

The Influence of CFO Directors on Accounting Information Quality

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Keywords: CFO internal director, CFO independence, Accounting information quality.

Abstract. In recent years, there have been numerous financial frauds worldwide, and people are deeply aware of the importance of accounting information quality to a company. As a financial manager, *CFO* also affects accounting information quality to a large extent. The paper takes a sample that includes data from 2015 to 2017 of A-share listed companies. It studies the relationship among *CFO* directors, *CFO* independence, *CFO* age, *CFO* education and accounting information quality from the perspective of *CFO* serving as a director. The study shows that *CFO* internal director can significantly improve the quality of accounting information. *CFO* independence will have a moderating effect on the relationship between *CFO* internal director and accounting information quality. The more independent *CFO* is, the more obvious the role of *CFO* internal director in promoting accounting information quality plays. However, the age and education of *CFO* have no significant effects on the relationship between *CFO* directors and accounting information quality.

Introduction

Due to the influence of economic globalization, the company, as a huge pillar driving the steady development of the economy, plays an important role in the economic development of all countries. As the center of corporate decision-making, the board of directors has two basic functions of supervision and inquiry. At the same time, it needs to make decisions about the corporate long-term strategy. Its personnel composition may directly affect the future development of the company. Along with the increase in fraud in the economic field, more and more companies are aware of the importance of high-quality accounting information. Good accounting information can not only help investors make correct judgments and decisions, but also related to the rational allocation of social resources.

In this context, whether *CFO* can serve as an director and whether *CFO* directors will have an impact on the quality of accounting information have become questions worthy of study. At present, most of the scholars directly study accounting information quality from the perspective of *CEO* power and independence, and few scholars study it from the perspective of *CFO* independence. The author believes that *CFO* directors may deepen the relationship between the board of directors and senior management, break the barrier of information asymmetry, and then ensure the quality of accounting information. Will the different degree of independence and background characteristics of *CFO* have an impact on this promotion? At present, there are few studies on this kind of problems in academia. Therefore, this paper hopes to construct a model including the above four. Through the empirical study of the sample data of listed companies, this paper explains the influence mechanism of *CFO* directors on the quality of accounting information, and finds a feasible way to improve the quality level of accounting information and restrain the phenomenon of financial fraud.

Literature Review and Hypothesis

CFO Directors and Accounting Information Quality

A large number of existing studies have proved that *CFO*, as the financial manager, is directly involved in many decisions of the company, and is also an important guarantee for the company to further improve the quality of accounting information. Finkelstein (1992) believes that the choice of

CFO as a director can make full use of *CFO*'s professional expertise, give full play to his financial influence, and provide greater assistance for the formulation and implementation of the corporate strategic decisions. Yunos (2014) found that the greater the proportion of independent directors and financial experts in the board of directors, the better timeliness of accountants' confirmation of losses than that of revenue recognition, which leads to higher accounting conservatism. Sun Guangguo (2015), through the study of listed companies, found that after serving as a director, *CFO* is more inclined to act from the perspective of directors to help the board perform its supervisory function, which can largely prevent *CEO* from making financial fraud. Based on the above analysis, after *CFO* enters the board of directors, he will provide more detailed internal financial information from the perspective of the board of directors, give full play to his financial influence, and use his professional expertise to help the board fulfill its duties, thereby improving the company's accounting information quality. Therefore, this paper proposes hypothesis 1:

H1: *CFO* directors can significantly improve accounting information quality of the company.

CFO Independence

The existence of agency problem causes *CFO* to be irresistibly affected in decision making, including *CEO* power, board of directors, board of supervisors and so on. Feng (2011) found that if *CEO* gains too much power, *CFO* may have to make financial fraud because of the threat of *CEO*. Jiang Fuxiu (2013) believes *CEO* may affect *CFO*'s choice of accounting policies in consideration of his own interests. These studies show that *CFO* independence will be affected by the actual controller, which will lead to the fluctuation of accounting information quality. But when *CFO* enters the board of directors, he will gain more power and less likely to be oppressed by *CEO*. Sun Guangguo (2015) found that *CFO* directors restrict the power and misconduct of *CEO*. Xiang Rui (2015) believes that *CFO* served as an internal director will ensure the independence of his decision-making. In summary, the role of *CFO* as a director in promoting accounting information quality may be affected by *CFO* independence. The stronger *CFO* independence is, the less *CFO* is likely to be affected by executives or other stakeholders. When *CFO* enters board of directors, it becomes easier to improve accounting information quality. Therefore, this paper proposes hypothesis 2:

H2: The more independent *CFO* is, the more obvious the role of *CFO* directors in promoting accounting information quality plays.

CFO Background Characteristics

In general, *CFO* is influenced by background characteristics such as age and education degree when exercising his authority. Foreign studies have proved whether *CFO* can guarantee and improve accounting information quality of the company would be affected by his own ability to a great extent. Du Xiaorong (2015) found that *CFO* would play a more significant role in improving accounting information quality with age. Wang Fusheng (2014) believes education degree of *CFO* is positively related to accounting conservation. Based on the above findings, *CFO* background characteristics can affect accounting information quality. When the *CFO* is a director, the background characteristics may influence the relationship between *CFO* directors and accounting information quality by affecting *CFO*'s decision-making. Therefore, this paper proposes the following hypotheses:

H3: The older *CFO* is, the more obvious *CFO*'s role in promoting accounting information quality.

H4: The higher the education degree, the more obvious the *CFO*'s role in promoting accounting information quality.

Research Design

Model Design

There are many methods to measure accounting information quality in the academic world. Xu Nan (2016) thinks that accounting information quality can be measured from three angles: accrual earnings management, real activity earnings management and accounting conservatism. Zhu Song (2013) thinks the study of accounting information quality can start from the aspects of accounting

conservatism, earnings volatility and so on. As can be seen from the existing literature, scholars often use alternative indicators to measure accounting information quality. For the sake of research, this paper intends to use accounting conservatism to characterize accounting information quality, and to measure accounting conservatism by using cumulative negative accruals in 3 years. The larger the value is, the higher the conservation is, which means the better the quality of accounting information.

There are few related studies on the measurement of *CFO* independence. This paper intends to use *CFO* independence evaluation system to measure the degree of *CFO* independence, that is, using *CFO* independence impact factor proposed by Xu Fei (2017) to calculate *CFO* independence. The higher the score, the higher degree of *CFO* independence, as follows:

Using *SPSS* to perform *KMO* and *Bartlett* test of the factor, *KMO* value was 0.687, indicating that the data was suitable for factor analysis; and the *Bartlett* spherical test result *p* value was 0.000, indicating that there was a correlation relationship among variables and it was suitable for principal component analysis. Finally the following formula was obtained:

$$\text{Indep} = 0.238X_1 + 0.111X_2 + 0.296X_3 + 0.142X_4 + 0.348X_5 + 0.417X_6. \quad (1)$$

In addition, referring to the relevant research at home and abroad, the significant influence factors of accounting information quality are added to the models as control variables. Therefore, in order to test the hypotheses of this paper, the following research models are designed:

$$\text{AIQ} = \varepsilon + \alpha_1 \text{Board} + \alpha_2 \text{AS} + \alpha_3 \text{DAR} + \alpha_4 \text{Cash} + \alpha_5 \text{EPS} + \alpha_6 \text{Growth}. \quad (2)$$

$$\text{AIQ} = \varepsilon + \alpha_1 \text{Board} + \alpha_2 \text{Indep} + \alpha_3 \text{Board} * \text{Indep} + \alpha_4 \text{AS} + \alpha_5 \text{DAR} + \alpha_6 \text{Cash} + \alpha_7 \text{EPS} + \alpha_8 \text{Growth}. \quad (3)$$

$$\text{AIQ} = \varepsilon + \alpha_1 \text{Board} + \alpha_2 \text{Age} + \alpha_3 \text{Board} * \text{Age} + \alpha_4 \text{AS} + \alpha_5 \text{DAR} + \alpha_6 \text{Cash} + \alpha_7 \text{EPS} + \alpha_8 \text{Growth}. \quad (4)$$

$$\text{AIQ} = \varepsilon + \alpha_1 \text{Board} + \alpha_2 \text{Edu} + \alpha_3 \text{Board} * \text{Edu} + \alpha_4 \text{AS} + \alpha_5 \text{DAR} + \alpha_6 \text{Cash} + \alpha_7 \text{EPS} + \alpha_8 \text{Growth}. \quad (5)$$

Among them, α_1 in models 2 to 5 represents the regression coefficient of *CFO* directors. If α_1 is significantly positive, it indicates that *CFO* directors can have a positive impact on accounting information quality, which confirms that H1 is established, that is, *CFO* directors have a positive effect on accounting information quality; Otherwise, it will not be established. The α_3 in models 3 to 5 is the cross-term regression coefficient of *CFO* independence/age/education and *CFO* directors respectively. If α_3 is significantly positive, it indicates that *CFO* director/*CFO* age/*CFO* education has a positive moderating effect on the relationship between *CFO* directors and accounting information quality, which confirms that H2/3/4 is established and the other side is not true.

Data Source and Variable Definition

In this paper, all A-share listed companies from 2015 to 2017 are selected. In order to eliminate the influence of other factors on the final result, all kinds of non-conforming samples are eliminated. Finally, 1930 different company codes were obtained in the *CSMAR* database, with a total of 5790 sample data. And the variables in this paper are defined as follows (in Table 1):

Table 1. Definition of variables

	Variable	Variable Declaration
Independent Variable	Board	If CFO is also a director, value=1, otherwise, value=0
	Indep	CFO independence
	Age	CFO age
	Edu	CFO education, technical secondary school and below =1, college=2, undergraduate = 3, master's degree = 4, doctoral student = 5
Dependent Variable	AIQ	Accounting information quality, cumulative negative accruals in 3 years
Controlled Variable	AS	Asset size, total asset logarithm value
	DAR	Asset-liability ratio, total assets/total liabilities
	Cash	Cash inflow ratio, cash inflow from operating activities/assets.
	EPS	Basic earnings per share, net profit / number of ordinary shares
	Growth	Operating income growth rate, operating income growth ratio from the previous year
Influence Factors of CFO Independence		
	X ₁	1—proportion of shares held by actual controllers
	X ₂	Proportion of independent directors
	X ₃	If Chairman is also CEO ,value = 0, otherwise value = 1
	X ₄	Number of meetings of supervisors
	X ₅	Number of board of supervisors
	X ₆	Private enterprise, value = 0, otherwise value = 1

Empirical Result Analysis

Descriptive Statistics and Correlation Analysis

Table 2. Descriptive statistics of variables

	Median	Minimum	Maximum	Mean	Standard Deviation
Board	0	0	1	0.31	0.463
Indep	1.926	0.814	5.890	2.018	0.659
Age	46	28	70	46.38	6.054
Edu	3	1	5	2.90	0.822

Descriptive statistics of the main variables are shown in Table 2. It can be seen from the table that the negative number of the cumulative accruals of all A shares in the sample shows the median greater than the mean, which indicates that the listed companies in China generally show the trend of the right deviation of the cumulative accruals, and the accounting conservatism of A-share market is good. This is also a prerequisite for our study. In addition, mean of *CFO* directors is 0.31, which indicates that about 31% of *CFO* of listed companies have entered the board of directors. Mean of *CFO* independence is 2.018 and median is 1.926, indicating that most of the companies in the sample have low degree of independence. Different listed companies have a large *CFO* age difference, the minimum is 28, the maximum is 70. Median of *CFO* education is 3, mean is 2.90, indicating the average of *CFO* Education is between junior college and undergraduate.

Table 3. Correlation analysis of variables

	AIQ	Board	Indep	Age	Edu
AIQ	1				
Board	0.036**	1			
Indep	0.095***	0.059**	1		
Age	0.059**	0.047**		1	
Edu	-0.031	0.022			1

Note: ***, **, * are significant at the 1%, 5%, and 10% levels, respectively.

In Table 3, we conducted a Pearson correlation analysis on the main variables. The results showed that at the 5% significance level, *CFO* directors were positively correlated with accounting information quality. At a significant level of 1%, *CFO* independence and accounting information quality is positively correlated. At the 5% level of significance, *CFO* age is positively correlated with accounting information quality.

Regression Analysis

Table 4. The regression result of accounting information quality of model 2&3

Variable	Coefficient		
	Model2	Model3(1)	Model3(2)
Board	0.009** (1.975)	0.013** (1.965)	0.012** (1.964)
Indep		0.011** (2.450)	0.011** (2.448)
Board*Indep			0.012*** (4.035)
Constant	-0.437*** (-5.057)	-0.412*** (-4.672)	-0.403*** (-4.157)
N	5790	5790	5790
R ²	0.17201	0.17314	0.18342

Note: ***, **, * are significant at the 1%, 5%, and 10% levels respectively, and t value of two-tailed test is shown in parentheses.

Table 4 shows the results of multiple regression of models 2 and 3. It can be seen from the table that Board's coefficient is positive, t value is 1.975, and the result is significant at 5% level, indicating that there is a positive correlation between *CFO* directors and accounting information quality. It shows that *CFO* entering the board of directors can improve the quality of accounting information and verifies the hypothesis 1 of this paper.

It can be seen from Table 4 that model 3 (1) is obtained by adding *CFO* independence variable to model 2, and model 3 (2) is obtained by adding the cross term between *CFO* independence and *CFO* directors on the basis of model 3 (1). The regression results of model 3 (1) show that after joining *CFO* independence, *CFO* directors are still positively correlated with accounting information quality, and the results are significant at the level of 5%. *CFO* independence coefficient is positive and t value is 2.45, indicating that there is a positive correlation between *CFO* independence and accounting information quality at 5% significant level. The regression results of model 3 (2) show that there is a positive correlation between *CFO* directors and accounting information quality, *CFO* independence is also positively correlated with accounting information quality, and all of them are significant at the level of 5%. The cross-term coefficient between *CFO* directors and *CFO* independence is also positive, t value is 4.035, indicating that the higher the *CFO* independence of the sample company, the stronger the effect of *CFO* directors on improving accounting information quality. Hypothesis 2 is established. This can also be seen from the results of the adjustment effect model. As shown in Table 5, the sig.F change value of model3(2) is 0.042, so the result is significant at the level of 5%, which proves that there is a moderating effect between the two.

Table 5. The summary of moderating effect

	Model3(1)	Model3(2)
F Change	11.791	4.156
Df1	7	1
Df2	5783	5782
Sig.F Change	0.000	0.042
Durbin-Watson		1.969

As can be seen from Table 6, model 4(2) is obtained by adding cross term of *CFO* age and *CFO* directors on the basis of model 4(1), and model 5(2) is obtained by adding cross term of *CFO*

education and *CFO* directors on the basis of model 5(1). The results of model 4(1) show that *CFO* age is positively correlated with accounting information quality at a significant level of 5%. However, the cross-term coefficient between *CFO* age in model 4(2) and *CFO* directors is not significant, indicating that *CFO* age has no significant effect on the relationship between *CFO* directors and accounting information quality. The above results reject hypothesis 3. The regression results of models 5 (1) and 5(2) show that the relationship between *CFO* education and accounting information quality is not significant, and *CFO* education does not affect the relationship between *CFO* directors and accounting information quality. The results reject hypothesis 4. The reason for the above results may be that high level of *CFO* education does not mean that he has a better understanding of finance, since the data only measures the level of education of *CFO* and does not determine whether the major he has studied is related to finance.

Table 6. The regression result of accounting information quality of model 4&5

Variable	Coefficient			
	Model4(1)	Model4(2)	Model5(1)	Model5(2)
Board	0.011** (2.065)	0.011** (1.998)	0.012** (2.323)	0.012** (2.334)
Age	0.008** (2.346)	0.008** (2.291)		
Board*Age		0.002 (0.268)		
Edu			-0.052 (-1.591)	-0.052 (-1.597)
Board*Edu				0.015 (0.871)
Constant	-0.774*** (-4.643)	-0.746*** (-4.651)	0.331** (2.242)	0.323** (2.229)
N	5790	5790	5790	5790
R ²	0.17306	0.17307	0.17321	0.17326

Note: ***, **, * are significant at the 1%, 5%, and 10% levels respectively, and t value of two-tailed test is shown in parentheses.

Research Conclusions and Policy Suggestions

Research Conclusions

With the continuous expansion and progress of the capital market, accounting information quality has become more and more important. *CFO* is the top financial manager, and his impact on the quality of accounting information should not be underestimated. This paper takes the A-share listed companies from 2015 to 2017 as a sample to study the impact of *CFO* directors on accounting information quality, and further studies the impact of *CFO* independence, *CFO* age and *CFO* education on the relationship between the above two. Through the data, we found that:

- (1) *CFO* entering the board of directors is beneficial to improving accounting information quality;
- (2) *CFO* independence has a moderating effect on the relationship between *CFO* directors and accounting information quality, that is, the increase independence of *CFO* will further enhance the role of *CFO* directors in promoting the quality of accounting information.
- (3) *CFO* age and *CFO* education do not affect the relationship between *CFO* directors and the quality of accounting information significantly.

Policy Suggestions

- (1) Listed companies should choose *CFO* as directors as far as possible. It has been proved that *CFO* entering the board of directors can promote the improvement of accounting information quality. Therefore, listed companies can choose *CFO* as one of the board members within the scope of their ability to solve the problem of information asymmetry between management and the board of

directors, and to improve the quality of financial information as much as possible. This is also in line with the current situation of *CFO* as a director of nearly half of the listed companies in China.

(2) The listed company should avoid excessive interference from other factors in *CFO*. The research shows that there are many factors that affect *CFO* independence, and these interference factors are objective and cannot be eliminated. But they can be avoided. As people pay more attention to the financial information, more and more people have begun to focus on the issue of *CFO* independence. The regression data also shows that the degree of *CFO* independence of listed companies in China is not high. Therefore, after the *CFO* enters the board of directors, it is necessary to prevent *CFO* from being affected by excessive interference factors as much as possible, so as to ensure that accounting information provided is true, accurate and complete.

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