CFO's Working as The Board Secretary Concurrently and Corporate Disclosure Quality: Based on Empirical Evidence of Listed Companies in Shenzhen Stock Exchange

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Abstract

This paper took the selected data listed companies in Shenzhen Stock Exchange in 2008-2015 as samples to study the relationship between the CFO's working as the Board Secretary concurrently and corporate disclosure quality, and also to examine the impact of different government intervention levels and nature of property rights. The results indicate that the CFO's doubling as the Board Secretary can distinctly improve the quality of corporate disclosure in listed companies; the CFO's holding concurrently the post of the Board Secretary can improve noticeably the disclosure quality of listed companies in regions with a high degree of government intervention; the CFO's also serving as the Board Secretary can improve the disclosure quality of non-state-owned listed companies. Moreover, this paper presents a reasonable explanation for the phenomenon that increasingly more CFOs are serving as the Board Secretaries simultaneously via empirical study. Lastly, conclusions of this study can provide empirical evidence for the appointment of the Board Secretary in listed companies.

Keywords: CFO, the Board Secretary, Corporate Disclosure Quality.

I. Introduction

Corporate disclosure can reflect the financial and operational status, and other key information of companies. Playing an important role in investors' decision-making, it constitutes a critical part of the securities market that connects the listed companies and the securities company. As the bridge between the two, information disclosure can affect the resource allocation of the capital market. Therefore, reliable information disclosure can help investors make correct investment decisions, and reflect changes and relevant characteristics of the securities market on a real-time basis. Twenty years ago, Chinese listed companies started introducing the corporate disclosure system. Compared with that of listed companies in the developed areas of Europe and North America, Chinese counterparts still has a long way to go. At present, problems, such as low authenticity, accuracy, and completeness of corporate disclosure, are mainly responsible for internal information asymmetry and irrational resource allocation of listed companies on the capital market. The board secretary system originated from Britain, has been quite mature, and played an indispensable role in corporate governance of European and North American countries.

The system of the Secretary of the Board of Directors was introduced into China in the early 1990s. Yet the Secretary of the Board has not drawn much attention to the degree that some companies have not even established such a position. In this sense, the role of this system is rather limited in China. After decades of development and improvement, the new *China Company Law* came into effect in 2006. It finally confirmed the executive status of the Board Secretary and clarified the corresponding responsibilities, among which one of the key obligations is to disclose the company's information. Therefore, the Board Secretary plays a pivotal role in corporate disclosure and directly affects the disclosure quality.

Financial accounting information is what investors refer to the most, and it is also the main component of corporate disclosure. The research of Bushman and Smith (2001) shows that accounting information disclosure functions as an essential



supporting system to solve the information asymmetry between accounting information producers and demanders; and that its quality directly determines the effectiveness of the capital market and the allocation efficiency of social resources. Geiger and North (2006) find that as the producer and person in charge of the company's financial reports, the Chief Financial Officer (CFO) can directly determine the quality of financial accounting information for the reason that he\she has rich financial experience, professional expertise and a good command of the operation of the listed company. Bedard et al. (2014) note that an executive doubling as a Board Member will not only have a significant impact on the independence of the Board. But also enhance his\her power greatly in the company. On this account, an excellent financial background or relevant financial experience will help the Board Secretary significantly to better deliver his\her duties.

At present, many listed companies choose their CFOs to work as the Secretary of the Board simultaneously or hire people with financial experience and background to fill the position. For example, in America, the post of Board Secretary is concurrently held by the CFO with extensive financial experience and good financial background in myriads of listed companies. In 2005, the National Investor Relations Institute (NIRI) administered a survey on executives of investor relations in American companies. The results revealed that 69% of these companies appointed their CFOs to be responsible for the investor relation management. In China, the survey in this paper on listed companies in Shenzhen Stock Exchange suggests that increasingly more people with financial experience are serving as Board Secretaries in charge of corporate disclosure in listed companies and that the ratio of the CFO doubling as the Board Secretary jumped from 3.12% in 2005 to 10.41% in 2015. Based on the aforesaid facts, a question may be proposed that will the disclosure quality be improved if the CFO simultaneously takes the post of the Board Secretary who is in charge of information disclosure? Consequently, this paper attempts to explore the impact of the CFO's doubling as the Board Secretary on the disclosure quality of listed companies.

This paper took listed companies in Shenzhen Stock Exchange in 2008-2015 as samples to study the relationship between the CFO's working as the Board Secretary concurrently and corporate disclosure quality, and also to examine the impact of different government intervention levels and nature of property rights. The results indicate that the CFO's doubling as the Board Secretary can distinctly improve the quality of corporate disclosure in listed companies; the CFO's holding concurrently the post of the Board Secretary can improve noticeably the disclosure quality of listed companies in regions with a high degree of government intervention; the CFO's also serving as the Board Secretary can improve the disclosure quality of non-state-owned listed companies.

For the main contributions of this paper, first of all, it has studied the influence of the CFO's doubling as the Secretary of the Board on the disclosure quality of listed companies. This can provide empirical evidence for further exploration of the role of the Board Secretary in corporate disclosure, since the present international and domestic literature concentrates mainly on the impact of the Board Secretary's features on disclosure quality. Second, this paper presents a reasonable explanation for the phenomenon that increasingly more CFOs are serving as the Board Secretaries simultaneously via empirical study. Third, conclusions of this study can provide empirical evidence for the appointment of the Board Secretary in listed companies.

Regarding the following structure of this paper, the second part concerns itself with the literature review, the third part theoretical analysis and research hypotheses, the fourth part the research design, the fifth part empirical results, and the sixth part research conclusions.

2. Literature Review

A multitude of the literature shows that the Board Secretary as a profession and a system has a certain influence on corporate disclosure. When studying the executive status of the Board Secretary, King (2013) has elaborated on the justification of the Board Secretary's serving as a *Corporate Stakeholder Relationship Officer (CSRO)* and taking charge of investor relation management in listed companies — the Secretary is well-acquainted with the company's resources and long-term goals and thus able to better understand stakeholders' motivations and needs via communication with them. Kirk and Vincent (2014) contend that many listed companies improve the level and quality of corporate disclosure by investor relationship management. Chen (2004) points out that investors' confidence and the company's image will be directly impacted if the Board Secretary, the major information publisher, fails to deliver his her obligations and disclose the information of the company in line with the law.

Liang (2005) claims that the role of the Board Secretary system in improving the disclosure quality has long been neglected and listed companies must give full play to the role of the Secretary — a fundamental measure to enhance company governance — to combat the trust crisis of disclosure quality. The new *Company Law* has supplemented the relevant provisions of the Board Secretary and established the position of the Secretary as an executive in the company, the first time in law. Zhou *et al.* (2011) regard the formal enforcement of new *Company Law* on January I, 2006, as an Event, and set the Event Window to be 60 days before and after the implementation of the new law to check whether there is any change on disclosure quality before and after the event. This paper employs the model based on yield and transaction volume and proposed by Kim and Verrecchia (2001) to measure the quality of corporate disclosure. After empirical research on listed companies in the CSI 300 Index, it is found that the disclosure quality has seen noticeable improvements after the implementation of the new *Company Law*.

The existing literature mainly examines the relationship between disclosure quality and professional background, positions held, shareholding, social capital, and multiple identities of the Board Secretary. Ascioglu et al. (2005) observes that the CFO with the better professional background (for instance, having obtained certificates of ACCA and CPA) will provide concise and effective financial information, thereby improving corporate disclosure quality; and thus, the CFO serving also as the Board Secretary can influence the disclosure quality. Research by Mao et al. (2013) suggests that China has been seeing an increasing number of listed companies where the CFOs are also holding the post of the Board Secretaries, and such multi-identities can increase the efficiency of the capital market. According to the Stock Listing Rules of the Shanghai Stock Exchange (Sixth Revision), the position of the Board Secretary should be held by the company's Vice President or a Board Member, to ensure the executive identity of the Secretary and realize the corresponding rights, benefits, and responsibilities. Qiang and Lina (2008) find in their research that the Vice President who also serves as the Secretary can improve the disclosure quality whilst a Board member holding the post of the Secretary concurrently does not influence on the quality of corporate disclosure.

Zhou et al. (2011) state that the ratio of shareholding of the Board Secretary in listed companies is inversely proportional to disclosure quality, which will not be affected by the age, time in the position, education level, posts held simultaneously and relevant experience of the Secretary. Contrary to traditional beliefs, the findings of Zhai et al. (2014) imply that the Board Secretary who holds shares has improved the disclosure quality, which may result from factors such as the long time in office, small asset size, and long-term equity incentives. The research results of Gao and Wang (2015) confirm that the Board Secretary's social capital can attribute to the improvement of corporate disclosure quality. Chen et al. (2018) hold that compared with single-identity Secretaries, multi-identity Secretaries can better share information with other executives through joining the Board or the manager circle, which is conducive to promoting information communication efficiency in the company; and this information communication efficiency again is directly related to the quality of corporate disclosure.

In summary, the domestic and international research concentrates on the influence of the Board Secretary's characteristics on the disclosure quality, while little touches upon the influence of CFO's doubling as the Secretary. Therefore, this paper focuses on the relationship between the CFO's severing as the Secretary simultaneously and corporate disclosure quality and further explores the impact of government intervention levels and the nature of property rights on corporate disclosure quality.

3. Theoretical Analysis and Research Hypotheses

3.1 CFO's Concurrently Serving as the Board Secretary and Corporate Disclosure Quality

From the perspective of risk avoidance, the Secretary will expose himself\herself to public condemnation and legal punishment when he\she fails to disclose information according to regulations, deliberately conceals negative news, or carelessly answers questions from shareholders or other relevant persons. Consequently, the risk-averse Secretary will disclose information more responsible manner, thereby improving the disclosure quality. In comparison with other Secretaries, the CFO who also serves as the Secretary generally has a stronger risk aversion motivation. First, as the company's financial staff, the CFO has a stronger sense of risk avoidance. Studies by (Devine, 1963; Staubus, 1985; Li & Lu, 2003) show that the company's financial reports demonstrate accounting robustness. Basu (1997) stresses that good news needs more evidence to confirm, compared with the confirmation of bad news in financial reports. Ball *et al.* (2000); Ball (2001) point out that one of the important features of financial reporting is the timely confirmation of bad news related to robustness or economic loss. Second, compared with other executives, the CFO faces more serve public condemnation and punishment. The CFO understands the company's financial and operating conditions better than other executives. Correspondingly, once negative news comes out of the company, the CFO is more liable to be suspected of violating regulations and thus subject to more serious public reproach and punishment.

From the perspective of information communication, the CFO who also serves as the Board Secretary can improve the quality and efficiency of information communication. First, the CFO has a fairly deep understanding of the company's business and financial situation. The core position of financial information cannot be shaken even though the capital market pays more and more attention to non-financial information. Graham *et al.* (2005) argue that since the core indicator that external investors are most concerned about is the company's accounting earnings, it is particularly important to achieve the target earnings of external investors. Yan & Qingquan (2004) also underscore that the company's accounting information is an essential indicator for institutional investors. Therefore, the Secretary needs to devote more attention to financial accounting information when disclosing company information.

Second, the CFO's concurrent role as the Board Secretary can simplify internal communication procedures. The communication between the Secretary and the CFO is crucially important. Any information errors in the communication between these two parts will directly impact corporate disclosure quality. However, when the CFO also holds the post of the Secretary, there is no need for the aforesaid communication and the potential information errors are avoided. The CFO and Secretary thus can disseminate company information more accurately and increase the professionalism, understandability, and completeness of the disclosure, therefore improving the efficiency of information communication and the disclosure quality. Based on risk avoidance and information communication effect, this paper believes that the CFO's doubling as the Secretary will help improve the disclosure quality. Hypothesis I is thus proposed:



HI. The CFO's concurrent role as the Board Secretary has a positive correlation with corporate disclosure quality.

3.2 The CFO Simultaneously Serving as the Board Secretary, Government Intervention, and Corporate Disclosure Quality.

The research of Fan et al. (2017) shows that the degree of government intervention varies in different regions of China due to differences in resources, geographic locations, national policies, and traditional cultures. Most scholars have found that government intervention often gives rise to low operation efficiency and defects of governance structure in companies. Claessens et al. (2000) observe that in the case of the weak legal system, weakened capital market restraint mechanism and backward institutional environment, government intervention to some point negatively impacts the management efficiency, which leads to the lower level of information disclosure. The experiment of Bushman et al. (2004) demonstrates that when there are more direct government control and intervention of companies and banks and more hidden intervention from government officials, the country often displays poor financial transparency. On the other hand, Gao & Song (2007) note that the lower the degree of government intervention, the higher the company's transparency.

Wang et al. (2007) also find that corporate disclosure quality is closely related to the governance environment: the lower the degree of government intervention in the area where the listed company is located, the higher the quality of corporate disclosure. It can be seen that more government intervention leads to lower disclosure quality whilst less government intervention attributes to higher disclosure quality. Meanwhile, the above analysis shows that the risk aversion and good information communication displayed by the CFO who doubles as the Board Secretary are conducive to improving the quality of corporate disclosure. Therefore, concerning controlling the risk related to corporate disclosure, investor protection is better in regions with a low level of government intervention and the company has a higher disclosure quality. In this case, the CFO's concurrent role as the Board Secretary has no noticeable influence on the improvement of the disclosure quality. On the other hand, for listed companies with severe government intervention, there is an urgent demand for the CFO's serving as the Secretary simultaneously. The CFO will proactively provide accurate and complete accounting information, thereby promoting corporate disclosure quality. Based on this, hypothesis 2 is proposed:

H2. Compared with regions with a low level of government intervention, there is a more obvious positive correlation between the CFO's doubling as the Board Secretary and corporate disclosure quality in regions with a high level of government intervention.

3.3 CFO Concurrently Holding the Post of the Board Secretary, the Nature of Property Rights, and Corporate Disclosure Quality. In China, the nature of property rights will affect corporate disclosure quality. Due to their property rights, state-owned enterprises have a natural political relationship with the government (Liu & Liu, 2013) and on this account will face more pressure from government regulation. They need to not only improve corporate performance but also deliver more social responsibilities (such as tax, employment, stability maintenance, and disaster relief). On top of that, state-owned enterprises have to set an example in building a good internal controlling system and actively disclosing information. Studies by Xingqiang and Riguang (2007) suggest that since state-owned listed companies assume more responsibilities of building their public images and improving credibility, they have less motivation for earnings management and the information disclosure is better regulated. Eng and Mak (2003) contend that when the state's shareholding ratio exceeds 25% of the listed company, the accounting information quality will be relatively reliable. Chen et al. (2013) find that the disclosure quality of accounting information is distinctly higher when the state is the actual controller of the company.

Since state-owned enterprises have their own powerful political connection networks, they have less motivation to maintain corporate images via manipulating accounting information compared with non-state-owned enterprises. This factor may have a certain positive effect on the quality of accounting information. In contrast, born with a shortage of resources and government guarantee, non-state-owned enterprises have to bear their operation risks and face high financing pressure. Under this circumstance, they are more inclined to manipulate accounting information. Therefore, in non-state-owned enterprises, the Board Secretary needs to bear a higher risk for corporate disclosure and has a stronger motivation for reputation protection. In this case, if the CFO also serves as the Secretary, he\she will improve the professionalism, understandability, accuracy, and thus the whole quality of the disclosure. To sum up, this paper believes that compared with state-owned enterprises, the CFO's doubling as the Secretary has a more noticeable improving effect on corporate disclosure quality in non-state-owned enterprises. Hence comes hypothesis 3.

H3. In comparison with state-owned enterprises, there is a more obvious positive association between the CFO's also severing as the Board Secretary and corporate disclosure quality in non-state-owned enterprises.



4. Research Design

4.1 Sample Selection

This paper selected listed companies in Shenzhen Stock Exchange from 2008 to 2015 as the initial sample, and screen them as follows: (1) excluding companies in the financial industry; (2) excluding companies with missing financial data; (3) excluding companies that have variable data with extreme values. After the aforementioned screening, 8971 sample companies were finally determined. The relevant data of the Board Secretary in this paper were obtained by manually retrieving and sorting through the annual reports of these listed companies. The rating data of corporate disclosure quality in the Shenzhen Stock Exchange were derived from the website of the Shenzhen Stock Exchange (www.sse.org.cn). The level of government intervention was measured by the "Government-Market Relationship Score" elaborated in the NERI Index of Marketization of China's Provinces by Fan et al. (2017). Other financial data were obtained from the China Stock Market & Accounting Research Database (CSMAR).

4.2 Model Setting and Description of Variables

To examine the impact of the CFO's doubling as the Board Secretary on corporate disclosure quality, the following research model was constructed:

$$CDQ = \alpha_0 + \alpha_1 CFO + \alpha_2 DUAL + \alpha_3 DIRIND + \alpha_4 BIG4 + \alpha_5 SIZE + \alpha_6 ROA + \alpha_7 LEV + \alpha_8 CONSHARE + \sum IND + \sum YEAR + \varepsilon$$
 (I)

CDQ denotes the explained variable, namely corporate disclosure quality of listed companies. Since the main research objects of this paper are Shenzhen-listed companies and drawing on the research method of Ying and Zhengfei (2006) the disclosure quality ratings from Shenzhen Stock Exchange were applied to measure the disclosure quality of each company. Number 4, 3, 2, and I were used to represent four quality levels of "excellent", "good", "pass", and "fail".

Drawing on the research of Wang and Fang (2018) and to avoid the interference of multicollinearity on the regression results, this paper did not use interactive variables to examine hypothesis 2 (H2) and hypothesis 3 (H3). Instead, government intervention (GI) and the nature of property rights (SOE) were introduced as grouping variables to divide samples into four groups, and regression analysis was conducted separately on each group. It needs to be clarified that index of 2014 was used to predict and replace index of 2015 because the latest index in the "Government-Market Relationship Score" in the *NERI Index of Marketization of China's Provinces* by Fan *et al.* (2017) was only updated to 2014. Drawing on the research of Deren, and Xiaoyan (2012); Jinghua *et al.* (2013) this paper chose the following control variables shown in Table I.

Table I. Definitions of Variables

	Variables	Abbreviations	Significance and Explanation
Explained Variable	Corporate Disclosure Quality of Listed Companies	CDQ	Disclosure quality ratings from the Shenzhen Stock Exchange were used to measure the disclosure quality of each company. Number 4, 3, 2, and I were used to represent four quality levels of "excellent", "good", "pass" and "fail".
Explanatory Variable	The CFO's Doubling as the Board Secretary	CFO	If the CFO also serves as the Secretary, let this variable have the value I; if not, 0.
Grouping Variables	Government Intervention Levels	GI	This is a dummy variable. If it is less than or equal to the median, there is a high degree of government intervention and GI takes the value I; otherwise 0.
ping bles	Nature of Property Rights	SOE	If the company is state-owned, let this variable have the value I, otherwise 0.
	Two Posts in One	DUAL	This is a dummy variable. If the General Manager doubles as the President, this variable takes the value I, otherwise 0.
	Independence of the Board	DIRIND	The ratio of independent Board Members on the Board.

Control Variables	Selection of Accounting Firms	BIG4	This is a dummy variable. If it is among the "Big Four" accounting firms, let this variable have the value I, otherwise 0.
√ariab1	Company Size	SIZE	The natural logarithm of the company's total assets at the end of year t.
les	Return on Assets	ROA	Rate of Return on Total Assets in the year t is equal to the net profit divided by the average value of total assets at the beginning and the end of the year t.
	Financial Leverage	LEV	Debt-to-asset ratio of the company at the end of year t.
	Shareholding Ratio of the Largest Shareholder	CONSHARE	The number of shares held by the largest shareholder divided by the total number of shares of the company
	Industry Dummy Variable	IND	A dummy variable set according to the industry classification standard issued by the China Securities Regulatory Commission in 2012.
	Year Dummy Variable	YEAR	A dummy variable ranging from 2008 to 2015.

5. Empirical Results and Analysis

5.I Descriptive Statistics

5.I.I Descriptive Statistics of Variables

Table 2 is the annual statistics of the percentage of the CFO serving as the Board Secretary simultaneously from 2008 to 2015. Among them, the average ratio of the post of Secretary held by the CFO concurrently stood at 8.66%, while the average proportion of the post not simultaneously held by the CFO was 91.34%. In this sense, the ratio of the CFO who doubles as the Secretary is relatively low. However, the proportion of CFO who also serves as the Secretary showed an upward trend. Although there was a slight decrease from the year of 2008 to 2009, the ratio climbed from 5.15% in 2009 to 10.81% in 2012, then edging down to 9.73% in 2014 and finally up to 10.41% in 2015.

Table 2. The Annual Statistics of the Percentage of the CFO's Doubling as the Secretary

	CFO serving as the I	Board Secretary	CFO not serving as the Board Secretary		
Year	Number of I Observations	requency	Number of Observations	Frequency	Total
2008	37 5	5.45%	642	94.55%	679
2009	37 5	5.15%	682	94.85%	719
2010	80 8	8.11%	907	91.89%	987
2011	110	0.25%	1079	90.75%	1189
2012	140	0.81%	1155	89.19%	1295
2013	134	10.35%	1161	89.65%	1295
2014	131	0.73%	1216	90.27%	1347
2015	152	10.41%	1308	89.59%	I460
2016	82I		8150		897I

Table 3 shows the disclosure quality ratings of sample companies from 2008 to 2015. Except for 2008, more than 60% of the companies ranked "good" in the disclosure quality rating, with the highest proportion reaching 70.58% in 2012. This indicates that the disclosure quality of listed companies is mostly in a good state. Companies that were rated "excellent" and "good" exceeded 70% of the total whilst those assessed as "fail" had a rather low proportion-the highest being 2.65% in 2008. This fact demonstrates that the disclosure quality of listed companies is relatively high generally. Also, the ratio of companies ranking



"excellent" seemed to be basically on an upward trajectory. Though slightly down from 2011, this ratio is 2012 far surpassed that of 2008 to 2010 and continued to increase in 2013 and 2014 with a tiny decline in 2015. From 2008 to 2012, the proportion of companies rated as "good" increased year by year, but then dipped in both 2013 and 2014.

Table 3. Annual Assessment Results of Corporate Disclosure Quality

Assessment Results		Excellent	Good	Subtotal	Pass	Fail	Total
		(4)	(3)		(2)	(1)	
2008	Number of Samples	72	403	475	186	18	679
	Ratio (%)	10.61	59.35	69.96	27.39	2.65	100.00
2009	Number of Samples	87	479	566	136	17	719
	Ratio (%)	12.10	66.62	78.72	18.92	2.36	100.00
2010	Number of Samples	125	678	803	169	15	987
	Ratio (%)	12.67	68.69	81.36	17.12	1.52	100.00
2011	Number of Samples	191	824	1015	154	20	1189
	Ratio (%)	16.06	69.3 I	85.37	12.95	1.68	100.00
2012	Number of Samples	196	914	1110	169	16	1295
	Ratio (%)	15.13	70.58	85.7I	13.05	1.24	100.00
2013	Number of Samples	234	911	1145	136	14	1295
	Ratio (%)	18.07	70.35	88.42	10.50	1.08	100.00
2014	Number of Samples	268	930	1198	124	25	1347
	Ratio (%)	19.90	69.04	88.94	9.21	1.85	100.00
2015	Number of Samples	281	961	1242	184	34	1460
	Ratio (%)	19.25	65.82	85.07	12.60	2.33	100.00

Table 4 represents the descriptive statistics of the observed data of the whole sample. The mean value of the disclosure quality (CDQ) stood at 2.986, with the median value being 3, indicating that the assessment of corporate disclosure quality mainly concentrated in the scored segment of 2-3. Among all these sample companies, 9.2% of them had the CFO double as the Board Secretary. On average, 55.8% of the listed companies were located in regions with a relatively high degree of government intervention, and 49.3% of the listed companies were state-owned enterprises. There were 29.8% of companies had the same person held the position of President and General Manager (DUAL). The average proportion of independent Board Members (DIRIND) in the Board was 36.5%, which met the requirement of regulatory agencies for the proportion to be no less than 1/3. Only 3.1% of the sample companies selected the "Big Four" accounting firms (BIG4). The minimum and maximum sizes of listed companies (SIZE) were 18.043 and 25.198 respectively, with the mean value close to the median. The return on assets (ROA) averaged 6.1%. The average ratio of financial leverage (LEV) was 41.6%. The average shareholding ratio of the largest shareholder (CONSHARE) stood at 34.5%, with more than half of the largest shareholder held more than 32.1% of the company's shares. The standard deviations of all variables were below 1.2, suggesting that these variables had relatively stable values.

Table 4. Descriptive Statistics

1	N	Minimum	Maximum	Mean	Median	Standard Deviation
CDQ	897I	1.000	4.000	2.986	3.000	0.611
CFO	8971	0.000	1.000	0.092	0.000	0.288
GI	8971	0.000	1.000	0.558	1.000	0.497



SOE	897I	0.000	1.000	0.493	0.000	0.500
DUAL	8971	0.000	1.000	0.298	0.000	0.457
DIRIND	897I	0.000	0.714	0.365	0.333	0.061
BIG4	897I	0.000	1.000	0.031	0.000	0.173
SIZE	897I	18.043	25.198	20.595	20.436	1.115
ROA	897I	-9.790	9.397	0.061	0.059	0.313
LEV	897I	0.013	6.512	0.416	0.376	0.410
CONSHARE	897I	0.036	0.900	0.345	0.321	0.147

5.I.2 Variable Correlation Test

Table 5 shows the Pearson correlation coefficients among variables. It can be seen that the CFO's doubling as the Board Secretary (CFO) is significantly positively correlated with corporate disclosure quality (CDQ) at a 1% level, with the correlation coefficient being 0.037. This indicates that the CFO's also serving as the Secretary is an essential factor affecting corporate disclosure quality and those listed companies with the CFO holding the post of the Secretary simultaneously will have higher disclosure quality. This result preliminarily verifies HI. The degree of government intervention (GI) and corporate disclosure quality (CDQ) has a significant negative association at a 1% level, which indicates that the more serious the government intervention, the lower disclosure quality. As the correlation coefficients among the main variables do not exceed 0.4, there is no serious multicollinearity.

Table 5. The Pearson Correlation Coefficients among the Main Variables.

	CDQ	CFO	GI	SOE	DUAL	DIRIND	BIG4	SIZE	ROA	LEV	CONSHARE
CDQ	I										
CFO	0.037***	I									
GI	-0.082***	-0.054***	I								
SOE	-0.045***	-0.086***	0.171***	I							
DUAL	-0.023**	0.065***	-0.046***	-0.205***	I						
DIRIND	-0.012	0.032***	-0.009	-0.119***	0.090***	I					
BIG4	0.058***	-0.012	0.014	0.026**	-0.088***	-0.016	I				
SIZE	0.015	-0.123***	0.107***	0.349***	-0.222***	-0.093***	0.233***	I			
ROA	0.097***	0.010	-0.030***	-0.029***	-0.001	-0.012	0.009	0.001	I		
LEV	-0.150***	-0.087***	0.060***	0.184***	-0.118***	-0.041***	0.010	0.303***	-0.002	I	
CONSH	0.122***	0.023**	-0.034***	-0.018*	-0.020*	0.045***	0.041***	0.088***	0.043***	-0.010	I
ARE											

Note: ***, ** and * denote a significant correlation at levels of I%, 5% and I0% respectively.

5.2 Empirical Results and Analysis

5.2.I The CFO's Doubling as the Board Secretary and Corporate Disclosure Quality

Table 6 shows the regression results of the model (I). In column (I), the influences of industry and year were controlled. There is a significant correlation between the CFO's concurrently serving as the Secretary (CFO) and corporate disclosure quality (CDQ) at a I% level, with the correlation coefficient being 0.060. When influences of all the variables were controlled in column (2), the CFO's doubling as the Secretary (CFO) shows a significant association with corporate disclosure quality (CDQ) at a 5% level with a correlation coefficient of 0.044. These facts indicate that the CFO's also holding the post of the Board Secretary is significantly positively correlated with corporate disclosure quality, namely, the CFO's also serving as the Secretary can attribute to the improvement of disclosure quality in listed companies. Therefore, hypothesis I is verified.

Among control variables, there is a significant negative association between the General Manager's also serving as the President (DUAL) and corporate disclosure quality (CDQ). This suggests that the integration of these two positions will undermine the disclosure quality. The independence of the Board (DIRIND) shows a significant negative correlation with the disclosure quality (CDQ), meaning that independent Board Members have a malign influence on the disclosure quality. This result is consistent with the conclusion of Zhou & Zhuang (2016). The justification of such a phenomenon may be that independent Board Members are in a disadvantaged position regarding information access in comparison with internal Board Members. Selecting the "Big Four" accounting firms (BIG4) is significantly positively related to the disclosure quality (CDQ), indicating that high-quality external audits can improve the disclosure quality. The company size (SIZE) and return on assets (ROA) both have a significant positive association with the disclosure quality (CDQ), which demonstrates that the larger the company size or



the higher the return on assets is, the higher the disclosure quality will be. This is consistent with previous research conclusions. There is a significant negative correlation between financial leverage (LEV) and disclosure quality (CDQ), indicating that the company with a higher asset-debt ratio is liable to have lower disclosure quality. This may be justified by the fact that the creditor will bring more pressure on the company as the asset-debt ratio increases; and in this scenario, managers will be prone to disclose only positive information while hiding negative information. The shareholding ratio of the largest shareholder (CONSHARE) is significantly positively related to the disclosure quality (CDQ), showing that the proportion of the largest shareholder's shares can positively affect the disclosure quality.

Table 6. Regression Results of the CFO's Doubling as the Board Secretary and Corporate Disclosure Quality

Variable	(1)	(2)
CFO	0.060***	0.044**
	(0.007)	(0.046)
DUAL		-0.044***
		(0.002)
DIRIND		-0.252**
		(0.015)
BIG4		0.139***
		(0.000)
SIZE		0.028***
		(0.000)
ROA		0.184***
		(0.000)
LEV		-0.229***
		(0.000)
CONSHARE		0.478***
		(0.000)
IND	YES	YES
YEAR	YES	YES
Constant Term	2.567***	2.022***
	(0.000)	(0.000)
adj.R²	0.026	0.074
F Value	I0.88***	24.29***
Ν	8971	8971

Note: ***, ** and * denote a significant correlation at levels of 1%, 5% and 10% respectively.

5.2.2 The CFO's also Serving as the Board Secretary, Government Intervention, and Corporate Disclosure Quality

Table 7 presents the regression results of the model (1) grouped by the level of government intervention. In column (1), the CFO's doubling as the Secretary (CFO) shows a significant correlation with corporate disclosure quality (CDQ) at the level of 1%, with the correlation coefficient being 0.087. This implies that in regions with a high level of government intervention, the CFO's holding the post of the Secretary simultaneously is conducive to improving the quality of disclosure and alleviating the negative impact of government intervention on the disclosure quality. In column (2), the CFO's doubling as the Secretary (CFO) and corporate disclosure quality (CDQ) have a correlation coefficient of 0.002, showing no significant association. This suggests that in regions with a low level of government intervention, the CFO's also serving as the Secretary does not exert a noticeable influence on the disclosure quality. The reason may be that in regions with weak government intervention, there are relatively high degrees of marketization and legalization, a relatively sound protection mechanism for stakeholders and thus an already relatively high disclosure quality. In this circumstance, the CFO's doubling as the Secretary will not manifest an obvious positive influence on disclosure quality. To sum up, the CFO's holding the position of the Secretary concurrently can noticeably attribute to the disclosure quality only in regions with high levels of government intervention. Therefore, hypothesis 2 is corroborated.

Table 7. Regression Results of the CFO's Doubling as the Board Secretary, Government Intervention and Corporate Disclosure Quality

Variable	High Level of Government Intervention	Low Level of Government Intervention
	(I)	(2)
CFO	0.087***	0.002
	(0.008)	(0.953)
DUAL	-0.088***	0.000
	(0.000)	(0.987)
DIRIND	-0.201	-0.269
	(0.136)	(0.102)
BIG4	0.194***	0.073
	(0.000)	(0.192)
SIZE	0.028***	0.029***
	(0.001)	(0.005)
ROA	0.175***	0.187***
	(0.000)	(0.000)
LEV	-0.242***	-0.185***
	(0.000)	(0.000)
CONSHA RE	0.494***	0.369***
	(0.000)	(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	1.918***	2.133***
Term	(0.000)	(0.000)
adj.R²	0.087	0.061
F Value	16.85***	9.38***
N	5003	3968

Note: ***, ** and * denote a significant correlation at levels of 1%, 5% and 10% respectively.

5.2.3 The CFO's Concurrently Serving as the Board Secretary, the Nature of Property Rights and Corporate Disclosure Quality

Table 8 shows the regression results of the model (I) grouped by the nature of property rights. In column (I), there is not a significant association between the CFO's doubling as the Board Secretary (CFO) and corporate disclosure quality (CDQ) in state-owned enterprises. In column (2), however, the CFO's also serving as the Secretary (CFO) is significantly positively related to the disclosure quality (CDQ) at a I0% level in non-state-owned enterprises. These results indicate that the CFO's holding the

to the disclosure quality (CDQ) at a I0% level in non-state-owned enterprises. These results indicate that the CFO's holding the post of the Secretary simultaneously exerts no obvious impact on the disclosure quality in state-owned enterprises but can noticeably improve the disclosure quality in non-state-owned enterprises. This may be due to the large differences in qualifications, appointment and removal procedures, responsibilities and authority of the CFO, and differences in political risks and severity of reputational damage in state-owned and non-state-owned enterprises. Based on the aforementioned analysis, hypothesis 3 is confirmed.

Table 8. The CFO's Doubling as the Board Secretary, the Nature of Property Rights and Corporate Disclosure Quality

Variable	State-owned Enterprises	(I)	Non-state-owned Enterprises (2)
CFO	0.051		0.046*
	(0.163)		(0.093)
DUAL	-0.023		-0.065***



	(0.313)	(0.000)
DIRIND	-0.236*	-0.321***
	(0.097)	(0.038)
BIG4	0.156***	0.135**
	(0.002)	(0.018)
SIZE	0.037***	0.021**
	(0.000)	(0.043)
ROA	0.207***	0.148****
	(0.000)	(0.000)
LEV	-0.208***	-0.233***
	(0.000)	(0.000)
CONSHARE	0.492***	0.447***
	(0.000)	(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	1.713***	2.369***
Term	(0.000)	(0.000)
adj.R²	0.083	0.074
F Value	I4.26****	12.75***
N	4422	4549

5.3 Robustness Test

5.3.I Changing the Measurement of Dependent Variables

To enhance the reliability of the regression results, this paper changed the classification method of corporate disclosure quality ratings issued by the Shenzhen Stock Exchange and divided them into two categories. Companies rated as "excellent" and "good" took the value I and those ranked as "pass" and "fail" took the value 0. This explained variable was denoted by DISQ, and the remaining variables were the same as above. A logistic regression model was employed as follows:

$$DISQ = \beta_0 + \beta_1 CFO + \beta_2 SOE + \beta_3 DUAL + \beta_4 DIRIND + \beta_5 BIG4 + \beta_6 SIZE + \beta_7 ROA + \beta_8 LEV + \beta_9 CONSHARE + \sum IND + \sum YEAR + \varepsilon$$
 (2)

After changing the measuring method of the dependent variables, empirical tests were conducted again on the research hypotheses. The regression results are shown in Table 9, Table 10, and Table 11. It can be seen that the empirical results are consistent with the above-mentioned results. Therefore, hypothesis 1, hypothesis 2, and hypothesis 3 are further verified by empirical evidence.

Table 9. Robustness Test Results of the CFO's Doubling as the Board Secretary and Corporate Disclosure Quality

Variable	(1)	(2)
CFO	0.387***	0.283***
	(0.001)	(810.0)
DUAL		-0.166***
		(0.014)
DIRIND		-0.800
		(0.106)
BIG4		0.698***
·		(0.002)
SIZE	·	0.025



		(0.425)
ROA		0.608***
		(0.000)
LEV		-0.736***
		(0.000)
CONSHARE		2.045***
		(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	0.310	-0.254
Term	(0.145)	(0.724)
Chi-Square	218.71***	502.76***
Nagelkerke R²	0.041	0.094
Percentage Correct	84.2%	84.5%
N	8971	8971

Table 10. Robustness Test Results of the CFO's Also Serving as the Board Secretary, Government Intervention and the Corporate Disclosure Quality

Variable	High Level of Government Intervention	Low Level of Government Intervention
CFO	0.488***	0.018
	(0.004)	(0.917)
DUAL	-0.277***	0.028
	(100.0)	(0.804)
DIRIND	-0.483	-I.456
	(0.419)	(0.101)
BIG4	0.352	I.625***
	(0.179)	(0.002)
SIZE	0.079**	-0.037
	(0.047)	(0.515)
ROA	0.567***	0.512*
	(0.000)	(0.063)
LEV	-0.855***	-0.513***
	(0.000)	(0.000)
CONSHARE	1.987***	I.745***
	(0.000)	(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	-I.779**	1.683
Term	(0.049)	(0.181)
Chi-Square	347.32***	201.10***
Nagelkerke R2	2 0.109	0.093
Percentage Co	rrect 81.7%	87.6%
N	5003	3968

Note: ***, ** and * denote a significant correlation at levels of I%, 5% and I0% respectively.

Table II. Robustness Test Results of the CFO's Doubling as the Board Secretary, the Nature of Property Rights and Corporate Disclosure Quality

Variable	State-owned Enterprises	Non-state-owned Enterprises
CFO	0.223	0.356**
	(0.227)	(0.025)
DUAL	-0.062	-0.293***
	(0.548)	(0.002)
DIRIND	-I.089*	-0.687
	(0.097)	(0.385)
BIG4	0.884***	0.653*
	(0.007)	(0.050)
SIZE	0.067	-0.021
	(0.117)	(0.681)
ROA	0.582***	0.508***
	(0.000)	(0.003)
LEV	-0.580***	-0.830***
	(0.000)	(0.000)
CONSHARE	2.010***	2.115***
	(0.000)	(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	-I.456	1.468
Term	(0.123)	(0.223)
Chi-Square	270.50***	291.03***
Nagelkerke R2	0.098	0.111
Percentage Correct	82.8%	86.4%
N	4422	4549

5.3.2 Further Controlling Other Variables

To further incorporate other variables, this paper referred to the research method of Zhou *et al.* (2011) to add two control variables— age (AGE) and education level (EDU). Five education levels in CFOs concurrently hold the posts of the Board Secretary: high school, junior college, bachelor, master, and doctor, which were represented by the numbers 1, 2, 3, 4, and 5 respectively. After adding the two control variables of age (AGE) and education level (EDU) to the model (I), the hypotheses were tested again. The regression results are shown in Table 12, Table 13, and Table 14 and are consistent with the previous results. In this sense, hypothesis 1, hypothesis 2, and hypothesis 3 is further corroborated by empirical evidence.

Table 12. Robustness Test Results of the CFO's Also Serving as the Board Secretary and Corporate Disclosure Quality

Variable	(1)	(2)	
CFO	0.060***	0.042*	
	(0.007)	(0.056)	
DUAL		-0.043***	
		(0.003)	
DIRIND		-0.241***	
		(0.020)	
BIG4		0.139***	



		(0.000)
SIZE		0.024***
		(0.000)
ROA		0.182***
		(0.000)
LEV		-0.229***
		(0.000)
CONSHARE		0.479***
		(0.000)
AGE		0.002***
		(110.0)
EDU		0.035***
		(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	2.567***	1.893***
Term	(0.000)	(0.000)
adj.R²	0.026	0.076
F Value	10.88***	23.48***
N	897 I	8971

Table 13. Robustness Test Results of the CFO's Doubling as the Board Secretary, Government Intervention and Corporate Disclosure Quality

Variable	High Level of Government Intervention	Low Level of Government Intervention
CFO	0.086***	-0.003
	(0.009)	(0.927)
DUAL	-0.087***	0.004
	(0.000)	(0.835)
DIRIND	-0.196	-0.236
	(0.145)	(0.152)
BIG4	0.189***	0.074
	(0.000)	(0.182)
SIZE	0.025***	0.025***
	(0.005)	(0.013)
ROA	0.173****	0.183***
	(0.000)	(0.000)
LEV	-0.242***	-0.190***
	(0.000)	(0.000)
CONSHA	0.496***	0.368***
RE		
	(0.000)	(0.000)
AGE	0.001	0.005***
	(0.487)	(0.000)
EDU	0.034***	0.041***
	(0.008)	(0.002)
IND	YES	YES
YEAR	YES	YES
Constant	1.823***	I.876***

Term	(0.000)	(0.000)
adj.R²	0.088	0.066
F Value	I6.04***	9.52***
N	5003	3968

Table 14. Robustness Test Results of the CFO's Also Holding the Post of the Board Secretary, the Nature of Property Rights and Corporate Disclosure Quality

Variable	State-owned Enterprises	Non-state-owned Enterprises
CFO	0.047	0.045*
	(0.201)	(0.096)
DUAL	-0.018	-0.065***
	(0.434)	(0.000)
DIRIND	-0.210	-0.330**
	(0.140)	(0.032)
BIG4	0.159***	0.130**
	(100.0)	(0.023)
SIZE	0.032***	0.019*
	(100.0)	(0.059)
ROA	0.206***	0.145***
	(0.000)	(0.000)
LEV	-0.202***	-0.237***
	(0.000)	(0.000)
CONSHARE	0.478***	0.453***
	(0.000)	(0.000)
AGE	0.004***	0.001
	(100.0)	(0.439)
EDU	0.041***	0.034***
	(0.003)	(0.005)
IND	YES	YES
YEAR	YES	YES
Constant	1.515***	2.249***
Term	(0.000)	(0.000)
adj.R²	0.086	0.075
F Value	I4.00***	I2.25***
N	4422	4549

Note: ***, ** and * denote a significant correlation at levels of I%, 5% and I0% respectively.

5.3.3 Reclassification of Government Intervention

The mean value of the "Government-Market Relationship Score" was used to divide sample companies into two groups: those with a high level of government intervention and those with a low level of government intervention. Then these two groups were tested in the model. The regression results are shown in Table 15 and are consistent with the previous results. Therefore, hypothesis 2 is further supported by empirical evidence.



Table 15. Regression Results of the CFO's Doubling as the Board Secretary, Government Intervention and Corporate Disclosure Quality

Variable	High Level of Government Intervention	Low Level of Government Intervention
CFO	0.155***	-0.006
	(0.000)	(0.824)
DUAL	-0.106***	-0.026
	(0.000)	(0.117)
DIRIND	-0.271*	-0.245*
	(0.088)	(0.076)
BIG4	0.021	0.155***
	(0.778)	(0.000)
SIZE	0.018	0.039***
	(0.101)	(0.000)
ROA	0.216***	0.126***
	(0.000)	(0.000)
LEV	-0.279***	-0.185***
	(0.000)	(0.000)
CONSHA RE	0.508***	0.435***
	(0.000)	(0.000)
IND	YES	YES
YEAR	YES	YES
Constant	2.213***	1.857***
Term	(0.000)	(0.000)
adj.R²	0.089	0.070
F Value	II.6I***	15.19***
N	3161	5810

5.3.4 Solving the Problem of Endogeneity

Propensity score matching was used on sample companies since there may be relatively big differences in their initial conditions (such as industry, size, and nature of property rights) and thus the impact of endogeneity should be avoided. This paper adopted the CFO's doubling as the Board Secretary as the grouping variable. "I" = treatment group; "0" = control group. The stepwise regression was employed on the independent variables to identify the statistically significant ones. Finally, the company size (SIZE), asset-debt ratio (LEV), industry dummy variable (IND), and year dummy variable (YEAR) were determined as covariates for propensity score matching. The logit model was used for fitting. Due to the limited sample size of the control group, it was only suitable for I: I matching. The maximum distance allowed between the treatment and control groups is 0.05. Table 16 represents the results of the propensity score matching.

Table 16. Results of Propensity Score Matching

Psmatch 2: Treatment assignment	Psmatch 2: Common support on support	Total
Untreated	8150	8150
Treated	821	82 I
Total	8971	897I

The balance test results in Table I7 show that from U to M, the p-value of the industry dummy variable (IND) remained insignificant and p-values of all the remaining covariates changed from significant to insignificant, passing the balance test. These



variables can be considered as balanced after matching between the treatment group and the control group. At the same time, the density profiles before and after the matching in Fig. I and Fig. 2 show that the matching effect is satisfying and the common support assumption is satisfied.

Table 17. The Balance Test Results

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Variable	Unmatched	Mean		%re	duct	t-test		V(T)/V(C)
	Matched	Treated	Control	& bias	bias	t	p> t	_
SIZE	U	20.164	20.638	-45.40		-II.7I	0.000	0.74*
	M	20.164	20.171	-0.70	98.50	-0.15	0.882	0.98
LEV	U	0.30359	0.42696	-37.10		-8.25	0.000	0.23*
	M	0.30359	0.29757	1.80	95.10	0.59	0.558	0.94
YEAR	U	2012.40	2012	18.80		4.94	0.000	0.83*
	M	2012.40	2012.3	4.10	78.30	0.85	0.397	0.91
IND	U	4.6699	4.7934	-3.70		-1.02	0.308	1.00
	M	4.6699	4.5932	2.30	37.80	0.47	0.637	1.01

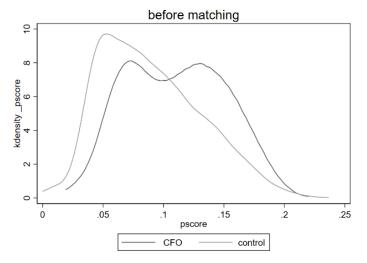


Figure I. Comparison of PS Value Density Profile before Matching

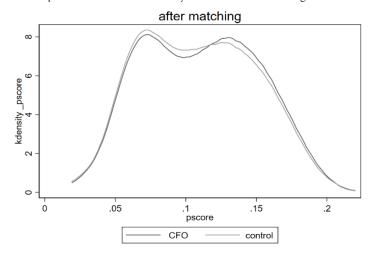


Figure 2. Comparison of PS Value Density Profile after Matching

Table 18, Table 19, and Table 20 represent the results of regression analysis on matched samples. It can be seen that the empirical results are consistent with the previous ones. Therefore, after solving the problem of endogeneity, hypothesis 1, hypothesis 2, and hypothesis 3 are still supported by empirical evidence.

Table 18. The CFO's Also Serving as the Board Secretary and Corporate Disclosure Quality

Variable	(1)	(2)
CFO	0.055**	0.054**
	(0.046)	(0.046)
DUAL		-0.018
		(0.531)
DIRIND		0.066
		(0.769)
BIG4		-0.069
		(0.435)
SIZE		0.049***
		(0.005)
ROA		0.734***
		(0.000)
LEV		-0.454***
		(0.000)
CONSHARE		0.257***
		(0.009)
IND	YES	YES
YEAR	YES	YES
Constant	2.540***	I.608***
Term	(0.000)	(0.000)
adj.R²	0.026	0.079
F Value	2.79***	5.52***
N	1642	1642

Note: ***, ** and * denote a significant correlation at levels of 1%, 5% and 10% respectively.

Table 19. The CFO's Doubling as the Board Secretary, Government Intervention and Corporate Disclosure Quality

Variable	High Level of Government Intervention	Low Level of Government Intervention
CFO	0.076*	0.026
	(0.066)	(0.468)
DUAL	-0.065	0.017
	(0.152)	(0.661)
DIRIND	0.126	0.038
	(0.685)	(0.909)
BIG4	-0.108	-0.083
	(0.499)	(0.435)
SIZE	0.016	0.058***
	(0.554)	(0.012)
ROA	0.515***	1.356***
	(0.000)	(0.000)
LEV	-0.444***	-0.305***
	(0.000)	(0.010)

CONSHA RE	0.040	0.372***
	(0.792)	(0.005)
IND	YES	YES
YEAR	YES	YES
Constant	2.379***	1.308***
Term	(0.000)	(0.009)
adj.R²	0.050	0.134
F Value	2.54***	5.12***
N	816	826

Table 20. The CFO's Also Holding the Post of the Board Secretary, the Nature of Property Rights and Corporate Disclosure Quality

Variable	State-owned Enterprises	Non-state-owned Enterprises
CFO	0.020	0.080***
	(0.658)	(0.020)
DUAL	0.027	-0.048
	(0.617)	(0.174)
DIRIND	0.354	-0.081
	(0.294)	(0.796)
BIG4	-0.020	-0.164
	(0.870)	(0.228)
SIZE	0.040	0.046*
	(0.117)	(0.062)
ROA	0.796***	0.677***
	(0.000)	(0.000)
LEV	-0.435***	-0.481***
	(100.0)	(0.000)
CONSHARE	0.085	0.426***
	(0.592)	(0.001)
IND	YES	YES
YEAR	YES	YES
Constant	I.430***	I.94I***
Term	(0.010)	(0.000)
adj.R²	0.084	0.082
F Value	2.97***	4.04***
N	626	1016

Note: ***, ** and * denote a significant correlation at levels of 1%, 5% and 10% respectively.

6. Conclusion

This paper took the selected data of listed companies in Shenzhen Stock Exchange in 2008-2015 as samples to study the relationship between the CFO's working as the Board Secretary concurrently and corporate disclosure quality, and also to examine the impact of different government intervention levels and nature of property rights. The results indicate that the CFO's doubling as the Board Secretary can distinctly improve the quality of corporate disclosure in listed companies; the CFO's holding concurrently the post of the Board Secretary can improve noticeably the disclosure quality of listed companies in regions with a



high degree of government intervention; the CFO's also serving as the Board Secretary can improve the disclosure quality of non-state-owned listed companies.

The research in this paper has the following implications: first, the CFO of listed companies concurrently serves as the Board Secretary, which is conducive to improving the quality of corporate disclosure and improving the corporate governance efficiency. Second, state-owned enterprises must first solve the problems in the governance structure, otherwise, the role of CFO's doubling as the Board Secretary in corporate disclosure quality will not play. Third, the government should appropriately reduce the degree of interference in corporate disclosure, improve the corporate disclosure system, and strengthen the supervision of corporate disclosure for giving full play to the role of CFO's doubling as the Board Secretary in promoting corporate disclosure quality.

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