should say intention rather than policy. It is also a strange fact that environmental issue, something that the Chinese people had been increasingly worried about is perhaps not being disclosed enough in annual reports; it is even stranger that the coal

⁶⁰ Confirmed here is a relevant term, he was not officially announced as the chairman of the party thus not definitely going to be the next chairman in official terms. However, it is a basic chinese political sense that when someone become the vice-chairman of China's Central Military Commission, he will be the next Chairman of the party and lead the nation.

extraction and processing companies, ones who contribute a lot to air pollution disclosed so little in annual reports. The author could not find any evidence that a change in disclosure policy lead to the cut down of environmental information in annual reports. The reason behind this strange disclosure behavior could be a very interesting future research topic. Could it be due to change in government policy or could it due to message from central command was distorted due to the confusing and over-complex governing structure?

7.7 Comparative Discussion

Overall, the Chinese listed companies' voluntary disclosure level increased compare to the findings of Long (2010), where the author investigated 100 listed companies' 2005 annual reports and found the overall voluntary disclosure level was 0.417; also compared to Liang (2011) where author analyzed annual report of 235 listed Chinese companies and found overall voluntary disclosure level was around 0.5⁶¹.

In several international studies, information that concerns the company's "core competency" is often voluntarily disclosed (Bradbury, 1992; Singleton and Globerman, 2002; Chau and Gray, 2002; Meek, 1995; Botosan, 1997; Robb, single & Zarzeski, 2001; Newson and Deegan, 2002; Liang, 2011). This disclosure category usually contains information including but not limit to : human capital, profitability forecast, social responsibility issues, research and development. The findings of this study indicate voluntary disclosure of social responsibility information of Chinese listed companies is not low with a lowest 0.45 average during the five year period; however, from the sudden score drop during 2009-2010, we can possibly conclude that Chinese companies' motive to disclose such information largely comes from external coercive government pressure but not a need felt from within. From reading the annual reports and the

⁶¹ The original did not calculate such figure, she had the average score categorized by industry type, the 0.5 figure is calculated by author of this study.

results, the author find Chinese companies like to disclose information regard to research and development. This is possibly because of China is trying to shift away from its previous labour intensive economy. Human resource information disclosed is not inadequate, but it is not too satisfactory either. The human resource segment has the lowest minimum scores during the test period, its average scores are not high comparing to other disclosure categories and information regarding to fair employment oppurtunities for ethnic minorities and women is shockingly bad.

Branbury (1992) concluded that Canadian listed companies like to voluntarily disclose information regard to companies' management team and companies' strategy; similar findings can also be found in several other studies. For example, Meek (1995) found European companies voluntarily disclose a lot more strategic information comparing to US companies; Chau and Gray (2002) found HongKong companies' voluntary strategic information score is 0.1849, which is much higher than their overall average voluntary disclosure score of 0.0977. This study indicate some of the top Chinese listed companies don't like to disclose information regard to their management strategy-this disclosure segment's average score is the second lowest compare to other 5 and the over all score during the five year period. Considering the dominating amount SOEs in the sample, this is possible because SOEs' management strategy is perceived as closely aligned to state policy by the investors thus eliminate the need to disclose such information. Also, in the two studies reviewed that analyzed investors' information need, need for information regard to companies' management strategy also ranks at the bottom.

Forward looking financial information disclosure level is low, this is consistent with the findings of Long (2010) and Liang (2011) on listed Chinese companies. The author identified the punishment for inaccurate disclosure without "safe harbor" protection clause could be the reason; another possible reason is the lack

of investor demand. An unique feature of Chinese companies' voluntary disclosure in this segment is that Chinese companies disclose information regard to macro economics/policy impact on future financial performance and market risk's impact on future financial performance. It is possible because of SOEs and investors' demand.

7.8 Problems and Suggestions

Voluntary disclosure can not be deemed voluntary if there is an absolute obligation for companies to disclose information, but regulation and monitoring does help to improve the quality of voluntarily disclosed information. The results of this study, specially evidence in corporate governance sector support this. However, for Chinese stock market there are problems must be solved before this can happen.

The first set of problem is essentially the independency and regulatory power of the Chinese stock market regulatory body-the CSRC. At the moment, unlike the SEC, the CSRC is controlled by the central government and at the same time the government owns the SOEs dominating the stock market. In other words, the regulators are the owners, this creates a serious conflict of interests. The SOE leaders answer to the government, they are part of that power hierarchy and at the same time the government is writing all the regulation protocols, this is basically self-monitoring; and when there is not external pressure, such monitoring may not work. When facing a voluntary disclosure choice, the SOE leaders basically face no external pressure; the pressure comes from within the system, the system they are in. And despite the SOEs are not all there are on the stock market, they do control more than half of the total market capitalization, their influence reach into major industries. Thus, failure to monitor and regulate information disclosure in the SOE sector could create a serious market confidence issue. The CSRC needs to be a separate regulatory body for true and

effective monitoring and regulating to happen.

Also, the CSRC needs more legislative and legal enforcement power after it is separate from the central government power hierarchy. As evidence shown, this can enhance voluntary disclosure level. Also, with more legal enforcement power, the CSRC can carry out more efficient and more serious punishment against those who exploit voluntary disclosure thus enhance the confidence investors have in voluntarily disclosed information. This can lead voluntary disclosure into a positive circle. This being said, there is also not enough protection for some companies who want to voluntarily disclose forecast financial information. Financial forecast is helpful to investors if the information is properly generated, however at the moment in Chinese stock market there is no incentive for companies to do better in preparing such information; because whether or not companies prepared the information with good intentions or not, if the forecast is not as accurate, the people with a good intention will be punished the same way as those who intended to manipulate investors. For profit generating organizations, if there is not incentive for doing things with the right intention, then what is it there to stop them doing it with a wrong one? Another problem is in the documents that supposed to guide and help companies to achieve better voluntary disclosure. One can not simple use one word to guide the disclosure choice of an annual report, language and logic in those documents need to be made clear so preparers of annual reports can sense accurately what does the regulatory agency want them to disclose, and what the agency demand they just disclose.

The second set of problems lay with investors. Chinese stock market is young and its investors are not so sophisticated, investors may misinterpretation information voluntarily disclosed by the company; the companies will then fear to disclose more, then investors will get less information and they will use their own undependable way to try to acquire more. This is a negative cycle. In order

to fix this problem, not only the regulatory power needs to improve itself and amend legislation, the investors need to be better educated as well. They need to be taught about risk and rational thinking first, before they are taught how to short term profit using the candlestick charts. However, there could be more to this investor issue, one cant simply blame everything on education. People become skeptical when there is none they can seek to trust, the dominating SOEs, the CSRC and the central government, these bodies are all tied together by a complicated chain of command. So eventually if one cant trust companies' disclosures activities just by themselves, theoretically they still have the regulatory body they can look up to; but for Chinese stock market, they can't look up to the CSRC because it is eventually run and monitored by the same people who run and monitor the companies that they don't trust in the first place.

7.9 Implications

This section discusses some implications of this study, with focus on: implications for future study; implications for development Chinese stock market disclosure regulation system.

7.9.1 Implications for future studies

The study of voluntary disclosure had become an important field in accounting research. There has been ample amount of studies undertaken on voluntary disclosure internationally. However, in China, study on voluntary disclosure can be still considered as in a starting phase. Even this topic has triggered many research interests and there had been some comprehensive studies, some Chinese studies in this field do not look at the overall picture and do not offer reasons of certain disclosure behavior. For example, in a very recent study of Lan, Wang and Zhang (2013), the authors found increasing of voluntary disclosure does not lead to less cost of capital. Despite a very good sample size

of 1066 companies, they do not explore reasons behind this phenomenon; they did not include anything relate to disclosure of environmental and social responsibilities in their 119 voluntary disclosure items; yet they have included over 20 financial ratio analysis in their disclosure item list. The understanding of corporate characteristics and disclosure behaviour is important, but understanding possible reasons behind such behavior is important also. Also, based Chinese studies on previous international studies is very helpful, but China's unique situations need to be considered; for example, low investor education level and lack of investor sophistication could mean voluntary disclosure of ratio analysis may not serve its purposes and thus may not be chosen by corporations. Then if one include such items in measuring voluntary disclosure level of Chinese corporations, wrong conclusions could be reached.

This study attempts to provide a more complete picture of the Chinese corporate disclosure regulation system, its unique corporate governing situation, individual investors' interpretation capabilities of accounting information and some rising social concerns people care about; and this study attempts to link these factors together when constructing a voluntary disclosure check list and when analyzing change in voluntary disclosure level of Chinese listed companies. The findings in this study can be a stepping stone for future studies on Chinese corporations' voluntary disclosure behavior: the modified use of classic accounting theories; the reveal of some possibly more fundamental reasons behind certain disclosure behavior like regulatory loopholes and self-regulating issues; and more insights into construction of a voluntary disclosure check list for Chinese corporations.

7.9.2 Implications for development Chinese stock market voluntary disclosure regulation and guidance system

As this study reviewed, China has already set up a regulatory system for voluntary disclosure. However, this system has loopholes as reviewed in this

study. These loopholes include the following. First, the CSRC lacks regulatory power and power to punish harmful disclosure activities; it lacks regulatory power and has low efficiency. Second, the guidance companies receive on how to and what to voluntarily disclose is in fact very lacking; the confusing wording in some key documents lead to confusion rather than clarity, this needs to be fixed. Third, the education offered to individual investors are insufficient and perhaps mostly in the wrong direction and order; if the investors can not interpret information in a right manner, than voluntary disclosure could do more harm than good.

In order to solve these problems, this study proposes the following. First, restructure the regulatory and monitoring system. This mainly involves simplifying relevant structures and improve coordination. As reviewed in this study, the Chinese disclosure regulatory and monitoring system is complex and confusing; there is power overlapping issue and yet there is no one with real authority to make change happens beside the central government. Supposingly, the central government represents the will of all people as it is the People's Congress; but the reality is, what ever message comes from central command gets lost in this confusing and complex system. And agents in the lower part of the power hierarchy like the CSRC can not do the job it is entrusted with because this system does not grant it power. This system needs to be re-configured and simplified, power needs to concentrate so the regulatory and monitoring agent can do its job. Jobs including: guiding documents from a single source; better wording in these guiding documents; power in punishment and encouragement of relevant disclosure activities; and grant power to individual investors who are powerless against big corporations in legal conflicts, so they can be truly protected.

Second, the improvement of Chinese individual investors' information education and interpretation capabilities. Chines individual investors' at present stage can

still be considered as very suspicious and overly rely on government information. Better education needs to be provided so they can gain better information interpretation capabilities. This is not just the job of authority, this is the job of corporations as well. Theory suggest corporations get influenced and in turn influence society, the corporations need to make a change as well; they need to lead the investors in certain areas. For example, less disclosure of government policy could possibly lead them to focus less on policy rumors. Also, less disclosure of environmental information could lead them to be less sensitive to environmental issues, this is very dangerous and should not be done.

Chapter Eight: Conclusion

China's stock market has expanded greatly in size and is now very important to the global economy, this expansion has happened in a very short period. Voluntary disclosure of corporate information can help to maintain market growth and stability as it mitigates information asymmetry and increase faith investors have in companies.

Many Chinese scholars have investigated the effect of voluntary disclosure, the improvement in voluntary disclosure, Chinese corporations' voluntary disclosure level and relevant disclosure regulation/monitor system. Although these studies offer a lot of insights, due to regulatory environment changes some of them can be considered as out of date; some of them rely on international studies to develop tools to evaluate Chinese corporations' voluntary disclosure activities but fail to consider possible inappropriateness of doing so due to some China's unique situation. This study attempts to fill such gaps.

Following a review of previous studies, this study reviewed some of China's unique situations. These situations include China's disclosure regulatory system and some of its problems, the Chinese SOEs who play a very important part in

China's economy and its manager reward system, and Chinese individual investors' education. By combining previous studies, the author then constructed an analytical framework based on agency theory, legitimacy theory and institutional theory with taking into consideration China's unique situations. This study then developed a voluntary disclosure check list partly based on previous studies and with additions based on the current Chinese environment. This study then used this developed check list to conduct empirical analysis of the voluntary disclosure level of top 50 Chinese companies by market capitalization listed on Shanghai Stock Exchange during period 2008-2012.

The empirical results and other research in this study highlighted many interesting issues. The Chinese disclosure regulation system itself is confusing and complex, power overlapping and insufficient power in key agent the CSRC cause blurry guidance for corporations, and very low investigation and punishment efficiency for harmful disclosure activities. The regulatory documents themselves have confusing wording issues, which make them less helpful if not hindrance to users; they also tend to be very strict on forecasting information but do not offer protection for good faith like the "safe harbor" clause. Some of the biggest corporations in China are SOEs, these SOEs face self-regulation issues since them and the CSRC are both completely and solely controlled by the central government. Finally it is noted that the individual Chinese investors receive insufficient education on how to avoid risk in stock market and tend to be very suspicious.

Empirical results show that selected companies' overall voluntary disclosure level did not increase during 2008-2012, rather it dropped. Chinese corporations appear not to be disclosing certain financial forecast information such as revenue, this is possibly due to lack of protection for inaccurate forecast and serious punishment for inaccurate forecast; this could also be due to interpretation capabilities of Chinese individual investors. Some selected

companies demonstrated a lacking in disclosure of human resource related information, they disclose no materialistic information and they show a serious lack in disclosing information regard to employment of ethnic minorities and gender issues. Corporate governance information disclosure has been relevantly high compared to other disclosure categories, this demonstrates that detail guidance does lead to better disclosure, this supports institutional theory. Managers of these top 50 companies are not found to disclose information with respect to how company strategy might impact their current performance and how long it will take to carry out the current strategy (strategic time frame). Results indicated that most of the top listed companies do demonstrate their R&D efforts and advantages, this supports previous studies' finding on disclosure of core competency related information. Empirical results indicate an anomaly during 2009-2010 regarding social responsibility and environmental issues, many corporation detached their CSR report or environmental report from their annual reports; but no evidence was found to explain this widespread action. The results obtained here could also answer a question: do SOEs really need to disclose information to the public to maintain legitimacy? The answer is probably not; as it would appear that their legitimacy is not separated from the government. From an agency theory perspective, if the government is the principal, the SOE leaders don't really have an incentive to reduce monitoring costs in a classical way. The monitoring costs to the government is really "Are they tightly following the policies and regulations we gave them?", in this sense, after regulation stated CSR/sustainability report should be separated from annual reports, the SOEs leaders will try to response to it as quickly as possible.

This study has two major set of implications. As for implications for future study, this study can provide a more complete picture of the Chinese corporate disclosure regulation system, its unique corporate governing situation, individual investors' interpretation capabilities of accounting information and some rising social concerns people care about; and this study links these factors

together when constructing a voluntary disclosure check list and when analyzing change in voluntary disclosure level of Chinese listed companies. The findings in this study can be a stepping stone for future studies on Chinese corporations' voluntary disclosure behavior. As for Implications for development Chinese stock market voluntary disclosure regulation and guidance system, this study proposes the following. First, restructure the regulatory and monitoring system. This would involve simplifying relevant structures and improve coordination. This system needs to be re-configured and simplified, power needs to be concentrated so the regulatory and monitoring agent can do its job. Issues including: guiding documents from a single source; better wording in these guiding documents; power in punishment and encouragement of relevant disclosure activities; and grant power to individual investors who are powerless against big corporations in legal conflicts, so they can be truly protected. Second, the improvement of Chinese individual investors' information education and interpretation capabilities. Better education needs to be provided so they can gain better information interpretation capabilities. This is not just the job of authority, this is the job of corporations as well. For example, less disclosure of government policy could possibly lead them to focus less on policy rumors. Also, less disclosure of environmental information could lead them to be less sensitive to environmental issues, this is very dangerous and should not be done.

The major limitation of this study is sample size, 50 companies may not be able represent the Chinese corporate population even these top companies comprise the majority⁶² of the market. However, this study still offer value insights into Chinese corporate voluntary disclosure. Some issues in this study can be expanded in future study and some issues can be better explained in future study.

⁶² Over 60% of the market by market capitalization, please go to appendix 11 for details

Appendix 1: Chinese Corporate Disclosure Regulations

<p style="text-align: center;">General Category: Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public</p>	Specific Document
	No.1 - Prospectus (Revised in 2006)
	No.2 - Annual Report (Revised in 2012)
	No.3 - Semi-annual Report
	No.4 – Allotment Specification (Repealed)
	No.5 -- Modification of Shares of the Company
	No.6 –Legal Opinion (Repealed)
	No.7 –Listing Announcement
	No.8 –Verification Notes (Repealed)
	No. 9 - Application Documents for the Initial Public Offering and Listing of Stocks
	No. 10 - Application Documents of Listed Companies for Offering Securities to the Public
	No.11 ----Prospectus for New Issue by Listed Companies
	No. 12 --Application Documents of Listed Companies for Issuing Convertible Company Bonds
	No.13 ----Prospectus for Convertible Corporate Bonds
	No. 14 – Listing announcement of convertible company bonds
	No. 15 - Equity Change Reports
	No. 16 - Acquisition Reports of Listed Companies
	No. 17 - Report of Acquisition by Offer
	No.18 - Reports of the Board of Directors of the Acquired Companies
	No. 19 - Application Documents for Exemption from the Acquisition by Offer
	No.20---Application Document for the Issue of Bonds by Securities Companies
	No.21 ----Prospectus for Bonds Offered by Securities Companies
	No.22---Public Announcement for Listing of Bonds of Securities Companies
	No.23 - Prospectus for Offering Corporate Bonds to the Public
	No.24 - Application Documents for Offering Corporate Bonds to the Public
No. 25--Preplan for the Non-public Insurance	

	of Stocks and Issuance Status Reports by Listed Companies
	No. 26-Application Documents for the Major Asset Restructuring of Listed Companies
	No.27---Sponsors' Statement on Offering and Sponsorship Work Report on Offering
	No. 28 - Prospectus of Companies on the Growth Enterprise Panel
	No.29---Application Documents for Initial Public Offering and Listing in Growth Enterprise Market
	No.30 -- Annual Reports of Companies Listed on the Growth Enterprise Market (Revised in 2012)

	Specific Document
	No. 1 - Special Regulations for the Prospectus of Commercial Banks (Repealed and Replaced by No.18)
	No. 2 - Special Regulations for the financial reports of Commercial Banks (Repealed and Replaced by No.18)
	(No. 3) -- Special Provisions on the Contents and Formats of Prospectuses of Insurance Companies
	(No. 4) -- Special Provisions on the Information Disclosure of Insurance Companies
	No. 5 - Special Regulations for the Content and Formats of Prospectus of Securities Companies
<p style="text-align: center;">General Category: Rules on the Preparation and Submission of Information Disclosed by Companies Offering Securities to the Public</p>	No. 6 - Special Regulations for the Financial Report of Securities Companies
	No. 7 - Special Regulations for the Content and Formats of Annual Reports of Commercial Banks (Repealed and Replaced by No.18)
	No.8 Special Regulation for the Contents and Forms of Annual Report by Securities Companies
	(No.9): Calculation and Disclosure of Return on Equity and Earnings per Shares
	No. 10 - Special Regulations for the Content and Formats of Prospectus of Real Estate Companies
	No. 11 - Special Regulations for the Financial Report of Real Estate Companies
	No. 12 – Legal Opinion and Lawyer Report of Public Listing

	(No. 13) –Quarterly Statement
	No. 14 –Treatment of Non-standard unqualified audit opinion and its relevant issues
	(No. 15) -General Rules on Financial Reports
	No. 16 - Interim Provisions on Supplementary Audit Implemented by A-share Companies
	No. 17 – Prospectus of Foreign Invested Companies
	No. 18 - Special Regulations for the Information Disclosure of Commercial Banks (Repealed and Replaced by No.26)
	No. 19 – Correction and Update of Financial Information
	No.20--Contents and Formats of Quarterly Reports of Enterprises Listed on Growth Enterprise Panel
	No.21 -- General Provisions on the Annual Internal Control Evaluation Report
	Could not find this document and could not find evidence this document existed ⁶³
	Could not find this document and could not find evidence this document existed
	Could not find this document and could not find evidence this document existed
	Could not find this document and could not find evidence this document existed
No. 26 - Special Regulations for the Information Disclosure of Commercial Banks	

<p style="text-align: center;">General Category: Questions and Answers for Information Disclosed by Companies Offering Securities to the Public</p>	Specific Document
	No. 1: Uncommon Losses and Profits
	No. 2: Set up and recording of Mid and Top management reward fund
	No. 3: The source, calculation and disclosure of accumulated loss
	No. 4 – Profit allocation, Auditing Differences caused by domestic and foreign auditing standards for finance companies
	No. 5 – Disclosure of Differences in Financial Reports Caused by differences between domestic and foreign accounting standards

⁶³ The author searched the internet generally, searched the CSRC Website specifically. Other documents could be found, but No 22~No 25 could not be found

	No. 6 – Disclosure of Payment to Accounting Firms for Service Rendered
	No. 7 - Compilation and Disclosure of Comparative Financial Accounting Information during Transition Period between New and Old Accounting Standards

General Category:	Specific Document
Explanatory Announcement for Information Disclosure by Companies that Issue Securities to the Public	No. 1 - Non-recurring Profits and Losses

Appendix 2: Influential Power of SOEs

According to the China's National Bureau of Statistics, the number of SOEs (refer to the ones follow into their narrow definition) will drop well below 80 by the end of 2012 (NBS, 2010) due to reform schedule. The number makes it look insignificant compare to other listed companies on the two stock exchange which numbers are in the thousands. However, it would be wrong for one to think like this.

First of all, according to <The guiding opinion on promoting the adjustment of state owned capital and the reorganization of state own enterprises 2006>, the state will maintain at least fifty percent ownership stake in the following industries: defense industry, coal industry, air transportation, power generating, petroleum and petrochemical, shipping, telecommunication. After examining data extracted from the audited financial statement of certain SOE and data found on China National Bureau of Statistics website, the author found by visible evidence alone⁶⁴, companies controlled by the state government still dominant in these industries in terms of revenue, industrial output and market capitalization. Below is a demonstration:

SOEs in China's petroleum and petrochemical industry 2010⁶⁵:

Name	Revenue(in billion RMB)	% of Revenue to Total Market
Zhu Hai Zhen Rong	61	0.7
China Offshore Oil Corp	355	4
China National Petroleum Corp	1721	19.3
China Petrochemical Corp	1913	21.4

⁶⁴ Due to the narrow definition of SOEs acknowledged by state government and possible indirect control, the true level of control the state has over the economy is likely to be higher.

⁶⁵ Choosing 2010 is mainly due to that it is the mid point of the five year testing period of this report

SOE(China Official Defined) Subtotal	4050	45.3
Other SCE revenue (Estimated according to WTO definition) Subtotal	2630	29.5
Total SOE and SCE	6680	74.8
Others	2251	25.2
Industry Total	8931	100

Second, besides the industry group just examined which was labeled as “strategic industry”, there are also those one might call “model industry”. According to the <Guiding Opinion>⁶⁶, the state government will and must maintain control in the key enterprises in these industries regardless how many shares the state hold; it could be no shareholding at all. These industries include: Automobile, steel production, construction, Non-Ferrous Metal, Machinery and Equipment, Information and Scientific Technology. According to statistical data after taken into the consideration of the WTO definition of SOE, the visible control coming from the state is lower in these industries, the exceptions is the automobile industry in terms of Market Occupation but not revenue, as demonstrated below⁶⁷:

Automobile SOE output 2010

Name	Output In Million Units	Market Occupy Share %
KwanTong Auto Group	0.7	4
Peking Auto Industry Group	1.5	8.3
Changan Automobile Co Ltd	2.4	13.2

⁶⁶ The same document in last paragraph, not using full name here to avoid over lengthing.

⁶⁷ For Automobile industry, data was extracted from SOE annual reports and China Associate of Automobile Manufacturers

FAW Group	2.6	14.2
Dongfeng Automobile	2.6	14.2
Shanghai Auto Industry Group	3.6	19.7
SOE subtotal	13.4	73.5
Others	4.7	26.5
Market Total	18	100

Third, even though the banking sector is not listed as a strategic industry nor a “model industry”, but as the author will demonstrate below, it is still controlled by the state just through a different regulatory path with a set of different regulatory structure. There are three levels of banks in China. The first level could be called State banks or as Chinese people call it “policy banks” as they directly carry out and reinforce nation’s fiscal policy, they are Agriculture Development Bank, China Development Bank and Expo-Import Bank of China. The second level is SE banks; they are Industrial and Commercial Bank, Agricultural Bank, Bank of China, China Construction Bank. These four banks despite they are listed, are fully owned by the state by the Ministry of Finance (they don’t go through SASACs). There are many joint owned commercial banks, the author could not find precise how many there are; but some scholar estimate these joint owned commercial banks along with SE banks and policy banks control around 75% of China’s banking assets (Deng et al, 2011). Thus, it is reasonable to consider the state controls the banking sector.

At last, there is also the flow of investment funding issue. Certain studies state that SOEs gain funding much easier than private companies (Price, Lightizer and Schagrín, 2009; Tsai, 2002), but after reading these studies the author could not agree on their evidence thus the credibility of their conclusion⁶⁸. However, the five year plans issued by the CCP that set what types of preferences to be

⁶⁸ Much of them are based on speculations or news rather than academic and verifiable resources

provided to certain industries do point out what type of enterprises “should” gain more support from local government and banks; and the state controlled banks do follow these instructions. For example, all banks among the top 50 companies⁶⁹ listed on Shanghai Stock Exchange increase loan granted to “green energy” companies. Thus, the state government has substantial influence over SOEs or non SOEs regard to investment funding. Even more investment into green energy development is a good thing, one should not forget this is rather driven by the government but not the market, state influence is there.

⁶⁹ By market capitalization

Appendix 3: Two Cases on Investor Education and Sophistication

This appendix review and analyze two major scandals happened in Chinese stock market in 2007 and 2013, one before the testing period of this thesis and one after. By analyzing these two cases, the author hopes to further advance understanding about the Chinese stock market specifically regarding to what had been discussed in chapter three: the disclosure regulation system, voluntary disclosure guidance, the importance of government and individual investors.

The HangXiao Steel Structure Scandal-Power of SOEs and suspicious investors

Case Review

HangXiao Steel Structure (HXSS, listing code 60047) listed on Shanghai Stock Exchange on 10th of November 2003, a leading company in steel structure manufacturing and design, its annual processing capability was around 1 million tons at the time, it also has top Chinese certificate in project engineering.

In February 2007, during the 2006 annual commendatory meeting, the Chairman of the Board of HXSS told the participants that 2007 would be a great year, if the big foreign project proceeds as schedule, the group's 2007 revenue could reach 15 billion RMB. This foreign project was supposed to be this contract with the Angola government to build residential homes, contract value of 30 billion RMB. On the same day of the meeting, 12th of February 2007, the share price of HXSS surged to fluctuation limit within hours. It wasn't until 15th of the same month the group announced anything about this contract, nor did it report this to the authorities. And from 12th of February to 16th of March 2007, the share price of HXSS surged to fluctuation limit 10 times rise to 10.75 RMB from 4.14 RMB,

an increase of 159%. By the 19th of March, the CSRC stepped in, halted HXSS's shares from getting trade, the investigation continued until the 30th of March and then CSRC actually allowed HXSS share trading to resume at the 2nd of April. The share surged to fluctuation limit again right the next day and emergency halt was issued again by the CSRC on the 4th of April. After the CSRC issued administrative punishment to HXSS, HXSS share trading resumed after 14th of May and reached history highest by the 25th of May with 31.57 RMB per share. HXSS share price remained in violent fluctuation after that until it hit 4.54 RMB per share on the 28th of August 2008.

On the 3rd of February 2008, three suspects were found guilty of inside information leak and insider trading and were sentenced 18 month and 30 month in jail. The illegal profit gained from this which totaled 40 million RMB was recovered and turned to the state.

Case Analysis

While the information leaked does not relate to voluntary disclosure in annual reports since such information could impact company performance significantly and thus is required to be disclose to the public on time by the Security Law, it still offers some interesting points.

The first would be the individual investors reaction to the contact came from Angola. There were major doubts raised by individual investors about whether or not this is real because they had doubts if a private company could get such a huge contract, this contract value was 4% of Angola's national GDP at that time. It appears in the mind of the mass population, only SOE can gain access to such big contract direct with another nation's government. This demonstrates the power and influence of SOE.

The second would be CSRC's actions and power in this matter. As mentioned in

chapter two, from the establishment of a case until CSRC can carry out an official action, the case has to go through a long chain of authorities. This practically forced CSRC to let HXSS share trading to resume before the truth could be officially announced to the public. Even though the contract was proven real, CSRC could not make an official announcement to cease the doubts in people's mind and such investigation authority is of a criminal case nature thus by the chain of legal authority can not be completed by CSRC alone. This caused lost of trust among individual investors.

The ChangJiu Bio-Chemical Co Ltd Scandal, 2013-History repeats

Case Review

One day, one notice and fully stated owned SOE dropped many Chinese investors from heaven right down to hell. ChangJiu Bio-Chemical Co Ltd (CJBC), is a company with the following status:

2012 had a total loss of 145 million RMB

First three quarters of 2013, loss of 55 million RMB

A seven quarter loss streak since the first quarter in 2012

Total Net Asset just 52.31 million RMB

Total Debt of 794 million RMB

Only two quarters out of the seven quarters since the start of 2012 the company had a positive cashflow

No doubt there are serious issues with this company, but its share price rise from 15 RMB/share at 27th of December 2012 to 40.6 RMB/share at May 2013 and it dropped right back to where it was within 10 days. This was labeled as “the biggest disaster since the opening” by many financial analysts and commentators. So how did this all happen and what does voluntary disclosure

got to do with it?

It all started with the GanZhou (a city of the JiangXi province) Rare Earth (GZRE), a fully state owned SOE under the direct control of GanZhou SASAC. This SOE holds 43 mining grants and controls 60% national extraction and processing of a specific type of rare earth. This type of heavy rare earth is the source of [Dysprosium], which is needed for laser devices, nuclear reactors, computer hard drives, hybrid motors and much more. Almost all this type of heavy rare earth concentrate in China, so in other words, this SOE is responsible for 60% of global extraction and processing. During March 2011, the JiangXi provincial government put the listing of this SOE on the top of its timetable. And rumors spread like wildfire about which company it is going to use to go back door listing, as far as the author counted, there are nearly 20 listed companies involved in the rumor during March 2011 to April 2011 alone.

So how did CJBC get involved in this? First, the investors used what they think “Screening Method” to isolate which company is the most likely one, CJBC was one of them. And 8 months after the rumor first spreaded, even the GanZhou SASAC officially announced it wasn’t going to go back door listing yet, the JiangXi provincial SASAC, the provincial SASAC controls the local GanZhou SASAC, sold 85% ChangJiu Group (this is the mother company of CJBC) shares it held to GanZhou Industrial Investment. This GanZhou industrial investment is also actually controlled by GanZhou SASAC.

The investors soon started to think of this as a sign that the GanZhou SASAC is making room for CJBC share acquisition. And then a notice voluntarily disclosed by CJBC added fuel to the fire after the rumors brewed for 10 months. At 28th of December 2012, CJBC issued a public notice stating: After asking the GanZhou SASAC about the rare earth resource, the GanZhou SASAC told them due to national policy it is unclear whether or not the rare earth resource is going

to be listed on stock exchange and

“...thus there is no plan at this stage to make such SOE to be listed”

Many investors interpreted the message this way: when policy clears out, they will proceed with listing by using back door listing through CJBC. Share prices started to rise despite the poor performance of CJBC, and during this rising period, CJBC sold 18 million shares to three parties, total value of 350 million RMB with average share price between 18.9 to 21.4.

The avalanche came at 3rd of November 2013, GuangDong Weihua publicly announced its restructuring plan stated the company is going to issue 1.476 billion shares to GanZhou Rare Earth with share price of 5.14 RMB. After this, GanZhou SASAC will become the actual controller of GuangDong Weihua with a shareholding of 75%. The rumor bubble vanished, CJBC was not the one. And there is what happened:



By the 11th of November 2013, investors were gathering outside of CSRC headquarter or on the way to Jiangxi to protest, and the three parties that acquired 18 million CJBC shares remained unharm because they sold them all because the avalanche came crashing down. By the 11th of November 2013, CSRC still

haven't halted this share, the loss of investors especially individual investors continued. CJBC denied misleading investors by false information and the GanZhou SASAC stated the only thing they have for investors is "sympathy" and that investors can't blame loss on them because they haven't said anything about back door listing through CJBC. The CSRC started investigation, but the author could not see a conclusion to all this before the due date of this thesis, so this is the end of the story.

Case Analysis.

First, the power of SOE is well demonstrated in case, especially those strategic SOEs, what they are telling the market is crucial and they are opportunities to private companies. The negotiations with GuangDong Weihua of course could not have happened overnight and they could not be publicly announced, this is not the SOE and SASAC's fault in this sense; but still, their influence over the stock market is strong.

Second, CJBC was not required under the law to disclose that "12.28" notice, so it is voluntary disclosure. And this one piece of information ignited the whole thing. So what the company is telling the market is important, but perhaps what is more important is how it is perceived.

Third, the CJBC claimed the investors "twisted the information", the author does not wish to comment on that yet. However, this does show some investors operate in the Chinese stock market have a gambling mindset. Perhaps a rational investor would not invest in a company with that kind of bad performance, at least not because of a piece of information that unclear?

Fourth, the CSRC's actions. This whole thing has not yet ended, so it is impossible to see how efficient the CSRC is in this matter. However, from the reactions so far, perhaps the CSRC could have stopped it earlier, perhaps the

CSRC could have spotted the anomaly sooner and warned the investors, perhaps they could have educated them better?

This latest scandal demonstrated well enough how powerful the SOE influence is, how shrouded and inefficient the chain of authority is in both SASAC term and stock market regulation term and how some Chinese investors lack basic rationality.

Appendix 4: Comparability Concerns

In some previous studies, banks and security trading companies were excluded from sample because it was considered:

“Firms must belong to an industry classification other than banking and financial institutions, which are subject to a different accounting system and disclosure requirements in China” (Wen et al, 2012, pg 35)

These two categories were usually not included in the sample (Wen et al, 2012; Qiao, 2003; Wang and Jiang, 2004; Fan, 2006; Yu and Zhang, 2007). This study does not exclude these companies from the sample due to two reasons. First, the extra information “suggested” does not collide with voluntary disclosure, they wouldn’t affect comparability. Second, banks and security trading companies are important forces in Chinese stock market.

The author examined <Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 7> and No.8, the two documents that give extra “guide” on information disclosure in annual reports by banks and security trading companies. The first thing banks were specifically suggested to disclose was Capital Adequacy Ratio (Capital to Risk Assets Ratio, CRAR if one prefers). They were asked to do this because in the <Commercial Banking Law> enacted in 1995 required this ratio is not to be lower than 8%, but there were two banks (The Pudong Development Bank and the Shenzhen Development Bank) did not disclose this ratio in annual reports,

thus special standards were issued to repair this legal loophole “must not be lower than 8% but we forgot to tell you that you have to disclose it”. This is directly linked to unconditionally enforceable legislation, therefore this is mandatory.

By 1998, the China central bank published guiding principle on loan risk classification, a duplicate of USA relevant standards. However, before year 2000, there was only one bank disclosed their loan risk classification information (The MinSheng Bank). Thus this article in the special standard aids the central bank’s policy statement and become unconditionally enforceable, this is mandatory as well.

There are three disclosure sector can be considered as voluntary due to the wording as discussed in chapter three. Banks and security trading companies were suggested to quantify several risk factors and analyze them as much as possible, if quantitative analysis is impossible to perform, qualitative analysis “should (Ying-Dang)” be provided. The main aim of this special sector is to let investor see the banks and security trading companies’ liquidity. Second, these two types of companies were suggested to have an accounting firm to evaluate whatever risk control mechanisms they have. Should accounting firms detect fault in these mechanisms, board of directors will be asked to explain and the supervisory panel will need to step in. Third, these two types of companies were asked to hire international accounting firms to conduct additional auditing by following international accounting and auditing standards.

It is true that the CSRC emphasized risk control and internal control for these two types of companies, but as analyzed, two of these additional suggestions are basically mandatory (CRAR and loan risk). As for quantitative analysis of risk, the risk factors that they were asked to quantitatively discussed as much as they can are industry special figure such as saving/load ratio, mid-term

loan/long-term load ratio. Despite they were suggested to have extra monitoring from accounting firms on their risk control mechanisms, they were not suggested in any way in these Standards to disclose that they set up an extra risk management mechanism or they have a separate risk management committee. And companies may employ an international accounting firm regardless of these Standards if they see there is a reason, such reason could be anything not just suggestions from the CSRC.

Therefore, comparability damage from including these two industries in the sample is really not as much as some previous studies declared and it would be interesting to test if these “suggestions” that came from the regulatory power did lead to more disclosure on their risk management mechanisms.

Appendix 5: Unconditionally Enforceable Disclosure Laws

Article 13, 59, 161, 58, 47,48,61,60,62,79,80,83,89,93,64,66,110,167,63,175,177 of the Security Law. Article 61 focus on Annual Report; Article 64,66,110,167 focus on information disclosure regulation; Article 63,175,177 focus on legal responsibilities regarding information disclosure

Article 87,88,140,153,156,175,176,156,149,184,185,186,206,207,212,217,218 of the Company Law. Article 156,175,176 focus on annual reports; article 206,207,211,212,217,218 focus on legal responsibilities regarding information disclosure

Article 15,19,33,34,57,59,58,47,48,49,60,61,62,74,77,78 of the Interim Provisions on the Management of the Issuing and Trading of Stocks. Article 57,59 focus on annual report; article 74,77,78 focus on legal responsibilities regarding information disclosure

Appendix 6: Initial Disclosure Check List and Screening

General/Overall Corporate Information	Removal	Re-Categorization
Corporate History	Y-As required by The Company Law	
Corporate Structure	Y-AS required by The Company Law	
Statement of financial strategy and objectives		Re-categorized into VD1-Financial Information, under item [Advantage and Difficulties]
Statement of marketing strategy and objectives		Re-categorized into VD4-Management and Strategy under item [Branding]
Statement of social strategy and objectives		Re-categorized into VD6-Society and Environment, under item [Corporate culture]
Strategic plan and barriers may encounter		Re-Categorized into VD 4-Management and Strategy, under any item

External Trading Environment Analysis	Removal	Re-Categorization
Selling Prices analysis		Re-categorized into VD1-financial information, under any item
Raw Material price analysis		Re-categorized into VD1-financial information, under any item
Labour Cost analysis		Re-categorized into VD1-financial information, under any item
Impact of policy and Law		Re-categorized into VD1-financial information, under item impact of macro economic or policy risk on financial
Industry trend analysis		Re-categorized into VD1-financial information, under item impact market risk on financials
Competitor analysis		Re-categorized into VD4-management and strategy, under item competitor analysis
Impact of environment on business		Re-categorized into VD1-financial information, under any item

Financial performance review/Analysis	Removal	Re-categorization
Why Income has changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of	

	investor sophistication discussed under 5.2.2	
Why cost has changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why sales have changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why margins have changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why net profit has changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why core business financial performance changed		Re-categorized into VD-4 management and strategy, under item continuity and stability and item impact of strategy on current performance
Why inventory level changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2 and this item affects comparability for service centered companies	
Why accounts	Review/Analysis of major change	

receivable changed	removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why accounts payable changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why capital expenditure changed		Re-categorized into VD-4 management and strategy, under item continuity and stability and item impact of strategy on current performance
Why research and development expenditure changed		Re-categorized into VD-5 Product and service development, under item development initiatives
Why market share changed		Re-categorized into VD-4 management strategy, under any item except item strategic time frame
Why cash flow changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why intangible asset changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why debt changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major	

	change removed due to concern of investor sophistication discussed under 5.2.2	
Why total asset changed	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Why investment (long and short term) changed		Re-categorized into VD-4 management and strategy, under any item except item competitor analysis and client analysis
Gear ratio and analysis or comments	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Current ratio and analysis or comments	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
ROE analysis or comments	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
ROA analysis or comment	Review/Analysis of major change removed due to premise check discussed in Chapter 5 under section 5.2.1; Review/Analysis of non major change removed due to concern of investor sophistication discussed under 5.2.2	
Difference between prior	Review/Analysis of major change removed due to 2012 Standard 2	

forecast and actual forecast	changes	
Forecast of cash flow	N/A	N/A
Forecast of Capital Expenditure	N/A	N/A
Forecast of R&D expenditures		Re-categorized into VD-5 product and service development, under item development initiative
Forecast of revenue	N/A	N/A
Forecast of sales	N/A	N/A
Forecast of costs	N/A	N/A
Forecast of turn over	N/A	N/A
Impact of possible opportunities on financial performance		Re-categorized into VD-4 management and strategy, under item impact of strategy on current performance

Non-Financial Information	Removal	Re-Categorization
Discussion or Analysis or product/service development		Re-categorized VD5- Product and Service development, under any item
Discussion or Analysis or marketing/networking effort		Re-categorized into VD-4 management and strategy, under item branding
Difficult issues facing and/or possible solutions		Re-categorized into VD-4 management strategy, under item advantage and difficulty
Structure of board of directors	Removed due to CSRC corporate governance code and premise check discussed in Chapter 5 under section 5.2.1	
General information about directors	Removed due to CSRC corporate governance code and premise check discussed in Chapter 5 under section 5.2.1	
Shares held by directors	Removed due to CSRC corporate governance code and premise check discussed	

	in Chapter 5 under section 5.2.1	
Remuneration plan	Removed due to Chinese Accounting Standard for Business Enterprise, the Security Law and the Company Law	
Top shareholders	Removed due to premise check discussed in Chapter 5 under section 5.2.1 and lack of investor demand discussed under 5.2.2	
Ultimate controller	Removed due to required by The Company Law and premise check discussed in Chapter 5 under section 5.2.1	
Change in dividend policy	Removed due to required by The Company Law and premise check discussed in Chapter 5 under section 5.2.1	
General Employee information	Removed due to required by The Company Law and Chinese Accounting Standard for Business Enterprise	
Employee training		
Employee Welfare		
Safety concerns and plans		Re-categorized into VD-2 HR, under item welfare and insurance and/or training/career progression

Appendix 7: Scoring Standard

VD1-Forward Looking Financial Information

Item-1 Revenue Forecast:

1	Simply Indicating Revenue could have a certain trend in the future
2	If such claim made above is supported by reasons
3	If such claim is supported by reasons and described in quantitative terms Note: There does not need to be a strong logic link between the reasons and the quantitative description

Item-2 Cost/Capital Investment Forecast: Apply the Revenue Forecast Rule

Item-3 Profit Forecast: Apply the Revenue Forecast Rule

Item-4 Cash Flow Forecast: Apply the Revenue Forecast Rule

Item-5 Turn Over/Production/Service Volume Forecast: Apply the Revenue Forecast Rule

Item-6 Impact of Macro Economics/Policy Risk on Company

Performance:

1.	Simply mention macro economic risk or policy risk could impact company performance. Example: “2011 will be the start of the new five year project, this will likely lead to more sales...(no support to back up this claim”---<China SANY group 2010 annual report>
2.	Such claim above made above is supported by reasons. Example: “In the new five year plan, the national government plans to build ...miles of new rail roads, thus the company expect an increase in the company’s transport

	capabilities...”---<China Rail 2010 annual report>
3.	<p>Such claim is supported by reasons and described in quantitative terms.</p> <p>Note 1—Qualifying Conditions: To qualify a score 3, there has to be a reasonable strong logic connection between the quantitative descriptions and qualitative descriptions.</p> <p>Example Qualify: The State Assets Administration Committee decided to increase the Molybdenum extraction cap in 2011, thus the company expect to see the company molybdenum production level of 2011 increase by roughly 10 percent ---<Jinzhui City Molybdenum Co 2010 Annual Report></p> <p>Note 2 Avoid Double Counting with scores of Item1-5: Should Macro Economics risk or policy risks impact on items (1)-(5), and when the influencing factors and the company performance figure influenced both are described in quantitative terms and logically linked together, a 3 point is given to this item but not items 1-5.</p>

Item 7: Apply the rules set in Item 6 for 1 point and 2 points.

3. A 3 point will be given as long as the market risk is described in quantitative terms. Example: The house price in Tier 2 cities is expect to drop by 3.5% in the coming year....---<China Baoli Real Estate Grp Annual Report 2008>

VD2-Human Resource

Item-8 Training/Career Progression

1	Simply mention there are training programs
2	Provide details of the programs including: program content, what did the participants gain
3	<p>Further details in quantitative terms, including: hours devoted to the program; results of the training (qualifications gained); awards received with the awarding date; number of participants</p> <p>Note : Avoid double counting with Item-Quality/Safety</p> <p>If the training's purposes was to improve production/service safety and quality, a 3 point will be awarded to that item not this one.</p>

Item 9 Employee Welfare:

1	Simply mention they care about employees' wellbeing
2	Support the above claim with details including: actions took; specific aims of specific programs; awards received in this field
3	Further support with quantitative information, including: hours spent, number of employees enjoyed the benefits

Item 10 Recruitment Layoff

1	Simply mention they recruited new employees or they fired employees this year; simply mention recruitment or layoff policy
2	Give information about the reason of recruitment or layoff; mention

	recruitment events hosted
3	Give quantitative information about number of employees newly recruited or fired; number of and time spent on recruitment events; number of people participated in these events

Item 11 Employment Fairness

1	Simply mention their policy or attitude towards employment fairness
2	Further qualitative information about employment fairness issues within the company or group, including: minority races, female/male
3	Provide quantitative information about female employees, minority races employees

VD3-Corporate Governance

Item 12 Auditing Committee

1	Mention the members of the committee
2	More qualitative information on the members, including: qualifications, work experience, area of expertise
3	Provide quantitative information about: members' participation rate; their activities on any other committees within or outside the company

Item 13 Risk Management Committee (or a monitoring group within the company go with different names)

Apply Item 12's Rules and/or :

1	Mention the activities of the committee
2	Further qualitative details on the committee's activities
3	Provide quantitative details about the committee's activities: date, hours

Item 14 Independent Directors

Apply Item 12's Rules

Item 15 Disclosure Policy

1	Simply mention the company cares about information disclosure transparency and clarity
2	Further qualitative information about the actions they took besides have a regular disclose website or newspaper
3	Quantitative information about the effort, including: monetary effort, hours devoted to it, people participated Note: Due to the fact that companies are "Strongly suggested" by the CSRC to state their regular disclosure platforms, this is considered not voluntary.

Item 16 Investor Relation

1	Simply state the company cares about investor relation
2	Provide further qualitative information about the above claim, including: campaigns, events hosted, hotlines opened, internet based answering mechanisms
3	Provide quantitative information about sub-items mentioned in the above section Note: Awards received for investor relation management are excluded

VD4 Management Strategy

Item 17 Branding

1	Simply state the company cares about its brand image
---	--

2	Provide qualitative information about the actions company took to preserve or improve its brands
3	Provide quantitative information about those actions, including: money spent; time spent on campaign or events or advertising or other actions.

Item 18 Management Advantages/Difficulties

1	Simply mention the management advantages the company have or soon will have; or difficulties company faced or likely to face in its normal course of business Note: Advantages and difficulties do not have to mention together here to earn a 1
2	Provide further qualitative discussion of the above claim, and any actions took/will be taken to preserve/remove the advantages/difficulties
3	Further support with quantitative evidence including: number of management personnel involved; financial resources devoted; time spent or time frame

Item 19 Competitor Analysis

1	Simply mention existing or potential competitors
2	Further qualitative discussion on such competitors, including: product/service comparisons; product/services' geographic coverage comparison
3	Further quantitative support about above information

Item 20 Client Analysis

1	Simply mention the clients and the company cares about its clients base
2	Provide further qualitative discussion about the clients including: their

	product/service coverage range; clients' importance to the company
3	Provide quantitative support for the above qualitative information

Item 21 Strategic Time Frame

1	Simply mention a blurry strategic time frame, for example (we expect it will be completed in 5 years)
2	Further discussion on this time frame about the reason behind why set such a time frame and any possible stages within the time frame
3	Provide dates about the time frame as a whole and stages' achieving dates if there are any

Item 22 Continuity

1	Simply mention the company is aware or care about its ability to continue its current course of business; or is aware/care about its ability to continue in generating returns for shareholders/stakeholders
2	Qualitative discussion about the above information
3	Further quantitative support about the above information

Item 23 Impact of strategy on current performances

1	Mention the company strategy impact on its current performance
2	Qualitative discussion about how and why the strategy impact current performance
3	Further quantitative support including; performance figures impacted

VD5 Research/Developments

Item 24 Research/Development Initiatives

1	Simply mention has such initiatives
---	-------------------------------------

2	Qualitative information about such initiatives such as: what it actually develop; how will the company benefit; dates of the initiatives
3	Further quantitative support for above information

Item 25 Research/Development Results

1	Simply mention the company have or will have some research/development results
2	Shed further qualitative information about such results such as: what will they enhance
3	Further quantitative information about such results: how much improvement in quantitative terms; operational time

Item 26 Advantages

1	Simply mention the results of R&D initiatives will give the company an advantage in the market over other companies in the same industry
2	Qualitative information on how the above is possible
3	Provide technical data to support the above claim

VD6 Society and Environment

Item 27 Product/service's quality and safety

1	Simply stating the company care about product/service quality/safety's impact on the society
2	Further qualitative information about the above claim, including actions took or about to take
3	Quantitative information to further support the claim

Item 28 Environmental Protection

1	Simply mention the company cares about environmental protection or they have any environmental protection initiatives
2	Provide more detail qualitative details about the above claim or initiatives
3	Provide quantitative details including but not limit to: financial resource devoted, technical results; number of personnel involved

Item 29 Corporate Culture

1	Simply mention the corporate culture and it benefit the society or the company's defined stakeholder group
2	Provide qualitative and logical discussion for the above claim
3	Provide quantitative information, include but not limit to: personnel and time devote to strengthen particular corporate culture

Item 30 Community Relation

1	Simply mention the company cares about its relation to community as a whole or a particular local community
2	Further qualitative information including: actions took or plan to take; awards; local feedback; media exposure
3	Provide quantitative information support for the above qualitative discussion

Item 31 Donations

1	Simply mention the company donate to organizations that dedicate to public wellbeing
2	Further discussion about the use of the

	donations and possible benefits may come from it
3	Quantitative information about the amount of the donations, date of the donation and the receiver's name

Appendix 8: CSRC Industry Classification Code

Classification structure and codes

Code	Industries	Description	
Category	Class		
A		Agriculture, forestry, animal husbandry and fishery	This category includes classes from 01 to 05.
	01	Agriculture	The cultivation of various kinds of farm crops.
	02	Forestry	
	03	Animal husbandry	Animal breeding and capture activities to obtain various kinds of livestock and poultry products.
	04	Fishery	
	05	Service industry for agriculture, forestry, animal husbandry and fishery	
B		Mining industry	This category includes classes from 06 to 12. The mining industry means the extraction of naturally produced minerals, whether solid (such as coal and minerals), liquid (such as crude oil) or gaseous (such as natural gas); includes underground or ground mining, operation of mines, and all auxiliary work generally conducted at or around mine sites to process raw

			materials, such as milling, ore dressing and processing; also includes preparations necessary for selling raw materials; and excludes the storage, purification and distribution of water, geological exploration, and construction engineering.
	06	Coal mining and dressing industry	Production activities including but not limited to the mining, dressing and classification of a variety of coals; excluding the production of coal products and coal exploration.
	07	Oil and natural gas exploitation industry	The exploitation of natural crude oil and liquid or gaseous natural gas as well as the exploitation of coal mine gas (coal-bed methane) in land or at sea; liquefaction of natural gas and production of liquefied hydrocarbon from natural gas fields conducted for the purpose of transportation; also including the exploitation of bituminous shale or kerogen shale ores and similar operations on tar sands ores.

	08	Ferrous metal ore mining and dressing industry	
	09	Non-ferrous metal ore mining and dressing industry	The mining and dressing of commonly used non-ferrous metal ores, noble metal ores and rare rare-earth metal ores.
	10	Non-metallic ore mining and dressing industry	
	11	Exploitation auxiliary activities	Services provided for the exploitation of coal, oil, natural gas and other minerals.
	12	Other mining industries	
C		Manufacturing industry	<p>This category includes classes from 13 to 43. It shall be deemed manufacture that new products are made after physical or chemical changes, whether made by power-driven machines or handmade and whether the products are wholesaled or retailed.</p> <p>The production of various finished products and spare parts of buildings shall be deemed manufacture, but the assembling activities on the building preform sites, such as assembling main parts</p>

			<p>into bridges, warehouse equipment, railways and overhead roads, lifts and elevators, plumbing, sprinkler equipment, heating equipment, ventilation equipment and air-conditioners and the installation of lights and electrical wiring, as well as building installation, shall be included in construction activities.</p> <p>This category includes the re-manufacturing of electromechanical products, which means the production process in batch where the components and parts of used automobiles, engineering machinery, machine tools and so on are professionally repaired and the re-manufactured products have the same quality and performance as the original new products.</p>
	13	Agricultural and sideline food processing industry	<p>The grain milling, feed processing, vegetable oil and sugar processing, slaughtering and meat processing, aquatic product processing,</p>

			and processing of vegetables, fruits, nuts and other food, which directly take the products of agriculture, forestry, animal husbandry and fishery as raw materials.
	14	Food manufacturing	
	15	Alcohol, beverage and refined tea manufacturing	
	16	Tobacco manufacturing	
	17	Textile industry	
	18	Textile garment and apparel industry	
	19	Leathers, furs, feathers and related products and footwear industry	
	20	Wood processing and wood, bamboo, rattan, Palm fiber, and straw product industry	
	21	Furniture manufacturing	The manufacture of various furniture which are made of wood, metal, plastic, bamboo, rattan and other materials for such functions as sitting, lying, leaning, storage and separation and can be used in any places such as housing, hotels, offices, schools, restaurants, hospitals, theaters, parks, ships,

			aircrafts and motor vehicles.
	22	Papermaking and paper product industry	
	23	Printing and recording media reproduction industry	
	24	Manufacturing of stationery, industrial arts, sports and entertainment supplies	
	25	Industries of petroleum processing, coking, and nuclear fuel processing	
	26	Manufacturing of chemical raw materials and chemical products	
	27	Pharmaceutical industry	
	28	Chemical fiber manufacturing	
	29	Industry of rubber and plastic products	
	30	Industry of non-metallic mineral products	
	31	Industry of ferrous metal smelting and rolling processing	
	32	Industry of non-ferrous metal smelting and rolling processing	
	33	Metal product industry	
	34	General equipment manufacturing	

	35	Special-purpose equipment manufacturing	
	36	Automobile manufacturing	
	37	Manufacturing of railways, ships, aircrafts, spacecrafts and other transportation equipment	
	38	Electric machinery and equipment manufacturing	
	39	Manufacturing of computers, communications and other electronic equipment	
	40	Instrument and meter manufacturing	
	41	Other manufacturing industries	
	42	Industry of comprehensive utilization of waste resources	The recycling and processing of waste resources and waste materials.
	43	Industry of metal product, machinery and equipment repair	
D		Industry of electric power, heat, gas and water production and supply	This category includes classes from 44 to 46.
	44	Industry of electric power and heat production and supply	
	45	Gas production and supply industry	

	46	Water production and supply industry	
E		Construction industry	This category includes classes from 47 to 50.
	47	Building construction industry	
	48	Civil engineering construction industry	The construction of the main bodies of civil engineering projects, excluding engineering preparations before construction.
	49	Construction installation industry	The installation of various equipment in the buildings after the completion of construction of the main bodies of buildings and the line laying and pipeline installation activities during the construction; excluding decorations at the end of a project, such as the finishing of walls, floors, ceilings, doors and windows.
	50	Architectural decoration and other construction industries	
F		Wholesale and retail industry	This category includes classes 51 and 52, meaning the wholesale and retail of commodities in circulation.

	51	Wholesale industry	<p>The selling of household goods and means of production in bulk to other wholesale or retail entities (including sole proprietors), other enterprises and public institutions, government agencies, social groups and so on, as well as import and export trade and trade brokerage and agency, including both the trading by entities (companies) in their own names which own the goods and the commodity agency and commissioned sale of commodities by entities which charge commissions and do not own the goods; and also including the wholesale activities of fixed stalls in commodity wholesale markets and acquisition activities for the purpose of sale.</p>
	52	Retail industry	<p>The sales activities of department stores, supermarkets, specialized retail stores, brand franchised stores, vending stalls and so on mainly to end consumers (such as residents), the sales</p>

			<p>activities through the Internet, postal service, telephone, vending machines and other channels, also including the activities of shops (such as bakeries) which conduct processing and production at the back and sell products in the front at the same site; the sale of grain, seed, feed, livestock, mineral products, raw materials for production, chemical raw materials, agricultural chemical products, machinery equipment (excluding passenger cars, computers and communications equipment) and other means of production are not deemed retail activities; most retailers own the goods they sold, but some conduct commissioned sale or sell goods to charge commissions as agents of the principals.</p>
G		Transport, storage and postal service industry	This category includes classes from 53 to 60.
	53	Railway transportation industry	The passenger and cargo transportation on railways and related dispatch,

			signaling, locomotive, vehicle, overhaul, maintenance and other activities; excluding the activities of the manufacturers (companies) of locomotives, vehicles and signal and communication equipment, construction engineering companies, stores, schools, scientific research institutes, hospitals and so on affiliated to the railway system.
	54	Road transport industry	
	55	Waterway transport industry	
	56	Air transport industry	
	57	Pipeline transport industry	
	58	Industry of loading/unloading handling and transport agency	
	59	Storage industry	The specialized cargo storage and freightage transit storage, the cargo delivery activities mainly including storage, and acquisition activities for the purpose of storage.
	60	Postal service industry	

H		Accommodation and catering industry	This category includes classes 61 and 62.
	61	Accommodation industry	The provision of short-term lodging places for travelers. Some entities only provide accommodation, while some entities provide integrated services including accommodation, catering, commerce and entertainment services. This class excludes long-term house leasing mainly on a monthly or yearly basis.
	62	Catering industry	The services to provide consumers with food and consumption places and facilities through instant production and processing, commercial sale, service labor and so on.
I		Industry of information transmission, software and information technology services	This category includes classes from 63 to 65.
	63	Telecommunications, radio and television and satellite transmission services	
	64	Internet and related services	
	65	Industry of software	The provision of

		and information technology services	services for the technical problems or technical requirements arising in the process of information transmission, information production, information provision and information reception.
J		Financial industry	This category includes classes from 66 to 69.
	66	Monetary and financial services	
	67	Capital market services	
	68	Insurance industry	
	69	Other financial industries	
K		Real estate industry	This category includes class 70.
	70	Real estate industry	
L		Leasing and commercial service industry	This category includes classes 71 and 72.
	71	Leasing industry	
	72	Commercial service industry	
M		Scientific research and technical service industry	This category includes classes from 73 to 75.
	73	Research and experimental development	The systematic and creative activities conducted for the purpose of increasing

			knowledge (including knowledge on nature, engineering, human being, culture and society) and using such knowledge to create new applications; such activities shall be only limited to the research on new discoveries and new theories and the development, research and experimental development of new technologies, new products and new processes, including basic research, applied research and experimental development.
	74	Professional technical service industry	
	75	Industry of science and technology popularization and application services	
N		Water conservancy, environment and public facility management industry	This category includes classes from 76 to 78.
	76	Water conservancy management industry	
	77	Ecological protection and environmental governance industry	
	78	Public facility management industry	
O		Industry of resident service, repair and	This category includes classes from

		other services	79 to 81.
	79	Resident service industry	
	80	Industry of repair of motor vehicles, electronic products and household products	
	81	Other service industries	
P		Education	This category includes class 82.
	82	Education	
Q		Health and social work	This category includes classes 83 and 84.
	83	Health	
	84	Social work	The provision of charity, relief, welfare, care, assistance and other social work.
R		Industry of culture, sports and entertainment	This category includes classes from 85 to 89.
	85	Press and publishing industry	
	86	Radio, television, film, and film and television sound recording production industry	Such activities as the production, playwriting, directing, hosting, broadcasting, and projecting of the contents of radio, television, film, and film and television sound recordings; excluding the transmission and reception of radio and television signals.

	87	Industry of culture and arts	
	88	Sports	
	89	Entertainment industry	
S		Diversified industries	This category includes class 90.
	90	Diversified industries	

Appendix 9: Individual Item Score of VD4

		Branding	Advantage and Difficulties	Competitor Analysis	Clients Analysis	Strategic Time Frame	Continuity and Stability	Impact of Strategy on Current Performance	
2008	No.3	18	6	5	19	5	2	0	
	No.2	21	28	14	20	5	24	5	
	No.1	7	13	21	11	10	17	9	
	No.0	4	3	10	0	30	7	36	
2009	No.3	18	2	1	20	3	2	0	
	No.2	21	28	15	18	4	27	0	
	No.1	11	19	21	11	1	14	3	
	No.0	0	1	13	1	42	7	47	
2010	No.3	10	2	0	21	2	0	1	
	No.2	23	23	10	21	4	19	1	
	No.1	17	21	23	8	15	19	3	
	No.0	0	4	17	0	29	12	45	
2011	No.3	12	1	0	15	6	0	0	
	No.2	14	9	2	18	0	25	0	
	No.1	16	38	21	15	12	16	5	
	No.0	8	2	27	1	32	9	45	
2012	No.3	16	0	1	10	4	0	1	
	No.2	19	8	5	20	0	28	0	
	No.1	14	38	11	13	5	16	5	
	No.0	1	4	33	7	41	6	44	

Appendix 10: 2009-2010 Disclosure Anomaly

The author found a possible but not directly related reason. The reason is the combination of an old piece of SSE's guiding notice and the <Rules for the Determination of Administrative Responsibilities for Information Disclosure-related Offenses-Trial> issued by the CSRC on 27th of December 2012⁷⁰. Traditionally, the SSE issues guiding notice about improving the quality of annual reports every year, and companies are usually suggested to “disclose their CSR reports **at the same time** they disclose their annual reports”. I am of the opinion, this indicates the SSE had been suggesting annual reports and CSR reports should be separated and these two reports are not one object. And in the rules mentioned above, Article 6 under Chapter 2 <Identification of Information Disclosure-related Offenses>, it stated:

*“Failure by any information disclosure obligor to disclosure information according to the time and **manner**⁷² of such disclosure (including information reports, hereinafter the same) as prescribed by applicable laws, administrative regulations, rules and other regulatory documents as well as **the business rules of relevant securities exchanges**”⁷³*

In this way, the “manner” suggested by SSE “rules” was strengthened, thus such “manner” would include separation of CSR reports from annual reports and separate disclosure. However, it is not certain if those guiding notices count as rules, thus this is not strictly a perfect match reason but only the closest reason the author could find.

While the most SOEs possibly responded to this change swiftly, the private companies continued to include their CSR or sustainability reports in their

⁷⁰ http://www.csrc.gov.cn/pub/shenzhen/xxfw/tzzsyd/ssgs/ssxxpl/ssplx/201101/t20110106_190219.htm

⁷¹ Please note, these offences are subject to administrative punishments, not criminal

⁷² The original Chinese word is “Fang Shi 方式” which also means “the way to do something; how to do something” “mode” “style” “pattern”

⁷³ http://www.csrc.gov.cn/pub/shenzhen/xxfw/tzzsyd/ssgs/ssxxpl/ssplx/201101/t20110106_190219.htm

annual reports, they simply cut down the length of these reports. For example, the MinSheng Banking Corp Ltd, a private controlled commercial bank had 39 pages of CSR report in their 2009 annual reports; in 2010 annual report, the CSR report is still there, just the size shrink down to 3 pages. On the other hand, PetroChina Company Limited, the state own oil giant had 53 pages of sustainability report in their 2009 annual report; and in their 2010 annual report, this sustainability report is completely gone; this led to PetroChina scored the year minimum of 0.133. However, not SOEs behaved like PetroChina. China Railway Construction Corporation Limited continued to have CSR report in their annual report and scored 0.933 for this category. The author briefly compared this company with PetroChina , both companies had dominating state ownership, both had good profit figures, key financial ratios such as ROE or Debt/Asset ratio looked good for both companies, they both have a lot of business activities outside of China; these common factors seem unable to explain this phenomenon.

**Appendix 11: Top 50 Listed Companies' Market Capitalization
as % to All Listed Companies' Market Capitalization Year 2012**

Data retrieved from SSE Annual Statistical Booklet available on SSE website

Ranking No	Listing Code	% as of All Listed Companies' Market Capitalization Value
1	601857	9.22
2	601398	6.87
3	601288	5.19
4	601988	3.6
5	600028	3.05
6	601628	2.81
7	601088	2.63
8	600036	1.53
9	600519	1.37
10	601318	1.37
11	600104	1.23
12	601328	1.22
13	600000	1.17
14	601166	1.13
15	600016	1.12
16	601601	0.89
17	601998	0.86
18	600030	0.83
19	601818	0.78
20	601668	0.74
21	600900	0.71
22	601006	0.63
23	600048	0.61
24	600111	0.57
25	600019	0.53

Ranking No	Listing Code	% as of All Listed Companies' Market Capitalization Value
26	600837	0.52
27	601169	0.52
28	600031	0.51
29	600011	0.47
30	600050	0.47
31	600585	0.46
32	601898	0.45
33	600015	0.45
34	601989	0.44
35	601800	0.39
36	601899	0.38
37	601186	0.38
38	601336	0.38
39	600018	0.38
40	601766	0.37
41	600256	0.36
42	601688	0.35
43	600547	0.34
44	600188	0.34
45	601390	0.33
46	601699	0.32
47	601111	0.31
48	600362	0.31
49	600999	0.31
50	601600	0.31
	Total	60.51

Appendix 12: Raw Data Year 2008

Ranking	Name	Listing Code	Industry	Industry Name	Financial Information										VD1-Financial					HR				VD2-HR				Corporate Governance					VD3-CG					Management And Strategy					VD4-MS			Product and Service Development			VD5-DEV					Society and Environment					VD6-SE		VDT
					Revenue Forecast	Cost/Capital Investment	Profit Forecast	Cash Flow Forecast	Turn Over/Production Forecast	Impact of Macro Economics/Policy Risk	Impact of Market Risk on Financials	Training /Progression	Welfare and Insurance	Recruitment and Layoff	Employment Fairness	Auditing Commitment	Risk Management /Monitoring/Committee	Independent Director	Disclosure Policy	Investor Relation	Branding	Advantage and Difficulties	Competitor Analysis	Clients Analysis	Strategic Time Frame	Continuity and Stability	Impact of Strategy on Current Performance	Development Initiatives	Results	Advantage	Quality and Safety	Environmental	Corporate Culture	Community Relation	Common Good	Score	Score																								
1	中国石油	601857	B	Mining	1	1	0	3	0	2	2	0.428571429	3	2	1	3	0.75	3	2	1	1	1	0.533333	1	2	2	1	3	3	3	3	0.77778	3	2	1	3	3	0.8	0.6129																						
2	工商银行	601398	J	Financial	2	0	2	1	2	3	2	0.571428571	3	2	1	3	0.75	3	3	3	1	1	0.733333	3	2	1	3	0	2	0	0.571429	3	3	2	0.88889	2	3	0.8667	0.6982																						
3	中国银行	601988	J	Financial	1	0	3	1	3	3	2	0.619047619	3	2	1	2	0.66667	3	2	3	2	2	0.866667	3	2	2	0	2	1	0.571429	2	2	2	0.66667	1	2	3	0.7333	0.6742																						
4	中国石化	600028	B	Mining	1	0	0	3	0	2	2	0.380952381	3	3	0	3	0.75	3	1	2	2	1	0.6	1	1	1	2	1	0	0.333333	2	3	3	0.88889	3	3	2	0.9333	0.5914																						
5	中国人寿	601628	J	Financial	2	2	1	1	0	3	2	0.523809524	2	2	2	3	0.75	3	2	3	3	2	0.866667	2	2	2	1	2	1	0.571429	2	3	1	0.66667	3	2	0	1	3	0.6	0.64516																				
6	中国神华	601088	B	Mining	0	3	1	1	0	2	2	0.428571429	1	2	0	1	0.3333	3	1	3	2	3	0.8	1	3	1	3	0	3	2	0.619048	1	3	1	0.55556	3	2	1	1	1	0.5333	0.54839																			
7	招商银行	600036	J	Financial	1	0	3	0	3	3	2	0.571428571	2	2	0	3	0.5833	3	3	3	1	2	0.8	3	1	0	3	0	2	0.428571	3	3	2	0.88889	2	2	1	3	3	0.7333	0.63441																				
8	长江电力	600900	D	Electric Power, Heat, Gas and Water	0	1	1	0	1	2	2	0.333333333	1	2	1	3	0.5833	3	2	2	1	1	0.6	0	2	0	2	0	1	0	0.238095	2	3	0	0.55556	3	3	1	2	3	0.8	0.48387																			
9	中国平安	601318	J	Financial	1	2	3	0	0	3	2	0.523809524	2	2	2	3	0.75	3	1	3	3	2	0.8	2	2	1	2	0	0.428571	2	2	1	0.55556	2	3	1	2	3	0.7333	0.6129																					
10	交通银行	601328	J	Financial	1	0	3	0	3	3	3	0.619047619	3	3	0	3	0.75	3	2	3	1	1	0.666667	2	0	0	3	0	2	0.380952	2	2	2	0.77778	3	3	1	3	1	3	0.8667	0.64516																			
11	中信证券	600030	J	Financial	0	1	0	0	0	2	2	0.238095238	3	2	1	3	0.75	2	2	2	2	2	0.666667	3	0	0	3	0	2	1	0.428571	1	1	2	0.44444	3	3	2	2	3	0.8667	0.53763																			
12	中国联通	600050	I	Information Technology	0	1	0	0	1	0	2	0.19047619	1	2	1	3	0.5833	2	1	3	2	1	0.6	3	3	2	1	2	3	1	0.714286	3	2	3	0.88889	3	3	2	1	3	0.8	0.5914																			
13	大秦铁路	601006	G	Transport, Storage and Postal Service	1	3	2	2	1	2	2	0.619047619	3	2	1	1	0.5833	3	2	3	2	3	0.866667	3	2	3	3	2	0	0.761905	1	2	1	0.44444	3	2	1	2	3	0.7333	0.68817																				
14	中国铁建	601186	E	Construction	0	3	0	0	1	3	2	0.476190476	2	2	1	3	0.6667	3	1	3	2	3	0.8	2	2	3	3	2	0	0.714286	1	1	1	0.33333	3	3	1	1	3	0.7333	0.63441																				
15	中信银行	601998	J	Financial	2	0	3	0	2	3	3	0.619047619	2	2	1	3	0.6667	3	3	3	2	2	0.866667	3	3	1	3	0	1	0	0.52381	2	3	2	0.77778	2	3	1	2	3	0.7333	0.67742																			
16	贵州茅台	600519	C	Manufacturing	1	2	1	0	3	2	2	0.523809524	2	2	1	2	0.5	1	3	2	2	2	0.733333	3	2	3	1	2	0	0.666667	2	1	2	0.55556	3	1	1	1	1	0.4667	0.58065																				
17	中国中铁	601390	E	Construction	1	2	1	0	0	2	2	0.380952381	3	2	1	3	0.75	3	0	3	1	2	0.6	1	2	2	3	3	2	0	0.619048	2	2	1	1	0.44444	3	3	1	2	3	0.8	0.5914																		
18	中国大冶	601601	J	Financial	2	2	0	1	1	3	3	0.571428571	2	2	1	2	0.5833	3	1	3	2	0.8	2	2	1	3	0	2	1	0.52381	2	2	2	0.66667	2	2	1	2	3	0.6667	0.62366																				
19	宝钢股份	600010	C	Manufacturing	1	3	0	1	1	2	3	0.523809524	3	2	2	3	0.8333	3	3	2	2	2	0.866667	3	2	2	1	2	0	0.571429	3	3	2	0.88889	3	3	2	3	3	0.9333	0.73119																				
20	民生银行	600016	J	Financial	0	0	0	0	0	3	2	0.238095238	3	2	2	2	0.75	3	1	3	2	2	0.733333	3	2	1	3	0	0	0.428571	2	1	1	0.44444	2	3	2	2	2	0.8	0.53763																				
21	浦发银行	600000	J	Financial	0	0	3	0	3	2	2	0.476190476	3	3	2	3	0.9167	3	2	3	2	2	0.866667	3	2	1	2	2	1	0.52381	3	2	2	0.55556	0	3	2	3	3	0.7333	0.6591																				
22	兴业银行	601166	J	Financial	0	1	3	0	3	2	1	0.476190476	1	1	0	3	0.4167	3	1	3	2	3	0.8	3	1	1	1	1	2	0	0.428571	1	0	1	0.22222	2	3	1	3	3	0.8	0.53763																			
23	上港集团	600018	G	Transport, Storage and Postal Service	1	0	0	0	0	2	1	0.19047619	3	2	2	3	0.8333	2	2	2	2	2	0.666667	2	1	2	2	1	1	0	0.428571	1	1	1	0.33333	3	3	2	3	3	0.9333	0.53763																			
24	海通证券	600837	J	Financial	0	0	0	0	0	2	1	0.142857143	1	1	0	3	0.4167	3	2	2	2	2	0.6	2	0	1	2	0	1	0	0.285714	1	1	0	0.22222	2	2	1	2	1	0.5333	0.35484																			
25	华能国际	600011	D	Electric Power, Heat, Gas and Water	1	1	0	0	1	2	2	0.333333333	1	2	0	3	0.5	3	1	2	1	1	0.533333	0	2	1	1	0	1	0	0.238095	3	3	1	0.77778	3	3	1	1	1	0.6	0.45161																			
26	中煤能源	601898	B	Mining	1	3	1	0	1	2	2	0.476190476	2	3	0	1	0.5	3	1	3	2	3	0.8	3	2	2	3	2	2	0.761905	2	3	1	0.66667	3	3	2	2	2	0.8667	0.67742																				
27	中国铝业	601600	C	Manufacturing	1	0	1	0	1	2	1	0.285714286	1	1	1	1	0.3333	3	2	3	3	0.933333	1	2	1	2	0	2	0	0.380952	1	2	1	0.44444	3	3	1	2	1	0.6667	0.49462																				
28	中国远洋	601919	G	Transport, Storage and Postal Service	0	1	0	0	3	2	1	0.333333333	1	1	1	0	0.25	3	2	3	1	3	0.8	2	2	3	3	3	1	0	0.66667	3	2	2	0.77778	1	3	1	0	0	0.3333	0.51613																			
29	北京银行	601169	J	Financial	0	0	2	0	3	2	2	0.428571429	2	1	1	2	0.5	3	3	3	3	0.866667	3	1	0	1	0	2	0	0.333333	2	2	1	0.55556	2	3	2	3	3	0.8667	0.56989																				
30	上海电气	601727	C	Manufacturing	0	0	0	2	1	2	1	0.285714286	2	2	2	2	0.6667	3	1	3	3	0.866667	2	2	1	2	0	0	0	0.333333	2	3	1	0.66667	3	3	1	2	2	0.7333	0.54839																				
31	大唐发电	601991	D	Electric Power, Heat, Gas and Water	3	1	1	0	3	2	2	0.571428571	1	1	0	0	0.1667	3	0	2	1	1	0.466667	0	2	1	2	1	1	1	0.380952	1	1	1	0.33333	2	2	0	1	1	0.4	0.4086																			
32	紫金矿业	601899	B	Mining	2	0	0	0	2	2	2	0.380952381	1	2	0	3	0.5	2	0	3	2	2	0.6	2	2	1	1	0	0	0.285714	3	3	2	0.88889	2	3	1	3	3	0.8	0.52688																				
33	中国南车	601766	C	Manufacturing	1	1	0	0	2	2	1	0.333333333	2	2	0	3	0.5833	3	0	3	2	3	0.733333	2	1	2	2	0	1	0	0.380952	2	3	2	0.77778	3	3	2	1	3	0.8	0.55914																			
34	武钢股份	600005	C	Manufacturing	2	3	1	0	3	2	2	0.619047619	1	1	2	1	0.4167	3	1	3																																									

Individual Disclosure Category Score Categorized by Ownership Structure

Ranking	Name	Listing Code	Industry Code	Industry Name	SOE						
					VD1-Financial	VD2-HR	VD3-CG	VD4-MS	VD5-DEV	VD6-SE	VD7
1	中国石油	601857	B	Mining	0.428571429	0.75	0.53333333	0.5714286	0.777777778	0.8	0.6129
4	中国石化	600028	B	Mining	0.380952381	0.75	0.6	0.33333333	0.888888889	0.93333333	0.5914
6	中国神华	601088	B	Mining	0.428571429	0.33333333	0.8	0.6190476	0.555555556	0.53333333	0.54839
26	中煤能源	601898	B	Mining	0.476190476	0.5	0.8	0.7619048	0.666666667	0.866667	0.67742
37	中海油服	601808	B	Mining	0.380952381	0.33333333	0.6	0.3809524	0.888888889	0.4	0.46237
43	海油工程	600583	B	Mining	0.333333333	0.83333333	0.6666667	0.5238095	0.777777778	0.666667	0.5914
45	金铂股份	601958	B	Mining	0.476190476	0.58333333	0.73333333	0.2380952	1	0.266667	0.49462
48	兖州煤业	600188	B	Mining	0.380952381	0.9166667	0.6	0.4285714	0.555555556	0.866667	0.5914
32	紫金矿业	601899	B	Mining	0.380952381	0.5	0.6	0.2857143	0.888888889	0.8	0.52688
16	贵州茅台	600519	C	Manufacturing	0.523809524	0.5	0.73333333	0.6666667	0.555555556	0.466667	0.58065
19	宝钢股份	600019	C	Manufacturing	0.523809524	0.83333333	0.8666667	0.5714286	0.888888889	0.93333333	0.73118
27	中国铝业	601600	C	Manufacturing	0.285714286	0.33333333	0.93333333	0.3809524	0.444444444	0.666667	0.49462
30	上海电气	601727	C	Manufacturing	0.285714286	0.6666667	0.8666667	0.33333333	0.666666667	0.73333333	0.54839
33	中国南车	601766	C	Manufacturing	0.333333333	0.58333333	0.73333333	0.3809524	0.777777778	0.8	0.55914
34	武钢股份	600005	C	Manufacturing	0.619047619	0.4166667	0.6666667	0.3809524	0.555555556	0.666667	0.54839
38	上海汽车	600104	C	Manufacturing	0.714285714	0.75	0.73333333	0.6666667	1	0.866667	0.76344
39	海螺水泥	600585	C	Manufacturing	0.523809524	0.83333333	0.6666667	0.3809524	0.333333333	0.73333333	0.56989
46	S上石化	600688	C	Manufacturing	0.19047619	0.33333333	0.6666667	0.5238095	0.777777778	0.466667	0.46237
47	中国船舶	600150	C	Manufacturing	0.333333333	0.33333333	0.6	0.33333333	0.555555556	0.13333333	0.36559
49	天威保变	600550	C	Manufacturing	0.285714286	0.5	0.6	0.33333333	0.555555556	0.466667	0.43011
8	长江电力	600900	D	Electric Power, Heat, Gas and Water Production and Supply	0.333333333	0.58333333	0.6	0.2380952	0.555555556	0.8	0.48387
25	华能国际	600011	D	Electric Power, Heat, Gas and Water Production and Supply	0.333333333	0.5	0.53333333	0.2380952	0.777777778	0.6	0.45161
31	大唐发电	601991	D	Electric Power, Heat, Gas and Water Production and Supply	0.571428571	0.1666667	0.4666667	0.3809524	0.333333333	0.4	0.4086
42	国电电力	600795	D	Electric Power, Heat, Gas and Water Production and Supply	0.380952381	0.6666667	0.53333333	0.33333333	0.555555556	0.866667	0.52688
14	中国铁建	601186	E	Construction	0.476190476	0.6666667	0.8	0.7142857	0.333333333	0.73333333	0.63441
17	中国中铁	601390	E	Construction	0.380952381	0.75	0.6	0.6190476	0.444444444	0.8	0.5914
13	大秦铁路	601006	G	Transport, Storage and Postal Service	0.619047619	0.58333333	0.8666667	0.7619048	0.444444444	0.73333333	0.68817
23	上港集团	600018	G	Transport, Storage and Postal Service	0.19047619	0.83333333	0.6666667	0.4285714	0.333333333	0.93333333	0.53763
28	中国远洋	601919	G	Transport, Storage and Postal Service	0.333333333	0.25	0.8	0.6666667	0.777777778	0.33333333	0.51613
41	中国国航	601111	G	Transport, Storage and Postal Service	0.380952381	0.4166667	0.6666667	0.5714286	0.777777778	0.8	0.58065
2	工商银行	601398	J	Financial	0.571428571	0.75	0.73333333	0.5714286	0.888888889	0.866667	0.69892
3	中国银行	601988	J	Financial	0.619047619	0.6666667	0.8666667	0.5714286	0.666666667	0.73333333	0.67742
5	中国人寿	601628	J	Financial	0.523809524	0.75	0.8666667	0.5714286	0.666666667	0.6	0.64516
11	中信证券	600030	J	Financial	0.238095238	0.75	0.6666667	0.4285714	0.444444444	0.866667	0.53763
15	中信银行	601998	J	Financial	0.619047619	0.6666667	0.8666667	0.5238095	0.777777778	0.73333333	0.67742
18	中国太保	601601	J	Financial	0.571428571	0.58333333	0.8	0.5238095	0.666666667	0.666667	0.62366
21	浦发银行	600000	J	Financial	0.476190476	0.9166667	0.8666667	0.5238095	0.555555556	0.73333333	0.65591
40	建设银行	601939	J	Financial	0.571428571	0.6666667	0.6	0.4285714	0.777777778	0.866667	0.62366
36	保利地产	600048	K	Real Estate	0.142857143	0.4166667	0.73333333	0.4285714	0.111111111	0.4	0.37634
50	东方明珠	600832	N	Water Conservancy, Environment and Public Facility Management	0.380952381	0.08333333	0.4	0.4285714	0.888888889	0.2	0.37634
12	中国联通	600050	I	Information Transmission, Software and Information Technology	0.19047619	0.58333333	0.6	0.7142857	0.888888889	0.8	0.5914
Private Controlled											
44	特变电工	600089	C	Manufacturing	0.428571429	0.4166667	0.4666667	0.33333333	0.777777778	0.73333333	0.49462
7	招商银行	600036	J	Financial	0.571428571	0.58333333	0.8	0.4285714	0.888888889	0.73333333	0.63441
9	中国平安	601318	J	Financial	0.523809524	0.75	0.8	0.4285714	0.555555556	0.73333333	0.6129
10	交通银行	601328	J	Financial	0.619047619	0.75	0.6666667	0.3809524	0.777777778	0.866667	0.64516
20	民生银行	600016	J	Financial	0.238095238	0.75	0.73333333	0.4285714	0.444444444	0.8	0.53763
22	兴业银行	601166	J	Financial	0.476190476	0.4166667	0.8	0.4285714	0.222222222	0.8	0.53763
24	海通证券	600837	J	Financial	0.142857143	0.4166667	0.6	0.2857143	0.222222222	0.53333333	0.35484
29	北京银行	601169	J	Financial	0.428571429	0.5	0.8666667	0.33333333	0.555555556	0.866667	0.56989
35	华夏银行	600015	J	Financial	0.380952381	0.58333333	0.8666667	0.3809524	0.222222222	0.73333333	0.52688

Appendix 13: Raw Data Year 2009

Ranking	Name	Listing Code	Industry Code	Industry Name	Financial Information					VD1-Financial		HR				VD2-HR				Corporate Governance				VD3-CG				Management And Strategy				VD4-MS				Product and Service Development				VD5-DEV				Society and Environment				VD6-SE		VDT
					Revenue Forecast	Cost/Capital Investment Forecast	Profit Forecast	Cash Flow Forecast	Turn Over/Production Forecast	Impact of Macro Economics/Policy Risk	Impact of Market Risk on Financials	Training /Progression	Welfare and Insurance	Recruitment and Layoff	Employment Fairness	Auditing Committee	Risk Management /Monitoring/ Committee	Independent Director	Disclosure Policy	Investor Relation	Branding	Advantage and Difficulties	Competitor Analysis	Clients Analysis	Strategic Time Frame	Continuity and Stability	Impact of Strategy on Current Performance	Development Initiatives	Results	Advantage	Quality and Safety	Environmental	Corporate Culture	Community Relation	Common Good Donation															
1	中国石油	601857	B	Mining	1	3	0	0	2	2	0.428571429	3	3	0	1	0.58333	3	2	1	1	1	0.5333	1	2	2	1	1	3	2	2	0.66667	3	3	2	0.66667	3	3	2	0.8667	0.5699										
2	工商银行	601398	J	Financial	0	0	0	0	0	2	0.19047619	3	2	0	0	0.41667	3	3	1	2	2	0.7333	3	2	2	3	0	2	0	0.57143	3	3	2	0.88889	3	1	1	2	0.6667	0.5376										
3	中国石化	601988	B	Mining	0	3	0	0	2	1	0.333333333	1	1	0	0	0.16667	3	2	3	1	1	0.6667	2	2	1	1	0	1	0	0.33333	2	1	1	0.44444	1	3	0	0	0.2667	0.3656										
4	中国银行	600028	J	Financial	0	0	0	0	1	2	0.238095238	2	1	1	2	0.5	3	3	2	2	2	0.8	2	1	0	3	2	2	0.47619	2	1	1	0.44444	3	3	0	1	2	0.6	0.4946										
5	中国人寿	601628	J	Financial	3	0	0	0	0	1	0.285714286	3	3	0	3	0.75	3	2	3	1	3	0.8	3	1	0	0	0	1	0	0.2381	2	2	1	0.55556	3	3	2	3	0.9333	0.5484										
6	中国神华	601088	B	Mining	0	3	1	0	3	2	0.523809524	1	1	1	0	0.25	3	0	3	2	3	0.7333	1	2	0	3	0	2	0	0.38095	1	1	1	0.33333	1	1	0	1	0	0.2	0.4194									
7	招商银行	600036	J	Financial	0	0	0	0	2	1	0.19047619	3	1	0	0	0.33333	3	3	3	2	2	0.8667	1	1	0	2	0	2	0	0.28571	2	2	1	0.55556	1	1	0	1	3	0.4	0.4086									
8	中国平安	600900	J	Financial	0	0	0	0	0	0	0.047619048	0	1	0	0	0.83333	0	3	3	0	1	0.4667	3	2	0	3	0	2	0	0.47619	2	1	0	0.33333	1	1	1	1	0	0.2667	0.2796									
9	交通银行	601318	J	Financial	0	0	0	0	0	1	0.095238095	2	2	1	1	0.5	3	3	3	2	2	0.8667	2	2	2	3	0	2	0	0.52381	3	2	2	0.77778	3	3	2	2	3	0.8667	0.5591									
10	中信银行	601328	J	Financial	0	0	0	0	0	2	0.19047619	3	3	2	1	0.75	3	3	2	2	2	0.8667	2	1	0	3	0	2	0	0.38095	2	2	3	0.77778	3	3	2	2	3	0.8667	0.5806									
11	中信证券	600030	J	Financial	0	1	0	0	0	1	0.19047619	3	3	0	2	0.66667	3	2	2	2	2	0.7333	3	2	0	2	0	0	0	0.33333	1	1	1	0.33333	2	1	1	2	3	0.6	0.4516									
12	兴业银行	600050	J	Financial	0	0	3	0	0	1	0.285714286	2	1	0	0	0.25	3	3	3	3	2	0.8667	3	2	1	3	0	1	0	0.47619	3	2	2	0.77778	3	1	1	1	3	0.6	0.5161									
13	浦发银行	601006	J	Financial	0	0	3	0	0	2	0.285714286	3	3	3	3	1	3	3	3	3	3	0.9333	3	2	0	2	0	2	0	0.42857	3	2	2	0.66667	3	2	2	2	3	0.8	0.6344									
14	上海汽车	601186	C	Manufacturing	3	3	0	0	3	3	0.714285714	2	3	1	1	0.58333	3	1	1	1	2	0.5333	3	2	2	3	0	2	0	0.57143	3	3	2	0.88889	3	3	2	3	3	0.9333	0.6882									
15	宝钢股份	601998	C	Manufacturing	3	3	3	0	3	2	0.80952381	3	2	3	3	0.91667	3	2	3	2	3	0.8667	2	2	2	1	2	2	1	0.57143	3	3	3	1	3	3	2	1	3	0.8	0.7957									
16	中国太保	600519	J	Financial	3	0	0	0	0	1	0.238095238	0	1	0	0	0.83333	3	3	3	2	2	0.8667	3	2	0	3	0	1	0	0.42857	2	2	0	0.44444	1	1	0	1	1	0.2667	0.3871									
17	贵州茅台	601390	C	Manufacturing	0	0	1	0	0	2	0.238095238	3	3	0	1	0.58333	3	1	3	1	3	0.7333	3	1	2	2	0	0	0	0.38095	3	3	2	0.88889	3	2	2	1	3	0.7333	0.5376									
18	海通证券	601601	J	Financial	0	0	0	0	0	2	0.142857143	1	1	0	3	0.41667	3	1	2	2	1	0.6	2	0	1	2	0	1	0	0.28571	1	1	0	0.22222	2	2	1	2	1	0.5333	0.3548									
19	中国联通	600019	I	Information Transmission, Software and	0	3	0	0	0	0	0.19047619	3	1	0	0	0.33333	1	2	1	2	1	0.4667	2	2	1	1	0	2	0	0.38095	3	3	3	1	3	3	2	1	3	0.8	0.4731									
20	民生银行	600016	J	Financial	0	0	0	0	0	2	0.19047619	2	3	0	3	0.66667	3	3	3	2	1	0.8	3	1	1	3	0	2	0	0.47619	3	3	1	0.77778	3	1	2	1	1	0.5333	0.5269									
21	长江电力	600000	D	Electric Power, Heat, Gas and Water	0	0	0	0	3	3	0.380952381	1	1	0	2	0.33333	3	2	3	1	2	0.7333	2	3	2	2	2	2	1	0.66667	3	2	2	0.77778	1	1	0	1	3	0.4	0.5376									
22	中国建筑	601166	E	Construction	3	1	1	0	3	2	0.619047619	3	3	3	3	1	3	3	1	3	0.8	2	2	2	3	3	2	0	0.66667	2	2	3	0.77778	3	2	2	2	3	0.8	0.7527										
23	中国铝业	600018	C	Manufacturing	1	0	1	0	1	2	0.285714286	1	1	1	1	0.33333	3	2	3	3	3	0.9333	1	2	1	2	0	2	0	0.38095	1	2	1	0.44444	3	3	1	2	1	0.6667	0.4946									
24	大秦铁路	600837	G	Transport, Storage and Postal Service	3	0	0	0	3	2	0.476190476	1	3	0	0	0.33333	2	1	3	1	2	0.6	2	2	2	1	3	1	0	0.52381	2	2	2	0.66667	3	1	1	1	1	0.4667	0.5054									
25	中煤能源	600011	B	Mining	0	3	0	0	0	1	0.285714286	1	3	0	1	0.41667	2	1	3	2	3	0.7333	1	1	2	0	2	0	0.33333	1	1	1	0.33333	2	3	0	1	3	0.6	0.4409										
26	上港集团	601898	G	Transport, Storage and Postal Service	0	0	0	0	0	1	0.095238095	3	3	1	3	0.83333	3	1	3	1	2	0.6667	2	1	2	3	0	2	0	0.47619	2	3	3	0.88889	3	3	2	3	3	0.9333	0.5806									
27	北京银行	601600	J	Financial	0	0	1	0	1	2	0.238095238	3	1	3	3	0.83333	3	3	3	2	2	0.8667	3	2	3	2	0	1	0	0.52381	2	3	1	0.66667	2	3	0	2	3	0.6667	0.5914									
28	中国中铁	601919	E	Construction	3	3	1	0	3	1	0.619047619	3	3	3	0	0.75	2	2	3	2	2	0.8	1	2	2	3	0	2	0	0.47619	3	3	3	1	3	3	1	3	3	0.8667	0.7097									
29	中国远洋	601169	G	Transport, Storage and Postal Service	0	0	0	0	3	1	0.238095238	1	1	0	1	0.25	2	1	3	1	3	0.6667	1	1	1	2	0	1	0	0.28571	1	3	1	0.55556	2	3	1	1	1	0.5333	0.3978									
30	招商证券	601727	J	Financial	0	0	0	0	0	1	0.095238095	3	1	1	1	0.5	3	2	3	2	1	0.7333	1	2	1	3	0	1	0	0.38095	3	3	3	1	2	1	2	3	0.6	0.4839										
31	紫金矿业	601991	B	Mining	0	3	0	0	3	1	0.380952381	3	3	3	0	0.75	1	1	3	1	2	0.5333	3	2	0	3	0	0	0.38095	3	2	0	0.55556	3	3	1	2	1	0.6667	0.5161										
32	中国铁建	601899	E	Construction	3	0	0	0	3	1	0.380952381	3	3	3	0	0.75	1	1	2	2	1	0.4667	1	1	1	1	0	1	0	0.2381	2	1	1	0.44444	3	2	1	2	3	0.7333	0.4731									
33	上海电气	601766	C	Manufacturing	2	0	0	0	0	2	0.285714286	2	3	0	1	0.5	3	2	2	3	3	0.8667	2	2	1	1	0	2	0	0.38095	3	3	3	1	2	3	1	2	3	0.7333	0.5699									
34	中国中冶	600005	E	Construction	0	0	0	0	3	1	0.238095238	3	2	2	3	0.83333	3	1	3	2	2	0.7333	2	2	1	3	0	0	0	0.38095	3	3	2	0.88889	3	2	1	3	3	0.8	0.5806									
35	光大证券	600015	J	Financial	0	0	0	0	0	1	0.095238095	3	1	3	0	0.58333	2	3	3	3	2	0.8667	3	2	0	3	0	0	0	0.38095	3	2	3	0.88889	2	1	1	1	1	0.4	0.4731									
36	保利地产	600048	K	Real Estate	1	0	0	0	0	1	0.142857143	1	1	3	0	0.41667	3	0	3	2	3	0.7333	3	2	2	0	0	0	0.42857	1	0	0	0.11111	1	1	2	1	1	0.4	0.3763										
37	大唐发电	601808	D	Electric Power, Heat, Gas and Water	1	1	0	0	3	1	0.380952381	3	1	3	0	0.58333	1	2	3	1	2	0.6	3	1	1	1	2	3	0	0.52381	3	3	3	1	3	3	2	3	0.9333	0.6237										
38	中国国航	601004	G	Transport, Storage and Postal Service	0	0	0	0	3	1	0.238095238	3	3	3	3	1	2	0	3	2	1	0.5333	3	1	2	3	0	2	0	0.52381	3	3	2	0.88889	3	3	1	3	3	0.8667	0.6129									
39	华能国际	600585	D	Electric Power, Heat, Gas and Water	0	1	0	0	3	1	0.333333333	3	1	1	0	0.41667	2	1	3	1	1	0.5333	2	2	1	2	0	2	0	0.42857	1	1	0	0.22222	2	1	0	1	3	0.4667	0.4086									
40																																																		

Individual Disclosure Category Score Categorized by Ownership Structure

SOE											
Ranking	Name	Listing Code	Industry Code	Industry Name	VD1-Financial	VD2-HR	VD3-CG	VD4-MS	VD5-DEV	VD6-SE	VDT
1	中国石油	601857	B	Mining	0.428571429	0.5833333	0.5333333	0.4761905	0.6666667	0.8666667	0.5698925
3	中国石化	601988	B	Mining	0.333333333	0.1666667	0.6666667	0.3333333	0.4444444	0.2666667	0.3655914
6	中国神华	601088	B	Mining	0.523809524	0.25	0.7333333	0.3809524	0.3333333	0.2	0.4193548
25	中煤能源	600011	B	Mining	0.285714286	0.4166667	0.7333333	0.3333333	0.3333333	0.6	0.4408602
31	紫金矿业	601991	B	Mining	0.380952381	0.75	0.5333333	0.3809524	0.5555556	0.6666667	0.516129
40	兖州矿业	601939	B	Mining	0.285714286	0.75	0.7333333	0.4285714	0.8888889	0.7333333	0.5806452
45	金铂股份	601958	B	Mining	0.761904762	0.5	0.5333333	0.5238095	1	0.6666667	0.6451613
46	潞安环能	600688	B	Mining	0.761904762	0.5833333	0.6666667	0.2857143	0.8888889	0.9333333	0.655914
47	山东黄金	600150	B	Mining	0.095238095	0.0833333	0.5333333	0.3333333	0.4444444	0.1333333	0.2580645
14	上海汽车	601186	C	Manufacturing	0.714285714	0.5833333	0.5333333	0.5714286	0.8888889	0.9333333	0.688172
15	宝钢股份	601998	C	Manufacturing	0.80952381	0.9166667	0.8666667	0.5714286	1	0.8	0.7956989
17	贵州茅台	601390	C	Manufacturing	0.238095238	0.5833333	0.7333333	0.3809524	0.8888889	0.7333333	0.5376344
23	中国铝业	600018	C	Manufacturing	0.285714286	0.3333333	0.9333333	0.3809524	0.4444444	0.6666667	0.4946237
33	上海电气	601766	C	Manufacturing	0.285714286	0.5	0.8666667	0.3809524	1	0.7333333	0.5698925
41	海螺水泥	601111	C	Manufacturing	0.142857143	0.1666667	0.6	0.3809524	1	0.5333333	0.4193548
42	江西铜业	600795	C	Manufacturing	0.047619048	0.3333333	0.6	0.2857143	0.4444444	0.4666667	0.3333333
43	武钢股份	600583	C	Manufacturing	0.523809524	0.25	0.4666667	0.3333333	0.6666667	0.4666667	0.4408602
48	中国南车	600188	C	Manufacturing	0.428571429	0.4166667	0.8	0.4761905	1	0.6	0.5806452
21	长江电力	600000	D	Electric Power, Heat, Gas and Water Production and Supply	0.380952381	0.3333333	0.7333333	0.6666667	0.7777778	0.4	0.5376344
37	大唐发电	601808	D	Electric Power, Heat, Gas and Water Production and Supply	0.380952381	0.5833333	0.6	0.5238095	1	0.9333333	0.6236559
39	华能国际	600585	D	Electric Power, Heat, Gas and Water Production and Supply	0.333333333	0.4166667	0.5333333	0.4285714	0.2222222	0.4666667	0.4086022
22	中国建筑	601166	E	Construction	0.619047619	1	0.8	0.6666667	0.7777778	0.8	0.7526882
32	中国铁建	601899	E	Construction	0.380952381	0.75	0.4666667	0.2380952	0.4444444	0.7333333	0.4731183
34	中国中冶	600005	E	Construction	0.238095238	0.8333333	0.7333333	0.3809524	0.8888889	0.8	0.5806452
28	中国中铁	601919	E	Construction	0.619047619	0.75	0.8	0.4761905	1	0.8666667	0.7096774
24	大秦铁路	600837	G	Transport, Storage and Postal Service	0.476190476	0.3333333	0.6	0.5238095	0.6666667	0.4666667	0.5053763
26	上港集团	601898	G	Transport, Storage and Postal Service	0.095238095	0.8333333	0.6666667	0.4761905	0.8888889	0.9333333	0.5806452
29	中国远洋	601169	G	Transport, Storage and Postal Service	0.238095238	0.25	0.6666667	0.2857143	0.5555556	0.5333333	0.3978495
38	中国国航	600104	G	Transport, Storage and Postal Service	0.238095238	1	0.5333333	0.5238095	0.8888889	0.8666667	0.6129032
19	中国联通	600019	I	Information Transmission, Software and Information Technology	0.19047619	0.3333333	0.4666667	0.3809524	1	0.8	0.4731183
36	保利地产	600048	K	Real Estate	0.142857143	0.4166667	0.7333333	0.4285714	0.1111111	0.4	0.3763441
2	工商银行	601398	J	Financial	0.19047619	0.4166667	0.7333333	0.5714286	0.8888889	0.6666667	0.5376344
4	中国银行	600028	J	Financial	0.238095238	0.5	0.8	0.4761905	0.4444444	0.6	0.4946237
5	中国人寿	601628	J	Financial	0.285714286	0.75	0.8	0.2380952	0.5555556	0.9333333	0.5483871
10	中信银行	601328	J	Financial	0.19047619	0.75	0.8666667	0.3809524	0.7777778	0.8666667	0.5806452
11	中信证券	600030	J	Financial	0.19047619	0.6666667	0.7333333	0.3333333	0.3333333	0.6	0.4516129
13	浦发银行	601006	J	Financial	0.285714286	1	0.9333333	0.4285714	0.6666667	0.8	0.6344086
16	中国太保	600519	J	Financial	0.238095238	0.0833333	0.8666667	0.4285714	0.4444444	0.2666667	0.3870968
49	建设银行	600550	J	Financial	0.095238095	1	1	0.4285714	0.7777778	0.9333333	0.6344086
30	招商证券	601727	J	Financial	0.095238095	0.5	0.7333333	0.3809524	1	0.6	0.483871
Private Controlled											
7	招商银行	600036	J	Financial	0.19047619	0.3333333	0.8666667	0.2857143	0.5555556	0.4	0.4086022
8	中国平安	600900	J	Financial	0.047619048	0.0833333	0.4666667	0.4761905	0.3333333	0.2666667	0.2795699
9	交通银行	601318	J	Financial	0.095238095	0.5	0.8666667	0.5238095	0.7777778	0.8666667	0.5591398
20	民生银行	600016	J	Financial	0.19047619	0.6666667	0.8	0.4761905	0.7777778	0.5333333	0.5268817
12	兴业银行	600050	J	Financial	0.285714286	0.25	0.8666667	0.4761905	0.7777778	0.6	0.516129
18	海通证券	601601	J	Financial	0.142857143	0.4166667	0.6	0.2857143	0.2222222	0.5333333	0.3548387
27	北京银行	601600	J	Financial	0.238095238	0.8333333	0.8666667	0.5238095	0.6666667	0.6666667	0.5913978
44	华夏银行	600089	J	Financial	0.285714286	0.6666667	0.9333333	0.4285714	0.4444444	0.8	0.5698925
35	光大证券	600015	J	Financial	0.095238095	0.5833333	0.8666667	0.3809524	0.8888889	0.4	0.4731183
50	三一重工	600832	C	Manufacturing	0.095238095	0.3333333	0.5333333	0.3809524	1	0.6	0.4301075

Appendix 14: Raw Data Year 2010

Ranking	Name	Listing Code	Industry Code	Industry Name	Financial Information					Impact of Macro Economics /Policy Risks	Impact of Market Risk on Financials	VD1-Financial				HR				VD2-HR				Corporate Governance				VD3-CG				Management And Strategy				VD4-MS				Product and Service Development				VD5-DEV				Society and Environment				VD6-SE		VDT
					Revenue Forecast	Cost/Capital Investment Forecast	Profit Forecast	Cash Flow Forecast	Turn Over/Production Forecast			Training /Progression	Welfare and Insurance	Recruitment and Layoff	Employment Fairness	Auditing Committee	Risk Management / Monitoring/Committee	Independent Director	Disclosure Policy	Investor Relation	Branding	Advantage and Difficulties	Competitor Analysis	Clients Analysis	Strategic Time Frame	Continuity and Stability	Impact of Strategy on Current Performance	Development Initiatives	Results	Advantage	Quality and Safety	Environmental	Corporate Culture	Community Relation	Common Good Donation	VD6-SE	VDT																	
1	中国石油	601857	B	Mining	0	3	0	0	0	1	2	0.285714286	0	1	0	0.08333	3	1	3	1	2	0.66667	1	2	0	1	1	2	2	0.428571	1	0	0	0.111111	1	1	0	0	0.1333	0.3118														
2	工商银行	601398	J	Financial	0	0	0	0	0	2	0.19047619	1	3	0	0.33333	3	3	3	2	3	0.93333	3	1	0	2	1	1	1	0.380952	3	3	1	0.777778	2	1	1	1	0.5333	0.4839															
3	农业银行	601988	J	Financial	0	0	0	0	0	1	0.142857143	1	1	0	0.41667	3	3	2	2	0.8	3	2	1	3	1	0	0	0.47619	2	3	2	0.777778	3	2	0	1	0.6	0.4946																
4	中国银行	600028	J	Financial	0	0	0	0	0	1	0.142857143	3	1	0	0.33333	3	2	3	1	2	0.73333	1	2	1	3	0	0	0.33333	3	3	2	0.888889	3	1	1	2	0.6667	0.4624																
5	中国石化	601628	B	Mining	0	3	0	0	0	3	0.428571429	1	1	1	0.25	3	1	3	3	0.86667	2	2	3	3	2	3	0.809524	3	3	3	1	1	2	0	0	0.2667	0.5914																	
6	中国人寿	601088	J	Financial	3	0	0	0	0	1	0.238095238	1	1	0	0.16667	3	3	2	3	0.93333	2	1	0	3	1	1	0	0.380952	1	1	0	0.222222	1	1	0	0	0.3333	0.3871																
7	中国神华	600036	B	Mining	0	0	0	0	0	3	0.285714286	1	1	0	0.16667	3	0	2	2	0.66667	3	0	0	3	1	2	0	0.428571	1	1	0	0.222222	3	1	0	1	0.3333	0.3656																
8	中国平安	600900	J	Financial	3	0	0	0	0	0	0.19047619	3	3	3	0.75	3	3	2	2	0.86667	3	1	1	3	1	1	0	0.47619	3	3	1	0.777778	3	2	2	3	0.8667	0.6022																
9	招商银行	601318	J	Financial	3	0	0	0	0	2	0.380952381	0	1	1	0.16667	3	1	3	3	0.86667	3	1	1	2	2	0	0	0.428571	3	2	3	0.888889	3	3	1	3	0.8667	0.5699																
10	浦发银行	601328	J	Financial	0	0	3	0	0	1	0.285714286	0	1	1	0.16667	3	2	3	2	0.8	2	1	1	3	2	0	0	0.428571	2	1	1	0.444444	2	1	0	0	0.2	0.3871																
11	贵州茅台	600030	C	Manufacturing	3	0	0	0	0	3	0.380952381	1	1	0	0.16667	1	1	3	1	0.4	2	1	2	2	3	2	0	0.571429	1	1	1	0.33333	3	3	1	1	0.6	0.4301																
12	交通银行	600050	J	Financial	3	0	0	0	0	1	0.285714286	1	1	0	0.16667	3	3	2	1	0.8	2	2	2	3	1	1	0	0.52381	3	3	2	0.888889	3	2	0	1	0.6	0.5161																
13	光大银行	601006	J	Financial	0	0	0	0	0	2	0.142857143	0	1	0	0.08333	3	1	2	1	0.6	2	1	2	0	2	0	0.380952	1	2	1	0.444444	2	1	0	1	0.4667	0.3441																	
14	兴业银行	601186	J	Financial	3	0	3	0	0	2	0.476190476	3	3	3	1.83333	3	2	3	3	0.93333	2	2	1	3	1	1	1	0.52381	2	2	1	0.555556	3	2	3	0.9333	0.6882																	
15	中国太保	601998	J	Financial	3	0	0	0	0	1	0.238095238	1	1	0	0.16667	3	1	3	2	0.73333	2	1	1	2	0	1	0	0.33333	2	2	1	0.555556	1	1	0	1	0.2667	0.3656																
16	中信银行	600519	J	Financial	0	0	0	0	0	1	0.095238095	3	3	1	0.58333	3	1	3	3	0.86667	2	1	0	2	0	2	0	0.33333	2	2	1	0.555556	1	3	1	0	0.5333	0.4516																
17	上海汽车	601390	C	Manufacturing	3	3	3	0	0	3	0.714285714	1	1	0	0.16667	2	2	3	1	0.73333	3	2	2	3	0	1	0	0.52381	3	3	1	0.777778	2	1	0	0	0.2	0.5269																
18	中信证券	601601	J	Financial	0	0	0	0	0	1	0.142857143	1	0	0	0.08333	3	1	3	3	1	0.73333	2	1	1	2	0	0	0.285714	2	2	1	0.555556	0	1	0	1	0.1333	0.3011																
				Electric Power, Heat, Gas and Water Production and Supply																																																		
19	长江电力	600019	D	Electric Power, Heat, Gas and Water Production and Supply	0	0	0	0	0	3	0.333333333	3	0	0	0.25	2	1	3	1	0.53333	1	2	0	3	2	2	0	0.47619	2	2	1	0.555556	3	1	0	1	0.4	0.4194																
20	大秦铁路	600016	G	Transport, Storage and Postal Service	3	1	0	0	0	3	0.523809524	1	1	1	0.25	2	1	2	1	0.46667	1	3	2	3	1	2	0	0.571429	3	3	2	0.888889	3	1	0	0	0.2667	0.4839																
21	中国国航	600000	G	Transport, Storage and Postal Service	0	0	0	0	0	3	0.333333333	0	1	0	0.08333	2	1	3	1	0.53333	3	1	0	1	0	1	0	0.285714	2	1	1	0.444444	2	3	1	1	0.5333	0.3656																
				Information Transmission, Software and Information Technology																																																		
22	中国联通	601166	I	Information Transmission, Software and Information Technology	0	0	0	0	0	1	0.095238095	1	0	0	0.08333	3	2	3	1	0.73333	2	2	0	3	0	1	0	0.380952	3	3	3	1	3	1	1	1	0.4	0.3978																
23	民生银行	600018	J	Financial	0	0	0	0	0	1	0.095238095	1	2	0	0.25	3	1	2	2	0.73333	1	1	1	0	1	1	0	0.238095	2	2	2	0.66667	2	1	1	1	0.5333	0.3763																
24	宝钢股份	600083	C	Manufacturing	3	3	3	0	0	3	0.80952381	0	0	0	0	0	3	0	0.6	1	2	1	3	2	2	0	0.52381	3	3	3	1	1	1	0	1	0.2667	0.5376																	
25	三一重工	600011	C	Manufacturing	0	0	0	0	0	0	0.047619048	2	2	3	1.66667	2	1	1	1	0.53333	3	2	1	3	0	0	0.428571	3	3	3	1	2	1	2	3	0.6667	0.4839																	
26	中国建筑	601898	E	Construction	3	3	3	0	0	3	0.714285714	0	0	0	0	0	2	2	3	0.73333	2	2	0	2	1	1	0	0.428571	2	2	1	0.555556	3	1	0	1	0.3333	0.4839																
27	中煤能源	601600	B	Mining	0	0	0	0	0	1	0.047619048	1	1	1	1.33333	1	1	2	1	0.53333	1	1	1	2	1	2	0	0.428571	2	1	1	0.444444	3	1	0	1	0.3333	0.3333																
28	中国铝业	601919	C	Manufacturing	1	0	1	0	0	1	0.285714286	1	1	1	1.33333	3	2	3	3	0.93333	1	2	1	2	0	2	0	0.380952	1	2	1	0.444444	3	3	1	2	0.6667	0.4946																
29	江西铜业	601169	C	Manufacturing	3	0	0	0	0	0	0.19047619	1	1	0	0.16667	1	0	3	1	0.4	1	2	2	2	0	0	0	0.33333	1	1	0	0.222222	3	1	0	0	0.2667	0.2688																
30	紫金矿业	601727	B	Mining	0	0	0	0	0	3	0.285714286	0	1	0	0.08333	3	3	3	1	0.86667	1	2	0	1	0	0	0	0.190476	1	1	0	0.222222	2	3	2	1	0.6	0.3763																
31	兖州煤业	601991	B	Mining	3	0	0	0	0	3	0.380952381	0	3	0	0.25	2	1	1	2	0.46667	1	0	0	2	1	2	0	0.285714	2	2	0	0.444444	3	1	0	0	0.2667	0.3441																
32	上海电气	601899	C	Manufacturing	0	0	1	0	0	1	0.142857143	1	1	1	0.25	1	0	3	1	0.4	2	2	2	3	0	0	0	0.428571	3	3	1	0.777778	3	0	0	1	0.2667	0.3441																
				Transport, Storage and Postal Service																																																		
33	上港集团	601766	G	Transport, Storage and Postal Service	0	0	0	0	0	1	0.047619048	0	0	0	0	0	2	1	3	0.6	1	2	0	3	1	2	0	0.428571	1	0	0	0.111111	1	1	0	1	0.2	0.2473																
34	海通证券	600005	J	Financial	0	0	0	0	0	2	0.142857143	1	1	0	0.41667	3	1	2	1	0.6	2	0	1	2	0	1	0	0.285714	1	1	0	0.222222																						

Individual Disclosure Category Score Categorized by Ownership Structure

SOE											
Ranking	Name	Listing Code	Industry Code	Industry Name	VD1-Financial	VD2-HR	VD3-CG	VD4-MS	VD5-DEV	VD6-SE	VD7
1	中国石油	601857	B	Mining	0.285714286	0.08333333	0.6666667	0.4285714	0.11111111	0.13333333	0.311828
5	中国石化	601628	B	Mining	0.428571429	0.25	0.8666667	0.8095238	1	0.2666667	0.5913978
7	中国神华	600036	B	Mining	0.285714286	0.1666667	0.6666667	0.4285714	0.22222222	0.33333333	0.3655914
27	中煤能源	601600	B	Mining	0.047619048	0.33333333	0.53333333	0.4285714	0.44444444	0.33333333	0.33333333
30	紫金矿业	601727	B	Mining	0.285714286	0.08333333	0.8666667	0.1904762	0.22222222	0.6	0.3763441
31	兖州煤业	601991	B	Mining	0.380952381	0.25	0.4666667	0.2857143	0.44444444	0.2666667	0.344086
37	金铂股份	601808	B	Mining	0.523809524	0.25	0.4	0.33333333	0.8888889	0.4	0.4408602
39	中海油服	600585	B	Mining	0.142857143	0.75	0.6	0.4761905	0.5555556	0.8666667	0.5268817
40	山东黄金	601939	B	Mining	0.047619048	0.1666667	0.33333333	0.2380952	0.11111111	0.2666667	0.1935484
47	潞安环能	600150	B	Mining	0.571428571	0.25	0.4666667	0.3809524	0.7777778	0.4666667	0.4731183
11	贵州茅台	600030	C	Manufacturing	0.380952381	0.1666667	0.4	0.5714286	0.33333333	0.6	0.4301075
17	上海汽车	601390	C	Manufacturing	0.714285714	0.1666667	0.73333333	0.5238095	0.7777778	0.2	0.5268817
24	宝钢股份	600837	C	Manufacturing	0.80952381	0	0.6	0.5238095	1	0.2666667	0.5376344
28	中国铝业	601919	C	Manufacturing	0.285714286	0.33333333	0.93333333	0.3809524	0.44444444	0.6666667	0.4946237
29	江西铜业	601169	C	Manufacturing	0.19047619	0.1666667	0.4	0.33333333	0.22222222	0.2666667	0.2688172
32	上海电气	601899	C	Manufacturing	0.142857143	0.25	0.4	0.4285714	0.7777778	0.2666667	0.344086
35	海螺水泥	600015	C	Manufacturing	0.047619048	0.1666667	0.4666667	0.2857143	0.8888889	0.2666667	0.3010753
36	中国重工	600048	C	Manufacturing	0.095238095	0	0.4666667	0.4285714	0.5555556	0.13333333	0.2688172
41	中国南车	601111	C	Manufacturing	0.19047619	0.1666667	0.6666667	0.2857143	1	0.4666667	0.4086022
46	国阳新能	600688	C	Manufacturing	0.142857143	0.1666667	0.4666667	0.3809524	1	0.2	0.344086
19	长江电力	600019	D	Electric Power, Heat, Gas and Water Production and Supply	0.333333333	0.25	0.53333333	0.4761905	0.5555556	0.4	0.4193548
42	中国中铁	600795	E	Construction	0.047619048	0.25	0.4666667	0.2380952	0.6666667	0.6666667	0.344086
45	中国铁建	601958	E	Construction	0.571428571	1	0.8666667	0.4285714	1	0.93333333	0.7419355
50	中国中冶	600832	E	Construction	0.238095238	0.4166667	0.73333333	0.3809524	0.8888889	0.33333333	0.4516129
26	中国建筑	601898	E	Construction	0.714285714	0	0.73333333	0.4285714	0.5555556	0.33333333	0.483871
20	大秦铁路	600016	G	Transport, Storage and Postal Service	0.523809524	0.25	0.4666667	0.5714286	0.8888889	0.2666667	0.483871
21	中国国航	600000	G	Transport, Storage and Postal Service	0.333333333	0.08333333	0.53333333	0.2857143	0.44444444	0.53333333	0.3655914
33	上港集团	601766	G	Transport, Storage and Postal Service	0.047619048	0	0.6	0.4285714	0.11111111	0.2	0.2473118
43	中国远洋	600583	G	Transport, Storage and Postal Service	0.333333333	0.58333333	0.73333333	0.33333333	0.22222222	0.6	0.4623656
48	南方航空	600188	G	Transport, Storage and Postal Service	0.238095238	0.08333333	0.53333333	0.5238095	0.44444444	0.4	0.3763441
22	中国联通	601166	I	Information Transmission, Software and Information Technology	0.095238095	0.08333333	0.73333333	0.3809524	1	0.4	0.3978495
2	工商银行	601398	J	Financial	0.19047619	0.33333333	0.93333333	0.3809524	0.7777778	0.53333333	0.483871
3	农业银行	601988	J	Financial	0.142857143	0.4166667	0.8	0.4761905	0.7777778	0.6	0.4946237
4	中国银行	600028	J	Financial	0.142857143	0.33333333	0.73333333	0.33333333	0.8888889	0.6666667	0.4623656
6	中国人寿	601088	J	Financial	0.238095238	0.1666667	0.93333333	0.3809524	0.22222222	0.33333333	0.3870968
15	中国太保 (2 pg CSR,sepr ate CSR)	601998	J	Financial	0.238095238	0.1666667	0.73333333	0.33333333	0.5555556	0.2666667	0.3655914
16	中信银行	600519	J	Financial	0.095238095	0.58333333	0.8666667	0.33333333	0.5555556	0.53333333	0.4516129
18	中信证券	601601	J	Financial	0.142857143	0.08333333	0.73333333	0.2857143	0.5555556	0.13333333	0.3010753
10	浦发银行	601328	J	Financial	0.285714286	0.1666667	0.8	0.4285714	0.44444444	0.2	0.3870968
38	华泰证券	600104	J	Financial	0.095238095	0.08333333	0.8	0.1904762	0.44444444	0.2666667	0.2903226
49	招商证券	600550	J	Financial	0.095238095	0.5	0.73333333	0.3809524	1	0.6	0.3763441
13	光大银行	601006	J	Financial	0.142857143	0.08333333	0.6	0.3809524	0.44444444	0.4666667	0.344086
Private Controlled											
9	招商银行	601318	J	Financial	0.380952381	0.1666667	0.8666667	0.4285714	0.8888889	0.8666667	0.5698925
8	中国平安	600900	J	Financial	0.19047619	0.75	0.8666667	0.4761905	0.7777778	0.8666667	0.6021505
12	交通银行	600050	J	Financial	0.285714286	0.1666667	0.8	0.5238095	0.8888889	0.6	0.516129
23	民生银行	600018	J	Financial	0.095238095	0.25	0.73333333	0.2380952	0.6666667	0.53333333	0.3763441
14	兴业银行	601186	J	Financial	0.476190476	0.83333333	0.93333333	0.5238095	0.5555556	0.93333333	0.688172
34	海通证券	600005	J	Financial	0.142857143	0.4166667	0.6	0.2857143	0.22222222	0.53333333	0.3548387
44	北京银行	600089	J	Financial	0.333333333	0.08333333	0.8	0.3809524	0.5555556	0.2666667	0.3978495
25	三一重工	600011	C	Manufacturing	0.047619048	0.6666667	0.53333333	0.4285714	1	0.6666667	0.483871
国				max	0.80952381	1	0.93333333	0.8095238	1	0.93333333	0.7419355
				min	0.047619048	0	0.33333333	0.1904762	0.11111111	0.13333333	0.1935484
				avg	0.268707483	0.2400794	0.6428571	0.393424	0.6005291	0.4031746	0.4047619
				sdv	0.19727176	0.2051194	0.1715995	0.1137908	0.2883459	0.1947564	0.1023628

Appendix 15: Raw Data Year 2011

Ranking	Name	Listing Code	Industry Code	Industry Name	Financial Information										Corporate Governance										Management And Strategy										Product and Service					Society and Environment					VD6-SE	VDT
					Revenue	Investment	Profit	Cash Flow	Turn Over/Production	Impact of Macro Economics /Policy Risk	Impact of Market Risk on Financials	VD1-Financial	HR	Training /Progression	Welfare and Insurance	Recruitment and Layoff	Employment Fairness	VD2-HR	Auditing Committee	Risk Management /Monitoring/Committee	Independent Director	Disclosure Policy	Investor Relation	VD3-CG	Branding	Advantage and Difficulties	Competitor Analysis	Clients Analysis	Strategic Time Frame	Continuity and Stability	Impact of Current Performance	VD4-MS	Development Initiatives	Results	Advantage	VD5-DEV	Quality and Safety	Environmental	Corporate Culture	Community Relation	Common Good Donation					
1	中国石油	601857	B	Mining	1	3	0	0	0	3	1	0	0.380952381	0	0.08333	2	1	0	0.466667	2	1	1	0	0.333333	0	0.333333	1	1	0	0.222222	0	0.222222	1	1	0	0.1333	0.2903									
2	工商银行	601988	J	Financial	0	0	1	0	1	2	2	0.285714286	3	3	1	0.83333	3	3	2	0.933333	2	1	1	3	0	1	0	0.380952	3	2	0	0.555556	3	3	1	1	3	0.7333	0.5806							
3	农业银行	601988	J	Financial	0	0	0	0	0	1	2	0.142857143	3	1	1	0.5	3	3	3	1	0.866667	1	2	0	2	1	1	0	0.333333	2	1	3	0.666667	3	3	1	2	3	0.8	0.5054						
4	中国银行	600208	J	Financial	0	0	1	0	0	1	2	0.19047619	3	2	1	0.5	3	3	2	0.8	3	3	0	3	0	0	0	0.428571	2	2	2	0.666667	3	1	0	1	3	0.5333	0.4839							
5	中国石化	601628	B	Mining	0	3	0	0	3	1	2	0.428571429	1	1	0	0.16667	3	0	2	1	0.466667	3	2	1	2	1	2	1	0.571429	3	3	3	1	3	1	0	1	3	0.5333	0.5054						
6	中国人寿	601088	B	Mining	0	0	0	0	2	1	2	0.238095238	3	2	1	0.5	2	1	3	3	0.666667	3	1	1	2	3	2	1	0.571429	2	2	1	0.555556	3	2	1	1	1	0.5333	0.4946						
7	中国人寿	600036	J	Financial	0	0	0	0	0	0	1	0.047619048	1	1	0	0.16667	3	3	3	1	1	1	0	2	0	1	0	0.238095	1	1	0	0.222222	1	1	0	2	3	0.4667	0.3441							
8	招商银行	600900	J	Financial	1	0	1	0	0	1	2	0.238095238	1	1	1	0.25	3	3	2	0.933333	3	2	1	3	0	1	0	0.47619	3	2	1	0.666667	3	3	1	3	3	0.8667	0.5484							
9	贵州茅台	601318	C	Manufacturing	0	3	0	0	3	0	1	0.333333333	0	1	0	0.08333	3	0	1	1	0.333333	2	1	1	1	3	0	0.380952	1	1	1	0.333333	1	0	0	1	0	0.1333	0.2796							
10	中国平安	601328	J	Financial	0	0	0	0	0	1	1	0.095238095	3	3	3	0.75	3	3	3	1	3	3	1	3	0	1	0	0.380952	2	2	1	0.555556	3	3	2	3	3	0.9333	0.5699							
11	浦发银行	600030	J	Financial	0	0	3	0	1	1	1	0.285714286	1	1	0	0.16667	3	2	3	0.866667	2	1	0	1	0	1	0	0.238095	3	3	1	0.777778	3	1	1	1	1	0.4	0.4194							
12	交通银行	600050	J	Financial	0	0	0	0	0	0	1	0.047619048	1	3	1	0.41667	3	3	2	0.428571	2	2	1	3	0	1	0	0.238095	3	2	1	0.666667	3	3	2	3	3	0.9333	0.5269							
13	民生银行	601006	J	Financial	0	0	3	0	0	1	1	0.238095238	1	1	0	0.16667	3	3	3	0.866667	2	1	0	2	0	2	0	0.333333	1	2	1	0.444444	1	3	1	3	3	0.7333	0.4516							
14	民生银行	601186	J	Financial	0	0	0	0	0	1	0	0.047619048	1	1	0	0.16667	3	3	2	0.285714	2	1	1	2	1	0	0	0.333333	2	2	1	0.555556	2	3	1	2	3	0.7333	0.4194							
15	上汽集团	601998	C	Manufacturing	1	3	0	0	0	1	2	0.333333333	1	1	1	0.25	3	0	2	0.733333	3	2	0	1	0	2	0	0.380952	3	3	2	0.888889	1	1	0	1	0	0.2	0.4301							
16	中信银行	600519	J	Financial	2	0	0	0	0	1	1	0.19047619	3	3	3	0.75	3	3	3	1	0.666667	2	1	1	2	0	1	0	0.333333	3	3	3	1	3	3	1	2	3	0.8	0.6022						
17	光大银行	601390	J	Financial	1	0	0	0	0	1	1	0.142857143	2	1	1	0.66667	3	3	3	1	0.666667	1	1	1	2	0	2	0	0.333333	1	1	0	0.222222	1	1	0	1	3	0.4	0.3441						
18	光大银行	601601	J	Financial	0	0	0	0	0	1	1	0.095238095	1	2	1	0.33333	3	3	2	1	0.733333	1	1	0	2	0	1	0	0.238095	3	3	1	0.777778	2	1	1	2	3	0.6	0.4086						
19	中国联通	600019	I	Information Transmission, Software and Information Technology	0	0	0	0	0	0	1	0.047619048	1	0	0	0.08333	3	1	3	0.733333	2	1	0	1	0	1	0	0.238095	3	3	3	1	1	1	1	0	0	0.2	0.3226							
20	大秦铁路	600016	G	Transport, Storage and Postal Service	3	2	0	0	3	2	2	0.571428571	1	1	1	0.25	2	1	2	0.533333	2	1	1	2	1	2	0	0.428571	2	2	1	0.555556	3	1	0	1	0	0.3333	0.4516							
21	长江电力	600000	D	Electric Power, Heat, Gas and Water Production and Supply	1	3	0	0	3	1	1	0.428571429	3	1	3	0.58333	3	2	2	0.6	0	1	0	3	3	2	1	0.47619	3	3	1	0.777778	3	3	1	1	3	0.7333	0.5699							
22	中信银行	601166	J	Financial	0	0	0	0	0	1	1	0.095238095	2	1	1	0.33333	3	0	3	1	1	1	2	0	3	0	1	0	0.333333	1	1	0	0.222222	2	1	1	1	1	0.4	0.3871						
23	三一重工	600018	C	Manufacturing	0	0	0	0	0	0	1	0.047619048	1	1	0	0.25	2	0	3	0.6	3	2	2	3	0	2	0	0.571429	2	2	3	0.33333	3	3	3	1	3	0	0.3333	0.4194						
24	中国建筑	600837	E	Construction	0	0	0	0	2	1	1	0.19047619	1	1	0	0.16667	2	1	3	0.666667	2	0	0	2	1	2	0	0.333333	2	2	1	0.555556	3	0	0	1	0	0.2667	0.3441							
25	宝钢股份	600011	C	Manufacturing	1	0	0	0	1	1	2	0.238095238	3	0	0	0.25	2	3	2	0.8	3	1	1	2	0	2	0	0.428571	3	3	1	0.777778	3	1	0	1	0	0.3333	0.4049							
26	中煤能源	601898	B	Mining	1	0	0	0	0	2	2	0.238095238	3	3	2	1	0.75	3	1	2	0.6	1	2	3	1	2	0	0.47619	2	2	1	0.555556	3	1	1	1	0	0.4	0.4731							
27	华夏银行	601600	J	Financial	0	0	1	0	0	1	1	0.142857143	1	0	0	0.08333	3	3	2	0.933333	2	1	0	3	0	1	0	0.333333	3	3	1	0.777778	1	1	1	1	1	0.2667	0.3871							
28	中国重工	601919	C	Manufacturing	0	0	0	0	0	1	1	0.095238095	1	1	1	0.25	2	1	2	0.666667	3	1	0	2	0	2	1	0.428571	3	3	1	0.777778	3	1	0	1	0	0.3333	0.3871							
29	兖州煤业	601169	B	Mining	0	1	0	0	0	1	1	0.285714286	3	3	1	0.58333	2	2	1	0.6	2	1	0	1	1	2	0	0.333333	2	1	1	0.444444	3	3	0	1	1	0.5333	0.4049							
30	海螺水泥	601727	C	Manufacturing	1	3	0	0	1	1	1	0.333333333	2	1	1	0.33333	2	1	3	0.666667	2	1	1	3	1	2	0	0.47619	2	2	1	0.555556	3	3	1	1	0	0.5333	0.4731							
31	中国铝业	601991	C	Manufacturing	0	0	0	0	0	1	1	0.095238095	0	1	0	0.08333	2	1	3	0.466667	1	1	1	1	0	0	0	0.190476	1	1	1	0.333333	1	1	0	1	0	0.2	0.2151							
32	海通证券	601899	J	Financial	0	0	0	0	0	0	1	0.047619048	1	0	0	0.08333	3	3	1	0.733333	0	1	0	2	0	0	0	0.142857	2	2	1	0.555556	0	1	1	1	1	0	0.2	0.2581						
33	紫金矿业	601766	B	Mining	0	0	0	0	3	1	2	0.285714286	3	1	1	0.41667	1	0	3	1	0.4	1	1	1	0	2	0	0.285714	1	1	1	0.222222	2	1	0	2	3	0.5333	0.3548							
34	保利地产	600005	K	Real Estate	0	0	0	0	0	0	1	0.047619048	0	0	0	0	0	3	1	0.666667	0	1	1	0	0	0	0	0.095238	0	0	0	0	0	0	0	0	0	0.0667	0.1505							
35	上港集团	600015	G	Transport, Storage and Postal Service	0	0	0	0	0	1	2	0.142857143	1	1	0	0.16667	2	1	3	1	0.533333	1	1	0	1	0	1	0	0.190476	2	2	0	0.444444	3	3	0										

Individual Disclosure Category Score Categorized by Ownership Structure

SOE											
Ranking	Name	Listing Code	Industry Code	Industry Name	VD1-Financial	VD2-HR	VD3-CG	VD4-MS	VD5-DEV	VD6-SE	VD7
1	中国石油	601857	B	Mining	0.380952381	0.083333333	0.466666667	0.333333333	0.222222222	0.133333333	0.29032258
5	中国石化	601628	B	Mining	0.428571429	0.166666667	0.466666667	0.57142857	1	0.533333333	0.50537634
6	中国神华	601088	B	Mining	0.238095238	0.5	0.666666667	0.57142857	0.555555556	0.533333333	0.49462366
26	中煤能源	601898	B	Mining	0.238095238	0.75	0.6	0.47619048	0.555555556	0.4	0.47311828
29	兖州煤业	601169	B	Mining	0.285714286	0.583333333	0.6	0.333333333	0.444444444	0.533333333	0.44086022
33	紫金矿业	601766	B	Mining	0.285714286	0.416666667	0.4	0.28571429	0.222222222	0.533333333	0.35483871
42	潞安环能	600795	B	Mining	0.428571429	0.333333333	0.466666667	0.333333333	1	0.533333333	0.47311828
50	中海油服	600832	B	Mining	0.333333333	0.75	0.6	0.38095238	1	0.933333333	0.60215054
9	贵州茅台	601318	C	Manufacturing	0.333333333	0.083333333	0.333333333	0.38095238	0.333333333	0.133333333	0.27956989
15	上海汽车	601998	C	Manufacturing	0.333333333	0.25	0.733333333	0.38095238	0.888888889	0.2	0.43010753
25	宝钢股份	600011	C	Manufacturing	0.238095238	0.25	0.8	0.42857143	0.777777778	0.333333333	0.44086022
28	中国重工	601919	C	Manufacturing	0.095238095	0.25	0.666666667	0.42857143	0.777777778	0.333333333	0.38709677
30	海螺水泥	601727	C	Manufacturing	0.333333333	0.333333333	0.666666667	0.47619048	0.555555556	0.533333333	0.47311828
31	中国铝业	601991	C	Manufacturing	0.095238095	0.083333333	0.466666667	0.19047619	0.333333333	0.2	0.21505376
41	上海电气	601111	C	Manufacturing	0.047619048	0.166666667	0.6	0.42857143	1	0.4	0.38709677
44	包钢稀土	600089	C	Manufacturing	0.095238095	0.083333333	0.333333333	0.14285714	0.555555556	0.266666667	0.21505376
45	江西铜业	601958	C	Manufacturing	0.238095238	0.083333333	0.466666667	0.28571429	0.444444444	0.333333333	0.30107527
21	长江电力	600000	D	Electric Power, Heat, Gas and Water Production and Supply	0.428571429	0.583333333	0.6	0.47619048	0.777777778	0.733333333	0.56989247
38	华能国际	600104	D	Electric Power, Heat, Gas and Water Production and Supply	0.476190476	0.75	0.6	0.57142857	1	0.8	0.65591398
40	大唐发电	601939	D	Electric Power, Heat, Gas and Water Production and Supply	0.047619048	0.166666667	0.6	0.333333333	0.333333333	0.333333333	0.29032258
49	国电电力	600550	D	Electric Power, Heat, Gas and Water Production and Supply	0.619047619	0.166666667	0.4	0.23809524	0.444444444	0.4	0.38709677
24	中国建筑	600837	E	Construction	0.19047619	0.166666667	0.666666667	0.333333333	0.555555556	0.266666667	0.34408602
48	中国中铁	600188	E	Construction	0.380952381	0.333333333	0.533333333	0.38095238	0.888888889	0.533333333	0.47311828
20	大秦铁路	600016	G	Transport, Storage and Postal Service	0.571428571	0.25	0.533333333	0.42857143	0.555555556	0.333333333	0.45161129
35	上港集团	600015	G	Transport, Storage and Postal Service	0.142857143	0.166666667	0.533333333	0.19047619	0.444444444	0.666666667	0.333333333
39	中国国航	600585	G	Transport, Storage and Postal Service	0.238095238	0.25	0.466666667	0.38095238	1.444444444	0.4	0.45161129
19	中国联通	600019	I	Transmission, Software and Information Technology	0.047619048	0.083333333	0.733333333	0.23809524	1	0.2	0.32258065
2	工商银行	601398	J	Financial	0.285714286	0.833333333	0.933333333	0.38095238	0.555555556	0.733333333	0.58064516
3	农业银行	601988	J	Financial	0.142857143	0.5	0.866666667	0.333333333	0.666666667	0.8	0.50537634
4	中国银行	600028	J	Financial	0.19047619	0.5	0.8	0.42857143	0.666666667	0.533333333	0.48387097
7	中国人寿	600036	J	Financial	0.047619048	0.166666667	1	0.23809524	0.222222222	0.466666667	0.34408602
47	建设银行	600150	J	Financial	0.142857143	0.75	1	0.333333333	0.888888889	0.866666667	0.59139785
11	浦发银行	600030	J	Financial	0.285714286	0.166666667	0.866666667	0.23809524	0.777777778	0.4	0.41935484
16	中信银行	600519	J	Financial	0.19047619	0.75	1	0.333333333	1	0.8	0.60215054
17	中国太保	601390	J	Financial	0.142857143	0.333333333	0.666666667	0.333333333	0.222222222	0.4	0.34408602
22	中信证券	601166	J	Financial	0.095238095	0.333333333	1	0.333333333	0.222222222	0.4	0.38709677
18	光大银行	601601	J	Financial	0.095238095	0.333333333	0.733333333	0.23809524	0.777777778	0.6	0.40860215
43	招商证券	600583	J	Financial	0.047619048	0.083333333	0.933333333	0.19047619	0.222222222	0.2	0.2688172
46	华泰证券	600688	J	Financial	0.047619048	0.166666667	0.933333333	0.0952381	0.444444444	0.2	0.27956989
34	保利地产	600005	K	Real Estate	0.047619048	0	0.666666667	0.0952381	0	0.066666667	0.15053763
Private Controlled											
36	新华保险	600048	J	Financial	0.095238095	0.833333333	0.933333333	0.47619048	0.555555556	0.866666667	0.58064516
8	招商银行	600900	J	Financial	0.238095238	0.25	0.933333333	0.47619048	0.666666667	0.866666667	0.5483871
10	中国平安	601328	J	Financial	0.095238095	0.75	1	0.38095238	0.555555556	0.933333333	0.56989247
12	交通银行	600050	J	Financial	0.047619048	0.416666667	0.933333333	0.42857143	0.666666667	0.933333333	0.52688172
13	兴业银行	601006	J	Financial	0.238095238	0.166666667	0.866666667	0.333333333	0.444444444	0.733333333	0.45161129
14	民生银行	601186	J	Financial	0.047619048	0.166666667	0.933333333	0.28571429	0.555555556	0.733333333	0.41935484
27	华夏银行	601600	J	Financial	0.142857143	0.083333333	0.933333333	0.333333333	0.777777778	0.266666667	0.38709677
32	海通证券	601899	J	Financial	0.047619048	0.083333333	0.733333333	0.14285714	0.555555556	0.2	0.25806452
37	北京银行	601808	J	Financial	0.142857143	0.166666667	0.8	0.19047619	0.333333333	0.266666667	0.30107527
23	三一重工	600018	C	Manufacturing	0.047619048	0.25	0.6	0.57142857	1	0.333333333	0.41935484

Appendix 16: Raw Data Year 2012

Ranking	Name	Listing Code	Industry Code	Industry Name	Financial Information										VD1-Financial HR					VD2-HR Corporate Governance					VD3-CG Management And Strategy							VD4-MS Product and Service Development			VDS-DEV Society and Environment					VD6-SE VDT	
					Revenue Forecast	Cost/Capital Investment Forecast	Profit Forecast	Cash Flow Forecast	Turn Over /Production Forecast	Impact of Macro Economics /Policy Risk	Impact of Market Risk on Financials	Training /Progression	Welfare and Insurance	Recruitment and Layoff	Employment and Fairness	Auditing Committee	Risk Management /Monitoring/Committee	Independent Director	Disclosure Policy	Investor Relation	Branding and Difficulties	Competitor Analysis	Clients Analysis	Strategic Time Frame	Continuity and Stability	Impact of Strategy on Current Performance	Development Initiatives	Results	Advantage	Quality and Safety	Environmental	Corporate Culture	Community Relation	Common Good Donation							
1	中国石油	601857	B	Mining	0	3	0	0	3	1	1	0.380952381	3	1	0	0.33333	2	1	2	1	1	0.46667	1	1	0	0	3	2	1	0.38095	1	1	1	0.33333	3	1	1	1	0	0.4	0.3871
2	工商银行	601398	J	Financial	0	0	0	0	0	1	1	0.095238095	3	3	3	1	0.83333	3	3	3	1	3	0.86667	3	2	0	3	0	1	0.42857	3	3	2	0.88889	3	3	1	2	3	0.8	0.5806
3	农业银行	601988	J	Financial	0	0	0	0	0	1	1	0.095238095	3	3	2	0.66667	3	3	3	2	3	0.93333	3	2	0	3	0	0	0.38095	3	3	2	0.88889	1	1	0	1	0	0.2	0.4624	
4	中国银行	600028	J	Financial	0	0	1	0	0	1	1	0.142857143	3	2	2	0.66667	3	3	3	2	2	0.86667	3	1	0	3	0	0	0.33333	3	2	0	0.55556	3	2	0	1	3	0.6	0.4839	
5	中国石化	601628	B	Mining	0	3	0	0	3	1	2	0.428571429	1	1	0	0.16667	2	0	2	3	1	0.53333	2	1	2	3	1	2	0.52381	3	3	3	1	3	3	0	1	3	0.6667	0.5269	
6	中国人寿	601088	J	Financial	0	0	1	0	0	1	1	0.142857143	2	1	0	0.25	3	3	3	1	3	0.86667	2	0	2	0	1	0	0.2381	1	0	0	0.11111	1	1	1	1	1	3	0.4667	0.3441
7	中国神华	600036	B	Mining	0	0	0	0	3	2	2	0.333333333	1	1	0	0.16667	2	1	2	1	1	0.46667	1	2	1	2	0	2	0.38095	2	1	0	0.33333	2	1	0	1	3	0.4667	0.3656	
8	招商银行	600900	J	Financial	0	0	0	0	0	1	1	0.095238095	2	1	2	1	0.5	3	3	2	3	0.93333	2	1	0	3	0	2	0.38095	2	3	3	0.88889	1	1	0	1	3	0.4	0.4731	
9	贵州茅台	601318	C	Manufacturing	3	0	0	0	1	1	2	0.333333333	3	1	0	0.33333	2	1	2	1	0	0.4	3	2	2	0	0	0.33333	1	0	0	0.11111	1	1	1	1	0	3	0.4	0.3333	
10	中国平安	601328	J	Financial	1	0	0	0	0	1	1	0.142857143	2	2	1	0.41667	3	3	3	1	1	0.73333	2	0	2	0	0	1	0.2381	3	3	1	0.77778	2	3	1	1	3	0.6667	0.4409	
11	上汽集团	600030	C	Manufacturing	3	3	0	0	3	1	2	0.571428571	2	2	1	1	0.5	2	1	2	1	2	0.53333	3	2	2	2	0	0.52381	3	3	0	0.66667	3	3	0	1	3	0.6667	0.5699	
12	交通银行	600050	J	Financial	0	0	0	0	0	1	1	0.095238095	3	1	3	0.58333	3	3	3	3	1	2	1	2	0	1	0	0.2381	3	3	1	0.77778	3	3	1	2	3	0.8	0.5161		
13	浦发银行	601006	J	Financial	0	0	0	0	0	1	1	0.095238095	3	2	1	0.5	3	3	3	1	3	0.86667	1	1	0	3	0	0	0.2381	2	1	0	0.33333	2	1	0	1	1	0.3333	0.3656	
14	兴业银行	601186	J	Financial	0	0	0	0	0	1	1	0.095238095	3	3	3	0.75	3	3	2	1	2	0.73333	3	1	0	1	0	2	0.33333	3	3	0	0.66667	2	3	1	2	3	0.7333	0.4946	
15	民生银行	601998	J	Financial	1	0	0	0	0	1	1	0.142857143	3	1	1	0.41667	3	3	3	3	3	1	2	1	0	2	0	0.38095	2	1	1	0.44444	3	3	2	1	3	0.8	0.5054		
16	中国大冶	600519	J	Financial	0	0	0	0	0	1	1	0.095238095	1	0	0	0.08333	3	3	3	1	3	0.86667	2	1	0	2	0	1	0.28571	1	1	0	0.22222	2	3	0	1	0	0.2667	0.3011	
17	中信银行	601390	J	Financial	0	0	0	0	0	2	2	0.19047619	3	1	3	0.58333	3	3	3	2	3	0.93333	3	1	0	1	0	1	0.28571	2	3	3	0.88889	3	3	0	2	3	0.7333	0.5376	
18	中信证券	601601	J	Financial	0	0	0	0	0	1	1	0.095238095	2	1	3	0.33333	3	3	2	1	2	0.73333	1	1	1	2	0	1	0.28571	3	3	0	0.66667	1	1	1	1	1	3	0.4667	0.3871
19	光大银行	600019	J	Financial	0	0	0	0	0	1	1	0.095238095	1	2	1	0.33333	3	3	2	2	1	0.73333	1	1	0	2	0	1	0.2381	3	3	1	0.77778	2	1	1	2	3	0.6	0.4086	
20	中国建筑	600016	E	Construction	3	3	0	0	0	1	1	0.380952381	1	1	0	0.16667	2	1	3	1	1	0.53333	2	1	1	1	0	2	1	0.38095	2	2	1	0.55556	2	1	1	1	0	0.4	0.3978
21	长江电力	600000	D	Electric Power, Heat, Gas and Water Production and Supply	3	3	0	3	3	1	3	0.761904762	3	1	0	0.33333	3	1	2	1	3	0.66667	1	2	0	0	3	2	3	0.52381	2	2	1	0.55556	3	1	0	1	0	0.3333	0.5484
22	大秦铁路	601166	G	Transport, Storage and Postal Service	3	3	0	0	3	1	3	0.619047619	2	1	1	0.33333	3	0	2	1	1	0.46667	2	1	3	2	1	2	1	0.57143	2	2	1	0.55556	3	1	1	0	0.3333	0.4946	
23	保利地产	600018	K	Real Estate	0	0	0	0	0	0	1	0.047619048	3	1	0	0.33333	2	1	2	1	2	0.53333	1	1	0	1	1	0	0.2381	1	1	0	0.22222	3	3	1	1	1	0.5333	0.3011	
24	宝钢稀土	600837	C	Manufacturing	3	3	0	0	0	2	2	0.476190476	1	1	0	0.16667	2	0	3	1	1	0.46667	2	1	1	0	3	2	1	0.47619	2	2	0	0.44444	1	1	0	1	0	0.2	0.3871
25	宝钢股份	600011	C	Manufacturing	3	3	0	0	3	1	1	0.523809524	3	1	0	0.33333	2	0	2	1	1	0.4	3	1	1	0	0	2	0.33333	3	2	1	0.66667	3	2	1	1	0	0.4667	0.4409	
26	海通证券	601898	J	Financial	0	0	0	0	0	1	1	0.095238095	1	1	0	0.16667	3	3	1	1	2	0.66667	2	1	1	1	0	0	0.2381	2	2	0	0.44444	0	0	1	2	3	0.4	0.3118	
27	北京银行	601600	J	Financial	0	0	0	0	0	1	2	0.142857143	3	1	1	0.41667	3	3	3	2	3	0.93333	3	1	0	3	0	1	0.38095	3	3	1	0.77778	1	3	0	2	3	0.6	0.4946	
28	三一重工	601919	C	Manufacturing	3	0	0	0	0	1	1	0.238095238	3	1	0	0.33333	2	1	2	1	3	0.6	3	1	2	2	0	0.47619	3	3	3	1	3	1	1	1	3	0.6	0.4946		
29	华能国际	601169	D	Electric Power, Heat, Gas and Water Production and Supply	0	3	0	0	0	1	1	0.238095238	1	1	0	0.16667	2	1	2	1	0	0.4	1	1	0	1	0	2	0.2381	2	2	2	0.66667	1	2	0	0	0	0.2	0.2903	
30	中国联通	601727	I	Information Transmission, Software and Information Technology	0	0	0	0	0	0	1	0.047619048	2	1	0	0.25	3	1	3	1	1	0.6	3	2	0	1	0	2	0.38095	3	3	3	1	1	3	1	1	3	0.6	0.4194	
31	海螺水泥	601991	C	Manufacturing	0	0	0	0	1	1	1	0.142857143	1	0	0	0.08333	3	0	2	1	1	0.46667	2	1	0	0	3	2	1	0.42857	2	2	1	0.55556	1	1	1	1	0	0.2667	0.3118
32	中煤能源	601899	B	Mining	0	3	0	0	3	1	1	0.380952381	3	2	1	1	0.58333	3	2	3	3	0.93333	2	1	1	2	1	2	0.42857	2	2	1	0.55556	3	2	1	1	1	3	0.6667	0.5699
33	华夏银行	601766	J	Financial	0	0	0	0	0	0	1	0.047619048	1	0	0	0.08333	3	3	3	3	1	0.86667	3	1	0	2	0	0	0.28571	2	2	1	0.55556	1	3	0	0	0	0.2667	0.3226	
34	中国重工	600005	C	Manufacturing	1	0	0	0	1	1	1	0.19047619	2	2	1	0.41667	2	1	3	3	3	0.8	3	1	0	1	0	2	0.33333	3	3	3	1	3	2	1	1	3	0.6667	0.5054	
35	中国交建	600015	E	Construction	3	3	0	0	0	1	1	0.380952381	1	1	1	0.25	2	0	3	1	2	0.53333	3	1	0	2	0	2	0.38095	2	2	0	0.44444	2	1	0	1	1	0.3333	0.3871	
36	紫金矿业	600048	B	Mining	0	3	0	0	3	1	2	0.428571429	1	3	0	0.33333	2	1	2	1	1	0.46667	1	1	1	2	0	2	0.33333	2	2	2	0.66667	3	3	1	3	3	0.8667	0.4946	
37	中国铁建	601808	E	Construction	3	3	3	0	3	1	2	0.714285714	3	3	1	0.58333	2	3	3	1	3	0.8	2	2	0	2	0	2	0.38095	3	3	3	1	2	3	0	1	3	0.6	0.6452	
38	新华保险	601004	J	Financial	0	0	0	0	0	1	1	0.095238095	1	2	0	0.25	3	3	2	1	1	0.66667	2	1	0	2	0	1	0.28571	3	2	1	0.66667	2	2	1	2	3	0.6667	0.3978	
39	上港集团	600585	G	Transport, Storage and Postal Service	0	0	0	0	0	1	1	0.095238095	1	0	0	0.08333	2	0	2	1	1	0.4	2	1	0	2	0	1	0.28571	1	1	0	0.22222	3	1	1	1	1	3	0.6	0.2796
40	中国南车	601939	C	Manufacturing	3	0	0	0	0	1	1	0.238095238	3	3	1	0.58333	3	3	3	2	3																				

Individual Disclosure Category Score Categorized by Ownership Structure

SOE											
Ranking	Name	Listing Code	Industry Code	Industry Name	VD1-Financial	VD2-HR	VD3-CG	VD4-MS	VD5-DEV	VD6-SE	VDT
1	中国石油	601857	B	Mining	0.380952381	0.3333333	0.4666667	0.3809524	0.3333333	0.4	0.3870968
5	中国石化	601628	B	Mining	0.428571429	0.1666667	0.5333333	0.5238095	1	0.6666667	0.5268817
7	中国神华	600036	B	Mining	0.333333333	0.1666667	0.4666667	0.3809524	0.3333333	0.4666667	0.3655914
32	中煤能源	601899	B	Mining	0.380952381	0.5833333	0.9333333	0.4285714	0.5555556	0.6666667	0.5698925
36	紫金矿业	600048	B	Mining	0.428571429	0.3333333	0.4666667	0.3333333	0.6666667	0.8666667	0.4946237
43	山东黄金	600583	B	Mining	0.571428571	0.25	0.4	0.3809524	0.7777778	0.2666667	0.4301075
44	兖州煤业	600089	B	Mining	0.476190476	0.5833333	0.5333333	0.3333333	0.4444444	0.6666667	0.4946237
46	潞安环能	600688	B	Mining	0.238095238	0.25	0.1333333	0.1428571	0.3333333	0.6	0.2688172
9	贵州茅台	601318	C	Manufacturing	0.333333333	0.3333333	0.4	0.3333333	0.1111111	0.4	0.3333333
11	上汽集团	600030	C	Manufacturing	0.571428571	0.5	0.5333333	0.5238095	0.6666667	0.6666667	0.5698925
24	宝钢稀土	600837	C	Manufacturing	0.476190476	0.1666667	0.4666667	0.4761905	0.4444444	0.2	0.3870968
25	宝钢股份	600011	C	Manufacturing	0.523809524	0.3333333	0.4	0.3333333	0.6666667	0.4666667	0.4408602
31	海螺水泥	601991	C	Manufacturing	0.142857143	0.0833333	0.4666667	0.4285714	0.5555556	0.2666667	0.311828
34	中国重工	600005	C	Manufacturing	0.19047619	0.4166667	0.8	0.3333333	1	0.6666667	0.5053763
40	中国南车	601939	C	Manufacturing	0.238095238	0.5833333	0.9333333	0.5238095	1	0.4	0.5591398
48	江西铜业	600188	C	Manufacturing	0.238095238	0.1666667	0.2	0.1904762	0.2222222	0.5333333	0.2580645
50	中国铝业	600832	C	Manufacturing	0.047619048	0.1666667	0.4	0.2380952	0.3333333	0.8	0.311828
21	长江电力	600000	D	Electric Power, Heat, Gas and Water Production and Supply	0.761904762	0.3333333	0.6666667	0.5238095	0.5555556	0.3333333	0.5483871
29	华能国际	601169	D	Electric Power, Heat, Gas and Water Production and Supply	0.238095238	0.1666667	0.4	0.2380952	0.6666667	0.2	0.2903226
20	中国建筑	600016	E	Construction	0.380952381	0.1666667	0.5333333	0.3809524	0.5555556	0.4	0.3978495
35	中国交建	600015	E	Construction	0.380952381	0.25	0.5333333	0.3809524	0.4444444	0.3333333	0.3870968
37	中国铁建	601808	E	Construction	0.714285714	0.5833333	0.8	0.3809524	1	0.6	0.6451613
45	中国中铁	601958	E	Construction	0.571428571	0.3333333	0.4666667	0.2380952	1	0.4	0.4623656
22	大秦铁路	601166	G	Transport, Storage and Postal Service	0.619047619	0.3333333	0.4666667	0.5714286	0.5555556	0.3333333	0.4946237
39	上港集团	600585	G	Transport, Storage and Postal Service	0.095238095	0.0833333	0.4	0.2857143	0.2222222	0.6	0.2795699
47	中国国航	600150	G	Transport, Storage and Postal Service	0.238095238	0.25	0.3333333	0.4285714	0.5555556	0.6666667	0.3978495
30	中国联通	601727	I	Information Transmission, Software and Information Technology	0.047619048	0.25	0.6	0.3809524	1	0.6	0.4193548
2	工商银行	601398	J	Financial	0.095238095	0.8333333	0.8666667	0.4285714	0.8888889	0.8	0.5806452
3	农业银行	601988	J	Financial	0.095238095	0.6666667	0.9333333	0.3809524	0.8888889	0.2	0.4623656
4	中国银行	600028	J	Financial	0.142857143	0.6666667	0.8666667	0.3333333	0.5555556	0.6	0.483871
6	中国人寿	601088	J	Financial	0.142857143	0.25	0.8666667	0.2380952	0.1111111	0.4666667	0.344086
13	浦发银行	601006	J	Financial	0.095238095	0.5	0.8666667	0.2380952	0.3333333	0.3333333	0.3655914
16	中国太保	600519	J	Financial	0.095238095	0.0833333	0.8666667	0.2857143	0.2222222	0.2666667	0.3010753
17	中信银行	601390	J	Financial	0.19047619	0.5833333	0.9333333	0.2857143	0.8888889	0.7333333	0.5376344
18	中信证券	601601	J	Financial	0.095238095	0.3333333	0.7333333	0.2857143	0.6666667	0.4666667	0.3870968
19	光大银行	600019	J	Financial	0.095238095	0.3333333	0.7333333	0.2380952	0.7777778	0.6	0.4086022
42	华泰证券	600795	J	Financial	0.095238095	0.25	0.8666667	0.1428571	0.5555556	0.3333333	0.3333333
49	招商证券	600550	J	Financial	0.095238095	0.3333333	0.9333333	0.3333333	0.5555556	0.8	0.4731183
23	保利地产	600018	K	Real Estate	0.047619048	0.3333333	0.5333333	0.2380952	0.2222222	0.5333333	0.3010753
Private Controlled											
8	招商银行	600900	J	Financial	0.095238095	0.5	0.9333333	0.3809524	0.8888889	0.4	0.4731183
10	中国平安	601328	J	Financial	0.142857143	0.4166667	0.7333333	0.2380952	0.7777778	0.6666667	0.4408602
12	交通银行	600050	J	Financial	0.095238095	0.5833333	1	0.2380952	0.7777778	0.8	0.516129
14	兴业银行	601186	J	Financial	0.095238095	0.75	0.7333333	0.3333333	0.6666667	0.7333333	0.4946237
15	民生银行	601998	J	Financial	0.142857143	0.4166667	1	0.3809524	0.4444444	0.8	0.5053763
26	海通证券	601898	J	Financial	0.095238095	0.1666667	0.6666667	0.2380952	0.4444444	0.4	0.311828
27	北京银行	601600	J	Financial	0.142857143	0.4166667	0.9333333	0.3809524	0.7777778	0.6	0.4946237
33	华夏银行	601766	J	Financial	0.047619048	0.0833333	0.8666667	0.2857143	0.5555556	0.2666667	0.3225806
38	新华保险	600104	J	Financial	0.095238095	0.25	0.6666667	0.2857143	0.6666667	0.6666667	0.3978495
28	三一重工	601919	C	Manufacturing	0.238095238	0.3333333	0.6	0.4761905	1	0.6	0.4946237
41	广汇能源	601111	S	Diversified/General	0.380952381	0.3333333	0.3333333	0.2857143	0.4444444	0.2	0.3225806

References

- Publicly Listed Company Information Disclosure—Format and Content (1993).
- Security Law Of People's Republic of China, Chairman's Oder No.12 C.F.R. (1999).
- Forecast and Analysis of China's Economic Trend. (2013). from <http://www.china.com.cn/chinese/zhuanti/249739.htm>
- Aboudy, D., & Kasznik, R. (2000). CEO stock option awards and the timing of corporate voluntary disclosures. *Journal of Accounting and Economics*, 29(1), 73-100.
- Agca, A., & Onder, S. (2007). Voluntary disclosure in Turkey: A study on firms listed in Istanbul Stock Exchange (ISE). *Problems and Perspectives in Management*, 5(3), 241-251.
- Alchian, A. A., & Demsetz, H. (1972). Production, Information Costs and Economic Organization. *American Economic Review*, 62, 777-795.
- Ali, A., Chen, T. Y., & Radhakrishnan, S. (2007). Corporate disclosures by family firms. *Journal of Accounting and Economics*, 44(1-2), 238-286.
- An, Y., & Davey, H. (2010). Intellectual capital disclosure in Chinese (mainland) companies. *Journal of Intellectual Capital*, 11(3), 326-347.
- Antle, R. (1984). The Auditor as an Economic Agent. *Journal of Accounting Research*, 22, 1-20.
- Association, C. S. (2007). Analyze of Chinese Stock Market Investors' Surveys.
- The World Bank. (2013). GINI Index. from <http://data.worldbank.org/indicator/SI.POV.GINI>
- Bens, D. A. (2002). The Determinants of the Amount of Information Disclosed about Corporate Restructurings. *Journal of Accounting Research*, 40(1), 1-20. doi: 10.1111/1475-679X.00036
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50(2-3), 296-343.
- Botosan, C., & Harris, M. (2000). Motivations for a change in disclosure frequency and its consequences: An examination of voluntary quarterly segment disclosures. *Journal of Accounting Research*, 38(2), 329-353.
- Botosan, C. A. (1997). Disclosure Level and the Cost of Equity Capital. *The Accounting Review*, 72(3), 323-349.
- Botosan, C. A., & Plumlee, M. A. (2002). A Re-examination of Disclosure Level and the Expected Cost of Equity Capital. *Journal of Accounting Research*, 40(1), 21-40.

- Bricker, R., & Chandar, N. (1998). On Applying Agency Theory in Historical Accounting Research. *Business and Economic History*, 27(2), 486-297.
- Brown, S., & Hillegeist, S. A. (2007). How disclosure quality affects the level of information asymmetry. *Review of Accounting Studies*, 12(2-3), 443-477.
- Campbell, D., Craven, B., & Shrives, P. (2003). Voluntary social reporting in three FTSE sectors: a comment on perception and legitimacy. *Accounting, Auditing & Accountability Journal*, 16(4), 558-581.
- Carpenter, V. L., & Feroz, E. H. (2001). Institutional theory and accounting rule choice: an analysis of four US state governments' decisions to adopt generally accepted accounting principals. *Accounting, Organizations and Society*, 26(7), 565-596.
- Peking University Financial Law Centre. (2006). *Financial Law Forum 2006 Summary Edition*. Beijing: China Finance Publication.
- Chalmers, K., & Godfrey, J. M. (2004). Reputation costs: the impetus for voluntary derivative financial instrument reporting. *Accounting, Organizations and Society*, 29(2), 95-125.
- Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, 37(2), 247-265.
- Chen, G., Firth, M., Gao, D. N., & Rui, O. L. (2005). Is China's securities regulatory agency a toothless tiger? Evidence from enforcement actions. *Journal of Accounting and Public Policy*, 24, 451-488.
- Chen, S. M., Denfond, L., & Park, C. W. (2002). Voluntary Disclosure of Balance Sheet Information in Quarterly Earnings Announcements. *Journal of Accounting and Economics*, 33, 229-251.
- Chen, Y. (2004). Disclosure of Accounting Information, An Economic Perspective. *Accounting Research*, 8, 51-56.
- Criminal Law of People's Republic of China (2006).
- Chow, C. W., & Wong-Boren, A. (1987). Voluntary financial disclosure by Mexican corporation. *The Accounting Review*, LXII (3), 533-541.
- CNPC. (2011). China National Petroleum Corporation 2010 Annual Report.
- Cooke, T. E. (1992). The impact of size, stock market listing and industry type on disclosure in the annual reports of Japanese listed corporations. *Accounting and Business Research*, 22(87), 229-237.

Core, J. E. (2001). Firm's disclosure and their cost of capital: a discussion of "A Review of the empirical disclosure literature". *Journal of Accounting and Economics*, 31, 441-456.

Notice regard the Plan of Controlling Air Pollution (2013).

Notice about Strengthen Information Disclosure through Company Law, CSRC 1995(200) C.F.R. (1995).

Notice About Further Reinforcement on Market Regulation, CSRC Communication 1996(114) C.F.R. (1996).

Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (1998).

Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (1999).

Corporate Governance for Listed Companies (2001).

Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (2001).

Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (2004).

Improve the Quality of Listed Companies (2005).

Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (2007).

Standards for the Content and Format of Information Disclosure by Companies that Offer Securities to the Public No. 2 - The Contents and Formats of Annual Report (2012).

CSRC. (2013). Statistical Data by December 2012. from http://www.csrc.gov.cn/pub/zjhpublic/G00306204/zqscyby/201301/t20130122_220685.htm

Daily, C. (2005). CSRC pledges to improve transparency. from http://english.peopledaily.com.cn/200501/04/eng20050104_169538.html

Daily, P. S. (2013). Northeast remains shrouded in smog for third straight day. from <http://english.peopledaily.com.cn/90882/8433264.html>

DeAngelo, L. (1988). Managerial competition, information costs, and corporate governance: the use of accounting performance measures in proxy contests. *Journal of Accounting and Economics*, 10, 3-37.

- Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282-311.
- Deegan, C., Rankin, M., & Tobin, J. (2002). An examination of the corporate social disclosures of BHP from 1983 – 1997: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal*, 15(3), 312-343.
- Deegan, C., Rankin, M., & Voght, P. (2002). Firms' Disclosure Reactions to Major Social Incidents: Australian Evidence. *Accounting Forum*, 24(1), 101-130. doi: 10.1111/1467-6303.00031
- DiMaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), 147-160.
- Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior *The Pacific Sociological Review* (pp. 122-136). California: University of California Press.
- Driscoll, C., & Crombie, A. (2001). Stakeholder Legitimacy Management and the Qualified Good Neighbor: The Case of Nova Nada and JDI. *Business & Society*, 40(4), 442-471.
- Dutta, S., & Trueman, B. (2002). The Interpretation of Information and Corporate Disclosure Strategies. *Review of Accounting Studies*, 7(1), 75-96.
- Dye, R. A. (1986). Proprietary and Nonproprietary Disclosures. *The Journal of Business*, 59(2), 331-366.
- Dye, R. A. (1998). Investor Sophistication and Voluntary Disclosure. *Review of Accounting Studies*, 3, 261-287.
- Dye, R. A., & Sridhar, S. S. (1995). Industry-Wide Disclosure Dynamics. *Journal of Accounting Research*, 33, 157-174.
- Economics. (2012). Shocking! A GINI 0.61 among Chinese Families. from http://www.ce.cn/macro/more/201212/10/t20121210_23922300.shtml
- Fama, E. F., & Miller, M. (1972). *The Theory of Finance*. New York: Holt, Rinehart and Winston.
- Fan, J. P. H., & Wong, T. J. (2002). Corporate Ownership Structure and the Informativeness of Accounting Earnings in East Asia. *Journal of Accounting and Economics*, 33, 401-425.
- Fan, X. W. (2006). Factors Affecting Listed Companies' Voluntary Disclosure: An Empirical Study. *Security Market Leader Press*, 4, 72-77.
- FASB. (2001). Improving Business Reporting: Insights into Enhancing Voluntary Disclosure.

Steering Committee Report Business Reporting Research Project. Retrieved 23rd March, 2013, from <http://www.fasb.org/brrp/brrp2.shtml>

Fischer, P. E., & Verrecchia, R. E. (2004). Disclosure bias. *Journal of Accounting and Economics*, 38(December), 223-250.

Fisherman, M. J., & Hagerty, K. M. (2003). Fishman, M. J., & Hagerty, K. M. (2003). Mandatory versus voluntary disclosure in markets with informed and uninformed customers. *Journal of Law, Economics, and Organization*, 19(1), 45-63.

Francis, J., Philbrick, D., & Schipper, K. (1994). Shareholder litigation and corporate disclosures. *Journal of Accounting Research*, 32(2), 137-164. doi: 10.2307/2491279

Gelb, D., & Zarowin, P. (2002). *Corporate disclosure policy and the informativeness of stock prices*. New York University.

Guthrie, J., Petty, R., & Ricceri, F. (2006). The voluntary reporting of intellectual capital: Comparing evidence from Hong Kong and Australia. *Journal of Intellectual Capital*, 7(2), 254-271.

He, W. D. (2003). Research on Voluntary Disclosure of Listed Companies. In S. S. Exchange (Ed.), *Report of Shenzhen Stock Exchange Research Insititute Report: Shenzhen Stock Exchange*.

Healy, P. M., Hutton, A. P., & Palepu, K. G. (1999). Stock Performance and Intermediation Changes Surrounding Sustained Increases in Disclosure. *Contemporary Accounting Research*, 16(3), 485-520. doi: 10.1111/j.1911-3846.1999.tb00592.x

Healy, P. M., & Palepu, K. G. (1995). The challenges of investor communication The case of CUC International, Inc. *Journal of Financial Economics*, 38(2), 111-140.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting & Economics*, 31(1-3), 405-440.

Holmstrom, B. (1979). Moral Hazard and Observability. *The Bell Journal of Economics and Management Science*, Spring, 74-91.

Hope, O., & Thomas, W. B. (2008). Managerial Empire Building and Firm Disclosure. *Journal of Accounting Research*, 46(3), 591-626.

Hossain, M. M., Perera, H. B., & Rahman, A. R. (1995). Voluntary Disclosure in the Annual Reports of New Zealand Companies. *Journal of International Financial Management and Accounting*, 6(1), 69-87.

Jensen, R. E., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs

- and ownership structure. *Journal of Financial Economics*, 3(4).
- Jiang, Y. P., & He, Y. (2008). Information Needs of Chinese Public Investors: An Empirical Analysis Based on Questions Raised through Investors' Call Centre. *Gansu Social Science*, 4, 163-170.
- Jin, C. G. (2006). *Legal Logic and Regulation Logic*. Paper presented at the The 14th Annual National Legal Logic Academic Forum, Beijing.
<http://cpfd.cnki.com.cn/Article/CPFDTOTAL-LJFL200607001014.htm>
- Jovanovic, B. (1982). Truthful Disclosure of Information. *The Bell Journal of Economics*, 13(1), 36-44. doi: 10.2307/3003428
- Kahra, H. A., Kanto, A. J., Schadewitz, H. J., & Blevins, D. R. (2004). Bimodality In Interim Reports: An Analysts' View. *Journal of Business & Economics Research*, 2(10), 1-16.
- Kaplan, S. E., & Ruland, R. G. (1991). Positive theory, rationality and accounting regulation. *Critical Perspectives on Accounting*, 2(4), 361-374.
- Karamanou, I., & Vafeas, N. (2005). The Association between Corporate Boards, Audit Committees, and Management Earnings Forecasts: An Empirical Analysis. *Journal of Accounting Research*, 43(3), 453-486. doi: 10.1111/j.1475-679X.2005.00177.x
- Kim, O., & Verrechia, R. E. (1994). Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics*, 17, 41-68.
- Kristandl, G., & Bontis, N. (2007). The impact of voluntary disclosure on cost of equity capital estimates in a temporal setting. *Journal of Intellectual Capital*, 8(4), 577-594.
- Lan, Y., Wang, L., & Zhang, X. Y. (2013). Determinants and features of voluntary disclosure in the Chinese stock market. *China Journal of Accounting Research*, 6, 265-285.
- Lanen, W. N., & Verrecchia, R. E. (1987). Operating Decisions and the Disclosure of Management Accounting Information. *Journal of Accounting Research*, 25, 165-189. doi: 10.2307/2491085
- Lang, M., & Lundholm, R. (1996). Corporate disclosure policy and analyst behavior. *The Accounting Review*, 71, 467-492.
- Lang, M. H., & Lundholm, R. J. (2000). Voluntary Disclosure and Equity Offerings: Reducing Information Asymmetry or Hying the Stock? *Contemporary Accounting Research*, 17(4), 623-662. doi: 10.1506/9N45-F0JX-AXVW-LBWJ
- Leung, Q. W. Y., Morris, R. D., & Gray, S. J. (2005). *Corporate transparency in China: factors influencing financial disclosure levels*. Paper presented at the AFAANE Conference, Melbourne Victoria.

- Leuz, C., & Verrecchia, R. E. (2000). The Economic Consequences of Increased Disclosure. *Journal of Accounting Research*, 38, 91-124.
- Leventis, S., & Weetman, P. (2004). Timeliness of financial reporting: applicability of disclosure theories in an emerging capital market. *Accounting and Business Research*, 34(1), 43-56. doi: 10.1080/00014788.2004.9729950
- Li, F. (2008). Annual Report Readability, Current Earnings, and Earnings Persistence. *Journal of Accounting and Economics*, 45, 221-247.
- Li, F. (2010). The Information Content of Forward-Looking Statements in Corporate Filings—A Naïve Bayesian Machine Learning Approach. *Journal of Accounting Research*, 48(5), 1049-1102. doi: 10.1111/j.1475-679X.2010.00382.x
- Li, G. Q., & Li, Q. (2012). An Empirical Study on Individual Investor Information Behavior in Chinese Stock Market. *Journal of Information Resource Management*, 4, 16-33.
- Li, M. H., & He, H. (2002). Thoughts on Voluntary Disclosure. *Lanzhou University Academic Journal*, 30(4), 38-44.
- Li, Y. X., Fu, X. M., & Peng, C. (2004). Corporate Governance of Chinese Company and Voluntary Disclosure: An Empirical Study. *Chongqing University Academic Journal*, 27(12), 142-145.
- Liang, F. Y. (2011). *Chinese Listed Companies' Voluntary Disclosure & Regulation*. Beijing: Economy & Management Publishing House.
- Ltd, K. M. C. (2013). KwaiCho MaoTai Co Ltd 2012 Annual Report.
- McKinnon, J., & Dalimunthe, L. (1993). Voluntary disclosure of segment information by Australian diversified companies. *Accounting & Finance*, 33(1), 33-50.
- Meek, G. K., Roberts, C. B., & Gray, S. J. (1995). Factors Influencing Voluntary Annual Report Disclosures by U.S., U.K. and Continental European Multinational Corporations. *Journal of International Business Studies*, 26(3), 555-572.
- Merton, R. C. (1987). A Simple Model of Capital Market Equilibrium with Incomplete Information. *The Journal of Finance*, 42(3), 483-510. doi: 10.1111/j.1540-6261.1987.tb04565.x
- Meyer, J. W., & Hannan, M. T. (1979). *National development and the world system: Educational, economic, and political change, 1950-1970*. USA: University of Chicago Press.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Meyer, M. (1981). *Persistence and change in bureaucratic structures*. Paper presented at the

annualmeeting of the American Sociological Association, Toronto, Canada.

Milne, M. J., & Patten, D. M. (2002). Securing organizational legitimacy: An experimental decision case examining the impact of environmental disclosures. *Accounting, Auditing & Accountability Journal*, 15(3), 372-405.

Mitchell, J. D., Chia, C. W. L., & Loh, A. S. (1995). VOLUNTARY DISCLOSURE OF SEGMENT INFORMATION: FURTHER AUSTRALIAN EVIDENCE. *Accounting & Finance*, 35(2), 1-16. doi: 10.1111/j.1467-629X.1995.tb00283.x

Morning, B. (2013). CSRC on Information Disclosure: Transition to Real Regulators from from Someone who Examine and Give Approvals from <http://finance.china.com.cn/stock/zqyw/20131121/1988528.shtml>

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.

Network, X. N. (2011). Three Tons of Watermelon Exploded. from <http://news.sohu.com/20110513/n307419550.shtml>

News, S. (2010). Vice President of the World Bank Warning the Income Gap in China is Increasing. from <http://news.sina.com.cn/c/2010-09-14/013121094611.shtml>

Newson, M., & Deegan, C. (2002). Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea. *The International Journal of Accounting*, 37(2), 183-213.

O'Donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 15(3), 344-371.

World Trade Organization. (2010). Trade Policy Review: China. from http://www.wto.org/english/tratop_e/tpr_e/tp330_e.htm

Othman, S., Darus, F., & Arshad, R. (2011). The influence of coercive isomorphism on corporate social responsibility reporting and reputation. *Social Responsibility Journal*, 7(1), 119-135.

Petersen, C., & Plenborg, T. (2006). Voluntary disclosure and information asymmetry in Denmark. *Journal of International Accounting, Auditing and Taxation*, 15(2), 127-149.

Qiao, X. D. (2003). Listed Company Voluntary Disclosure Behavior in Annual Report: An Empirical Study. *Modern Economic Science*, 2.

Qiao, X. D. (2003). A relationship between voluntary disclosure and corporate governance: a

- frame analysis. *Accounting Research*, 5(1), 46-49.
- Qu, W., Cooper, B. J., Wise, V., & Leung, P. (2012). Voluntary disclosure in a changing regulatory environment, evidence from Chinese stock market. *International Journal of Economics and Finance*, 4(4), 30-43.
- Qu, W., Cooper, B. J., Wise, V., & Leung, P. (2012). Voluntary Disclosure in a Changing Regulatory Environment-Evidence from Chinese Stock Market. *International Journal of Economics & Finance*, 4(4), 30-43.
- Qu, W., & Leung, P. (2006). Cultural impact on Chinese corporate disclosure – a corporate governance perspective. *Managerial Auditing Journal*, 21(3), 241-264. doi: 10.1108/02686900610652991
- Beijing Review. (2011). In the Tank, Not on the Table-Gutter oil from http://www.bjreview.com.cn/nation/txt/2011-11/14/content_405509.htm
- Salancik, G. R., & Pfeffer, J. (1978). A Social Information Processing Approach to Job Attitudes and Task Design. *Administrative Science Quarterly*, 23(2), 224-253. doi: 10.2307/2392563
- Sengupta, P. (1998). Corporate Disclosure Quality and the Cost of Debt. *The Accounting Review*, 73(4), 459-474.
- Shi, S., & Weisert, D. (2002). Corporate governance with Chinese characteristics. *The Chinese Business Review*, 29(5), 40-49.
- Singleton, W. R., & Globberman, S. (2002). The changing nature of financial disclosure in Japan. *The International Journal of Accounting*, 37(1), 95-111.
- Skinner, D. J. (1994). Why Firms Voluntarily Disclose Bad News. *Journal of Accounting Research*, 32(1), 38-60. doi: 10.2307/2491386
- Suchman, M. (1995). Managing Legitimacy: Strategic and Institutional Approaches. *Academy of Management Review*, 20(3), 571-610.
- Suijs, J. (2005). Voluntary Disclosure of Bad News. *Journal of Business Finance & Accounting*, 32(7-8), 1423-1435. doi: 10.1111/j.0306-686X.2005.00634.x
- Suijs, J. (2007). Voluntary disclosure of information when firms are uncertain of investor response. *Journal of Accounting and Economics*, 43(2-3), 391-410.
- Summerhays, K., & Villiers, C. D. (2012). Oil Company Annual Report Disclosure Responses to the 2010 Gulf of Mexico Oil Spill. *Journal of the Asia-Pacific Centre for Environmental Accountability*, 18(2), 103-120.
- Thomas, R., & Andrews, N. (2007). Minority shareholder protection in China's top 100 listed

- companies. *Australian Journal of Asian Law*, 9(1), 88-119.
- Tilling, M. V., & Tilt, C. A. (2010). The edge of legitimacy: Voluntary social and environmental reporting in Rothmans' 1956-1999 annual reports. *Accounting, Auditing & Accountability Journal*, 23(1), 55-81.
- Tsamenyi, M., Cullen, J., & Gonzalez, J. M. (2006). Changes in accounting and financial information system in a Spanish electricity company: A new institutional theory analysis. *Management Accounting Research*, 17(4), 409-432.
- Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, 5, 179-194.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), 97-180.
- Wagehofer, A. (1990). Voluntary disclosure with a strategic opponent. *Journal of Accounting and Economics*, 12(March), 341-363.
- Wang, H. F., & Yuan, G. S. (2006). Voluntary Disclosure of Listed Companies: An Empirical Analysis. *Hua-Dong Economic Management*, 20(2), 127-130.
- Wang, K., Sewon, O., & Claiborne, M. C. (2008). Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, 17(1), 14-30.
- Wang, W., & Jiang, G. F. (2004). Information Disclosure, Transparency and Cost of Capital. *Economic Research*, 7, 107-114.
- Wang, W., & Jiang, G. F. (2004). Information Disclosure, Transparency, and Cost of Capital. *Economic Research*, 7, 107-114.
- Wang, X. Y. (2005). Voluntary Disclosure: Information Costs and Regulation. *Accounting Research*, 4, 25-29.
- Watts, R. L., & Zimmerman, J. L. (1986). *Positive Accounting Theory*. New Jersey: Englewood Cliffs.
- Weekly, T. (2009). 0.4% Chinese Holding 70% Wealth: Who are the rich people. from <http://money.hexun.com/2009-06-26/119035123.html>
- Weisbach, M. S. (1988). Outside directors and turnover. *Journal of Financial Economics*, 20(January-March), 431-460.
- Welker, M. (1995). Disclosure Policy, Information Asymmetry, and Liquidity in Equity Markets. *Contemporary Accounting Research*, 11(2), 801-827. doi:

10.1111/j.1911-3846.1995.tb00467.x

- Xiao, H. F., & Yuan, J. G. (2007). Ownership structure, board composition and corporate voluntary disclosure: Evidence from listed companies in China. *Managerial Auditing Journal*, 22(6), 604-619. doi: 10.1108/02686900710759406
- Yu, F. S., & Zhang, M. (2007). Quality of Voluntary Disclosure and Borrowing Cost. *Journal of Auditing and Economic*, 22(5), 93-96.
- Zhang, Z. X. (2007). *Insider Control in Security Market and Regulatory Control*. Beijing: China Finance Press.
- Zhang, Z. X., Zhang, X. R., & Liao, S. G. (2005). Are Listed Companies' Voluntary Disclosure Activities Effective? *Economics*, 4(2), 369-385.