

Research on the Effect of Executives as Audit Committee Members on Internal Control Weakness

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Abstract. The Audit Committee is a specialized agency under the Board of Directors, and supervising the company's internal control is one of its duties. This article takes the 2012-2017 Shanghai-Shenzhen A-share non-financial listed company as a research sample, focusing on the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO, discussing the impact of their concurrent appointment as audit committee members on the arising, correction and repair of internal control weakness in listed companies. The study found that different types of executives who are concurrently members of the audit committee would lead the internal control weakness to different directions. In general, excluding some less significant results, executives concurrently serve as members of the audit committee could stimulate the arising of internal control weakness and promote the correction and repair of the existing internal control weakness of the listed company. This indicates that when a listed company does not have internal control weakness, its executive layer intervention will weaken the effectiveness of the audit committee's governance and induce the arising of internal control weakness. Conversely, when the company inherently has internal control weakness, the intervention will strengthen the effectiveness of the audit committee's governance, making the audit committee more effective in monitoring internal control weakness. In addition, an important finding is that the existence of the Secretary of the board among the members of the audit committee will limit the chairs' role in promoting internal control deficiencies.

Keywords: Listed companies; Audit committees; the dual roles of executives; internal control weakness.

1. Introduction

1.1 Research background and significance

1.1.1 Research background

The governance standards for listed companies issued in January 2002 clearly pointed out that the board of directors of listed companies can set up an audit committee, and the basic norms of enterprise internal control issued in June 2008 clearly proposed that enterprises should set up an audit committee under the board of directors. The audit committee is an important mechanism to assist corporate governance and is responsible for the supervision of internal control. However, due to the influence of various internal and external factors, the supervision effect of the Audit Committee on internal control is not ideal, and the defects of internal control still emerge one after another.

Different from foreign mandatory provisions on the independence of the members of the audit committee, China does not explicitly require that all members of the audit committee must be independent, so listed companies have greater freedom of choice in the establishment of the members of the audit committee, and all kinds of executives of the company can also serve as members of the audit committee at the same time. So what kind of sparks will burst out if the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO collide with the audit committee? Can the concurrent appointment of these executives improve the performance ability of the audit committee? What impact will it have on the audit committee's supervision of internal control? In recent years, more and more listed companies have begun to actively disclose their internal control evaluation reports. The attitude of listed companies towards internal control defects is becoming positive and optimistic, but the overall quality of internal control is also declining. Is this related to the involvement of heavyweight executives in the audit committee? Many existing empirical results

and management phenomena show that the audit committee of Listed Companies in China does not effectively perform the responsibility of supervision and governance. Previously, scholars have explored the factors affecting the performance ability of the audit committee from various angles. While emphasizing the independence of the members of the audit committee, they also clarify the important role of information level in fulfilling their obligations of supervision and governance. The audit committee is composed of independent directors and non independent directors. If considering the ability to obtain information, non independent directors, especially non independent directors engaged in company management, that is, all kinds of executives of the company, are much stronger than independent directors. Therefore, although the proportion of senior management in the audit committee members is relatively low, their information advantages can play a more effective role in the performance of the audit committee. This paper will conduct further research on whether senior executives serving as members of the audit committee can promote the audit committee to better perform its supervision responsibilities on internal control, and what changes will occur to the defects of internal control after all kinds of senior executives serving as auditors.

1.1.2 Research meaning

Previous scholars mostly explored the impact of various characteristics of independent directors in the Audit Committee on their governance effectiveness, while this paper focuses on other influential directors (i.e. all kinds of executives) among the members of the audit committee except independent directors. Compared with independent directors, they generally have more advantages in discourse and information. Thus, it is more helpful for them to control the audit committee to perform its oversight and governance responsibilities. Taking the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO as the research object, this paper explores the impact of serving as a member of the Audit Committee on the generation, rectification and repair of internal control defects, and expands the research scope of the audit committee. Previous scholars mainly analyzed the management's interference in the audit committee from the outside of the audit committee. This paper explores the impact of the part-time work of various executives in the Audit Committee on the effectiveness of the committee's supervision and management. Combined with the actual setting of audit committee members of Listed Companies in China, this paper provides a direction for exploring the deep-seated reasons affecting the effectiveness of audit committee's supervision of internal control.

1.2 Definition of some key concepts

Before exploring the impact of executives serving as members of the Audit Committee on internal control defects, we must clarify who executives mean in this paper.

The company law revised on October 26, 2018 stipulates that "senior managers refer to the company's manager, deputy manager, financial principal, Secretary of the board of directors of a listed company and other personnel specified in the articles of association". Scholars at home and abroad have tried to define the scope of executives, but they have not got a clear and specific concept, and there are some differences in the existing definitions. Kaplan [1] once proposed that only the general manager and the chairman of the board are the real executives, because their power functions play a greater role than other managers. Elron [2] pointed out in the research that senior executives should cover senior vice president level and above. Hambrick, Mason [3] and Krishnan [4] believe that senior executives should include the general manager, deputy general manager, chief financial officer, Secretary of the board of directors, all members of the board of directors and all members of the board of supervisors, etc. Wang Fei and Zhang Xiaolin [5] believe that the senior management team should include the whole board of directors, the general manager and the directors of all departments. Lin Junqing [6] and Lu Haifan [7] believe that senior managers refer to the general manager, deputy general manager and other senior managers who have a significant impact on the company's decision-making, including members of the board of directors and the board of supervisors. Zhang Ming and Chen Zhen [8] believe that according to the principal-agent theory, members of the board of directors, members of the board of supervisors and other senior managers

cannot be divided into the ranks of senior executives. The definition of the concept of executives is different at home and abroad. Combined with the research results at home and abroad and the research practice of this paper, the executives studied in this paper include the most influential and representative the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO in the management announced in the financial report of listed companies.

2. Literature review

2.1 Review of internal control defects

2.1.1 Identification and identification of internal control defects

Ashbaugh - Skaife et al. [9] constructed the "conceptual model of audit disclosure of pre Sox authorized internal control defects" and proposed that the disclosure of internal control defects should meet the three conditions that internal control defects must exist, must be found and must be publicly disclosed, which shows that the premise of disclosing internal control defects is that internal control defects must exist first. Yang Youhong and Li Yuli [10] believe that internal control defects will make internal control unable to provide reasonable guarantee for achieving control objectives. The identification and identification of defects should be the key to evaluate the effectiveness of the company's internal control. Then Li Yuli [11] explored from the perspective of the management. The results showed that the process of identification and identification of internal control defects was to compare the exposure risk with the tolerability, and identification was the basis of identification. Fang Hongxing and Jin Yuna [12] believe that internal control aims to reasonably ensure that enterprises achieve their business objectives, reporting objectives and compliance objectives, that is, the efficiency and effect of operation, the reliability of financial reporting information and compliance with applicable laws, regulations and relevant regulatory requirements. In fact, there is no lack of perfect internal control. Yang Youhong, Li Yuli [10], Tian Juan et al. [13] pointed out that the standard for judging whether there is a defect in internal control should not only check whether there is a defect in the control itself, but also check whether the defect hinders the reasonable guarantee it provides to achieve the control objectives, and if the company's internal control defects have no impact on its internal control objectives, it is not necessary to disclose.

At present, the evaluation of internal control defects of enterprises mainly depends on the analysis and judgment of relevant personnel or external auditors after the incident according to their experience. There are still some problems in the identification of defects, such as no unified identification standard, difficult practical operation at the practical level, and excessive reliance on evaluators and the professional quality of certified public accountants. Moreover, defect identification basically depends on post analysis and judgment, and cannot carry out in-process identification or pre-warning. Therefore, some scholars proposed to establish indicators to monitor internal control from the aspects of internal control effectiveness, audit efficiency and timeliness[14], identify defects by using sign method and test method[10], try to establish a model to determine major internal control defects by discrimination method and test method[15][16], and identify major internal control defects by using performance signs or defined methods[17], the special words in the internal control audit report are captured and analyzed by software to identify it control defects[18], and the established BP internal control defect identification model is used to identify and diagnose enterprise internal control defects[19].

2.1.2 Classification and measurement of internal control defects

Ge and Mcvay [20] divided the 493 internal control problems disclosed by 261 sample companies into nine defect types: specific accounts, training, final report / accounting policy, revenue recognition, and separation of responsibilities, account reconciliation, specific subsidiaries, senior management and technical problems according to the specific major defects disclosed by the management. Doyle et al. [21] divided internal control defects into account level and company level defects according to the severity of the problems involved. Domestic scholars Qi Baobao and Tian Gaoliang [22] believe

that the contents of internal control defects should include subsidiary control, specific accounts, revenue recognition, final report and accounting policies. According to the five elements of internal control, the research group of Nanjing University [23] divided internal control defects into five categories: internal supervision, risk assessment, control environment, control activities, information and communication. Shan Huajun [24] found that most of the defects disclosed in the internal control evaluation reports of Shenzhen listed companies are defects in internal audit, disclosure training, subsidiaries and the board of directors. Li Wanfu [25] divided the internal control defects into two categories: Accounting layer and governance layer, and included the efficiency of not setting up a special audit committee and audit committee into the internal control defects at the governance level. Shi Yiru [26] designed the "Trisection method" to identify the internal control defects of enterprises, and divided the internal control defects into regular defects, eccentric defects and behavioral defects according to the identification standards. Lin Jing et al. [27] used the COSO framework to construct the specific measurement system of internal control defects from the account level and the company level respectively.

PCAOB under sec divides internal control defects into major defects, important defects and general defects; According to the nature, China's guidelines for enterprise internal control evaluation divides internal control defects into operation defects and design defects. According to the degree of influence, it also divides internal control defects into major defects, important defects and general defects, and points out that the "internal control evaluation working group" should "Comprehensive use of individual interview, questionnaire, special discussion, walk through test, field inspection, sampling and comparative analysis" to study and analyze internal control defects. In China's financial report audit, defect measurement standards are generally set based on the proportion and amount of some subjects, and non-financial report defects that cannot be quantified can refer to the guidelines for enterprise internal control audit List various signs of internal control defects for qualitative analysis.

2.2 Review of audit committee research

2.2.1 Audit committee system

Nonfunctional organizations or functional institutions such as NYSE, NASD and SEC have clearly standardized the audit committee system, especially with regard to the personnel appointment, functions and development of the Audit Committee; In China, the audit committee is a special committee under the board of directors. The code for the governance of listed companies clearly stipulates the identity and main responsibilities of its convener.

In essence, Wu Yuxin [28] believes that the emergence of the audit committee has brought the company's internal control into a new stage of development. It is an important institutional arrangement in the internal control of listed companies. Xie Deren [29] believes that the essence of the audit committee is a part of the modern corporate governance structure. It is responsible for the affairs of certified public accountants, ensures the independence of certified public accountants to managers, directly represents the interests of shareholders, and reduces the cost of corporate governance. However, Qiao Chunhua [30] and Qian Hua [31] pointed out that the audit committee is not included in the company management, but in the field of corporate governance. It is different from internal audit. It should be an organization to supervise supervisors and be responsible to the board of directors. Wu Qinghua et al. [32] believe that the audit committee is an important institutional arrangement to alleviate the multi-layer principal-agent problem in the enterprise contractual relationship. It is a special committee under the board of directors in the corporate governance structure. Its establishment can help the company maximize its value. Zhu Jinyu et al. [33] also pointed out that the audit committee is a "principal-agent" check and balance mechanism and an integral part of corporate governance.

From the perspective of positioning, Xie Deren [29] [34] and Zhu Jinyu[33] believe that the audit committee is a functional management organization specially established by the company's managers to perform the fiduciary responsibility of honest reporting to shareholders. In terms of organizational

form, it is subordinate to the board of directors, but in order to better play its functions, it should be parallel and independent of the board of directors and appointed by the general meeting of shareholders, At the same time, be responsible for and report to the general meeting of shareholders; Qiao Chunhua and Jiang Suya [35] also believe that the audit committee is a mechanism to ensure the supervision function of shareholders. They suggest that the audit committee be independent from the supervision function of the board of directors and act as a "re supervisor" to safeguard the interests of shareholders and society. Chen Cheng and Liu Jianmin[36] believe that the audit committee, as a subsidiary of the board of directors, has higher independence than internal audit, and they do not have to be responsible to the management.

2.2.2 Functions of the audit committee

Article 39 of the governance standards for listed companies revised by the CSRC on September 30, 2018 stipulates the main responsibilities of the audit committee, including "supervising and evaluating the company's internal control". Redway Committee has also pointed out that the main responsibilities of the Audit Committee include the effective supervision of the company's internal control activities and financial reporting process. Abdolmohammadi [37] investigated the opinions of 69 audit committee members on their responsibilities and found that their most frequently performed responsibilities include supervising the company's internal control. Wolnizer [38] proposed 17 audit committee tasks, including "reviewing the effectiveness of the internal control system and determining its compliance". Dezoort [39] further designed research questions based on these 17 audit committee tasks, and then obtained a sample of 87 audit committee members in the form of questionnaire. It was found that everyone generally agreed that the most important regulatory responsibility of the audit committee was to evaluate internal control. Yang Zhonglian and Xu Zhengdan [40] took 382 companies in China as research objects and empirically studied the motivation of listed companies to establish audit committees. The results show that with the expansion of the size of the board of directors, companies have the motivation to establish audit committees to supervise the quality of their audit financial reports and the effectiveness of internal control. Huang Rongbing and Wang Yuetang [41] pointed out that since the audit committee is more involved in the internal control traditionally granted to the management, the audit committee with independent directors will eventually become the main evaluation and supervision organization of internal control. At the same time, Chen Jiaxi [42] believes that with the expansion of internal control objectives, the scope of functions of the audit committee can also be expanded. Zhou Shouhua et al. [43] believe that the supervisory role of the audit committee and internal audit on internal control can ensure the effectiveness of enterprise internal control and is an important part of enterprise internal control.

2.3 Review on the relationship between senior management, audit committee and internal control defects

2.3.1 Senior management and internal control defects

Many existing literatures reveal the relationship between the characteristics of executives and the defects of internal control. Harris et al. [44] pointed out that executives are likely to provide low-quality information to the Audit Committee for their own interests, or cover up or even tamper with the company's important information, so as to weaken their governance effectiveness. The research of Beng wee Goh et al. [45] found that after exposing internal control defects, appointing a new and experienced CFO will be more conducive to timely management of internal control defects. Heizman et al. [46] believe that the management will disclose internal control information to the outside world according to the importance of information, so some management may disclose some internal control information with low importance. Hoitash et al. [47] confirmed through research that there is a significant negative correlation between CFO compensation and internal control defects. The research of Mitra et al. [48] shows that companies with higher management equity tend to repair internal control defects in time, and the dominant shareholder ownership is positively correlated with the

timeliness of internal control defect repair; the board of directors of a company independent of its CEO can effectively monitor the timely remedy of its internal control problems. Domestic scholars Wan Peng and Qu Xiaohui [49] believe that managers of different ages and genders have different attitudes towards risks. Zhang Yang et al. [50] pointed out that directors' remuneration has a significant impact on the effectiveness of internal control; However, Liu Zuji [51] and others believe that there is no correlation between directors' remuneration and the effectiveness of the company's internal control. Zhao Xi et al. [52] believe that the greater the power of the senior management, the greater the opportunistic motivation to disclose the internal control information, so they are more inclined to conceal the existing internal control defects of the company. Liu Qiliang et al. [53] found that internal control can improve the quality of accounting information only when the power of senior management is not concentrated, and vice versa. Zhou Lan et al. [54] Believe that the concurrent appointment of the general manager as the chairman is likely to lead to defects in the company's organizational structure, which will not be conducive to the disclosure of internal control defects. Guo Jun et al. [55] believe that there is a negative correlation between board heterogeneity and internal control defects, but the impact of board independence on internal control defects is not significant. By studying the data of 855 A-share listed companies in Shenzhen from 2012 to 2014, Zhang Li and Li Wenchang [56] found that there was a significant negative correlation between the tenure of the chairman and the defects of the company's internal control, while there was a significant positive correlation between the concurrent tenure of the chairman as the general manager and the defects of the company's internal control.

2.3.2 Audit Committee and internal control deficiencies

Zahra and Pearce [57] found that an effective audit committee can help the board of directors implement regulatory responsibilities and improve the company's financial performance. Menon and Williams [58] believe that the establishment of the audit committee does not mean that the board of directors will really rely on it to improve its management control and other regulatory capabilities over shareholders. The empirical research of Hoitash and Bedard et al. [59] confirmed that under the strict requirements of article 404 of SOX act, the characteristics of the board of directors and the audit committee are related to the quality of internal control, and when a relatively large number of audit committee members have transaction counting and supervision experience and the strength of the board of directors, the company will have a low probability of disclosing internal control defects.

Wang Yuetang [60] shows that compared with listed companies without audit committees, companies with audit committees are unlikely to receive non-standard audit opinions. Xie Yongzhen [61] found in the empirical study that the incidence of violations of companies without audit committees is higher than that of listed companies with audit committees, but it does not reach a significant marginal significance. Dong Huina et al. [62] found that before the promulgation of the SOX act, the audit committee had played a better role in improving the quality of internal control, and the longer the establishment time, the larger the scale, and the stronger the professionalism and independence of the audit committee, the more obvious the inhibition effect on the company's internal control deficiencies. Ding Peiwen [63] believes that if the company has major internal control defects, the quality of its audit committee will be low. Many scholars have studied the impact of Audit Committee on internal control defects from the perspective of its characteristics. The research of Liu Yan and Yao Haixin [64] shows that the professionalism of the audit committee helps to improve the quality of internal control of listed companies. However, Chen Hanwen [65] empirically tested the impact of the Audit Committee on the quality of internal control measured by the internal control index of listed companies. The results proved that the audit committee had no effect in ensuring and improving the quality of internal control.

2.3.3 Deficiencies in senior management, audit committee and internal control

The existing literature rarely involves executives serving as members of the audit committee. Most of the relevant studies take the characteristics (power) of executives as the influencing factor to explore the impact of the Audit Committee on the defects of internal control.

The research of Bebchuk et al. [66] and Cohen et al. [67] shows that the intervention of senior executives in the nomination process of board members will significantly affect the monitoring effectiveness of the audit committee. Nelson [68] believes that if the CEO is allowed to choose independent directors in a company dominated by management, the independence of the audit committee will be weakened. Harris et al. [44] found that when the governance measures of the audit committee conflict with the interests of the management, the management can rely on their unique information advantages not to disclose unfavorable information to the audit committee, or provide less or low-quality information to the audit committee, thus hindering the audit committee from performing its responsibility of supervision and governance. The research results of Badolato [69] and others show that if the opportunistic behavior of the management conflicts with the supervision objectives of the audit committee, the relative influence of both parties will greatly affect the supervision effect. Lisic et al. [70] found that with the enhancement of CEO power, the professionalism of the audit committee will become nominal.

Hong Jianqiao et al.[71] believe that since the members of the audit committee are completely from the board of directors, and there is a common phenomenon that the CEO concurrently serves as the company's director or even chairman in China, the CEO is likely to affect the staffing of the audit committee and make these members become their own "spokesmen", thus weakening the monitoring role of the Audit Committee; Meanwhile, although most of the members of the audit committee are independent directors, their members will still include the general manager or deputy general manager. If they have the supervision function, they may play a greater substantive role in the audit committee and further weaken the role of independent directors in the audit committee. Wang Shouhai et al. [68] found that the monitoring role of the independent audit committee can be better played on the premise that the company's management does not intervene in the appointment of directors, and the monitoring effect of the Audit Committee on financial reports will be weakened or even completely offset by the company's management's intervention in the appointment of directors. Under the background of the separation of management right and ownership, Fang Hongxing and Jin Yuna [12] believe that because the interests or goals pursued by the owner and the manager (i.e. the principal and agent) are not completely consistent, the manager may make decisions based on opportunistic motivation and the standard of maximizing their own interests. Chen Hanwen and Wang Weicheng [65] believe that the chairman's nomination and appointment of members of the audit committee will directly affect the independence of the audit committee, which will weaken the impact of the Audit Committee on internal control. Liu Yan and Yao Haixin [64] found that executive power will inhibit the positive correlation between the professionalism of the audit committee and the quality of internal control, that is, the increase of executive power will weaken the professional supervision of the Audit Committee on internal control. Li Yun et al. [72] believe that greater CEO power will reduce the effectiveness of the audit committee, and then weaken the negative impact of the professionalism of the Audit Committee on the audit fees of listed companies. Pan Jun and Yu Yumiao [73] pointed out that the appointment of independent directors by the management of Listed Companies in China will weaken the effectiveness of independent directors in the audit committee. The greater the proportion of non-executive directors and independent directors in the audit committee, the better the governance effect; However, the self-evaluation role conflict caused by the chief financial officer concurrently serving as a member of the audit committee will seriously damage the independence of the audit committee. Zhang Chuan and Huang Xiayan [74] empirically studied A-share listed companies from 2012 to 2016 based on the principal-agent theory for the first time. The research shows that the power erosion of the audit committee will have a serious negative impact on the performance quality of listed companies, but the management incentive can adjust the negative correlation between the power erosion of the audit committee and earnings quality, At the same time, the CEO serving as a member of the audit committee will erode the power of the audit committee, making the audit committee ineffective in supervising the quality of financial reporting information.

2.4 Summary

The above research shows that the identification and identification of internal control defects of listed companies is the key to evaluate the effectiveness of their internal control. As an important functional organization of corporate governance, the audit committee has an important responsibility to review the company's internal control and supervise the effective implementation of the company's internal control. From a unilateral perspective, both executives and the audit committee will have a significant impact on internal control defects, including the impact of executive characteristics / power on internal control defects, the impact of audit committee characteristics on internal control defects, and so on. However, it is not difficult to find that when it comes to the members of the audit committee, scholars at home and abroad study independence (including independent directors) As a whole, it rarely involved the impact of other personnel other than independent directors on internal control defects, and few scholars specialize in the study of chairman, CEO, CFO, the relationship between the Secretary of the board of directors and executive directors other than the CEO serving as members of the audit committee and the defects of internal control. Therefore, how to seamlessly connect all kinds of executives with the audit committee and explore the impact mechanism of all kinds of executives of listed companies serving as members of their audit committee on internal control defects has important discussion value.

3. Theoretical analysis and research hypothesis

3.1 Theoretical analysis

The audit committee is subordinate to the board of directors and is mainly responsible for supervising and reviewing the design and implementation of the company's internal control system. It has important supervision and decision-making power. Compared with foreign policies that require audit committee members to be independent of the company, China's audit committee system integrates more Chinese characteristics on the basis of fully learning from foreign practical experience. Although the guidelines for the operation of the audit committee of the board of directors of listed companies of Shanghai Stock Exchange clearly states that the members of the audit committee must be independent of the daily operation and management of Listed Companies in principle, it only stipulates that more than half of the total number of members of the audit committee should be independent directors, and the requirements for the audit committee in the standards for the governance of listed companies are limited "Independent directors shall account for the majority and act as the convener" It can be seen that China has given listed companies greater autonomy in the selection of audit committee members. Therefore, the composition of the audit committee of Listed Companies in China has certain particularity compared with foreign countries. The phenomenon that the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO are also members of the audit committee is still common It is a "double-edged sword" for senior executives to serve as members of the audit committee, which not only reduces the independence of the audit committee, but also improves the information level of the audit committee.

From the perspective of principal-agent theory and interest related theory, for listed companies, the audit committee is a mechanism to check and balance the main agent issues. The management bears the responsibility of managing the company. The audit committee supervises the management on behalf of shareholders and performs the function of supervision and management. Because the audit committee and the management are supervised and supervised, the audit committee should be independent of management to ensure that it can perform its obligations fairly and objectively [74]. In addition, according to the current organizational structure and governance mechanism, the audit committee is a subordinate organ of the board of directors. If all kinds of senior executives concurrently serve as members of the audit committee, they can participate in the audit committee and participate in the supervision and governance while participating in the operation and management, so that the supervision and governance responsibilities of senior executives are

superimposed with their original operation and management responsibilities. When a conflict of interest occurs, the self-interest of the management may lead to its inability to actively perform the responsibility of supervision and governance of its own business management behavior, thus reducing the supervision and governance efficiency of the audit committee.

However, from the perspective of information asymmetry and information transmission theory, the impact of senior executives serving as members on the audit committee is not completely negative. On the one hand, the independent directors in the audit committee are often served by external experts with special expertise in some fields, and they often need to rely on the information provided by the company's internal management in decision-making, which is the fundamental reason for the agency problem, because the party with information advantage is likely to use the information it has to influence the supervisor's judgment and decision-making or engage in more speculative behavior to seek more personal interests. On the other hand, external independent directors have the attribute of part-time, and often hold or engage in multiple positions in the society at the same time. Therefore, due to limited time, place, resources and energy, they will not be able to give full consideration to and master all key information in a timely and comprehensive manner, thus reducing the effect of performing their duties. Since independent directors do not participate in the daily operation of the company, it is easy to have large information asymmetry with the internal senior management. Therefore, the realization of their regulatory function largely depends on the relevant information obtained by the internal senior management. In contrast, internal executives, especially those executive directors who can directly participate in enterprise operation and management decisions, usually have a better understanding of the real situation of the enterprise than external independent directors, and their ability to obtain information is far stronger than external independent directors, which can greatly alleviate the negative impact caused by information asymmetry. In addition, compared with external independent directors, internal executives may be more willing to invest more time and energy to complete their own work. Therefore, although the proportion of internal executives in the audit committee is relatively low, they are more able to make more accurate judgments on internal control defects due to their unique information advantages and diligence, Play a more effective and substantive role in the governance of the audit committee.

3.2 Research hypothesis

Based on the above analysis, this paper holds that if all kinds of senior executives concurrently serve as members of the audit committee, in case of conflict of interest, senior executives are likely to use their own rights to intervene in the performance process of the audit committee, resulting in the inability of the audit committee to perform its duties objectively and fairly, thus promoting the company to have internal control defects; However, when the company has internal control defects, in order to maintain their own image and do their own work, all kinds of senior executives serving as members can greatly improve the information acquisition ability of the audit committee and the communication efficiency between the audit committee and the management, so as to effectively supervise the company's internal control. In addition, since the definition of executives in this paper includes the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO, considering that executives of different positions and levels play different roles in the generation, rectification and repair of internal control defects, this paper puts forward the following research assumptions based on the above analysis:

H1: the concurrent appointment of senior executives as members of the audit committee is positively related to the generation of internal control defects, that is, the concurrent appointment of senior executives as members will promote the generation of internal control defects, and the impact of senior executives in different positions on the defects is different.

H2: senior executives serving as members of the audit committee are positively related to the rectification of internal control defects, that is, when senior executives serve as members, they will try their best to rectify the internal control defects in the current year, so as to reduce the remaining

defects in the current year. Similarly, senior executives in different positions have different degrees of impact on the defects.

H3: the concurrent appointment of senior executives as members of the audit committee is positively related to the repair of internal control defects, that is, the concurrent appointment of senior executives as members is conducive to the repair of internal control defects, and the influence of senior executives in different positions on the repair of defects is different.

4. Research design

4.1 Research samples and data sources

Relevant data show that since the implementation of mandatory disclosure of internal control information in 2012, China's listed companies have significantly improved the disclosure of internal control information, but the problem of internal control defects is still very serious. Since the internal control evaluation report of Listed Companies in 2018 has not been fully published, this paper selects all A-share listed companies in Shanghai and Shenzhen from 2012 to 2017 as the research sample, and then explores the impact mechanism of the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO serving as members of the Audit Committee on their internal control defects. In this paper, after data screening, companies with special treatment, financial and insurance industries and companies with missing values and extreme values of data are removed. Finally, 3305, 1381 and 2584 sample observations are obtained from the generation, rectification and repair of internal control defects. The data screening process is shown in table 1.

Table 1. List of defect sample collection process in each year.

particular year	2012	2013	2014	2015	2016	2017	total
Total number of Listed Companies in Shanghai and Shenzhen	249	248	261	282	305	348	
Of which:	4	9	3	7	2	5	
Number of A-share listed companies	247	246	259	280	303	346	
remove:	2	8	2	8	4	7	
Listed companies in the current year	(155)	(2)	(125)	(223)	(227)	(438)	(1170)
Delisting company in the current year	0	(6)	(1)	(7)	(1)	(5)	(20)
Finance and insurance	(62)	(62)	(63)	(66)	(76)	(81)	
ST Listed Companies	(90)	(88)	(87)	(86)	(86)	(86)	
	216	231	231	242	264	285	
	5	0	6	6	4	7	
Of which:							
Number of companies with internal control defects	526	494	588	935	993	1147	4683
Number of companies with audit committees	230	372	567	921	957	1119	4166
There are missing values and extreme values in the removed data							
Number of samples finally obtained:							
Number of samples caused by internal control defects		323	484	769	810	913	3299
Number of samples for rectification of internal control defects	139	166	212	277	278	306	1378
Number of samples of internal control defect repair		324	415	493	785	824	2841

Data source: CSMAR database

In this paper, the data on internal control defects, audit committee, executives of listed companies and control variables are mainly from CSMAR database, and some data are from sina finance and Baidu. They are manually collected, sorted and supplemented by consulting the annual reports of listed companies. The data processing tools are Excel 2016 and SPSS 20.0.

4.2 Variable setting

4.2.1 Dependent variable

When measuring the generation and repair of internal control defects, according to the internal control audit report and internal control self-evaluation report information publicly disclosed by listed companies, this paper counts the internal control defects of all A-share listed companies in Shanghai and Shenzhen from 2012 to 2017, and extends them appropriately on the basis of the traditional dichotomy. That is, according to the internal control information disclosed by the listed company, there is no internal control defect in the previous year and the internal control defect in the current year is defined as the generation of internal control defect, and there is no internal control defect in the current year and the internal control defect in the next year is defined as the repair of internal control defect. It also subdivides the companies with internal control defects in the adjacent two years: when the internal control defect levels in the adjacent two years are the same, compare the number of defects in the two years. If the number increases, it is the generation of internal control defects; if the number decreases, it is the repair of internal control defects; When the internal control defect level of the adjacent two years is different, if the internal control defect level of the current year is higher than that of the previous year, it is the generation of internal control defect, and if the internal control defect level of the current year is lower than that of the previous year, it is the repair of internal control defect. Examples of breakdown: if the previous year was a general defect and the current year was a major defect, it was the generation of internal control defects; if the previous year was a major defect and the current year was a general defect, it was the repair of internal control defects; If the two adjacent years are common defects, the increase in the number of internal control defects in the year compared with the previous year is the occurrence of internal control defects, and the decrease in the number of internal control defects in the year compared with the previous year is the repair of internal control defects. The judgment process for the generation and repair of internal control defects in this paper is shown in Figure 4.2. Assign value to the generation of internal control defects (ICW_A): if the result obtained according to the above determination process is the generation of internal control defects, it is assigned as 1, otherwise it is assigned as 0. Assign a value to the repair of internal control defects (ICW_R): if the result is the repair of internal control defects according to the above judgment process, it is assigned as 1, otherwise it is assigned as 0.

The samples of internal control defect rectification selected in this paper are all from listed companies with internal control defect rectification published by CSMAR database. Since there are few samples of companies whose internal control defects have not been rectified, this paper measures the rectification of internal control defects (ICW_C) When, only the company whose internal control defects have been rectified is defined as the rectification of internal control defects, which is assigned as 1, while the listed companies whose internal control defects have been partially rectified and completely not rectified are measured together, that is, the company with uncorrected internal control defects is assigned as 0.

4.2.2 Independent variable

This paper mainly studies the impact of senior executives serving as members of the Audit Committee on internal control defects, subdivides the situation of senior executives serving as members according to the definition of key concepts above, and selects the most influential and representative the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO, Taking whether they concurrently serve as members of the audit committee as independent variables, this paper studies the impact of their concurrent serving as members of the Audit

Committee on the generation, rectification and repair of internal control defects. Due to the inconsistent naming of senior executives in various companies, this paper makes a unified naming treatment for some senior executives according to the job level. In this paper, the assignment rules for each variable are the same, that is, if there is a concurrent job, the assignment is 1, otherwise the assignment is 0.

4.2.3 Control variable

Considering that the internal control defects of listed companies will be affected by many factors, based on the references of Ge and Mcvy[20], Doyle et al.[21], Tian Gaoliang et al.[75] and Liu Yan and Yao Haixin[64], combined with the measurement method of internal control defects in this paper, this paper determines the following 8 variables as the control variables: ① The proportion of independent directors among the members of the Audit Committee (ID _ratio): The proportion of independent directors reflects the independence of the audit committee. If the independence is too weak, the supervision effectiveness of the audit committee will be reduced, so the probability of defects in internal control will increase. ② Whether there is merger or reorganization (M&R) in that year: Companies undergoing merger or reorganization will involve more preparation and adjustment, accounting risks will increase, and the loss of excellent employees will promote the generation of internal control defects. ③ Company size (Size): smaller companies may not have sufficient human and financial resources to carry out the daily maintenance of their internal control system, so the probability of internal control defects will increase. ④ Years of listing (Age): building and maintaining the company's internal control system requires a lot of time and energy. The longer the company is listed, the more attention may be paid to improving and maintaining its internal control system, and the less likely it is to have internal control defects. ⑤ Growth (Growth): the excessive growth of the company's revenue will affect its original internal control process and increase financial risk, thus increasing the probability of its internal control defects. ⑥ Inventory (Inventory): increasing inventory will increase the company's financial risk and make it more prone to internal control defects. ⑦ Audit institution (Bigfour): Major audit institutions, especially the "big four" generally conduct systematic and professional inspection on the internal control of relevant units to ensure the quality of their audit. Therefore, when the audit institution of a listed company is the "big four", the quality of its internal control report is high, and the company will also evaluate and publish its internal control defects according to the actual situation. ⑧ Auditor change (A _change): Frequent replacement of auditors implies that the company and the firm have problems such as poor coordination, and the probability of internal control defects is high. See table 2 for the specific definitions of various variables.

Table 2. Definition of each variable.

	Variable name	Variable symbol	Variable definition
depend ent variabl e	Generation of internal control defects	ICW_A	When the judgment result is the occurrence of internal control defects, take 1, otherwise take 0
	Rectification of internal control defects	ICW_C	If the judgment result is the rectification of internal control defects, take 1, otherwise take 0
	Repair of internal control defects	ICW_R	When the judgment result is the repair of internal control defects, take 1, otherwise take 0
indepe ndent	Senior executives also serve as members of the audit committee	SE _dual	Take 1 when there are senior executives who concurrently serve as members of the audit committee, otherwise take 0

	Variable name	Variable symbol	Variable definition
variable	The chairman also serves as a member of the audit committee	CB _dual	When the chairman is also a member of the audit committee, take 1, otherwise take 0
	The CEO also serves as a member of the audit committee	CEO _dual	When the CEO is also a member of the audit committee, take 1; otherwise, take 0
	CFO is also a member of the audit committee	CFO _dual	When CFO is also a member of the audit committee, take 1; otherwise, take 0
	The Secretary of the board of directors also serves as a member of the audit committee	BS _dual	When the Secretary of the board of directors is also a member of the audit committee, take 1; otherwise, take 0
	Executive directors other than the CEO also serve as members of the audit committee	ED _dual	If the executive director other than the CEO is also a member of the audit committee, take 1; otherwise, take 0
	Size of audit committee	AC _size	Total number of members of the company's audit committee
control variable	Proportion of independent directors	ID _ratio	Proportion of the number of independent directors in the audit committee of the company to the total number of members
	Defect judgment approach	ICW _way	Set 2 dummy variables (generation and repair of internal control defects) according to the judgment path of defects
	Type of defective business	ICW _job	Set 10 defect business type virtual variables according to the defect business type
	Merger or reorganization	M&R	In case of merger or reorganization of the company in the current year, take 1, otherwise take 0
	Company size	Size	Natural logarithm of the company's total assets in the current year
	Listing years	Age	Years of the company's A-share listing
	Growth	Growth	Percentage increase in operating revenue
	Inventory scale	Inventor y	Ratio of inventory to total assets
	Audit institution	Bigfour	When the company is audited by four international accounting firms in the current year, take 1, otherwise take 0
	Auditor replacement	A _change	When the company has changed auditors or audit institutions every year in the past three years, take 1, otherwise take 0
	Industry	Industry	16 industry dummy variables are set according to the industry classification 2012 edition of the CSRC
	Year	Year	Set 4 or 5 annual dummy variables (4 for generation and repair of internal control defects and 5 for rectification)

4.3 Research model

In order to explore the impact of various executives concurrently serving as members of the Audit Committee on the generation and repair of internal control defects (H1 and H3), this paper establishes the following logit research model:

$$\begin{aligned} ICW_Y = & \delta_0 + \delta_1 X + \delta_2 AC_size + \delta_3 ID_ratio + \delta_4 ICW_way + \delta_5 ICW_job + \delta_6 M\&R + \delta_7 Size + \delta_8 Age \\ & + \delta_9 Growth + \delta_{10} Inventory + \delta_{11} Bigfour + \delta_{12} A_change + \delta_{13} Industry + \delta_{14} Year + \varepsilon \end{aligned} \quad (1)$$

In order to explore the impact of various executives concurrently serving as members of the Audit Committee on the rectification of internal control defects (H2), this paper establishes the following logit research model:

$$\begin{aligned} ICW_C = & \delta_0 + \delta_1 X + \delta_2 AC_size + \delta_3 ID_ratio + \delta_4 ICW_job + \delta_5 M\&R + \delta_6 Size + \delta_7 Age + \delta_8 Growth \\ & + \delta_9 Inventory + \delta_{10} Bigfour + \delta_{11} A_change + \delta_{12} Industry + \delta_{13} Year + \varepsilon \end{aligned} \quad (2)$$

The independent variable x in the model represents the index variables of various senior executives serving as members of the Audit Committee: summary of senior executives, the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO. Dependent variable ICW_Y indicates the generation or repair of internal control defects, ICW_C means rectification of internal control defects. δ_0 means constant term δ_1 to δ_{14} represents the regression coefficient of each variable, ε represents the residual.

5. Empirical analysis

5.1 Descriptive statistics

The descriptive statistical results of the main variables in this paper are shown in table 3. From the descriptive statistics, we can see that the mean values of internal control defect generation, rectification and repair of dependent variables are 0.396, 0.775 and 0.329 respectively, which means that according to the measurement method of dependent variables in this paper, 39.6%, 77.5% and 32.9% of the companies in the statistical sample belong to the scope of internal control defect generation, rectification and repair in this paper. The mean value of the summary statistics of the independent variable executive concurrent appointment is 0.495, indicating that 49.5% of the sample companies have executive concurrent appointment, of which the proportion of companies with the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO serving as members of the audit committee are 24.2%, 24.9%, 6.5%, 6.5% and 3.4% respectively. The average proportion of independent directors in the control variables is 0.666, that is, the number of independent directors in the audit committee accounts for 66.6% of the total number of members, which also meets the requirement that the proportion of independent directors in the audit committee of the board of directors of listed companies on Shanghai Stock Exchange is more than half.

Table 3. Descriptive statistics of main variables.

	Obs	Mean	Std. Dev.	Min	Med	Max
ICW_A	3299	0.396	0.489	0.000	0.000	1.000
ICW_C	1378	0.775	0.418	0.000	1.000	1.000
ICW_R	2841	0.329	0.470	0.000	0.000	1.000
SE_dual	4159	0.495	0.500	0.000	0.000	1.000
CB_dual	4159	0.242	0.428	0.000	0.000	1.000
CEO_dual	4159	0.249	0.432	0.000	0.000	1.000
CFO_dual	4159	0.065	0.246	0.000	0.000	1.000
BS_dual	4159	0.065	0.246	0.000	0.000	1.000
ED_dual	4159	0.034	0.181	0.000	0.000	1.000
AC_size	4159	4.630	2.250	1.000	4.000	25.000
ID_ratio	4159	0.665	0.126	0.000	0.667	1.000
M&R	4159	0.816	0.387	0.000	1.000	1.000
Size	4159	22.532	1.364	18.390	22.380	28.070
Age	4159	13.976	6.503	1.000	15.270	27.050
Growth	4159	0.426	5.384	-0.981	0.079	251.211
Inventory	4159	0.159	0.158	0.000	0.115	0.904
Bigfour	4159	0.066	0.249	0.000	0.000	1.000
A_change	4159	0.182	0.386	0.000	0.000	1.000

The descriptive statistics of the above-mentioned concurrent posts consider that the chairman concurrently serves as the vice chairman concurrently as the member of the audit committee and the CEO concurrently serves as the vice CEO concurrently as the member of the audit committee_dual, CEO_By subdividing dual, the proportion of Companies in which the chairman, vice chairman, CEO and vice CEO concurrently serve as members of the audit committee is 13.3%, 12.0%, 11.7% and 14.9% respectively, as shown in table 4. In this paper, the chairman concurrently serves as the auditor includes the vice chairman and the CEO concurrently serves as the auditor also includes the vice CEO, Therefore, the descriptive statistics of the above main variables combine the principal and Deputy levels of the two types of executives.

Table 4. Descriptive statistics of supplementary variables

	Obs	Mean	Std. Dev.	Min	Med	Max
Chairman_dual	4159	0.133	0.340	0.000	0.000	1.000
Vice Chairman_dual	4159	0.120	0.326	0.000	0.000	1.000
CEO_dual	4159	0.117	0.322	0.000	0.000	1.000
Deputy CEO_dual	4159	0.149	0.356	0.000	0.000	1.000

Table 5 ~Table 7 are the results of mean test for all independent variables grouped according to dependent variables. Generally speaking, although the mean value of the group with internal control defects is less than that of the group without internal control defects, the mean value of the group with internal control defects is more significant than that of the group without internal control defects. The mean value of the concurrent position of the internal control defect rectification group is greater than that of the internal control defect non rectification group, and the test results are relatively significant. The mean value difference of the only group, that is, the executive director concurrent position group except CEO, is negative but not significant. The mean test results obtained by grouping according to whether the internal control defects are repaired or not are slightly weaker than the other two groups, but it can still be seen that the mean value of the internal control defect repair group is greater than that of the internal control defect non repair group. The mean test results show that the concurrent appointment of various senior executives in the audit committee will indeed have an impact on the generation, rectification and repair of internal control defects, among which the impact on the

rectification of internal control defects is the most significant, which preliminarily verifies the previous assumptions and points out the direction for the regression analysis later.

Table 5. Mean test of independent variables 1.
(Grouped by whether internal control defects occur).

ICW_A	1(N=1305)	0(N=1994)	Mean Difference
SE_dual	0.496	0.503	-0.007
CB_dual	0.251	0.242	0.010**
CEO_dual	0.248	0.252	-0.005
CFO_dual	0.064	0.066	-0.001
BS_dual	0.057	0.070	-0.013*
ED_dual	0.038	0.032	0.006**

Note: *, **, *** respectively indicate significant (bilateral) at the level of 10%, 5% and 1%, the same below.

Table 6. Mean test of independent variables 2.
(Grouped according to whether internal control defects are rectified or not).

ICW_C	1(N=1068)	0(N=310)	Mean Difference
SE_dual	0.545	0.439	0.106*
CB_dual	0.268	0.197	0.071**
CEO_dual	0.287	0.206	0.081
CFO_dual	0.068	0.035	0.033***
BS_dual	0.061	0.055	0.006
ED_dual	0.040	0.041	-0.001

Table 7. Mean test of independent variables 3.
(Grouped by whether internal control defects are repaired).

ICW_R	1(N=936)	0(N=1905)	Mean Difference
SE_dual	0.496	0.499	-0.003
CB_dual	0.238	0.242	-0.004
CEO_dual	0.251	0.246	0.005*
CFO_dual	0.069	0.067	0.002
BS_dual	0.072	0.066	0.006
ED_dual	0.038	0.031	0.007*

5.2 Regression analysis of the relationship between executives serving as members of the audit committee and internal control defects

5.2.1 Senior executives concurrently serving as members of the audit committee and the emergence of internal control defects

Table 8 reflects the regression results of the relationship between the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO and ICW_A. The regression results show that the biggest impact on the defects of internal control is the chairman's concurrent appointment and the executive director's concurrent appointment except the CEO. The regression coefficients of both are positive and significant at the level of 5%, which verifies H1 from the perspective of the chairman's concurrent appointment and the executive director's concurrent appointment except the CEO. Secondly, the more significant is that the Secretary of the chairman is also a member, the significance level is 10%, but the regression coefficient is negative, which means that the Secretary of the board of directors is also a member of the audit committee, which will inhibit the occurrence of internal control defects of listed companies to a certain extent, which is just opposite

to the effect of the chairman. This phenomenon will be supplemented and analyzed below, Check whether there is interaction between the two. At the same time, the regression results also reflect that not all executive concurrent posts have a significant impact on internal control defects. Although the correlation coefficient between CEO, CFO and overall executive concurrent posts as members of the audit committee and internal control defects is positive, that is, the concurrent posts of these types of executives can stimulate the generation of internal control defects, which is consistent with H1, However, the test effect is not significant enough to fully verify the hypothesis.

Table 8. Test of the relationship between senior executives serving as members of the audit committee and internal control defects.

Variable	Coef.(Wals)					
	(1) X=SE	(2) X=CB	(3) X=CEO	(4) X=CFO	(5) X=BS	(6) X=ED
X_dual	0.054 (0.404)	0.173** (3.202)	0.090 (0.903)	0.033 (0.040)	-0.239* (2.031)	0.402** (3.307)
AC_size	-0.035* (3.278)	-0.038** (3.878)	-0.035* (3.354)	-0.033* (3.031)	-0.031* (2.601)	-0.034* (3.227)
ID_ratio	-0.004 (1.296)	-0.004 (1.094)	-0.004 (1.395)	-0.004 (1.695)	-0.005 (2.025)	-0.004 (1.406)
ICW_way	control	control	control	control	control	control
ICW_job	control	control	control	control	control	control
M&R	-0.089 (0.714)	-0.092 (0.753)	-0.087 (0.672)	-0.089 (0.702)	-0.088 (0.689)	-0.098 (0.846)
Size	-0.132*** (14.576)	-0.130*** (14.211)	-0.131*** (14.306)	-0.133*** (14.759)	-0.132*** (14.556)	-0.134*** (15.002)
Age	-0.032*** (24.040)	-0.032*** (24.224)	-0.032*** (23.420)	-0.032*** (24.256)	-0.032*** (24.435)	-0.033*** (25.054)
Growth	0.000 (0.968)	0.000 (0.969)	0.000 (0.964)	0.000 (0.975)	0.000 (0.985)	0.000 (0.949)
Inventory	0.009*** (7.068)	0.009*** (7.239)	0.009*** (7.010)	0.009*** (6.954)	0.009*** (6.974)	0.009*** (7.183)
Bigfour	0.626*** (12.631)	0.632*** (12.875)	0.626*** (12.626)	0.621*** (12.444)	0.625*** (12.611)	0.612*** (12.066)
A_change	-0.206* (3.574)	-0.206* (3.565)	-0.209* (3.683)	-0.209* (3.678)	-0.204* (3.489)	-0.204* (3.518)
Industry	control	control	control	control	control	control
Year	control	control	control	control	control	control
Constant	24.627 (0.000)	24.572 (0.000)	24.606 (0.000)	24.699 (0.000)	24.714 (0.000)	24.695 (0.000)
Nagelkerke R2	0.280	0.281	0.280	0.280	0.281	0.281
N	3299	3299	3299	3299	3299	3299

Note: *, **, *** respectively mean significant at the level of 10%, 5% and 1%. The values in parentheses are wals, the same below.

For the control variables, it can be seen from the regression results that the size and age of listed companies are significantly negatively correlated with the occurrence of internal control defects at 1%, the inventory level and audit institution are significantly positively correlated with the occurrence of internal control defects at 1%, and the size of Audit Committee (AC_size) and auditor change (A_change). There is a significant negative correlation with the occurrence of internal control defects at the level of 1% ~ 5%, and the correlation between other variables and internal control defects does

not reach the significant level. It should be noted that although the proportion of independent directors (ID _ratio) and internal control defects do not reach a significant level, the correlation coefficient is negative, indicating that the higher proportion of independent directors in the audit committee can enhance the supervision effectiveness of the audit committee and inhibit the occurrence of internal control defects to a certain extent.

5.2.2 Senior executives concurrently serve as members of the audit committee and the rectification of internal control defects

Table 9 reflects the regression results of the relationship between the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO serving as members of the audit committee and the rectification of internal control defects (ICW_C). The regression results show that except that the regression coefficient of ED _dual except CEO is negative (but the least significant), the regression coefficients of other independent variables are positive, and three types of concurrent posts are significant at the level of 1% ~ 10%, and the other two types of concurrent posts are still more significant than ED _dual strong, indicating that all kinds of senior executives serving as members of the audit committee can effectively promote the rectification of internal control defects existing in the current year, so as to reduce the remaining defects of the current year, which fully verifies H2. At the same time, we can see that the CFO _dual has the greatest impact on the rectification of internal control defects (b = 0.723, the significance level is 1%), which shows that the participation of CFO can greatly improve the rectification of internal control defects, and affirms the positive effect of senior executives serving as members.

Among the control variables, the regression coefficients of the company's listing years (age) and audit institutions (Bigfour) are negative and the most significant (the significance level is 1%), indicating that the longer the company's listing years and the higher the ranking of audit institutions, the more unfavorable it is to rectify the internal control deficiencies existing in that year, and if the listed company has a merger or reorganization (M & R) in that year, The rectification of internal control defects will also be significantly reduced, that is, there will be more defects that have not been rectified. However, a _change will significantly promote the company's rectification of internal control defects in the current year.

5.2.3 Senior executives concurrently serving as members of the audit committee and the repair of internal control defects

Table 10 reflects the regression results of the relationship between the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO serving as members of the audit committee and the generation of internal control defects (ICW_R). On the whole, the impact of the concurrent appointment of various executives on the repair of internal control defects is not very significant. In the regression results, the regression coefficients of the chairman concurrent member (CB _dual) and the Secretary concurrent member of the board of directors (BS _dual) are negative, and the regression coefficients of other independent variables are positive. Among them, the more significant positive correlation is the concurrent appointment of CEO (CEO _dual) and executive director other than CEO (ED _dual), that is, the concurrent appointment of senior executives at the executive level as members of the audit committee will promote the repair of internal control defects of the company, which verifies H3 from the Executive level. The more significant negative correlation is the concurrent appointment of the Secretary of the board of directors.

Table 9. Inspection of the relationship between senior executives serving as members of the audit committee and the rectification of internal control defects.

Variable	Coef.(Wals)					
	(1) X=SE	(2) X=CB	(3) X=CEO	(4) X=CFO	(5) X=BS	(6) X=ED
X _dual	0.188* (1.423)	0.316** (2.881)	0.122 (0.470)	0.723*** (4.772)	0.146 (0.207)	-0.199 (0.314)

Variable	Coef.(Wals)					
	(1) X=SE	(2) X=CB	(3) X=CEO	(4) X=CFO	(5) X=BS	(6) X=ED
AC _size	0.028 (0.601)	0.024 (0.437)	0.034 (0.868)	0.038 (1.116)	0.034 (0.868)	0.038 (1.099)
ID _ratio	0.001 (0.057)	0.001 (0.057)	0.000 (0.002)	0.000 (0.001)	0.000 (0.000)	0.000 (0.006)
ICW _job	-57.017 -0.506** (6.632)	-57.063 -0.519*** (6.952)	-56.785 -0.496** (6.347)	-58.801 -0.513*** (6.810)	-58.017 -0.501** (6.504)	-57.662 -0.495** (6.310)
M&R	0.081 (1.604)	0.089 (1.957)	0.083 (1.694)	0.073 (1.293)	0.082 (1.675)	0.083 (1.717)
Size	-0.035*** (7.694)	-0.037*** (8.421)	-0.035*** (7.687)	-0.036*** (8.118)	-0.036*** (8.012)	-0.036*** (7.987)
Age	0.000 (0.414)	0.000 (0.378)	0.001 (0.471)	0.001 (0.510)	0.001 (0.480)	0.001 (0.458)
Growth	0.002 (0.129)	0.002 (0.135)	0.002 (0.106)	0.002 (0.059)	0.002 (0.106)	0.002 (0.108)
Inventory	-1.014*** (11.650)	-1.048*** (12.628)	-1.033*** (12.121)	-1.002*** (11.433)	-1.051*** (12.692)	-1.053*** (12.743)
Bigfour	0.535** (4.984)	0.547** (5.190)	0.519** (4.678)	0.540** (5.046)	0.532** (4.921)	0.530** (4.883)
A _change	control	control	control	control	control	control
Industry Year	0.534 (0.100)	0.428 (0.064)	0.598 (0.124)	0.833 (0.244)	0.671 (0.158)	0.688 (0.166)
Constant	0.270	0.272	0.270	0.273	0.269	0.269
Nagelkerke R2	1378	1378	1378	1378	1378	1378
N						

Table 10. Inspection of the relationship between senior executives serving as members of the audit committee and the repair of internal control defects.

Variable	Coef.(Wals)					
	(1) X=SE	(2) X=CB	(3) X=CEO	(4) X=CFO	(5) X=BS	(6) X=ED
X _dual	0.019 (0.034)	-0.020 (0.030)	0.106* (1.853)	0.116 (0.377)	-0.070 (0.126)	0.327* (1.965)
AC _size	-0.009 (0.167)	-0.008 (0.130)	-0.011 (0.241)	-0.009 (0.157)	-0.008 (0.129)	-0.008 (0.145)
ID _ratio	-0.005 (1.461)	-0.006 (1.680)	-0.005 (1.333)	-0.005 (1.545)	-0.006 (1.712)	-0.005 (1.410)
ICW _way	control	control	control	control	control	control
ICW _job	0.035 (0.073)	0.035 (0.074)	0.039 (0.093)	0.034 (0.070)	0.034 (0.069)	0.028 (0.048)
M&R	-0.159*** (14.238)	-0.159*** (14.306)	-0.158*** (13.988)	-0.159*** (14.296)	-0.159*** (14.205)	-0.160*** (14.331)
Size	-0.020** (5.628)	-0.020** (5.674)	-0.019** (5.292)	-0.020** (5.852)	-0.020** (5.687)	-0.020** (6.079)
Age	0.000 (0.406)	0.000 (0.412)	0.000 (0.387)	0.000 (0.397)	0.000 (0.404)	0.000 (0.406)
Growth	0.013***	0.013***	0.013***	0.013***	0.013***	0.013***
Inventory						

Variable	Coef.(Wals)					
	(1) X=SE	(2) X=CB	(3) X=CEO	(4) X=CFO	(5) X=BS	(6) X=ED
Bigfour	(10.164) 0.464**	(10.149) 0.461**	(10.066) 0.476**	(9.867) 0.468**	(10.225) 0.464**	(9.997) 0.449**
A _change	(4.228) -0.113	(4.180) -0.114	(4.445) -0.112	(4.302) -0.111	(4.238) -0.114	(3.963) -0.111
Industry	(0.752)	(0.767)	(0.737)	(0.721)	(0.756)	(0.716)
Year	control	control	control	control	control	control
Constant	25.087 (0.000)	25.130 (0.000)	24.990 (0.000)	25.104 (0.000)	25.124 (0.000)	25.091 (0.000)
Nagelkerke R2	0.396	0.396	0.396	0.396	0.396	0.396
N	2841	2841	2841	2841	2841	2841

It is worth noting that although the test results of the relationship between the chairman's concurrent members and the repair of internal control defects are not significant in the marginal sense, the regression coefficient between the chairman's concurrent members and the Secretary of the board of directors is negative, that is, both concurrent members will inhibit the repair of internal control defects to a certain extent. This phenomenon has aroused the author's reflection, therefore, a supplementary analysis is made below to test whether there is interaction or endogenous effect between the two.

Similar to the regression results of defects, the control variables that have the most significant impact on the repair of internal control defects are still the size of listed companies (size, negative correlation, significance level of 1%), the years of listing (age, negative correlation, significance level of 5%), the inventory level (inventory, positive correlation, significance level of 1%), and audit institutions (bigfur, positive correlation, significance level of 5%). Similarly, the correlation coefficient between the proportion of independent directors (ID _ratio) and the repair of internal control defects is negative, indicating that the higher the proportion of independent directors in the audit committee, the internal control defects cannot be repaired and do not reach the significance level, which is consistent with the research conclusions of Goh [45], Zhu Caijie and Liu changcui[76].

5.3 Supplementary analysis

In order to test whether there is interaction between the chairman and the Secretary of the board of directors as members of the Audit Committee on the generation and repair of internal control defects, x _dual in the above model (1) is replaced by BS _dual * CB _dual for regression test respectively. The results are shown in table 11.

Table 11. Interaction test of the chairman of the board and the Secretary of the board of directors concurrently serving as members on the generation and repair of internal control defects.

Variable	ICW_A		ICW_R	
	B	Wals	B	Wals
BS _dual*CB _dual	-0.145	0.165	-0.352	0.546
AC _size	-0.032*	2.894	-0.008	0.116
ID _ratio	-0.004	1.775	-0.006	1.755
ICW _way/ICW _job	control		control	
M&R	-0.088	0.695	0.037	0.081
Size	-0.133***	14.745	-0.159***	14.214
Age	-0.032***	24.265	-0.020**	5.709
Growth	0.000	0.971	0.000	0.405

Inventory	0.009***	7.068	0.013***	10.364
Bigfour	0.618***	12.364	0.458**	4.128
A_change	-0.208*	3.637	-0.111	0.723
Industry/Year	control		control	
Constant	24.703	0.000	25.112	0.000
Nagelkerke R2	0.280		0.396	
N	3299		2841	

The regression results show that the regression coefficients of BS_ dual * CB_ dual on the generation and repair of internal control are negative but not significant (the significance levels are 68.5% and 46.0% respectively), that is, the cross effect of the two can inhibit the generation and repair of internal control defects at the same time, but the inhibition effect is not significant. In view of this, the author adjusts the model again (1), a further regression analysis is made to explore whether the chairman and the Secretary of the board of directors play an endogenous role in the generation and repair of internal control defects.

In order to further explore whether there is an endogenous relationship between the two, this paper adds rules to the regression model: on the premise that the Secretary of the board of directors is also a member of the audit committee, test the impact of the chairman's concurrent appointment on the generation and repair of internal control defects, and on the premise that the Secretary of the board of directors is not a member of the audit committee, test the impact of the chairman's concurrent appointment on the generation and repair of internal control defects². On the premise that the chairman concurrently serves as a member of the audit committee, the impact of the Secretary of the board of directors on the generation and repair of internal control defects is tested, and on the premise that the chairman does not serve as a member of the audit committee, the impact of the Secretary of the board of directors on the generation and repair of internal control defects is tested $\times$ two $\times$ 2 = 8 regression tests, and the test results are shown in table 12 and table 13.

The regression results show that for the generation of internal control defects, when there is no Secretary of the board of directors serving as a member in the audit committee, the concurrent appointment of the chairman of the board of directors is significantly positively correlated with the generation of internal control defects, that is, if there is no Secretary of the board of directors serving as a member in the audit committee, the chairman of the board of directors will largely induce the generation of internal control defects. According to the regression test, part-time and internal control defects are negatively correlated, that is, part-time can reduce the occurrence of internal control defects, but the negative correlation is not significant. Combined with the above regression results (if the part-time of the chairman is not considered, the part-time of the Secretary of the board of directors is negatively correlated with the occurrence of internal control defects)It can be seen that if there is no Secretary of the board of directors in the audit committee, the chairman of the board of directors will stimulate the company to have internal control defects, and the existence of the Secretary of the board of directors will inhibit the influence of the chairman of the board of directors on the audit committee to a certain extent. For the repair of internal control defects, whether there is a premise of regression or not, there is a negative correlation between the concurrent appointment of the chairman of the board of directors and the repair, but the correlation is not significant, which is consistent with the regression results above, that is, the chairman serving as a member of the audit committee and the Secretary serving as a member of the board of directors will inhibit the company from repairing the internal control defects of the previous year, and H3 has not been verified in a complete sense. The regression results of control variables are basically consistent with the above, but the degree is slightly different, so they are not detailed here.

Table 12. Endogenous effect test of the chairman and the Secretary of the board of directors concurrently serving as members on internal control defects.

Variable	ICW_A			
	BS_dual=1	CB_dual=1	BS_dual=0	CB_dual=0
CB_dual	-0.500 (0.975)		0.173* (3.001)	
BS_dual		-0.484 (1.477)		-0.253 (1.763)
AC_size	-0.133 (2.494)	-0.049 (1.769)	-0.026 (1.692)	-0.030 (1.597)
ID_ratio	-0.038 (2.396)	-0.022** (4.054)	-0.004 (1.342)	-0.001 (0.055)
ICW_way	control	control	control	control
ICW_job	control	control	control	control
M&R	-0.303 (0.371)	-0.044 (0.036)	-0.121 (1.217)	-0.102 (0.706)
Size	-0.419** (5.627)	-0.149* (3.517)	-0.117*** (10.588)	-0.117*** (8.730)
Age	0.000 (0.000)	-0.041*** (7.768)	-0.032*** (22.048)	-0.030*** (16.004)
Growth	0.009* (3.643)	0.003** (5.909)	0.000 (1.031)	-0.001 (1.491)
Inventory	-0.007 (0.171)	0.018** (5.868)	0.010*** (7.917)	0.006 (2.190)
Bigfour	0.819 (1.218)	0.813* (3.159)	0.621*** (11.424)	0.577*** (8.713)
A_change	-0.564 (1.469)	-0.539** (4.562)	-0.186 (2.664)	-0.157 (1.556)
Industry	control	control	control	control
Year	control	control	control	control
Constant	31.495 (0.000)	29.758 (0.000)	24.320 (0.000)	23.868 (0.000)
Nagelkerke R2	0.411	0.359	0.289	0.300
N	215	810	3084	2489

Table 13. Endogenous effect test of the chairman and the Secretary of the board of directors concurrently serving as members on the repair of internal control defects.

Variable	ICW_R			
	BS_dual=1	CB_dual=1	BS_dual=0	CB_dual=0
CB_dual	-0.449 (0.455)		-0.011 (0.009)	
BS_dual		-0.289 (0.325)		-0.054 (0.060)
AC_size	-0.240** (4.415)	-0.037 (0.698)	0.006 (0.063)	0.010 (0.132)
ID_ratio	-0.053 (2.988)	0.004* (0.106)	-0.006 (1.920)	-0.007 (1.959)
ICW_way	control	control	control	control
ICW_job	control	control	control	control
M&R	-0.877	0.261	0.079	-0.016

	(2.330)	(0.734)	(0.341)	(0.012)
Size	-0.988***	-0.370***	-0.126***	-0.097**
	(14.923)	(14.572)	(8.180)	(4.137)
Age	0.070	-0.010	-0.021**	-0.019**
	(2.547)	(0.315)	(5.847)	(4.183)
Growth	0.014***	0.001	0.000	0.000
	(8.793)	(0.892)	(0.295)	(0.001)
Inventory	-0.008	0.011	0.015***	0.013***
	(0.145)	(1.717)	(11.443)	(7.019)
Bigfour	0.388	1.021	0.439*	0.356*
	(0.171)	(3.033)	(3.402)	(2.057)
A_change	-0.965	-0.165	-0.056	-0.092
	(2.123)	(0.323)	(0.173)	(0.375)
Industry	control	control	control	control
Year	control	control	control	control
Constant	60.127	29.621	24.362	23.539
	(0.000)	(0.000)	(0.000)	(0.000)
Nagelkerke R2	0.636	0.461	0.400	0.401
N	193	683	2648	2158

6. Research discussion and Prospect

6.1 Research discussion and summary

This paper mainly studies the impact of the chairmen, CEOs, CFOs, board secretaries and executive directors other than the CEO serving as members of the Audit Committee on the generation, rectification and repair of internal control defects of listed companies. It is an obligation of the audit committee to ensure the effective implementation of internal control, so what role will all kinds of executives play in the audit committee. This paper starts from the definition of executives, selects the most influential executives of listed companies, and takes whether they concurrently serve as members of the audit committee as an independent variable to explore their impact on the effectiveness of the audit committee's supervision of internal control. In this paper, it is quantified as whether there are internal control defects, rectification and repair. In this paper, the measurement of internal control defects is appropriately extended on the basis of dichotomy and refined at the overall level. Considering the changes of internal control defect level and quantity, the dependent variable is constructed in a more specific way.

In the specific research, this paper first collects and arranges the basic information of Listed Companies in China from 2012 to 2017, the basic information of directors, supervisors and senior managers, the basic information of audit committee members, the internal control evaluation information, etc., then summarizes the sample data according to the measurement and definition methods in this paper, and tests the hypothesis of the correlation between variables by constructing a binary logit model. The results show that: (1) not all senior executives serving as members of the audit committee will have a significant impact on the defects of internal control, and different types of senior executives serving as committees lead the defects to change in different directions, so the verification of the hypothesis is slightly one-sided and not detailed enough; (2) Five of the six independent variables have a positive impact on internal control defects, among which the chairman and executive directors other than CEO have the most significant impact, indicating that the concurrent appointment of senior executives in the audit committee can indeed stimulate the company to have internal control defects to a certain extent. In addition, the concurrent appointment of secretary of the board of directors has a negative impact on internal control defects, It shows the necessity of setting up the Secretary of the board of directors; (3) In addition to the executive director and

committee members (the least significant) except the CEO, the other executive committee members can promote the company's rectification of its existing internal control defects, and the concurrent role of CFO has the greatest positive impact on the rectification of internal control defects. On the one hand, it affirms the role of executive committee members in promoting the rectification of defects, On the other hand, CFO paid so much attention to the rectification of defects in that year, which indirectly reflected that most of these defects were at the financial level; (4) The four variables are positively correlated with the defect repair of internal control, among which the director and committee member at the executive level play the most significant role in promoting the defect repair, while the chairman and Secretary of the board of directors play an inhibitory role in the defect repair; (5) The cross effect of the chairman and the Secretary of the board of directors on the generation and repair of internal control defects is not very significant, but when there is a secretary of the board of directors among the members of the audit committee, the chairman's concurrent appointment is negatively correlated with the generation of internal control defects, and when there is no Secretary of the board of directors in the audit committee, the chairman's concurrent appointment is significantly positively correlated with the generation of internal control defects, That is, the existence of the Secretary of the board of directors among the members of the audit committee will limit the chairman's promotion of internal control defects, and this impact is more significant, which is a highlight of this research.

The research of this paper focuses on all kinds of executives among the members of the audit committee. While enriching the literature in the field of audit committee and internal control defects, it also provides broad ideas for the follow-up in-depth exploration. At the same time, it provides a useful theoretical reference for the improvement of China's audit committee system, the standardization of listed companies' behavior and the improvement of corporate governance level.

6.2 Research limitations and Prospects

6.2.1 Research limitations

This paper takes the internal control defects disclosed in the internal control audit report and internal control self-evaluation report published by listed companies from 2012 to 2017 as the research object to study the impact of various senior executives serving as members of the Audit Committee on internal control defects. Although the data sources are relatively reliable, and the research methods are relatively standardized, there are still some limitations, mainly in the following aspects:

First, the measurement methods of dependent variables. Although the measurement of dependent variables in this paper is more specific than dichotomy, it still considers the generation and repair of internal control defects from the overall level and cannot reflect the changes in the content of internal control defects.

Second, the unified classification of independent variables. The unified classification of all kinds of senior executives in this paper is based on job level. Due to the different titles of senior executives in different listed companies, this paper only classifies them according to the general direction. In fact, the concurrent employment of senior executives can still be further refined.

Third, the test of the relationship between independent variables and dependent variables. All kinds of executives serving as members of the audit committee have interactive effects on the defects of internal control, and there are endogenous problems between concurrent appointment and defects. This paper only preliminarily explores the interactive and endogenous effects of the concurrent appointment of the chairman and the Secretary of the board of directors but does not deeply explore the internal mechanism of other relationships.

6.2.2 Research prospect

With the continuous improvement of China's internal control system and audit committee system, the behavior of listed companies will be more standardized, and the disclosure of all kinds of information will be more comprehensive and detailed. Therefore, there will be more space for the

research on the defects of internal control, senior executives serving as members of the Audit Committee and the relationship between them.

From the perspective of internal control defects: Previous studies by a large number of scholars, including this paper, regarded internal control defects as a whole and did not take into account the different governance effects of different types of defects due to their own content differences. In the future, we can further explore new measurement methods and include the changes in the content of internal control defects, to comprehensively reflect the change and degree of internal control defects.

From the perspective of executives concurrently serving as members of the Audit Committee: executives concurrently serving as members of the audit committee is a common phenomenon in listed companies. Although it still meets China's requirements for members of the audit committee as a whole, it may be inevitable for all kinds of executives to concurrently serve as members of the Audit Committee. Future research can see its essence through the phenomenon, explore the motives or incentives for various executives to serve as members.

From the perspective of the relationship between the two: the impact of all kinds of senior executives serving as members of the Audit Committee on internal control defects is interactive, and there are endogenous problems between concurrent positions and defects. Specifically, is it a certain change in internal control defects that causes a certain kind of senior executives to serve as members of the audit committee, or a certain change in internal control defects caused by a certain kind of senior executives serving as members of the audit committee, its internal mechanism needs to be further explored?

Acknowledgements

So far, my undergraduate study has come to an end. I must say thank you again before embarking on a new journey of life.

First of all, I would like to thank my tutor, Mr. Deng. I have been doing scientific research with Mr. Deng since the second semester of my sophomore year. I admire his serious and rigorous attitude in all aspects, so I did not hesitate to choose Mr. Deng as my graduate tutor. Mr. Deng is very responsible in all aspects. If I encounter a bottleneck in the process of writing my graduation thesis, he will be patient. To guide my problems, let me open my mind and adjust to the best learning state. From the topic selection, opening report, mid-term inspection, writing, modification, to the final review and finalization, including data collection and sorting, measurement and analysis, Mr. Deng gave me a lot of help and guidance, which greatly improved my logical thinking ability and academic research ability. Consequently, thank him very much for his hard work.

Secondly, I would like to thank all the teachers who have appeared in my study and life, who have taught me my learning and life experience from different aspects. I would like to thank the Youth League Committee of Nanjing University of Science and Technology for providing me with a good learning and growth environment. And I would like to thank the 21st graduate education support group of Nanjing University of Science and Technology for making me feel warm at home and making my senior life more colorful and fulfilling. I would like to thank all my classmates who have helped me in my daily life and study. At the same time, I would like to thank my family for their encouragement and unconditional support. Their love has given me inexhaustible motivation to move forward.

Finally, thank all those who have helped and supported me. I will continue to work hard and live up to everyone's expectations of me!

References

- [1] Kaplan S N. Top Executives, Turnover, and Firm Performance in Germany [J]. Journal of Law, Economics, and Organization, 1994.
- [2] Elron E. Top management teams within multinational corporations: Effects of cultural heterogeneity [J]. Leadership Quarterly, 1997, 8(4):393-412.

- [3] Hambrick D C, Mason P A. Upper Echelons: The Organization as a Reflection of Its Top Managers [J]. *Academy of Management Review*, 1984, 9(2):193-206.
- [4] Krishnan H A, Park D. Effects of Top Management Team Change on Performance in Downsized US Companies [J]. *Management International Review*, 1998.
- [5] Wang Fei, Zhang Xiaolin. Research on internationalization of enterprise top management team [J]. *Research on technology, economy and management*, 2005 (03): 32-33
- [6] Lin Junqing, Huang Zuhui, sun Yongxiang. Salary gap, corporate performance and governance structure in senior management team [J]. *Economic research*, 2003 (04): 31-40 + 92
- [7] Lu Haifan. Research on executive pay gap and corporate performance from the perspective of endogenous [J]. *Soft science*, 2009,23 (12): 22-29
- [8] Zhang Ming, Chen Zhen. Empirical Study on implicit incentive of executive compensation [J]. *Financial research*, 2006 (03): 56-63
- [9] Ashbaugh-Skaife H, Collins D W, Kinney W R. The discovery and reporting of internal control deficiencies prior to SOX-mandated audits [J]. *Journal of Accounting and Economics*, 2007, 44(1-2):0-192.
- [10] Yang Youhong, Li Yuli. Identification, identification and reporting of internal control defects [J]. *Accounting research*, 2011 (03): 76-80
- [11] Li Yuli. Technical route for identification and identification of internal control defects -- Analysis from the perspective of management [J]. *Journal of Central South University of economics and law*, 2012 (03): 113-119
- [12] Fang Hongxing, Jin Yuna. Corporate governance, internal control and inefficient investment: theoretical analysis and empirical evidence [J]. *Accounting research*, 2013 (7): 63-69
- [13] Tian Juan, Yu Yumiao. Problems and Countermeasures in identification and identification of internal control defects [J]. *Management world*, 2012 (6): 180-181
- [14] Masli A, Peters G F, Richardson V J, et al. Examining the Potential Benefits of Internal Control Monitoring Technology [J]. *The Accounting Review*, 2010, 85(3):1001-1034.
- [15] Jeong-Bon Kim V, Song Byron Y, Zhang L. Internal Control Weakness and Bank Loan Contracting: Evidence from SOX Section 404 Disclosures [J]. *The Accounting Review*, 2011, 86(4):1157-1188.
- [16] Wang Qian, Dai Wentao. Prediction of major defects in internal control based on discriminant analysis [J]. *Research on financial issues*, 2012 (5)
- [17] Chen WuChao. Identification and disclosure of major defects in internal control of Listed Companies in the United States and their reference to Chinese enterprises [J]. *Audit research*, 2012 (01): 103-109
- [18] Boritz J E, Hayes L, Lim J H. A content analysis of auditors' reports on IT internal control weaknesses: The comparative advantages of an automated approach to control weakness identification [J]. *International Journal of Accounting Information Systems*, 2013, 14(2):138-163.
- [19] Wang Hailin. Research on identification and diagnosis of enterprise internal control defects -- Model Construction Based on neural network [J]. *Accounting research*, 2017 (8): 74-80,95
- [20] Ge, W, Mcvay, S. The Disclosure of Material Weakness in Internal Control after the Sarbanes-Oxley Act. *Accounting Horizons*, 2005, 19(3): 137-158.
- [21] Doyle, J, Ge, W, Mcvay, S. Determinants of Weaknesses in Internal Control over Financial Reporting. *Journal of Accounting and Economics*, 2007, 44(1-2): 193-223.
- [22] Qi Baobao, Tian Gaoliang. Research on Influencing Factors of internal control defect disclosure of financial report -- An Empirical Analysis Based on Listed Companies in Shenzhen [J]. *Journal of Shanxi University of Finance and economics*, 2010 (04)
- [23] Research group of Institute of accounting and finance, Nanjing University. On the realistic model of Chinese enterprise internal control evaluation system -- a study based on 112 enterprise cases [J]. *Accounting research*, 2010 (6)
- [24] Shan Huajun. Data analysis and policy suggestions on internal control defects of Listed Companies [J]. *Business accounting*, 2010 (13): 45-46
- [25] Li Wanfu, Lin bin, Liu Chunli. How does the heterogeneity of internal control defects affect financial reporting——Empirical evidence based on Chinese context [J]. *Financial research*, 2014,40 (6)

- [26] Shi Yiru. Identification of internal control defects by trisection method [J]. Monthly journal of Finance and accounting, 2012 (14): 8-11
- [27] Lin Jing, Su Jinxiang. Determination of internal control defects -- Research Based on COSO's new internal control framework [J]. Financial and accounting communication, 2016 (12)
- [28] Wu Yuxin. Audit Committee -- an important institutional arrangement in the internal control of Listed Companies [J]. Audit and economic research, 2003,18 (1): 27-29
- [29] Xie Deren. Audit Committee: original nature and action mechanism [J]. Accounting research, 2005 (9): 69-74
- [30] Qiao Chunhua. Scientific orientation of China's Audit Committee [J]. Audit research, 2003 (6): 31-33
- [31] Qian Hua. Research on the relationship between Audit Committee and internal audit [J]. Audit and economic research, 2006,21 (6): 49-51
- [32] Wu Qinghua, Wang Pingxin, Yin Junming. Characteristics of audit committee and board of directors and financial reporting quality -- An Empirical Study Based on China's securities market [J]. Management review, 2006,18 (7): 49-56
- [33] Zhu Jinyu, Hu Chunhui, Yi Ting. The essential attribute and institutional innovation of Audit Committee -- from the perspective of new institutional economics [J]. Audit and economic research, 2009,24 (4): 3-11
- [34] Xie Deren. Audit committee system and Governance Innovation of Chinese Listed Companies [J]. Accounting research, 2006 (7): 39-44
- [35] Qiao Chunhua, Jiang Suyu. Discussion on some theoretical issues of Audit Committee [J]. Audit research, 2008 (2)
- [36] Chen Cheng, Liu Jianmin. Review on the impact of Audit Committee on internal control [J]. Friends of accounting, 2013 (2): 62-64
- [37] Abdolmohammadi M J, Shanteau J. Personal attributes of expert auditors [J]. Organizational Behavior & Human Decision Processes, 1992, 53(2):158-172.
- [38] Wolnizer P W. Are Audit Committees Red Herrings? [J]. Abacus, 1995, 31(1):22.
- [39] Dezoort F T. An analysis of experience effects on audit committee members' oversight judgments [J]. Accounting Organizations & Society, 1998, 23(1):1-21.
- [40] Yang Zhonglian, Xu Zhengdan. Empirical Study on the motivation of Chinese companies to establish audit committees [J]. Audit research, 2004 (1): 19-24
- [41] Huang Rongbing, Wang Yuetang. Internal control from the perspective of Corporate Governance -- Analysis Based on the Audit Committee [J]. Journal of Central South University of economics and law, 2009 (1): 100-105
- [42] Chen Jiayi, Wang Liyan. Research on domestic audit committee: ten-year review and prospect (2002-2011) [J]. Audit research, 2012 (04): 61-67
- [43] Zhou Shouhua, Hu Weimin, Lin bin, et al. Research on internal control of Chinese Listed Companies in 2012[J]. Accounting research, 2013 (7): 3-12,96
- [44] Harris M, Raviv A. A Theory of Board Control and Size [J]. Review of Financial Studies, 2008, 21(4):1797-1832.
- [45] Beng Wee Goh. Audit Committees, Boards of Directors, and Remediation of Material Weaknesses in Internal Control [J]. Contemporary Accounting Research, 2008, 26(2).
- [46] Yang Ling. Empirical Study on the relationship between management characteristics and internal control defects of Listed Companies[D].2015
- [47] Hoitash R, Hoitash U, Johnstone K M. Internal Control Material Weaknesses and CFO Compensation [J]. Contemporary Accounting Research, 2012, 29(3):0-0.
- [48] Mitra S, Hossain M, Marks B R. Corporate ownership characteristics and timeliness of remediation of internal control weaknesses [J]. Managerial Auditing Journal, 2012, 27(9):846 - 877.
- [49] Wan Peng, Qu Xiaohui. Voluntary disclosure of chairman's personal characteristics, agency costs and revenue plans -- Empirical Evidence from Shanghai and Shenzhen Listed Companies [J]. Accounting research, 2012 (7): 15-23

- [50] Zhang Yang. Research on the correlation between the characteristics of the board of directors of Chinese listed companies and the effectiveness of internal control [D]. Northwest University, 2013
- [51] Liu Zuji. Research on Influencing Factors of enterprise internal control effectiveness [D]. Institute of financial science, Ministry of finance, 2013
- [52] Zhao Xi, Xu Ningning. Management power, opportunistic motivation and internal control defect information disclosure [J]. Audit research, 2013 (04): 101-109
- [53] Liu Qiliang, Luo Le, Zhang yaman, et al. Executive centralization, internal control and accounting information quality[J]. Nankai management review, 2013,16 (1): 15-23
- [54] Zhou Lan, he Anyi, Li Zhijun. Research on the governance effect of internal control defect disclosure of Listed Companies in China -- An Empirical Analysis Based on the leadership structure of the board of directors [J]. Journal of Yunnan University of Finance and economics, 2014,30 (03): 141-146
- [55] Guo Jun, Zhao Xi. Defects in board governance, executive power and internal control [J]. Soft science, 2015,29 (4): 43-47
- [56] Zhang Li, Li Wenchang. Impact of chairman characteristics on internal control defects [J]. Financial and accounting communication, 2018 (5): 37-42
- [57] Zahra, S, Pearce, J. Boards of Directors and corporate financial performance: A Review and Integrative Model [J]. Journal of Management.1989, (15):291-334.
- [58] Menon K, Williams J D. The use of audit committees for monitoring [J]. Journal of Accounting & Public Policy, 1994, 13(2):121-139.
- [59] Hoitash U, Hoitash R, Bedard J C. Corporate Governance and Internal Control over Financial Reporting: A Comparison of Regulatory Regimes [J]. Accounting Review, 2009, 84(3):839-867.
- [60] Wang Yuetang, Tu Jianming. An Empirical Study on the governance effectiveness of audit committees of Listed Companies -- Empirical Evidence from Shanghai and Shenzhen stock markets [J]. Management world, 2006 (11): 135-143
- [61] Xie Yongzhen. Empirical Study on governance efficiency of audit committees of Listed Companies in China [J]. Nankai management review, 2006,9 (1): 66-73
- [62] Dong Huina, Zhu Zhixiong. Impact of audit committee characteristics on internal control defects of Listed Companies [J]. Journal of Shanxi University of Finance and economics, 2012,34 (1): 114-124
- [63] Ding Peiwen. Research on the impact of board governance structure on enterprise internal control [J]. Financial economy, 2014 (11): 130-132
- [64] Liu Yan, Yao Haixin. Executive power, audit committee professionalism and internal control defects [J]. Nankai management review, 2014,17 (02): 4-12
- [65] Chen Hanwen, Wang Weicheng. Chairman characteristics, salary level and internal control [J]. Journal of Xiamen University (PHILOSOPHY AND SOCIAL SCIENCES EDITION), 2014 (2): 90-99
- [66] Bebchuk L A, Fried J M, Walker D I. Managerial Power and Rent Extraction in the Design of Executive Compensation [J]. University of Chicago Law Review, 2002, 69(3):751-846.
- [67] Cohen J R, Hoitash U, Krishnamoorthy G, et al. The effect of audit committee industry expertise on monitoring the financial reporting process [J]. Social Science Electronic Publishing, 2014, 89(1):243-273.
- [68] Wang Shouhai, Li Yun. Management intervention, independence of audit committee and earnings management [J]. Audit research, 2012 (04): 68-75
- [69] Badolato P G, Donelson D C, Ege M. Audit committee financial expertise and earnings management: The role of status[J]. Journal of Accounting & Economics, 2015, 58(2-3): 208-230.
- [70] Lisic L L, Neal T L, Zhang I X, et al. CEO Power, Internal Control Quality, and Audit Committee Effectiveness in Substance Versus in Form[J]. Contemporary Accounting Research, 2016, 33(3):1199-1237.
- [71] Hong Jianqiao, Fang Junxiong. Audit committee system and improvement of earnings quality [J]. Nankai management review, 2009,12 (4): 107-112
- [72] Li Yun, Wang Feifei, Yin Tianxiang. CEO power, audit committee professionalism and audit fees [J]. Audit research, 2017 (06): 91-98
- [73] Pan Jun, Yu Yumiao. The performance ability of the audit committee, the influence of the chairman and the quality of the company's financial report [J]. Nankai management review, 2017,20 (1): 108-118

- [74] Zhang Chuan, Huang Xiayan. Audit committee power erosion, management incentive and earnings quality [J]. Audit and economic research, 2018 (3)
- [75] Tian Gaoliang, Qi Baolei, Li liuchuang. Research on Influencing Factors of internal control defect Disclosure Based on financial reporting. Nankai management review, 2010,13 (4): 134-141
- [76] Zhu Caijie, Liu changcui. Research on the correlation between corporate governance and internal control defect repair -- empirical data from state-owned listed companies from 2010 to 2014[J]. Audit research, 2017 (4): 97-105