Does Shareholding Heterogeneity on First Major Shareholder Incentively Affect Audit Characteristics?-Evidence From Tobacco and Non-tobacco Enterprises

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Objectives: This study is to examine the effect of first major shareholders on audit characteristics, and emphasize their incentives towards corporate reform. In addition, we also emphasize on the tobacco industry that is totally state-owned by Chinese central government, as their internal audits are mainly conducted by the State Council. Methods: Taking A-share listed enterprises in Chinese Shanghai and Shenzhen Stock Exchange as samples, this paper analyzes the changes in corporate audit characteristics, which are caused by the holding heterogeneity on the first major shareholders. Then a series of endogenous and robustness tests are to confirm the baseline results. Based on the results of population, we specifically analyse and forecast the tobacco industries. Results: This positive relationship remains significant. Also, the channels for the first major shareholder to reduce non-standard audit opinions originate from their constraints and incentives, which reflect on enhanced supervision, sustainable business operation and market competition. These contribute to their revised managerial behavior. Finally, additional tests illustrate that the effect of strengthened equity is heterogeneous in terms of size, equity nature and growth stage of enterprises. Conclusion: The study domestrates the importance of equity structure and first major shareholders, which calls attention to managerial motives and behavior. The marginal effect is supposed to be shrunk in tobacco business as it is initially in absolute control by public authority. The already economic profits have made it reached favorable audit report. The enhanced shareholdings of first major shareholders could alleviate managerial myopia and moral hazard, and give the inspiration to enterprises in the reform of the ownership structure. Research limitations/implications– Effect of increasing first major shareholders' holdings on audits is required to be applied in certain situations. However, the unavailable data and minimal samples of listed tobacco enterprises make it hard to clearly estimate the shareholding effect in this certain industry. Therefore, we have to qualitatively analyse tobacco business based on average population. Originality/value– This paper enlarges the role of major shareholders in audit characteristics, and emphasizes their managerial behavior towards audit process. The study indicates that stronger first major shareholdings tend to obtain qualified and standard audit opinions, pay higher audit fees and select high-quality auditors. The results and anlyses could enlight the tobacco and non-tobacco industries.

Key words: audit characteristics; managerial myopia; first major shareholders; tobacco industry

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INTRODUCTION

Shareholders are the suppliers of enterprise' equity, and enterprise is an economic organization composed of multiple shareholders using capital as medium. In the past 40 years, enterprises that have undergone the Corporate System Reform naturally present the trends of multiple major shareholders. According to enterprise Law in China, shareholders who controlled for at least 10% shares in the

enterprise, are defined as the major shareholders. They are allowed to participate in business management and directly influence the governance strategies. First major shareholders are supposed to be the most powerful ones. In tobacco industrial enterprises, the largest shareholders would earn more power and receive less checks and balances.

The current enterprise Law stipulates that if the shareholding ratio is in the range of [10%, 33.34%), the shareholder has right to participate in daily operations and affect enterprise's financial decisions; if the major shareholders' ratio is in [33.34%, 50%), although the enterprise's affairs could not be completely determined by them, they have veto power for the major issues; if the ratio exceeds 50%, the major shareholder is in absolute control[1,2,] then for non-controlling and relative-controlling shareholders, their marginal effects of decision-making are limited from legal aspect. These rules and regulations give rationality for ownership concentration in China and other countries.

After Reform and Opening in the late 1970s, Chinese enterprises has seen significant changes in equity allocation. As the cornerstone of corporate governance, equity structure provides realistic allocations of corporate residual control rights and residual claim rights. The equity structure reflects the rights to speak and checks in corporate reform. Moreover, it is an important part of the "principle-agent" relationship. The typical cases of equity-structure adjustments in China, such as the "True Kungfu Equity Dispute" in 2007, the "Haidilao Equity Resettlement" in 2008, the "Gome Control Power Struggle" in 2010, and the "Vanke Equity Change" in 2015, all have aroused academic attention. By holding strengths, the major shareholders tend to control the general meeting of shareholders. They could also adjust the board of directors, replace the position of managers, and re-allocate the mutual funds. Even after the reform of non-tradable shares in 2005, the major shareholders are still common in listed enterprises. In our samples, merely 1.24% of the enterprises do not exist major shareholders. However, for those residuals (17,256 observations in total): 10,808 of them have one major shareholders, accounting for 62.63%, which is twice as much as those have two (5469). The median of the first major shareholders reaches 33.74%, and the maximum even reaches 75%. Therefore, the first major shareholders play key roles in corporate governance. Their incentive towards current positions may largely divert the business reporting, e.g., audit opinions and characteristics.

The effect of major shareholders' holding state, especially the largest ones, has attracted academic attention. Traditionally, literature emphasize more on its positive economic outcomes, like preventing stock price collapse[3], reducing earning manipulations[4], transforming R&D into product innovation[5], and increasing firm values[6]. Also, contrary to the past results[7], the equity concentration could loose the credit constraints[8-9]. From governance perspective, though encroachment may occur with increasing shareholdings[10-11], the free-rider phenomenons are largely reduced; others illustrated that the effective monitoring activities are caused by concentrated shareholdings[12]; while some studies confirmed the enhanced information disclosure from the major shareholders' interests[13]. These findings indicate its beneficial effects for governance and financial performance, while its effect on audit characteristics still lack deep concerns. The audit valuations (e.g., the annual audit expenses, audit opinion and invited audit experts), all reflect enterprises' value orientations and investors' attitudes. The audit reports, especially the non-standard audit opinions, are tightly related to sustainable development of an enterprise. Therefore, this paper aims at exploring the interactions between the first major shareholders' holdings and audit characteristics.

Shareholders are not only the supplier of financial assets, but also the resource of invisible social capitals[14]. The higher shareholding rate determines their essential role in the firm, which later changes the resource endowments. The increasing rates add more interests' synergy between major shareholders and firms[15]. In common, shareholders are incentived to bear diligence obligations, improve the overall business, and reduce the self-interest

behavior[16]. According to the results of sub-sample regressions, major shareholders would revise managerial behavior with high-level governance, fast growth and fierce competition. The negative relationships (between non-standard opinion and shareholding rate) are also seen in these mentioned sub-groups. In tobacco industry, the government is always the absolute shareholders, who shares the virtual monopoly in this area of trade. This tobacco business is of huge profits and serve the national interests, therefore, it is less likely to receive poor audit valuations. The mentioned negative relationship is supposed to be less significant.

These boost better audit valuations from positive push: the non-standard audit opinions would be shrunk by their effort; shareholders and managers are likely to select Big4 accounting firm and pay higher audit fees, as these could not only fit legal requirements but also raising external confidence. The earned reputation could attract more support from financing project. The disclosure activity may also alleviate information asymmetry[17]. In sum, the equity concentration of the first shareholders has significantly reduce the first-type agency costs. These findings are consistent with the past literature[18].

To enhance the confidence, we made a series of endogeneity and robustness tests. We first adopted Heckman two-stage estimates to alleviate self-selection concerns. The instrumental variable was the average share structure of other enterprises in the same industry-year. The coefficient was negative and significant at 1% level. Secondly, Propensity Score Matching was applied, and samples were divided into two groups based on median of the largest shareholders' holding rates. The method of nearest matching was adopted and matched in 1:1 ratio. After passing the balance test and controlling potential endogeneity concerns, the average treatment effects were all significant at 1% probability level. The explanatory variable was also replaced by the square of the original term, and the explained varibles were diverted to lntcost and Big4, the relative empirical results were both robust.

Referring to the past conclusion[14], additional tests were conducted based on different enterprises sizes, growth stages and equity natures. Compared to large enterprises, the marginal effect of holding rates was only significant in small-size group. Large-size samples are likely to have more strengths and better performance, while small-size samples exist more potential improvements. It was also noticeably appliable in fast-growth period, with negative net investment spendings and positive net financing flows. The enterprises in mature stage showed insignificant relationship as the ownership structure and business pattern have been stable. The increased holdings also showed limited effect on audit traits in state-owned enterprises, but were significant in private enterprises.

Last but not least, tobacco enterprises would be the core industrial part in the discussion. The following reasons are: (1) Tobacco enterprises are different with non-tobacco enterprises. In China, tobacco industry is not allowed to be listed. The main Chinese tobacco enterprise has no plans to go public. Tobacco enterprises rushing to go public may paralyze the entire industry, and tobacco enterprises themselves enjoy huge profits so that they lack the motivation to go public and raise funds. Based on these, we would find it hard to collect available data from this industry. Also, the quantity of the relative enterprises is minimal (within 20 observations annually), which resists the feasibility of empirical analysis. (2) Tobacco enterprises are state-owned enterprises and national government has absolute control over their business, whose degree is even higher than most of the non-tobacoo enterprises. The central authorities implement a unified leadership, vertical management, and monopoly management system. According to the law, the State Tobacco Monopoly Administration and the China National Tobacco Corporation carry out centralized and unified management of the "people, finances, materials, production, supply, marketing, domestic, foreign, and trade" of the national tobacco industry. Based on these, their audit characteristics are largely determined by national demand. (3) Tobacco enterprises have their political strengths over most listed enterprises. The political support helps resist

systematic risk in the market. The governance incentive of the ownership structure seems insufficient. Therefore, the employees lack work efficiency.

Based on the past literature, the contributions are mainly to: (1) we focus on the shareholders who have rights to participate in daily operations (holdings are more than 10%) 1 . Referring to current enterprise Law and equity structure (the figure for major shareholders is no more than 5, and the majority number is 1), we regarded them as the major shareholders and focused on the first shareholders, as they share the most votes to speak and their personal incentives could influence the corporate strategies. Enterprises excluding those without major shareholders are the research samples. (2) Secondly, we specify the role of the first major shareholders on audit opinions. By making several subsample tests, we concluded that the mechanisms are strengthened corporate governance, considerable sustainability of business and fierce market pressure. The relevant mechanisms are realistic in corporate reform and market allocations. Investors are incentived by the governance, financial performance and external pressures to avoid non-standard audit opinions. (3) The Principle-Agent Theory is applied into empirical practices, and further confirms the differences among audit and financial characteristics. We proved this theory is more applicable if an enterprise has more space to grow up. We have enriched research like the three literature8[8,19-20]. (4) In addition, we would qualitatively analyse tobacco enterprises. China is the world's largest tobacco producer and consumer, and consumption of tobacco products accounts for about one-third of the global total. Currently, there are more than 300 million smokers in China, the number one in the world. The huge scale and stable demand support the high prosperity of the domestic tobacco industry. Based on heterogeneity of ownership structure, political connections and national policies with non-tobacco enterprises, we would find some differences in the effect of major shareholders on audit opinions, and consider effective suggestions.

The research layout is as follows: Chapter 2 is literature review and hypotheses; Chapter 3 selects samples, variables and pretreatment of data to build empirical models; Chapter 4 tests the role of first major shareholders' holding states on non-standard audit opinions, and conducts two kinds of channel tests; Chapter 5 makes a series of heterogeneity and robustness checks, to alleviate concerns like self-selection, omitted variables and reverse causality; Chapter 6 provides additional tests; Chapter 7 summarizes the conclusions.

LITERATURE REVIEW AND HYPOTHESES

Literature review

The role of the first major shareholders and their shareholdings

Chinese enterprises have experienced the reform of corporate system and shareholding system in the mid-1980s, and have been in the market economy system since 1992. There have been a large number of shareholding structure reform cases[21]. The static equilibrium reached by the game of control rights forms the ownership structure. At present, major shareholders are common in developed and developing countries[22]. Meanwhile, the first major shareholders often act as controlling shareholders with numerous major shareholders.

From the micro level, the ownership structure is the premise of the stable development of the enterprise. The shareholding degree of the first major shareholder is also the core of the equity reform[23]. Under the principle of "one share, one vote", the proportion of shares is the basis to judge whether shareholders have active control or not[24]. The differences in shareholding ratio make shareholders' exercise of rights greatly diverse, and then influence the formation, operation and financial performance of the corporate governance pattern[18,23].

From macro perspective, China has become the

[1] According to the current enterprise Law, this paper defines shareholders holding more than 10% after the merger of concerted actions as major shareholders

second largest economy in the world since 2010. Facing the competitions from world-class multinational enterprises, Chinese enterprises not only have to enhance their innovation ability, but also reasonably allocate major shareholders' rights. In the deep water area of Chineses industrial restruction, A-share listed enterprises will play more significant roles as they are benchmarks for domestic corporate governance and industrial strategy adjustments[25].

The literature on audit characteristics

Based on past findings[23], auditor is the external overseer of the business, who provides independent third-party verification opinions on financial reports. Audit processes are legally compulsory, and audit opinions would be issued after authentication. Improving the quality of corporate auditing is necessary to enhance the transparency of daily activities, improve operating conditions and corporate value. Audit feedback is commonly used to improve profession and enhance multifaceted quality[26]. The audit traits could be measured by non-standard opinions, total audit fees and invited accounting firms[27].

Several factors have impacted the audit characteristics. It is found that the less audit committee independence is, the higher the abnormal accruals are[28]. Namely, decline in audit committee independence would lead to increases in abnormal accruals. Specifically, when affiliated directors have power over the audit committee, they tend to force auditor to issue false financial reports; once the auditors refuse, the manager has the power to dismiss them[29]. Moreover, they revealed that audit fees are positively related to the board independence, diligence and expertise[30]. In 2003, Jamtvedt, et al. analysed 140 studies, and concluded that audit would exercise better where there is lower baseline performance, higher frequency of feedback-providing in both verbal and written format2[31]. Besides, in 2010 Barua, et al. illustrated that investments in internal auditing budget is negative with the presence of auditing experts on the committee, and the average tenure of audit committee members, while positively related to the number of audit committee meetings[32]. Al-Rassas et al. in 2015 found the positive relationship between the investments in external audit function and earnings quality from samples of 100 firms[33]. In 2020, Li et al. supplemented the regulatory role of internal control[34]. Based on these, the audit outcome is correlated with internal governance and external monitorings. The characteristics of audit processes (e.g., audit budgets and presence of experts) also depended on the organizational structure. However, apart from results from Jamtvedt et al.[31], scholars connected audit traits less with enterprises' sustainability.

To enhance positive audit valuations, literatures mainly focus on internal control. Due to negligence of external audit[20], the function of internal audit has been transformed from a simple post-event review to oversee the entire business process. These kind of auditors tend to conceal the negative impacts if the risk events are related to their own interests[17]. Their department could not independently evaluate the enterprise's financial situation, which contributes to the establishment and implementation of corporate internal control[4]. While after the financial crisis and the continuous exposure of financial fraud incidents, audit quality has faced resistance force. Overall, past literatures ignore the effect of equity adjustments, especially those of first major shareholders'.

The interaction between the first shareholders' holdings and audit characteristics

Some studies have debated the correlations between shareholding ratio and audit conditions. They illustrated that audit-voluntariness is likely to increase when enterprises' size and gearing ratio grow; and it tend to decrease as managerial share ownership increase[35]. Negative relationship is also found between audit fees and the proportion of equity owned by executive directors, while there is no obvious connection between ownership by large blockholders (institutional or otherwise) and audit fees[36]. However, others revealed a situation that the enterprises with larger controlling shareholders are predicted to hire a non-TOP10 (not high quality)

[2] The format includes explicit targets and an action plan.

auditor which aim to sustain their opaqueness gains[16]. Although these studies have considered the large shareholders, they lack sufficient discussions on first major shareholders and their incentives. This article will focus on this aspect.

Competing hypotheses

The first major shareholders may directly or indirectly impact audit characteristics. According to enterprise Law and current capital market, first major shareholders have control strengths over business issues. Their average holdings at least endow one-vote veto to them[37]. The higher the holding rates, the increasing absolute control they could approach. The outcomes of their equity concentration may be diverse, as these are tightly correalated with individual manners. In reality, the imperfection and inefficiency of the capital market and the diversified types of shareholders in enterprises have caused shareholders to assume different risk roles in the creation of corporate value[38]. Therefore, they are not homogeneous individuals.

On the one hand, literatures elaborate the positive consequences. The rising holdings of first major shareholders increase the awareness of ownership[39]. They are supposed to bear more diligence obligations. The interests of enterprises would largely alter these shareholders' benefits, such as dividends and price differences[40]. To obtain continuous financing support and competence, they could be sensitive to audit reports. Since an non-standard opinion could reduce external confidence on investment, major shareholders would make more effort to improve audit conditions, like reducing earning manipulations[41]and enhancing effective monitoring[42]. The strengthened equity gives more power to alleviate inefficiency and agency costs, which increase market value of enterprises. Therefore, we propose hypothesis 1.

Hypothesis 1: If other conditions unchanged, the concentrated shareholdings for first major shareholders could significantly reduce non-standard audit opinions.

On the other hand, equity concentration of first major shareholders exists adverse impacts. The enhanced trend adds more incentives to encroachment, like eroding legal rights of small shareholders[43-44]. These self-interests may deteriorate sustainable business. Without sufficient equity balance, their over-control also leads to more riks like wrong decisions[22]. Professional decisions are limited by this concentration. Lastly, the internal capital operation of the enterprise lacks a complete internal control system, which breeds managerial corruption. Based on these, we propose competiting hypothesis 2.

Hypothesis 2: If other conditions unchanged, the concentrated shareholdings for first major shareholders are likely to obtain non-standard audit opinions.

In addition, equity concentration of the first major shareholders may have less marginal effect on audit performance of tobacco business. This kind of enterprises are solely and fully governed by central government. Due to tobacco's identity, the equity structure is unlikely to be diverse. China is a centralized country, and tobacco industry ought to serve the national will. Its resource allocation is controlled by upper national authority, and lacks discretion of huge profits. Based on these analyses, tobacco enterprises present less incentive in market competition. Meanwhile, they are already in high ownership concentration and favorable audit quality. So we propose hypothesis 3.

Hypothesis 3: If other conditions unchanged, in the tobacco enterprises, the effect of concentrated shareholdings for first major shareholders on non-standard audit opinions is minimal.

SAMPLE AND DESIGN

Sample selection and pretreatment

This paper selected data from these authoritative sources: the annual financial data of listed enterprises were selected from WIND and Oriental Wealth Choice database; data of audit characteristics originated from CSMAR. Some data were sorted out manually.

Statistics summary and regression analysis were performed using Stata16 software. In addition, to eliminate the influence of extreme values, all

continuous variables were smoothed with 1% winsorize method.

With all A-share listed enterprises in Shanghai and Shenzhen Stock Exchange as the research samples, the period was set from 2010 to 2016. In the process of sample selection, the principles were followed:(1) enterprises of financial category and insurance category were excluded; (2) enterprises presenting the data with serious deficiency were excluded; (3) enterprises with indicator outliers were excluded, such as asset-liability ratio was greater than 1; (4) enterprises that were ST and PT during this period were excluded; (5) enterprises that do not have the defined major shareholders were eliminated. After these implementations, we obtained 3,022 firms and 17,256 firm-year observations.

Specifically, tobacco industry should be noted. The national government entrusts the monopoly management rights of tobacco to the China National Tobacco Corporation for unified management. The nature of the enterprise is a completely state-owned enterprise, and the capital structure is wholly state-owned. Therefore, from the perspective of business model, the state-owned monopoly with the integration of government and enterprise is an obvious characteristic of the tobacco industry with Chinese characteristics. This kind of enterprises is very rare in China, and they are not allowed to go public. In China, the figure for tobacco's concept stocks is merely 5 in 2019 (Among them, 3 listed enterprises are traded on the Shanghai Stock Exchange, and the other 2 tobacco listed enterprises are traded on the Shenzhen Stock Exchange), which resists the empirical tests.

Variable settings and odel construction

Variable settings

Explained variable

According to the past literature[45], audit characteristics could be observed through audit process. The explained variable is Nopinion, which is the valuations of enterprise audit. This variable is a discrete variable, which is based on the unqualified opinion of the accounting firm selected by in the relative firm-year. This value is 0 if the enterprise's financial report is issued with standard unqualified opinion by the auditor. This value is 1 if the enterprise's current financial report is issued with non-standard unqualified opinion by the auditors.

lntcost and Big4 are used for robustness checks. The former is a continuous variable: based on the total amount of audit fees paid to the accounting firm in the current year, it is logarithmically processed; the latter is a discrete variable: if the selected accounting firm in the relative year belongs to Big 4 accounting firms, then the value is 1; otherwise, it is 0. Combined with Nopinion, these three proxies measure the main audit characteristics of an enterprise. The audit valuation and choice, to large extent, reflect enterprises' sustainability.

Explanatory variable

The selected variable is FLS, which is the shareholding rate of the first shareholders. As the top major shareholders, they have the most votes to speak[46]. Their managerial manners and incentives do affect the enterprises' performance, and then change the audit characteristics. The more equity they hold, the more profound the effect on audit opinions would be. Also, the FLS_Sq is used for robustness tests. This square term of FLS belongs to the Herfindal Index, which measures the first major shareholders' equity concentration. It also expands the effect of FLS.

Control variables

Considering enterprises' characteristic through the effect of FLS on audit opinion, we selected ten proxies to control ommitted variables: (1) ROA (return of total assets, the net profits divided by assets); (2) Lev (asset-liability ratio, the liability divided by assets); (3) FA (capital density, the rate of fixed assests in total assets); (4) CFO (operation ability, Net cash flow from operations divided by total assets); (5) Tobin Q (firm value, the market value to asset ratio); (6) Board (the number of board of directors); (7) Ind (the rate of independent directors in the board size); (8) EB (degree of equity balance, the accumulated rates of top 10 shareholders to that of the first shareholders, and then minus 1); (9) INST (the ratio of institutional ownership in all investors); (10) Age (logarithm of firm age). The control variable group is consistent

with former literature[22,47].

Meanwhile, we control for year-fixed effect and industry-fixed effect to mitigate time-variant and time-invariant unobservable characteristics.

Model Constructions

Model (1) is established to test hypotheses. The control variables use the value of the lagged phase to mitigate endogenous interference. Below is Model (1):

$$Opinion_{i,t} = \beta_0 + \beta_1 * FLS_{i,t} + \beta_2 * Controls_{i,t} + Year\ Fixed\ Effect + Industry\ Fixed\ Effect + \varepsilon_{i,t}$$

EMPIRICAL RESULTS OF THE REAL ESTATE INDUSTRY

Descriptive statistics

In our samples (seen from Figure1), 10,307 of the 17,256 enterprises do not exist multiple shareholders. The single major shareholder, which is also the largest one, are qualified to directly alter the decisions. In Figure 2, 62.63% have only one major shareholders, while 31.69% have two major shareholders. No more than 5.5% are those reach at least three. Combined with the equity balance cindition in the latter part (*EB* (-1 plus the ratio of the accumulated rates of top 10 shareholders to that of the first shareholders), whose average and maximum are both significantly lower than 0.1, indicates the weak equity balance.), the equity pattern is focused on single major shareholder. Therefore, the equity power in corporate reform is largely determined by the first major shareholders.

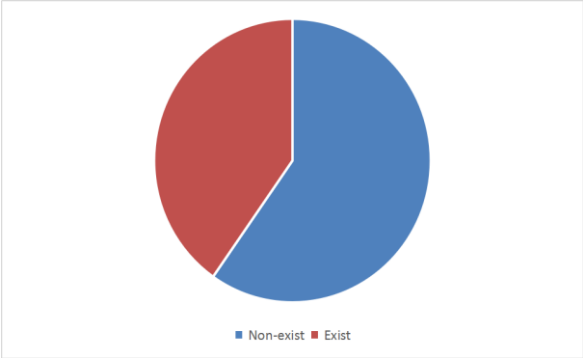

Figure1 the existence of major shareholders in enterprises[3]

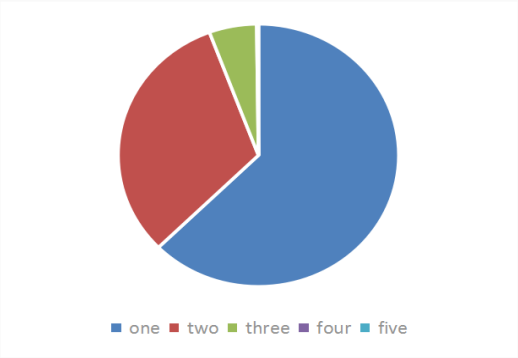

Figure 2 the figure for major shareholders in enterprises

Table 1 presents the summary statistics of the whole samples. The average levels of lntcost, Nopinion and Big4 is 13.642, 0.032 and 0.062, respectively. Their ranges of value show small standard deviations. However, the median of lntcost is 0.11417 lower than its average, indicating some enterprises could cover higher audit costs. More than half obtain standard audit opinion, and also introduce non-Big4 accounting firms.

Table 1
Descriptive statistics of the whole sample

Variable	Obs	Mean	Std.Dev.	Min	P50	Max
lntcost	16648	13.642	.733	12.101	13.52783	16.349
Nopinion	17256	.032	.175	0	0	1
Big4	17256	.062	.241	0	0	1
FLS	17256	.358	.149	.1	0.3374545	.75
FLS_Sq	17256	.15	.121	.01	0.1138755	.564
ROA	17256	.039	.054	-.315	0.036608	.197
Lev	17256	.435	.224	.05	0.42592	.999
FA	17256	.218	.169	.001	0.1823675	.751
CFO	17256	.038	.076	-.217	0.0390912	.267

[3] The data information of Figure 1 and Figure 2 are collected from WIND, CSMAR and Oriental Wealth Choice database.

TobinQ	16664	2.396	2.186	.192	1.740243	11.557
Board	17219	8.802	1.86	0	9	20
Ind	17218	.372	.053	.125	0.3333333	.556
EB	17256	.008	.007	0	0.0064586	.035
INST	17256	.06	.088	0	.0332375	.583
Age	17256	2.696	.43	0	2.772589	7.609

The mean and median of FLS is 0.358 and 0.3374545, respectively. The results are comparable with the 2015 report of Chinese enterprise Law. Overall, the first major shareholders remain in relative control state. At least, they could vote for major issues in the enterprises and participate in daily business. Meanwhile, there exists potential rooms for them to increase equity, based on inadequate major shareholders.

In terms of control variables, though the leverage rates are normal, mean of ROA is merely 0.039. Together with relatively low cash-flow (0.038 in average), expanded board size (9 in median) and minimal equity balance (maximum is 0.035), the samples require improvements in governance and operation abilities.

Based on median value of FLS, the populations are divided into two groups. Table 2 compares the summary differences between these two groups. In high concentration groups, the first major shareholders share more rights in audit and business issues. Then the mean FLS is 0.481, approaching absolute control.

While tobacco enterprise may be different from these listed enterprises. As tobacco field is wholly state-owned in China, and there is only one major shareholders without any equity checks and balances. These enterprises do not have to serve other shareholders' interest. There is also no mandatory information disclosure obligation for them. Thus, tobacco enterprises have less incentive to their audit expenses.

Table 2
Descriptive statistics of the high & low concentration groups

Variable	G1(0)	Mean1	G2(1)	Mean2	MeanDiff
lntcost	8330	13.556	8318	13.727	-0.171***
Nopinion	8628	0.046	8628	0.018	0.028***
Big4	8628	0.043	8628	0.082	-0.039***
FLS	8628	0.235	8628	0.481	-0.245***
FLS_Sq	8628	0.059	8628	0.242	-0.183***
ROA	8628	0.035	8628	0.044	-0.009***
Lev	8628	0.426	8628	0.444	-0.018***
FA	8628	0.205	8628	0.231	-0.026***
CFO	8628	0.033	8628	0.043	-0.011***
TobinQ	8253	2.592	8411	2.203	0.390***
Board	8609	8.808	8610	8.795	0.013
Ind	8609	0.370	8609	0.374	-0.004***
EB	8628	0.013	8628	0.004	0.008***
INST	8628	0.060	8628	0.060	0.000
Age	8628	2.746	8628	2.645	0.101***

Compared with low concentration group, it is seen that the mean lntcost increases to 13.727, and the MeanDiff is -0.171 (statistically significant at 1%). The non-standard opinions also significantly decrease to 0.018, along with Big4, which

experiences significant increases (from 0.043 to 0.082). The three audit characteristics indicates the improved audit process and valuation in high concentration status. Apart from increased Leverage risks, the probability and resource allocation both recover. These could be reflected in ROA, FA and CFO. Also, MeanDiff of independent-director rate is 0.004, which is significantly higher than low concentration group. However, in tobacco enterprises, the profitable indexes such as ROA is much more higher than average listed enterprises. The equity concentration leads to insignificant changes in auditing, as the equity structure is approaching or equal to 100%.

Although there exists systematical differences between the two groups, they may also caused by other unobservable changes. In latter part, the Prospensity Score Matching will be conducted to mitigate concerns of ommited variables.

Correlation analysis

Table 3 is the pairwise correlations matrix. Nopinion is significantly and negatively related to FLS and FLS_Sq, whose correlation indexes are -0.085 and -0.074, respectively. The alternative measures, lntcost and Big4, both show significant correlations with FLS and FLS_Sq at 5% probability level, which are both consistent with the positive feedbacks of Nopinion. For control variable group, six of total are significantly correlated with Nopinion, illustrating the effectiveness of variable selection.

Table 3
Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1)lntcost	1.000														
(2)Nopinion	-0.031*	1.000													
(3)Big4	0.516*	-0.027*	1.000												
(4)FLS	0.155*	-0.085*	0.124*	1.000											
(5)FLS_Sq	0.169*	-0.074*	0.131*	0.978*	1.000										
(6)ROA	-0.062*	-0.208*	0.008	0.096*	0.090*	1.000									
(7)Lev	0.392*	0.114*	0.174*	0.052*	0.058*	-0.382*	1.000								
(8)FA	0.015	0.002	0.009	0.073*	0.069*	-0.155*	0.091*	1.000							
(9)CFO	0.054*	-0.079*	0.067*	0.081*	0.081*	0.326*	-0.143*	0.251*	1.000						
(10)Tobin Q	-0.314*	0.097*	-0.154*	-0.108*	-0.109*	0.240*	-0.454*	-0.156*	0.100*	1.000					
(11)Board	0.275*	-0.010	0.203*	0.013	0.023*	-0.024*	0.223*	0.104*	0.030*	-0.226*	1.000				
(12)Ind	0.026*	0.001	0.024*	0.048*	0.052*	-0.018*	-0.022*	-0.050*	-0.017*	0.073*	-0.424*	1.000			
(13)EB	-0.04	0.008	-0.00	-0.66	-0.60	0.065*	-0.16	-0.11	-0.03	0.152*	0.039*	-0.03	1.000		

	2*		8	9*	2*		6*	4*	1*			4*			
(14)INST	0.126*	-0.044*	0.175*	0.002	0.002	0.067*	0.079*	-0.022*	0.032*	-0.044*	0.113*	-0.042*	0.057*	1.000	
(15)Age	0.151*	0.068*	0.028*	-0.123*	-0.114*	-0.117*	0.262*	0.045*	0.025*	-0.061*	0.073*	-0.045*	-0.091*	0.063*	1.000

Multiple regression results

Baseline regression results

In Table 4, the multiple regressions are shown to examine Model (1). In column (1), the coefficient on FLS is -0.0568, significant at 1% probability level. The equity concentration on first major shareholder could significantly reduce non-standard audit opinions. The increased concentration would better align the interests between shareholders and enterprises, which raise shareholders' awareness of responsibility and positivity. The tobacco enterprises are governed by central state, so their audit quality is unlikely to be weak. The huge profits and mature infrastructure provide material basis for audit project expenditure. The originally high equity concentration and favorable audit performance provide fewer room for equity reform.

Table 4
Baseline regression results

	(1)	(2)	(3)
VARIABLES	*Nopinion*	*Nopinion*	*Nopinion*
FLS	-0.0568***	-0.0968**	-0.0451**
	(0.0188)	(0.0393)	(0.0217)
ROA	-0.653***	-0.668***	-0.641***
	(0.0677)	(0.112)	(0.0839)
Lev	0.114***	0.0953***	0.125***
	(0.0177)	(0.0213)	(0.0241)
FA	-0.0398***	-0.0416*	-0.0434**
	(0.0151)	(0.0226)	(0.0201)
CFO	0.0136	0.0532	-0.0125
	(0.0268)	(0.0454)	(0.0352)
TobinQ	0.0176***	0.0161***	0.0188***
	(0.00219)	(0.00288)	(0.00288)
Board	0.00139	-0.000704	0.00295
	(0.00140)	(0.00185)	(0.00195)
Ind	-0.00779	-0.0100	-0.00863
	(0.0342)	(0.0516)	(0.0444)
EB	-0.410	-1.198*	-0.0718
	(0.386)	(0.622)	(0.629)
INST	-0.0591***	-0.00819	-0.0881***
	(0.0169)	(0.0377)	(0.0179)
Age	0.0106***	0.00999**	0.0115**
	(0.00365)	(0.00479)	(0.00546)
Constant	-0.0400	0.0126	-0.0669*
	(0.0248)	(0.0340)	(0.0366)
Year fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Observations	16,629	6,695	9,934
R-squared	0.092	0.090	0.101

In listed enterprises, the existence of multiple major shareholders could form regulatory effect and check

the managerial behavior. First major shareholders' incentive and personal influence on enterprises could be counterbalanced. This is common worldwide, whether in developed or developing countries[48]. Therefore, in column (2)-(3), the samples are divided based on the existence of multiple major shareholders. If there are at least two major shareholders, the coefficient on FLS is -0.0968, which is significant at 5% level; without any other major shareholders, the relative coefficient is -0.0451, which is also significant at 5% level. Therefore, the multiple major shareholders do not affect the negative relationship between FLS and Aopionion.

However, the coefficient on FLS in column (2) presents higher absolute values. After controlling the same variable groups, the difference on Beta coefficients is significant at 1% level. The existence of multiple major shareholders could, to some degree, enhance the positve effect of FLS on audit valuation. Self-interests behavior like encroaching would thus be weakened.

Mechanisms of FLS on audit opinions

In this part, we present the results of the mechanism.

Table 5 and Table 6 illustrate the mechanisms of FLS on non-standard opinions. The former focuses on governance perspective, while the latter emphasizes on shareholders' incentives. The explained variable is Nopinion.

In Table 5, governance level largely determines the the effect of FLS on standard audit valuations. Based on the past results[5,48], we select five proxies to measure the governance intensity: (1) Ind, the independent-director rate; (2) Board, the board size of directors; (3) EB, equity balance on the first major shareholders; (4) Supervisors, the size of Supervisors in the enterprises; (5) Seperation, degree of separation between cash flow rights and control rights. The subsamples are divided based on proxies' medians.

It is clear that the effect of FLS on audit opinions is significant in high levels of independent-director rate, equity balance, internal supervisors and separation; it is also significant in relatively small board size, with reduced free-ride effect. These are comparable to the past literature[49].

Following the equity concentration trend, the increased governance level could effectively inhibit first major shareholders' and managers' self-interests. They would be more consistent with rules and regulations. Their increased vote and speaking rights would not give priority to selfish motives, but to overall interests of enterprises. The strengthened shareholders could bear more responsibility to avoid business risk. Therefore, the likelihood of non-standard audit opinions are significantly reduced.

In Table 6, the effect of FLS is explored from incentive mechanisms. The shareholders' attitude, which is depend on business environment, could potentially impact thier managerial intention and social behavior. In better business operations, the public hold optimistic view towards its investment value. External investors would like to be in shares, while internal shareholders tend to concentrate their equities to obtain more surplus.

Based on former analysis[50], four proxies are selected to measure the business conditions: (1) Multiple of enterprise value, assessing the value of the enterprise from potential acquirers' perspective; (2) Tobin Q, the market value of enterprises; (3) Growth rate of operating profits, reflecting the turnover capacity of main business; (4) HHI-Sales, the Herfindal Hirschmann Index based on annual sales. According to the medians, these grouping variables will also divided the observations in two groups.

Subsample tests are listed in Table 6. Enhanced major shareholders would align more interests with the enterprises, and make efforts to boost better productivity. In column (1)-(3), enterprises of better sustainability are more attractive in public. Then equity concentration could raise more dividends for major shareholders. Also, major shareholders become affordable to invite high-quality audits, such as higher audit expenses and audit teams. In column (4), the coefficient on FLS is significant in low HHI-Sales markets (-0.0635, at 5% level), where the competition is more intense. However, the p-value of relative coefficient in low-intensity competition is 0.099, insignificant at 5%

level. Market competition promotes pressure for survival and reputation, which urges shareholders to maintain normal audit reports. Otherwise, non-standard audit opinions may deteriorate corporate strengths in markets.

Table 5
Governance mechanisms of FLS on audit opinions

VARIABLES	(1) Ind		(2) Board		(3) EB		(4) Supervisors		(5) Seperation	
STATUS	*LOW*	*HIGH*	*LOW*	*HIGH*	*LOW*	*HIGH*	*LOW*	*HIGH*	*LOW*	*HIGH*
FLS	0.0604	-0.0577***	-0.0804**	-0.0179	-0.0332	-0.127***	-0.0473	-0.0564**	-0.0402	-0.0568***
	(0.124)	(0.0189)	(0.0321)	(0.0450)	(0.0230)	(0.0408)	(0.184)	(0.0264)	(0.0250)	(0.0188)
ROA	-0.515	-0.657***	-0.526***	-0.814***	-0.621***	-0.680***	-1.742***	-0.600***	-0.763***	-0.653***
	(0.470)	(0.0684)	(0.0874)	(0.179)	(0.0850)	(0.105)	(0.537)	(0.110)	(0.106)	(0.0677)
Lev	0.333**	0.112***	0.137***	0.0638	0.0998***	0.137***	0.164*	0.148***	0.103***	0.114***
	(0.141)	(0.0177)	(0.0281)	(0.0421)	(0.0239)	(0.0257)	(0.0971)	(0.0353)	(0.0265)	(0.0177)
FA	-0.0526	-0.0405***	0.00559	-0.0476	-0.00947	-0.0779***	-0.256**	-0.00657	-0.0503**	-0.0398***
	(0.111)	(0.0152)	(0.0255)	(0.0316)	(0.0162)	(0.0246)	(0.127)	(0.0230)	(0.0201)	(0.0151)
CFO	0.0637	0.0142	-0.0400	0.0264	-0.0155	0.0414	0.523**	-0.0794*	0.0357	0.0136
	(0.281)	(0.0269)	(0.0419)	(0.0772)	(0.0373)	(0.0375)	(0.236)	(0.0476)	(0.0410)	(0.0268)
TobinQ	0.0349*	0.0176***	0.0178***	0.0164***	0.0172***	0.0181***	0.0268***	0.0242***	0.0182***	0.0176***
	(0.0209)	(0.00220)	(0.00305)	(0.00454)	(0.00329)	(0.00267)	(0.00847)	(0.00542)	(0.00303)	(0.00219)
Board	-0.0123	0.00172	0.00363	0.000720	0.00228	0.000231	0.000693	0.000651	0.00341	0.00139
	(0.0105)	(0.00142)	(0.00356)	(0.00362)	(0.00170)	(0.00185)	(0.00977)	(0.00144)	(0.00227)	(0.00140)
Ind	0.281	0.00673	-0.0197	-0.104	0.0231	-0.0455	-0.0857	-0.0186	0.00808	-0.00779
	(0.621)	(0.0344)	(0.0650)	(0.103)	(0.0434)	(0.0504)	(0.217)	(0.0559)	(0.0468)	(0.0342)
EB	4.827	-0.418	-0.375	-0.0175	0.837	-1.104**	-0.520	-0.625	-0.519	-0.410
	(4.115)	(0.385)	(0.690)	(0.836)	(1.735)	(0.544)	(3.460)	(0.571)	(0.457)	(0.386)
INST	-0.157	-0.0572***	-0.0684**	-0.0745***	-0.0609***	-0.0644*	-0.149	-0.0538***	-0.109***	-0.0591***
	(0.0948)	(0.0169)	(0.0314)	(0.0259)	(0.0140)	(0.0382)	(0.145)	(0.0165)	(0.0267)	(0.0169)
Age	0.0251	0.0109***	0.00751	0.00989	0.00522	0.0159***	-0.0132	0.000284	0.00842*	0.0106***
	(0.0229)	(0.00366)	(0.00653)	(0.0101)	(0.00501)	(0.00511)	(0.0241)	(0.00531)	(0.00456)	(0.00365)
Constant	-0.232	-0.0476*	-0.0549	0.0250	-0.0577*	-0.00446	0.0894	-0.0373	-0.0499	-0.0400
	(0.220)	(0.0252)	(0.0493)	(0.0675)	(0.0340)	(0.0349)	(0.168)	(0.0366)	(0.0352)	(0.0248)
Year/ Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	156	16,471	5,449	2,894	8,369	8,259	133	5,016	7,169	16,629
R-squared	0.317	0.093	0.097	0.108	0.086	0.108	0.397	0.120	0.102	0.092

The two mechanisms are not well applied in tobacco

industries. First of all, as tobacco business is already profitable, they have been taken care of by the central government policy. The sufficient funds alleviate their financial constraints. The task assigned by the state to the National Tobacco Corporation is also to contribute taxes and profits to the central government. Based on these, the tobacco company is not a pure company, but a mixed company and administrative company. They have less incentive to compete with non-tobacco fields. Secondly, tobacco enterprises is highly controlled by the central agency. Their financial states are monitored by State Council and bear more serious potential economic liability. The governance channels' marginal effect is thus limited.

Table 6
Incentive mechanisms of FLS on audit opinions

GROUPING VARIABLES	(1) Multiple of enterprise value		(2) Tobin Q		(3) Growth rate of operating profits		(4) HHI-Sales	
GROUPING STATUS	*LOW*	*HIGH*	*LOW*	*HIGH*	*LOW*	*HIGH*	*LOW*	*HIGH*
FLS	-0.0247	-0.0920***	-0.0116	-0.0914***	-0.0320	-0.0832***	-0.0635**	-0.0461*
	(0.0202)	(0.0259)	(0.0196)	(0.0283)	(0.0242)	(0.0206)	(0.0247)	(0.0279)
ROA	-0.657***	-0.413***	-0.730***	-0.606***	-0.732***	-0.512***	-0.635***	-0.659***
	(0.0833)	(0.0904)	(0.120)	(0.0809)	(0.0902)	(0.0920)	(0.0957)	(0.0932)
Lev	0.106***	0.138***	0.0678***	0.186***	0.135***	0.0959***	0.155***	0.0625***
	(0.0232)	(0.0225)	(0.0242)	(0.0267)	(0.0243)	(0.0188)	(0.0240)	(0.0232)
FA	-0.0436**	-0.0300	-0.0285*	-0.0656**	-0.0724***	-0.0101	-0.0419*	-0.0507***
	(0.0173)	(0.0256)	(0.0162)	(0.0266)	(0.0202)	(0.0164)	(0.0241)	(0.0176)
CFO	0.000892	-0.0130	0.0203	0.0101	0.0158	-0.00484	0.00984	0.0220
	(0.0409)	(0.0358)	(0.0297)	(0.0421)	(0.0438)	(0.0304)	(0.0493)	(0.0288)
TobinQ	0.0318***	0.0141***	0.0270***	0.0169***	0.0181***	0.0167***	0.0174***	0.0179***
	(0.00453)	(0.00234)	(0.00747)	(0.00236)	(0.00309)	(0.00232)	(0.00267)	(0.00337)
Board	0.00213	0.000609	0.00113	0.00329	0.00155	0.00117	-0.00102	0.00337
	(0.00143)	(0.00216)	(0.00129)	(0.00304)	(0.00163)	(0.00163)	(0.00168)	(0.00214)
Ind	-0.00696	0.00564	0.0592	-0.0378	-0.0121	-0.00228	-0.0569	0.0360
	(0.0438)	(0.0485)	(0.0429)	(0.0589)	(0.0461)	(0.0410)	(0.0475)	(0.0495)
EB	0.0906	-0.832*	0.421	-1.047*	0.182	-0.981**	-0.376	-0.256
	(0.503)	(0.444)	(0.449)	(0.535)	(0.501)	(0.410)	(0.516)	(0.561)
INST	-0.0677***	-0.0639**	-0.0538***	-0.0875**	-0.0656***	-0.0538***	-0.0882***	-0.0361
	(0.0170)	(0.0289)	(0.0161)	(0.0354)	(0.0218)	(0.0181)	(0.0217)	(0.0262)
Age	0.00488	0.0136***	0.00924*	0.0115**	0.00625	0.0138***	0.0103**	0.00867
	(0.00488)	(0.00422)	(0.00502)	(0.00474)	(0.00606)	(0.00339)	(0.00486)	(0.00532)
Constant	-0.0507	-0.0462	-0.0672*	-0.0439	-0.0425	-0.0371	-0.00957	-0.0526
	(0.0331)	(0.0350)	(0.0345)	(0.0437)	(0.0345)	(0.0280)	(0.0347)	(0.0350)
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,255	8,373	8,317	8,312	7,788	8,841	9,059	7,570
R-squared	0.143	0.066	0.057	0.138	0.108	0.074	0.106	0.083

Mediating effect test

In Table 7, the tests illustrate the roles of governance and incentives on first major shareholders. In essence, the ultimate effect reducing two types of agency costs. Both costs are shrunk by increased governance and earning incentives. External pressure also leads to target

synergy of shareholders.

Controlling the same variable group and fixed effects, mediating effect test is conducted. In column (1), the coefficient on FLS is -0.211, which is significant at 1% level.

The increase of FLS leads to the reduction on agency costs. In column (2), by adding Agency Costs into specification, the coefficient on Agency Costs is 0.0101, which is significant at 1% level.

The coefficient on FLS is -0.0543 and also significant at 1% level. This is shown in column (2).

Based on these, we could confirm the existence of mediating effect. Without controlling Agency Costs in column (3), the coefficent on FLS is -0.0568 and significant at 1% level. Therefore, this role of Agency Costs belongs to partial mediating effect.

In terms of tobacco enterprises, first major shareholders reflect the will of the government. The government serve for national economy and public rights in China. Naturally, the agency costs do not exist potential encroachment. The sole-shareholder structure also exhibits the second type of agency costs: the conflicts among different sahreholders.

Table 7
Mediating effect of Agency Costs

	(1)	(2)	(3)
VARIABLES	*Agency Costs*	*Nopinion*	*Nopinion*
Agency Costs		0.0101***	
		(0.00334)	
FLS	-0.211***	-0.0543***	-0.0568***
	(0.0506)	(0.0188)	(0.0188)
ROA	-0.853	-0.642***	-0.653***
	(0.736)	(0.0685)	(0.0677)
Lev	0.169	0.113***	0.114***
	(0.164)	(0.0176)	(0.0177)
FA	-0.0969***	-0.0394***	-0.0398***
	(0.0372)	(0.0151)	(0.0151)
CFO	-0.149	0.0221	0.0136
	(0.130)	(0.0279)	(0.0268)
TobinQ	0.0535**	0.0168***	0.0176***
	(0.0236)	(0.00214)	(0.00219)
Board	-0.0129	0.00174	0.00139
	(0.0104)	(0.00144)	(0.00140)
Ind	-0.123	-0.00510	-0.00779
	(0.260)	(0.0344)	(0.0342)
EB	-4.080*	-0.354	-0.410
	(2.128)	(0.385)	(0.386)
INST	-0.00848	-0.0606***	-0.0591***
	(0.178)	(0.0172)	(0.0169)
Age	0.0267**	0.00994***	0.0106***
	(0.0120)	(0.00365)	(0.00365)
Constant	0.186	-0.0428*	-0.0400
	(0.256)	(0.0250)	(0.0248)
Year fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Observations	16,508	16,508	16,629
R-squared	0.017	0.095	0.092

HETEROGENEITY AND ROBUSTNESS TEST

Robustness check

To enhance the credibility, the following tests were conducted in Table 8.

Table 8
Robustness checks

	(1)	(2)	(3)	(4)	(5)
VARIABLES	*lntcost*	*Big4*	*Nopinion*	*lntcost*	*Big4*
FLS_Sq			-0.0424**	1.074***	0.299***
			(0.0186)	(0.122)	(0.0508)
FLS	0.954***	0.274***			
	(0.102)	(0.0399)			
ROA	0.924***	0.0823	-0.661***	0.969***	0.0978*
	(0.158)	(0.0587)	(0.0678)	(0.157)	(0.0588)
Lev	0.951***	0.0956***	0.114***	0.947***	0.0941***
	(0.0546)	(0.0195)	(0.0177)	(0.0545)	(0.0195)
FA	-0.251***	-0.00422	-0.0398***	-0.253***	-0.00487
	(0.0790)	(0.0356)	(0.0151)	(0.0792)	(0.0357)
CFO	0.724***	0.267***	0.0134	0.715***	0.264***
	(0.0899)	(0.0364)	(0.0268)	(0.0896)	(0.0363)
TobinQ	-0.0788***	-0.0085***	0.0177***	-0.0790***	-0.0085***
	(0.00408)	(0.00127)	(0.00220)	(0.00407)	(0.00126)
Board	0.0760***	0.0161***	0.00132	0.0759***	0.0161***
	(0.00726)	(0.00345)	(0.00140)	(0.00729)	(0.00345)
Ind	1.643***	0.419***	-0.00948	1.627***	0.416***
	(0.228)	(0.0926)	(0.0341)	(0.228)	(0.0930)
EB	13.36***	3.642***	-0.0314	10.78***	2.815***
	(1.871)	(0.688)	(0.331)	(1.701)	(0.633)
INST	0.411***	0.310***	-0.0608***	0.425***	0.314***
	(0.143)	(0.0823)	(0.0169)	(0.143)	(0.0822)
Age	0.0265	-0.000778	0.0123***	0.0177	-0.00378
	(0.0356)	(0.0107)	(0.00370)	(0.0350)	(0.0105)
Constant	11.58***	-0.413***	-0.0602**	11.81***	-0.344***
	(0.168)	(0.0637)	(0.0246)	(0.159)	(0.0603)
Year fixed effect	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes
Observations	16,049	16,629	16,629	16,049	16,629
R-squared	0.383	0.173	0.091	0.383	0.172

In column (1)-(2), explained variables are changed to lntcost and Big4, respectively. Based on Audit Pricing Model[13], the core factor influencing audit pricing is audit cost. Compared with normal enterprises, the audit purpose of abnormal ones is merely to meet legal basic requirements. They do not require auditors of higher professional competence. Therefore, these enterprises have lower auditor hiring costs. However, normal enterprises have to invite professional auditors (such as Big4 accounting firm) to increase audit quality and public confidence, which is beneficial for their market reputations.

Also, considering the reduction of non-standard audit opinions caused by enhanced FLS, the audit costs are supposed to be more expensive, with added invitation frequencies of Big4. The rise of FLS significantly increases lntcost and likelihood of inviting Big4 auditors. The relative coefficients are 0.954 and 0.274, respectively. In column (3)-(5), the explanatory variable is changed to FLS_Sq. The coefficients on Nopinion, lntcost and Big4 are -0.0424, 1.074 and 0.299, respectively, which are consistent with column (1)-(2) and baseline results.

The endogeneity tests

Heckman two-stage estimates

Compared with the abnormal audit opinions, normal and even favorable audit valuations could attract more major shareholders to buy shares; meanwhile, the original shareholders could expand their equity holdings. This phenomenon could form a dominant force or multiple major shareholders in the enterprises.

Table 9
Regressions of Heckman two-stage models

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	*Nopinion*	*Nopinion*	*Big4*	*Big4*	*lncost*	*lncost*
FLS_Sq		-0.0424***		0.300***		1.075***
		(0.0135)		(0.0507)		(0.122)
FLS	-0.0568***		0.274***		0.954***	
	(0.0119)		(0.0399)		(0.101)	
ROA	-0.653***	-0.661***	0.0823	0.0978*	0.924***	0.969***
	(0.0281)	(0.0280)	(0.0586)	(0.0587)	(0.157)	(0.157)
Lev	0.114***	0.114***	0.0956***	0.0941***	0.951***	0.947***
	(0.00736)	(0.00736)	(0.0195)	(0.0195)	(0.0545)	(0.0545)
FA	-0.0398***	-0.0398***	-0.00422	-0.00486	-0.251***	-0.253***
	(0.00943)	(0.00944)	(0.0355)	(0.0356)	(0.0789)	(0.0791)
CFO	0.0136	0.0134	0.267***	0.264***	0.724***	0.715***
	(0.0185)	(0.0185)	(0.0364)	(0.0363)	(0.0898)	(0.0895)
TobinQ	0.0176***	0.0177***	-0.00849***	-0.00854***	-0.0788***	-0.0790***
	(0.000710)	(0.000711)	(0.00126)	(0.00126)	(0.00407)	(0.00407)
Board	0.00139*	0.00131	0.0161***	0.0161***	0.0760***	0.0759***
	(0.000800)	(0.000801)	(0.00344)	(0.00345)	(0.00725)	(0.00728)
Ind	-0.00779	-0.00948	0.419***	0.416***	1.643***	1.627***
	(0.0261)	(0.0261)	(0.0925)	(0.0929)	(0.227)	(0.228)
EB	-0.410	-0.0316	3.642***	2.816***	13.36***	10.78***
	(0.251)	(0.230)	(0.687)	(0.632)	(1.869)	(1.699)
INST	-0.0591***	-0.0608***	0.310***	0.314***	0.411***	0.425***
	(0.0144)	(0.0143)	(0.0822)	(0.0821)	(0.143)	(0.143)
Age	0.0106***	0.0123***	-0.000778	-0.00377	0.0265	0.0178
	(0.00331)	(0.00329)	(0.0107)	(0.0105)	(0.0355)	(0.0349)
IMR	-1.845***	-1.844***	-1.505***	-1.505***	-0.548***	-0.548***
	(0.00548)	(0.00548)	(0.0315)	(0.0316)	(0.0177)	(0.0178)
Constant	-0.0198	-0.0393**	-0.462***	-0.394***	11.18***	11.41***
	(0.0204)	(0.0197)	(0.0643)	(0.0609)	(0.172)	(0.163)
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	16,629	16,629	16,629	16,629	16,049	16,049

Enterprises in the same industry usually have the same external market environment and engage in similar production and operation activities, and the composition of major shareholders may be closer. At the same time, the ownership of large shareholders in a single enterprise is unlikely to affect the structure of large shareholders in the same industry. In addition, other major shareholders in the same industry does not have a direct impact on the audit results of the enterprise[44].

Based on the past methods[42,44], we adopted Heckman two-stage estimates to mitigate endogenous problems caused by sample self-selection.

In the first stage of regression, we used the average shareholding ratio of first major shareholder of other enterprises in the same industry-year as the instrumental variable of FLS. The results of the second stage are shown in Table 9.

IMR, the newly introduced variables, remains significant in all specifications. FLS and FLS_Sq are still significantly correlated with Nopinion, Big4 and lntcost. This shows insignificant differences with former analysis. Therefore, the conclusion is robust after controlling self-selection issues.

Propensity Score Matching

Propensity Score Matching method enables us to mitigate omitted variable concerns.

We referred to the past literature[42,44]: according to the median of the largest shareholders' holding ratio, the sample group is divided into higher group and lower group. The higher group is the treatment

group and the lower group is the control group. We used the proximity matching method to match samples on a scale of 1:1. Empirical results are shown in Table 10 and Table 11. The variables presented insignificant systematical differences after matching process.

Table 10
Proximity Matching method

Variable	Unmatched Matched	Mean Treated	Control	T-test t	p>|t|
Treat	U	.29299	.51089	-9.35	0.000
	M	.29362	.26809	0.87	0.384
ROA	U	-.0249	.04166	-27.31	0.000
	M	-.02428	-.02379	-0.08	0.939
Lev	U	.59295	.4303	14.70	0.000
	M	.58225	.58728	-0.33	0.743
FA	U	.22189	.2183	0.45	0.649
	M	.22236	.22922	-0.57	0.568
CFO	U	.00704	.03938	-9.16	0.000
	M	.00751	.00055	1.21	0.225
TobinQ	U	3.6283	2.3592	12.48	0.000
	M	3.6114	3.3945	0.96	0.339
Board	U	8.7877	8.822	-0.39	0.694
	M	8.783	8.6489	1.10	0.272
Ind	U	.37202	.3717	0.13	0.898
	M	.37184	.37777	-1.70	0.090
EB	U	.00843	.00833	0.32	0.746
	M	.0084	.00811	0.67	0.501
Inst	U	.0359	.06067	-6.03	0.000
	M	.03593	.03231	1.00	0318.
Age	U	2.8498	2.6872	8.07	0.000
	M	2.8495	2.8652	-0.77	0.443

Table 11 presents the empirical outcomes. In the case of controlling possible endogeneity, the treatment group and control group achieved a good match, all insignifant at 5% level; by Bootstrap method, the average treatment effects: ATT, ATU and ATE were all significant at 1% level, which consistent with the above regression results.

Table 11
Results of Propensity Score Matching

Explained Variable	*Nopinion*	*Big4*	*Intcost*
Explanatory Variable	*FLS*		
ATT	-0.0126873***	0.0634364***	0.2515262***
	(0.0047709)	(0.0048508)	(0.0235431)
ATU	-0.0210976***	0.1053585***	0.4404337***
	(0.0045558)	(0.0219622)	(0.054142)
ATE	-0.0167479***	0.083677***	0.3429929***
	(0.0036354)	(0.0107681)	(0.0283884)
N	16,629	16,629	16,049

ADDITIONAL TESTS

In Table 12, we conducted additional tests to examine heterogeneity in firm size, growth stage and equity nature.

(1)In column (1)-(2), samples are divided based on median of firm size, which is the logarithm of assets. The coefficient on FLS is -0.117, which is statistically and economically more significant than that of column (2). Increasing equity concentration for first major shareholders could effectively alleviate non-standard opinions, especially in small-

size groups. Compared with large-scale enterprises, these kinds of enterprises exist relatively large potentials for improvements. Therefore, the strengthened FLS has more marginal utility: not only increases major shareholders' sense of ownership, but also allows for efficient resource allocation.

(2)Based on the different cash flow characteristics of investment and financing in different growth periods, this paper divides the period into two parts: if the annual net cash flow of investment is negative and the net cash flow of financing is positive, then the enterprise is in the growth period; If the annual net cash flow is positive and the fund-raising net cash flow is negative, the enterprise is judged to be in a mature period. In order to avoid the extreme situation in a certain year, this paper classifies these enterprises by the comprehensive index of three consecutive years. Finally, we obtained 6429 observations in growth period, and 710 observations in mature period. Observations that are not included do not mean they are not in the classified periods, and they would not be in the subsample tests. In column (3)-(4), the coefficient on FLS is -0.0516, which is significant at 10%. Although this coefficient is -0.121 in column (4), it is insignificant.

During the growth period, the infrastructures and regulations are not in place. There exists potential business risks and market pressures, which requires major shareholders to bear more responsibility. The enhanced FLS could improve governance regulations on managerial behavior, and major shareholders are incentived to engage in more business activities. In the mature period, the marginal effect is limited as enterprises then have stable working environment and cash flows.

(3) Based on the equity nature in China, enterprises could be divided into joint-stock and mixed-ownership enterprises. Equity of former type can be either state-owned or privately owned. To clearly compare the differences of equity nature, mixed-ownership enterprises are excluded. The results are reported in column (5)-(6). The stated-owned group is shown in column (5), the coefficent on FLS is statistically and economically insignificant; in column (6), the FLS becomes nagtive with Nopinion.

Table 12
Results of additional tests

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	*Nopinion*	*Nopinion*	*Nopinion*	*Nopinion*	Nopinion	Nopinion
FLS	-0.117***	0.00364	-0.0516*	-0.121	0.00260	-0.119***
	(0.0338)	(0.0185)	(0.0268)	(0.0931)	(0.0250)	(0.0301)
ROA	-0.641***	-0.612***	-0.587***	-0.421*	-0.814***	-0.516***
	(0.0864)	(0.111)	(0.0941)	(0.242)	(0.130)	(0.0870)
Lev	0.181***	0.0396**	0.0933***	0.310***	0.128***	0.0908***
	(0.0282)	(0.0191)	(0.0236)	(0.0716)	(0.0329)	(0.0220)
FA	-0.0752**	-0.0258*	-0.0207	-0.0839	-0.0209	-0.0702***
	(0.0293)	(0.0150)	(0.0197)	(0.0955)	(0.0219)	(0.0228)
CFO	0.00542	0.0321	-0.0157	-0.0690	0.0443	0.00292
	(0.0385)	(0.0348)	(0.0393)	(0.175)	(0.0482)	(0.0347)
TobinQ	0.0200***	0.0110***	0.0152***	0.0281***	0.0237***	0.0167***
	(0.00272)	(0.00239)	(0.00317)	(0.00760)	(0.00491)	(0.00294)
Board	0.00421	0.000445	0.00121	0.0170*	0.000748	0.00119
	(0.00356)	(0.00118)	(0.00147)	(0.00904)	(0.00162)	(0.00295)
Ind	0.0292	0.0107	-0.00415	-0.122	-0.00514	0.0155
	(0.0696)	(0.0368)	(0.0414)	(0.218)	(0.0543)	(0.0587)
EB	-0.898	0.240	-0.145	1.695	0.829	-1.420***
	(0.603)	(0.454)	(0.473)	(2.644)	(0.707)	(0.544)
INST	-0.0927**	-0.0494***	-0.0712***	0.0117	-0.0486***	-0.104**
	(0.0468)	(0.0131)	(0.0200)	(0.105)	(0.0187)	(0.0505)
Age	0.00689	0.0105**	0.00915*	-0.0467	0.00205	0.0136***
	(0.00510)	(0.00503)	(0.00551)	(0.0426)	(0.00644)	(0.00465)

Constant	-0.0593	-0.0276	-0.0394	-0.0442	-0.0596	-0.00720
	(0.0523)	(0.0293)	(0.0328)	(0.204)	(0.0417)	(0.0442)
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,230	8,398	6,429	710	5,831	7,804
R-squared	0.134	0.048	0.063	0.176	0.113	0.090

The ownership of state-owned enterprises is usually highly concentrated. Therefore, decision-making power is usually in the hands of the largest controlling shareholder, and the possibility of the other major shareholders participating in the operation is relatively low. Even in the legal sense, the non-controlling major shareholders are qualified to participate in the decision-making, it is still difficult to shake the position. Because of its already high holding status, the marginal effect of incentive to the first major shareholder is limited, even if the proportion of holding shares is increased. At the same time, with more political care from governments and large financial institutions, the probability of being issued by non-standard audit opinion is low. Therefore, in this type of enterprise, the significance of strengthening shareholdings is relatively insufficient to improve audit characteristic.

CONCLUSION AND DISCUSSION

Multiple major shareholders are common in the worldwide listed enterprises. In the past 40 years of China, the equity concentration is in growing trend, and the first major shareholders earn the most speaking right. Their attitude towards enterprises would potentially affect financial performance, which in turn forms new audit characteristics. After Split Share Structure Reform, the first major shareholders have seen reduced control power. However, they still play controlling role and have the right to vote for essential issues. In tobacco industry, the first major shareholders are State Council agencies, representing the will of the country. In view of the particularity of the tobacco industry, the fully-holding state of sole shareholder is lasting.

In this paper, we focus on listed enterprises in China, where first major shareholders have absolute equity advantages over other major shareholders, let alone tobacco business. The shareholding heterogeneity of first major shareholders largely influences their managerial manners, which could bring about changes in audit valuations. Past literature emphasizes more on fluctuations in financial constraints, financial performance and share price crash. These research are common and have direct effect path.

Contrary to them, this paper expands the spillover effect of first major shareholders in audit characteristics, and emphasizes their incentive towards equity reform. Consistent with prior findings, the concentration of first major shareholdings enhances the awareness of ownership and responsibility. These enhanced first major shareholders take advantage of holdings and master the strategies. Our empirical results confirm that increased FLS could reduce non-standard audit opinions. This relationship remains negative after endogeneity and robustness tests. Same with reduced non-standard opinions, the reformed enterprises are exposed to higher audit fees and Big4 auditors. The series of checks also confirm its robustness. Therefore, the hypothesis 1 has received empirical support.

The mechanisms of FLS are reflected in three dimensions. Through intensified governance, they would inhibit selfish behavior and divert to the overall interest of enterprises, which reduce earning management. Meanwhile, the favorable prospect adds more positivity for investors, and shareholders are affordable to invite high-quality auditors. Lastly, the market competition, seen as the external pressure on their sustainability and reputation, could be regarded as reverse incentive

to boost better audit report. In essence, FLS deals with two types of agency costs effectively. The function requires human factors from psychological level, which enlightens the unregulated-level characteristics. However, the conclusion may not be suitable for tobacco enterprises, which are not listed in Stock Exchange. Firstly, the sole and fully-absolute control has reduced the room for equity concentration, whose effect on corporate audit could be minimal. Specifically, the State has great control over tobacco enterprises. The actual controller is central government, who earns sole right in market monopoly. Therefore, the sense of ownership is originally strong, and does not require equity incentive. Secondly, tobacco enterprises should serve the national economic plan. This kind of system attached to the state monopoly system has a clear color of planned economy, and it is far from being compatible with the current market economy and economic globalization. Contratry to non-tobacco enterprises which improve audit report to enhance market reputation, their requirement for enhancing audit quality is insufficient. The already infrastructure and huge profits have made their favorable audit performance[53-54].

The traditional Principal-Agent Theory is also applied and enriched. Although equity concentrations are beneficial to improve audit valuation, the effect should be placed in certain situations. As is shown by additional tests, the effect functions primarily in enterprises of small-size, private equity and growing priod. This is consistent with Tauringana and Clarke's conclusion[35], that audit-voluntariness would rise during initial growth period. As the fast development of listed enterprises, the marginal surplus may be shrunk later. Therefore, policy towards equity reform ought to be precise allocated, especially choosing the treated objectives.

Author Declaration

This research is not funded by any organization related to tobacco production.

Human Subjects Approval Statement

The manuscript has not been published before and is not being considered for publication elsewhere. The author has contributed to the creation of this manuscript for important intellectual content, read and approved the final version. Also, this research is not funded by any organization related to tobacco production.

Conflict of Interest Disclosure Statement

The author has no conflicts of interest, financial issues or otherwise.

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Appendix I The Variable Group

This part illustrates the definitions and calculations of selected variables in the context.

Variable	Definition	Data Source
lntcost	based on the total amount of audit fees paid to the accounting firm in the current year, it is logarithmically processed	CSMAR/Oriental Wealth Choice
Nopinion	the valuations of enterprise audit, based on the unqualified opinion of the accounting firm selected by the enterprise in the relative year	CSMAR/Oriental Wealth Choice
Big4	if the accounting firm selected in the relative year belongs to Big Four Accounting Firms, then the value is 1; otherwise, it is 0	CSMAR/Oriental Wealth Choice
FLS	the holding rate of the first shareholders	WIND
FLS_Sq	this square term of FLS belongs to the Herfindal Index, which measures the first shareholders' equity concentration.	WIND
ROA	return of total assets, the net profits divided by assets	WIND
Lev	asset-liability ratio, the liability divided by assets	WIND
FA	capital density, the rate of fixed assests in total assets	WIND
CFO	operation ability, Net cash flow from operations divided by total assets	WIND
TobinQ	firm value, the market value to asset ratio	WIND
Board	the number of board of directors	WIND
Ind	the rate of independent directors in the board size	WIND
EB	degree of equity balance, the accumulated rates of top 10 shareholders to that of the first shareholders, and then minus 1	WIND
INST	the ratio of institutional ownership in all investors	WIND
Age	logarithm of firm age	WIND