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The Market Impact of New Auditing Standards in China

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Abstract

To improve audit reports' transparency and information content, China implemented new auditing standards in 2017. The standards, which include disclosing key audit matters, were applied to A+H share companies in 2017 and A-share companies in 2018. This paper uses A+H-share companies as the experimental group and A-share companies as the control group and applies the difference-in-differences method to test the market response to the new auditing standards. We find a statistically significant positive cumulative abnormal return (CAR) during the report release event window for the A+H share companies. The results indicate a greater investor reaction to the release of audit reports under the new standards implying that the audit reforms enhanced the information of the reports. Furthermore, the positive CAR indicates that the reports reassured investors that the audit did not reveal significant problems or that existing weaknesses were addressed. We also found a statistically insignificant difference in the volatility of stock prices during the event window for the experimental and control group.

Introduction

In complex economic activities, investors use audit reports to gain additional financial information about prospective companies they seek to invest in to reduce risks caused by information asymmetry. Since the 2008 global financial crisis, there have been growing international calls for improving the information content of audit reports to make them more useful for investment decisions. The traditional audit report is concise and clear in structure, but it contains little information that is highly relevant for decision-making purposes. In recent years, to increase the informational value of audit reports and increase their relevance for decision-making, there has been a global movement to reform the standards. China revised its auditing reporting standards in a way that reflects its capital market and the latest reforms to international auditing standards. In June 2013, the British Financial Reporting Council (FRC) took the lead in issuing new auditing standards, initiating a new round of auditing standards reforms worldwide. For its part, the International Auditing and Assurance Standards Board (IAASB) began to study the requirements for new audit reports in 2009. After a series of standard-setting processes, new audit-report standards were finally approved and issued on January 15, 2015. The U.S. Public Company Accounting Oversight Board (PCAOB) had likewise been considering modifications to audit reports since 2010 and finally adopted new audit-reporting standards and related amendments in June 2017. These new standards were approved by The Securities and Exchange Commission (SEC) in October of the same year.

Partly in response to these developments, on January 7, 2016, the Chinese Institute of Certified Public Accountants (CPAs) issued a draft document soliciting opinions on the amendments to the relevant standards for audit reports. On December 23, 2016, the Ministry of Finance officially issued the new standards (Ministry of Finance, 2016), which led to significant reforms to Chinese CPAs' audit-report model. The revised standards were implemented on a staggered basis. Companies listed on the Hong Kong market, including those listed on the Chinese and Hong Kong markets (A + H listed), were required to follow the standards beginning January 1, 2017. On January 1, 2018, the standards were applied to A-share companies, including those on the main board, the SME board, the GEM board, IPO companies, the New Third Board, and companies that issue bonds to public investors.

The core of the international audit-report reforms is to add disclosure of key audit matters (KAMs) by the IAASB and disclosure of critical audit matters (CAMs) by the PCAOB to the standard audit reports of listed companies. The KAMs and CAMs include items such as critical management estimates and judgements, as well as areas of significant uncertainty. Even though there are some distinctions between KAMs and CAMs, they essentially have equivalent requirements, and we will refer to both as KAMs in the literature review (Jermakowicz et al., 2018).

Although there are some differences in the substance and format of the audit reporting reforms across countries, the goal of this round of reforms is essentially the same: to improve the information content and transparency of audit reports. Optimally, KAMs should provide investors an understanding of the rationale of the auditors' opinion. If KAMs enhance insight, investors should place greater value when KAMs are included in the audit report (Moroney, et al., 2020).

In China, the auditing standard revisions primarily address the presentation format and terminology of audit reports. There have been three main aspects of the reforms: the formulation of one new auditing standard, substantial modifications to six existing standards, and terminological adjustments to five existing standards. A comparison of the Chinese new and old auditing standards reveals that the new auditing standards optimize the order in which data are presented in the audit report, foregrounding the information most directly related to investment decisions (Ministry of Finance, 2016). At the same time, to help users of financial statements understand essential background information concerning auditors' opinions, an 'Unqualified Audit Report' section was added to reports. More importantly, the new audit report adds disclosure of KAMs. The standard defines KAMs as 'matters that communicate with corporate governance and requires CPAs to determine 'the most important matters for the audit of the financial statements in a given period' (Ministry of Finance, 2016).

 The new audit report strengthens management's accountability for the financial statements, for assessing the audited entity's ability to continue as a going concern, and indeed for determining whether it is appropriate to use the going-concern assumption, at all, for the firm in question. The new report standards require auditors to maintain a higher degree of professional skepticism, provide valuable information, including disclosure of project partners and assurances that auditors have conducted their work independently of any

communications management. The requirement that relevant information is not obtainable prior to the release of the audit report has further enhanced the transparency of the audit process. The audit report under the new standards also highlights issues related to continuing operations and the importance of reminding users about the availability of financial statements. Based on the interests of report users, all of these reforms are designed to provide fuller, more accurate information about companies' operating conditions and financial statements, thereby improving investment decisions made with the reports.

As of May 2019, China's A + H-shares listed companies have issued audit reports for three years under the new auditing standards. Have the new auditing standards generally increased the information content of the reports and hence their relevance for decision making, as expected by the standard setters? What impact will the implementation have on the capital market? These issues are worth exploring, though few studies have examined them up to this point.

This paper uses the first batch of A + H companies in China to implement the new auditing standards as the experimental group. For the control, it uses the Propensity-Score Matching (PSM) method to match corresponding A-share companies. We use the double-difference method to study the impact of audit criteria reform on the information content of audit reports and the volatility of stock prices.

The main contributions of this paper are three-fold. First, according to the signal transmission theory, this paper analyzes the path of the new audit standards in stabilizing the capital market. Second, empirical research shows that the new Chinese audit reporting standards provide investors with additional information, and investors respond positively to the additional information since there is a positive abnormal return during the reporting period. Third, unlike previous studies, this paper tests the sustainability of the implementation effects of the new auditing standards.

The paper is arranged as follows: The second section provides a review of the existing literature. While the third section states the main research hypotheses, and the fourth describes the research design used for the paper. Section 5 presents and analyzes the empirical results. Finally, section 6 summarizes the main conclusions and implications of the study.

Literature Review

The recent reforms to global auditing standards have attracted research interest from scholars around the world. Gold and Heilmann (2019) provide an overview of research on KAM disclosures, and they group the studies into four categories: the impact that KAM disclosures have on jurors' assessments of the liability of auditors; the effects of KAM disclosures on auditor judgement, audit fee, and audit quality; the impact of KAM disclosures on investor behavior and market reaction; and the effects of KAM disclosures on management reporting practices.

The selection of KAMs and their assessment depends on the professional judgement of the auditors. Such prior risk disclosures may disadvantage auditors by increasing their litigation risks (Katz, 2014;). The KAMs can be divided into two categories during financial misstatement litigation: those that relating from the undetected misstatement and those unrelated to the misstatement (Brasel et al., 2016; Gimbar, et al., 2016). Empirical research indicates that disclosure of related KAMs can reduce the auditor's responsibility, while there is no significant relationship between the disclosure of unrelated KAMs and the auditor's responsibility (Brasel et al., 2016). Other research finds that with precise standards that apply an accounting treatment that meets the letter of the law, both related and unrelated KAMs increase auditor liability (Gimbar, et al., 2016).

Another research focus is on how investors perceive KAM disclosures. Compared with previous audit reporting standards, the disclosure of KAMs can increase the information available to users of reports. For example, investors may have a more positive view of the firm's economic situation even with a negative KAM because of the perceived trust in the report (Köhler, et al., 2020). However, some non-professional investors pay limited attention to the content disclosed in audit reports when making investment decisions (Carver & Trinkle, 2017; Köhler, et al., 2020), while other report users focus on the key issues disclosed but ignore additional important information (Sirois, et al., 2018). Both scenarios decrease the relevance of audit reports for decision-making.

However, most scholars believe that investors have enough sensitivity to the information added in the new audit report for it to have decision-making value. Unlike the rote idioms used in traditional audit reports, the augmented information content of the new audit reports enhances its usefulness for decision-making (Christensen, et al., 2014, Tysiac, 2014). Thus, compared with traditional audit reports, investors perceive the new audit reports to be more relevant and useful (Christensen, et al., 2014). Evidence shows that, when compared with investors who have not obtained KAMs, investors who receive information on KAMs are more likely to change their investment decisions (Christensen, et al., 2014, Sirois, et al., 2018). When investors perceive significant uncertainty in a company's financial information, they either are unwilling to invest in the company at all or stop investing in it (Christensen, et al., 2014). Thus, the disclosure of KAMs can reduce a company's ability to attract investors since the disclosure is likely to include matters involving significant uncertainties and risks for the audited entity.

There are conditions when KAMs may not increase the perceived value of an audit such as when the information in the KAM is already known or expected (Bédard, et al., 2019); or when KAMs are essentially boilerplate and do not provide useful information (Brasel et al., 2016); or when overly technical language is used, hampering investor understanding (Bédard et al., 2019; Reid et al., 2019). The IAASB standard and the FRC standard require that the KAMs disclosed by CPAs reflect the specific situation of the audited company, rather than merely exemplifying a kind of professional jargon or rhetoric (IAASB, 2015; FRC, 2013).

Regarding aggregate market reactions, research shows mixed results on the relevance of the expanded information in the auditor's report. On the one hand, Lennox et al. (2016) in a study of U.K. firms found that in a short-window, investors did not view the enhanced information in the auditor's report marginally informative as the information had been previously disclosed by management in a prior earnings announcement, conference call, or the previous year's annual report. Likewise, a study of French firms found no incremental market response as measured by cumulative annual returns or trading volumes (Bédard, et al. 2019). On the other hand, an empirical study of Brazilian firms found that with the disclosure of KAMs, the variation in the cumulative annual abnormal return is positively associated with the cumulative abnormal returns in the information disclosure window (Júnior and Galdi, 2020).

In summary, when it comes to the new global round of auditing reforms, research has explored the legal risks arising from the disclosure of KAMs, the perception of the investors to the expanded audit reports, and the market reaction to the release of the reports. For its part, the present paper uses empirical research methods to explore the market impact of the new auditing standards in China.

Methodology

New Auditing Standards Implementation and Audit Report Information

The new auditing standards are designed to improve the information content of audit reports, enhance companies' information transparency, and boost the relevance and usefulness of reports to enable investors to make more rational investment decisions. If the new standards provide more information to investors, the release of the audit report should impact stock prices. On the one hand, if the KAM provides investors with new information revealing additional weaknesses or risks, stock prices should fall. On the other hand, if the KAM provides investors with reassuring information such as the absence of critical issues or that weaknesses are being addressed, stock prices should rise. Finally, if the KAM provides no additional information, stock prices should remain unchanged. From the above analysis, this article puts forward the following hypothesis:

Hypothesis 1 (H1): The implementation of the new auditing standards increases the information content and decision-making usefulness of audit reports; that is, the publication of audit reports under the new standards impacts stock price as reflected in cumulative abnormal returns in the event window.

Information Content of Audit Reports and Stock Price Fluctuations

The information asymmetry theory holds that, in a market economy, there is a difference in information between the seller and the buyer. When applied to corporate governance, the theory suggests that company managers have more useful information than investors—that is, information asymmetry exists between shareholders and managers. The audit report is an assurance report issued by an independent third party on the company's financial statements after professional audit procedures. It has a relatively reliable

information transmission function, which can improve the reliability and transparency of the company's financial statements and reduce the degree of information asymmetry between investors and the company's management. Investors form expectations based on information, and their expectations guide market trading behaviour, and the direct cause of stock-price volatility is traders' expectations (Hutton, et al., 2009). The audit report alleviates the information asymmetry between investors and the company, helping investors improve investment decisions, reducing the gap between their expectations and likely investment outcomes.

The new audit report model has increased the disclosure of KAMs, solidified the basis for forming audit opinions, increased the information content of the audit report and thus the transparency of the audited entity, enhanced the information environment of the company, and increased the risk warning of investors, while also elevating accountants' responsibility in the context of the reporting process (Júnior and Galdi, 2020). When the stock price reflects more fully relevant information about the fundamentals of the company, the impact of market noise and the volatility of the stock price should be reduced (Hutton, et al., 2009). Moreover, more transparent information disclosure conveys a more accurate picture of the corporate situation to the market, and the reduction of information asymmetry enables investors to more accurately make risk assessments and judgements about future events. These patterns, too, should lead to lower stock-price volatility (Brown and Hillegeist, 2007). In this way, when the information content disclosed in the new audit report increases, the company's overall information environment is improved, which reduces stock-price volatility. Here it should also be noted that research on stock-market stability usually measures the volatility of the stock market by measuring stock volatility at the company level (Chen, et al., 2001). Consistent with the above analysis, this article proposes the following hypothesis:

Hypothesis 2 (H2): The implementation of the new auditing standards reduces stock price fluctuations in the event window when audit reports are published.

Double-difference model

For assessing the effects of policy implementation, the double-difference model is a widely used analytical tool. The double-difference model requires constructing an experimental group affected by the policy change and a control group not affected by the policy change. The effect of the policy implementation is tested by comparing the difference between the explanatory variables of the control group and the explanatory variables of the experimental group before and after the policy change. The market impact of the new auditing standards is measured by comparing changes in return and volatility after the implementation of the standards. Further, to account for other factors, such as the impact of macroeconomic conditions, it is necessary to set up experimental groups and control groups for differential analysis.

The implementation date of the new auditing standards for A + H-share listed companies is January 1, 2017 (i.e., 2017 is the reform year of auditing standards, but the audit report corresponding to 2016 financial reports). However, A-share listed companies entirely implemented the new auditing standards starting January 1, 2018. Therefore, the period used in this double-difference method is between January 1, 2016 and December 31, 2017, in this article.

The variable $Treat_{it}$ denotes the first implementers of the new auditing standards: a value of 1 represents the experimental group of A + H-shares listed companies, and a value of 0 represents the control group A-shares listed companies. The variable $Time_{it}$ reflects the status of the issuance of the standards. A value of 1 represents the time after the new auditing standards were issued, and a value of 0 represents the time before the new auditing standards were issued. To test the implementation effect of the new auditing standard, we use an interactive term $Treat_{it} \times Time_{it}$ to indicate the policy change brought about by the new auditing standard. When two dummy variables equal 1 at the same time, the interactive item equals 1. In all other cases, the interactive term equals 0. In this way, the samples were divided into 4 groups: A + H-shares listed companies before the new auditing standards were issued ($Treat_{it} = 1$, $Time_{it} = 0$); A + H-shares listed companies after the new auditing standards were issued ($Treat_{it} = 1$, $Time_{it} = 1$); A-share listed companies before the new auditing standards were issued ($Treat_{it} = 0$, $Time_{it} = 0$); and A-share listed companies after the new auditing standards were issued ($Treat_{it} = 0$, $Time_{it} = 1$). The correspondence between the sample grouping and the variable values is shown in Table 1:

Table 1: Sample grouping and variable values

	Before the promulgation of new auditing standards (before 2017)	After the promulgation of the new auditing standards (2017 and beyond)
76 experimental group A+H – share listed companies	$Treat_{it}=1$，$Time_{it}=0$	$Treat_{it}=1$，$Time_{it}=1$
76 control group A - share listed companies	$Treat_{it}=0$，$Time_{it}=0$	$Treat_{it}=0$，$Time_{it}=1$

This paper uses the following model to test the information content of the audit report after the implementation of the new auditing standards, per Hypothesis 1:

$$Car_{it} = \beta_0 + \beta_1 Treat_{it} + \beta_2 Time_{it} + \delta Treat_{it} * Time_{it} + \beta_3 LnSize_{it-1} + \beta_4 Roa_{it-1} + \beta_5 Lev_{it-1} + \beta_6 Growth_{it-1} \qquad (1)$$
$$+ \beta_7 Beta_{it-1} + \beta_8 Opin_{it-1} + \beta_9 Big4_{it-1} + \varepsilon$$

Further, for testing the impact of the new auditing standards on stock-price volatility, per Hypothesis 2, the paper constructs a model represented as (2).

$$Vol_{it} = \beta_0 + \beta_1 Treat_{it} + \beta_2 Time_{it} + \delta Treat_{it} * Time_{it} + \beta_3 LnSize_{it-1} + \beta_4 Roa_{it-1} + \beta_5 Lev_{it-1} + \beta_6 Growth_{it-1} \qquad (2)$$
$$+ \beta_7 Beta_{it-1} + \beta_8 Opin_{it-1} + \beta_9 Big4_{it-1} + \varepsilon$$

In (1) and (2), CAR_{it} and Vol_{it} are dependent variables, δ represents the criterion reform coefficient. A positive coefficient indicates that the implementation of the new auditing standard has a positive effect on the cumulative abnormal return or stock-price volatility during the event window. When the coefficient is negative, it indicates that the implementation of the standard reduces CAR or Vol. Also, i represents each company, and t represents time. Since the year when the audit report is issued is one year after the year to which the financial report belongs, the control variables are lagged one period.

Applicability Test of Double-difference Model

Assumption premise 1: The selection of A + H-share companies in the experimental group meets the randomness requirement

To test whether the selection of A+H-share listed companies in the experimental group meets the randomness requirement, we can test whether the explained variable has A significant impact on A + H-share listed companies, that is, whether the cumulative excess return rate (Car) and stock-price volatility (Vol) have a significant impact on A + H-share listed companies (Treat). Taking the 76 A + H-shares listed companies that did not implement auditing-standards reform in 2013-2016 and the corresponding A group of 76 A-shares listed companies as the sample data, the regression results are shown in Table 2. From the regression results in Table 2, it can be seen that the cumulative excess return (CAR) has no significant effect on the dummy variable (Treat); likewise, the stock-price volatility (Vol) has no significant effect on the dummy variable (Treat). That is to say, the selection of a company listed in A-shares or A + H shares is not based on the level of cumulative excess return rate (CAR) or stock-price volatility (Vol), and there is no apparent endogeneity between the dependent variable and the independent variable. Hence the randomness of the research samples in this paper can be established.

Table 2: Randomness test of experimental group

	Treat
Car	-0.003
	(-1.00)
Vol	-0.023
	(-0.85)
LnSize	0.0848***
	(6.09)
ROA	-0.004
	(-0.66)
Growth	-0.073
	(-0.92)
Lev	-0.303**
	(-2.18)
Beta	0.021
	(0.31)
Big4	0.007
	(0.15)
_cons	-1.372***
	(-4.07)
N	608
F	7.85
Adjusted-R2	0.0926

Note: * is the significance level $p < 0.10$, ** is the significance level $p < 0.05$, and *** is the significance level $p < 0.01$.

Assumption premise 2: Before the reform of the auditing standards, the information content of the experimental group and the control group mirrors trends in stock-price fluctuations

There is a difference between the experimental group and the control group. Still, as long as changes in the cumulative excess return rate (CAR) of the explanatory variables before the reform of the auditing standards and stock-price volatility (Vol) follow the same trend, the difference between them remains relatively fixed. Therefore, the selected control group is appropriate for the experimental group and is amenable to using the double-difference model.

The analysis compares the cumulative excess return rate (CAR) and the stock-price volatility (Vol) of the experimental and control groups in the four years before the policy change. As shown in Figures 1 and 2[*], the cumulative excess return rate (CAR) and stock-price volatility (Vol) mean changes in the experimental and the control groups are basically the same. Since the difference between them is relatively fixed, the control group is an appropriate reference for the experimental group.

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[*]In order to improve the accuracy of the results and make them easier to analyse, the explained variables, i.e., cumulative excess return rate (CAR) and stock-price volatility (Vol), are multiplied by 100.
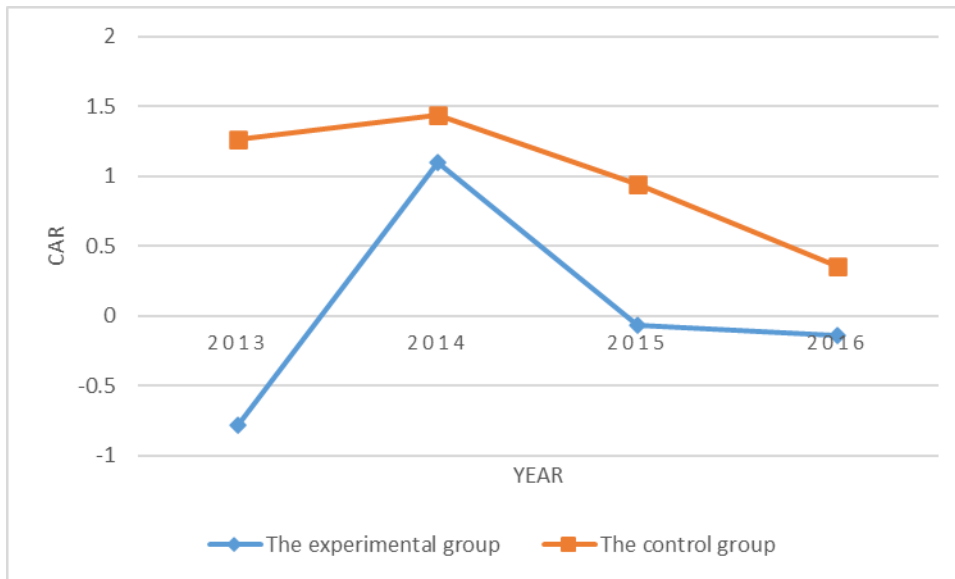
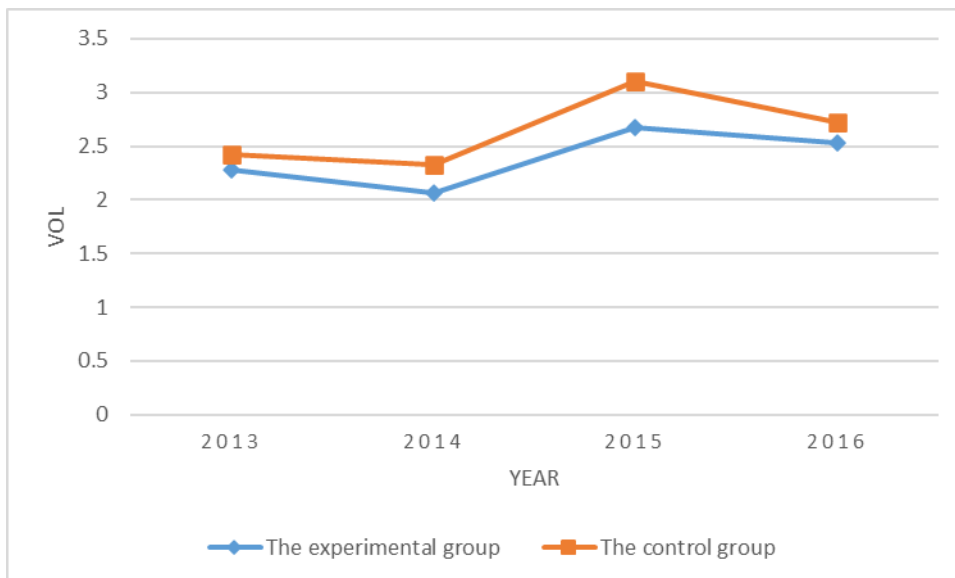**Figure 1:** Cumulative excess returns for the experimental and control groups

Figure 2: Stock-price volatility for the experimental group and the control group

Variable Design

Assumption premise

(i) Cumulative Excess Return Rate
Based on existing research, the analysis uses CAR to measure information content (Júnior and Galdi, 2020). The market adjustment method is used to calculate CAR. Given that the research objective is the effect of the new standards, the study selects a short time-window [-5, +5] for analysis, in which the date of release of the audit report release is the event date, with the value of 0.

(ii) Stock-Price Volatility
This paper uses the standard deviation of the daily return of individual stocks for the one week after the audit report date to calculate the dependent variable Vol.

Explanatory variables

The explanatory variables in this analysis are the dummy variables Time, Treat, and Treat * Time. For the interaction term Treat * Time, a value of 1 indicates that the new auditing reporting standard applies; a value of 0 indicates that the new auditing standard does not apply. The coefficient δ in front of the interaction term represents the net effect of implementing the new auditing standards.

Control variables

We chose enterprise size (LnSize), debt to asset ratio (Lev), operating income growth (Growth), return on assets (ROA), market risk coefficient (Beta), audit opinion (Opin), and auditor type (Big4) as control variables to account for the influence of other factors. Table 3 provides a specific description of these control variables.

Table 3: Variables and their definitions

	Variable symbol	Variable name	Variable definitions
Dependent variables	CAR	Cumulative abnormal return	Cumulative abnormal returns in the short event window [-5, +5] based on the release date of the audit report
	Vol	Stock price volatility	Average of individual stock-price volatility in the week following the date of the audit report
Explanatory variables	Time	Whether new guidelines have been issued	A dummy variable, with a value of 1 after promulgation of the new audit standards, and a value of 0 before promulgation; that is, 1 in 2017 and afterward, 0 before 2017
	Treat	Whether a given company is in the first batch of implementers	A dummy variable corresponding to whether a company is among the first batch of new auditing-standards implementers; the experimental group of A + H-shares listed companies takes 1 and the control group of A-shares listed company takes 0
	Treat*Time	Interactive terms for dummy variables	The value of 'Treat' and 'Time' is 1 only when both dummy variables are 1, indicating that the new auditing-reporting standards have been implemented; otherwise, the value is 0
Control variables	LnSize	Enterprise size	Natural logarithm of total assets
	ROA	Return on assets	The percentage of the company's net profit relative to the average total assets over the period; the return on assets = net profit / (total assets at the beginning of the period + total assets at the end of the period) ÷ 2 × 100%
	Lev	Debt-to-assets ratio	Year-end total liabilities divided by year-end total assets.
	Beta	Market risk factor	Used to measure the price fluctuations of individual stocks relative to the entire stock market
	Growth	Corporate growth	Current year operating income- previous year operating income / previous year operating income
	Opin	Audit Opinions	This variable equals 1 when issued a standard audit opinion; otherwise, it equals 0
	Big4	Auditor Type	The external auditor engaged by the company is 1 if it is one of the Big Four accounting firms; otherwise, it is 0

Sample Selection

The analysis takes A+H-shares listed companies as the experimental group. We select 2016-2017, which corresponds to the 2015-2016 financial reports, as the sample interval for the double-difference model. Companies listed after 2015 or being special treated (ST) were excluded; 76 A+H listed companies remained.

The samples of the control group are A-share listed companies. To ensure the similarity between the experimental group and the control group and to reduce the selection bias of the model, this paper uses the PSM or Propensity-Score Matching method for one-to-one matching. The control variables of size (LnSize), growth (Growth), return on assets (ROA), leverage (Lev), market risk factor (Beta), audit opinion (Opin), and firm type (Big4) were set as matching variables. A-share listed companies that were not part of the first batch of implementers of new auditing standards were selected as objects to be matched. For the control group, we used the analysis tool Stata14.0 to obtain 76 A-share listings corresponding to the 76 A + H-share listed companies. We used the propensity score matching method to screen the control group samples to overcome sample heterogeneity and selectivity bias, making the research conclusions more reliable. However, PSM does not eliminate unmeasured confounding variables which could potentially lead to biased results.

The data used in the analysis are taken from the Resset database, the DIB internal control and risk management database system, and the announcements of the Shenzhen Stock Exchange and the Shanghai Stock Exchange. Continuous variables are winsorized to reduce the influence of extreme values on the research results.

Analysis and Empirical Results

Sample Descriptive Statistics

Table 4 shows descriptive statistics of the main variables. Column (3) shows that after PSM matching, there is no significant difference between the return on assets (ROA) of the experimental group versus the control group. Nor is there a significant difference concerning the type of firm (Big4). Since the experimental group and the control group have issued standard audit opinions over the two years being studied, the variable audit opinion (Opin) is set to 1. Since the mean difference of Opin in the control group versus the experimental group was 0, this variable was removed from the subsequent multiple regression analysis. The difference in the stock-price volatility (Vol) between the two groups of samples may be due to the stricter supervision faced by the A + H- share companies. It should be noted that the independent variables are not included in the matching variables in the PSM method, but this does not affect our research here, where the main concern is the impact of the policy implementation on market reactions.

Table 4: Descriptive statistics of both the experimental group and the control group (2016-2017)

	（1） The experimental group		（2） The control group		（3） The experimental group minus the control group	
	Mean	Std. Dev.	Mean	Std. Dev.	The mean difference	t value
CAR	1.0268	6.9074	.0426	6.4567	.9842	1.2831
Vol	2.1264	.8325	2.3613	.8734	-.2349	-2.4005**
LnSize	25.8721	2.1646	24.8116	1.8604	1.0605	4.5808***
ROA	2.5275	3.5972	2.5718	4.5072	-.0443	-0.0948
Growth	.0663	.2488	.1166	.3128	-.0503	-1.5498*
Lev	.6474	.1950	.6075	.2176	.0399	1.6798**
Beta	1.0409	.2753	1.0922	.2701	-.0513	-1.6408*
Opin	1	0	1	0	0	.
Big4	.7105	.4550	.6447	.4802	.0658	1.2261

Results and Discussion

This paper uses model (1) in a regression analysis to verify whether the new auditing standard increases the audit reports' information content. Table 5 shows the results. Column (1) is the regression result without the control variables, and column (2) includes the control variables. As can be seen from column (1) of Table 5, the interaction term (Treat*Time) and CAR are related positively, at a level of 10% statistical significance (the coefficient is 2.866*, and the t value is 1.88). Furthermore, in column (2), the interaction term (Treat*Time) still has a significant positive impact on CAR, again reaching a 10% level of statistical significance (coefficient of 2.994*; t value of 1.96). These results show that implementing the new auditing standards in China has increased the information content of audit reports, providing investors with more internal information related to decision making, and consequently, creates a positive market response. That the reaction is positive rather than negative may indicate that investors are assured that the audit did not reveal significant problems or that existing weaknesses were addressed (Almulla & Bradbury, 2019).

Therefore, H1 of this paper is accepted: the implementation of the new auditing standards has increased the information content and decision-making usefulness of audit reports.

Table 5: Implementation impact of the new standards on the information content of audit reports

Double-difference analysis for 2016-2017		
	（1）CAR	（2）CAR
Time	-0.516	-0.570
	(-0.48)	(-0.53)
Treat	-0.449	-0.297
	(-0.42)	(-0.27)
Treat*Time	2.866*	2.994*
	(1.88)	(1.96)
LnSize		-0.205
		(-0.67)
ROA		0.158
		(1.42)
Growth		1.269
		(0.88)
Lev		1.794
		(0.62)
Beta		1.431
		(0.87)
Big4		1.117
		(1.23)
_cons	0.301	1.476
	(0.39)	(0.20)
N	304	304
F	2.21	1.47
Adjusted-R²	0.012	0.014

The effect of the implementation of the new auditing standards on market stabilisation

Columns (1) and (2) of Table 6 provide the results of a double-difference analysis of stock-price volatility (Vol). As shown in the regression results in column (1), the dummy variable Time, indicating whether the new audit standard has been implemented, has a negative impact on Vol at a statistically significant level of 1% (the regression coefficient is -0.714). The implementation of the new audit standard (Treat) has a non-significant negative impact on the variable (Vol), the regression coefficient being -0.188. The key variable cross-term (Treat*Time) has a negative impact on the stock price volatility (Vol), but not at a statistically significant level. Column (2) provides the regression results with control variables added. The dummy variable Time is still significant at the level of 1% for Vol (the coefficient is -0.688*** and the t value is -7.00). The results show less volatility in the one week following the release of audit reports in 2017 compared to 2016 for both A+H listed companies and the matched sample of A companies. When the control variables are added, the effect of the dummy variable Treat on Vol has a statistically insignificant positive effect (coefficient of 0.057; t value of -0.57). However, the key variable interaction term Treat*Time still has an

insignificant negative effect on Vol (coefficient of -0.071; t value of -0.51). The results, therefore, show, in reference to H2 of this paper, that the roll-out of the new auditing standards does not have a statistically significant impact upon stock price volatility in the one week following the release of the audit reports.

Regarding the influence of control variables, the size of the company (LnSize), the return on assets (ROA), and stock-price volatility (Vol) are significantly negatively correlated; growth (Growth), assets and liabilities (Lev), and stock-price volatility (Vol) are, by contrast, significantly positively correlated. The market risk coefficient (Beta) and stock-price volatility (Vol) are significantly positively correlated at the level of 1%. Finally, whether the audit was performed by one of the four major auditing firms has no significant relationship with stock-price volatility (Vol).

Table 6: Impact of the new auditing standards on stock-price volatility

	Double-difference analysis for 2016-2017	
	(1)	(2)
	Vol	Vol
Time	-0.714***	-0.688***
	(-5.75)	(-7.00)
Treat	-0.188	0.057
	(-1.52)	(0.57)
Treat*Time	-0.093	-0.071
	(-0.53)	(-0.51)
LnSize		-0.218***
		(-7.86)
ROA		-0.017*
		(-1.68)
Growth		0.505***
		(3.84)
Lev		0.687**
		(2.62)
Beta		0.462***
		(3.09)
Big4		-0.065
		(-0.79)
_cons	2.718***	7.219***
	(30.97)	(10.64)
N	304	304
F	27.51	35.48
Adjusted-R²	0.208	0.506

Further Analysis

The above empirical analysis using the difference in difference method found that investors reacted positively to the release of auditing reports in the first year of implementation of the new auditing standards for A+H listed firms. We use a single dummy variable method to test whether the effect continues and whether it extends to A-share companies.

Using the Single Dummy Variable Method to Test the Information Content of the New Auditing Standards Year by Year

To further verify the information content of the new auditing standards, the dummy variable single-difference method was used to conduct a regression analysis on the experimental group samples versus the control group samples. At the same time, the implementation effect of the new auditing standards was tested year by year during the incremental period; that is, a regression analysis is performed based on the data of A + H- shares listed companies† in 2016-2017, 2015-2018, and 2014-2019. In this way, we test the effect of A+H companies in the implementation of the new guidelines for one year, two years, and three years. Likewise,

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† Listed companies with A+H shares were among the first to implement the new auditing standards, which were implemented from January 1, 2017.

the data for the original control group of A-share listed companies[‡] from 2016-2017, 2017-2018, and 2016-2019 could be subjected to regression analysis, revealing the effect of implementation with respect to A-share companies in which the new standards were not implemented, A-share companies in which the new standards were implemented for one year, and A-share companies in which the new standards were implemented for two years—after the promulgation of the new guidelines. This setup allowed for a comparative study of the experimental group that implemented the new audit standards versus the control group that did not implement the new audit standards (see Table 7).

Columns (1) - (3) in Table 7 show the regression results of the experimental group of A + H- shares listed companies' application of the new standards for one, two, and three years. The results in column (1) show that the implementation of the new standard (IR)[§] is significantly positively correlated with the stock's cumulative excess return rate (CAR) at a level of 5% (with a regression coefficient of 2.562 and t value of 2.32), and column (2) shows that the implementation of the new standard (IR) is positively correlated with the stock's cumulative excess return rate (CAR), but not at a statistically significant level (regression coefficient of 1.130; t value of 1.48). Column (3) shows that the implementation of the new standard (IR) and the stock's cumulative excess return rate (CAR) is positively correlated, but not at a statistically significant level (regression coefficient of 0.452; t value of 0.76). Note here that the regression coefficient and t value, after three years, are smaller than they were in the first two years of implementation. These results indicate that the new auditing standards increased the reports' information content and improved investor returns, but the effects gradually diminished over time. A possible reason is that the KAMs disclosed in the audit report may have significant continuity, that is, duplication, across reporting years.

Columns (4) - (6) in Table 7 show the regression results for the effect of A-share listed companies in the control group in the first year when the new guidelines were issued but not implemented, as well as in the first year when the new guidelines were implemented and the second year after implementation. The results in column (4) show a non-significant negative correlation between A-share companies issuing a new standard (Time) and the stocks' cumulative excess return rate (CAR) (with a regression coefficient of -0.691 and a t value of -0.67). Column (5) shows that the implementation of the new standard (IR) by A-share companies is positively correlated with the cumulative excess return of the stock rate (CAR), but not at a statistically significant level (regression coefficient of 0.87; t value of 0.77). Column (6) once more shows that the implementation of the new standard (IR) by A-share companies is positively correlated with the stock's cumulative excess return rate (CAR), but not at a statistically significant level (regression coefficient of 0.164; t value 0.22). Here it should also be noted that, in the second year of implementation, both the regression coefficient and t value are smaller than in the first year of implementation. These results again show that whereas the new auditing standards increased the amount of information content relevant for investors' decisions, over time, the new standard's effectiveness has gradually weakened, and the information content in audit reports has slowly decreased. Overall, the further analysis provides further support for H1, confirming that the previous results are robust.

What is more, comparing the impact of the new standard on A + H-share listed companies versus A-share listed companies found a statistically significant effect in A + H-share companies but not in A-share companies. This pattern may be due to stricter supervision in A + H-share companies, resulting in a more rigorous application of the new auditing standards and, in turn, a higher-quality audit. By contrast, the firms auditing A-share companies may not have issued reports in full compliance with the revised new standards, resulting in a comparatively lower-quality audit.

[‡] A-share listed companies were the second batch of implementers of the new auditing standards, which were implemented from January 1, 2018.

[§] When the new standards are applied, IR value is 1. Thus, the IR value of A+H shares is 1 in 2017 and after, just as it is for A shares in 2018 and beyond.

Table 7: Comparative analysis of continuous implementation effects on the experimental group versus the control group

	A + H-share companies CAR			A-share companies CAR		
	2016-2017 Implementation for one year （1）	2015-2018 Implementation for two years (2)	2014-2019 Implementation for three years (3)	2016-2017 Not been implemented (4)	2017-2018 Implementation for one year (5)	2016-2019 Implementation for two years (6)
IR/Time	2.562**	1.130	0.452	-0.691	0.870	0.164
	(2.32)	(1.48)	(0.76)	(-0.67)	(0.77)	(0.22)
LnSize	-0.215	-0.620***	-0.325	-0.119	-0.894*	-0.550**
	(-0.48)	(-2.15)	(-1.46)	(-0.27)	(-1.91)	(-1.82)
ROA	-0.190	-0.299*	-0.136	0.318**	0.188	0.172**
	(-1.01)	(-2.00)	(-1.16)	(2.31)	(1.18)	(1.88)
Growth	2.802	1.891	1.405	0.352	0.151	0.627
	(1.17)	(1.11)	(0.97)	(0.20)	(1.10)	(0.53)
Lev	-2.661	-3.012	-0.917	3.906	4.162	4.089*
	(-0.59)	(-0.93)	(-0.36)	(1.05)	(0.98)	(1.53)
Beta	3.520	-0.935	0.848	-0.709	-0.833	-1.673
	(1.52)	(-0.69)	(0.79)	(-0.30)	(-0.45)	(-1.20)
Big4	1.226	1.927*	1.133	1.295	2.039*	1.268*
	(0.84)	(1.91)	(1.45)	(1.13)	(-1.69)	(1.56)
_cons	2.802	18.100***	7.821	0.059	18.500*	11.70*
	(0.26)	(2.73)	(1.56)	(0.01)	(1.67)	(1.64)
N	152	304	456	152	152	304
F	1.72	2.16	1.10	1.59	1.12	1.62
Adjusted-R^2	0.032	0.026	0.002	0.027	0.005	0.014

Conclusions

The auditing-standards reform was designed to enhance audit reports' information content to make them more useful for investors. With A+ H-listed companies as the experimental group and A-listed companies as the control group, the double-difference method found that the new auditing standards increase the reports' information content, resulting in a positive market response with no statistically significant change in price volatility.

The impact of stricter regulation depends upon its design, implementation, enforcement, and structure of a country's financial markets. Our research shows that in the first year of China's enhanced audit regulations, investors reacted positively to the release of audit reports. Compared to matched companies not subject to the new standards, the positive market reaction indicates that investors had increased confidence in the reports' quality, allaying concerns of substantial underlying issues affecting the firm. Our results are consistent with previous research based on investor surveys, which found that investors value the report's increased information (Christensen et al., 2014, Sirois et al., 2018). Our research results indicating a positive market reaction to the release of the enhanced reports are consistent with Kohler et al. (2020), who found that even with a negative KAM, investors had a more positive perception of the firm's economic situation.

As noted in the literature survey, research on the market reaction to KAMs is mixed. Studies of firms in the U.K. and France indicated no incremental market response (Lennox et al., 2016, Bédard, et al. 2019). In contrast, Júnior and Galdi (2020) find that the event window reaction to KAMs was positively associated with the annual CAR. Our finding of a market response to KAMs may indicate that they are more informative in less developed financial markets. The U.K. and France have higher Financial Development Index values than Brazil and China (Svirydzenka, 2016). The enhanced audit reports provide a larger relative increase in investors' information in environments with less financial development than in more financially developed environments.

The results of this paper generate questions for future research. First, what are the factors creating a positive market response rather than a negative response? Classifying the reports based upon the type of KAM and measuring the market reaction could provide insight into investor reactions. Second, over time, will the reports continue to provide the same market impact? If there is a smaller response in the future, is it driven by less information in the reports or more sophisticated investors who discern the information before it is

released? Third, what is the long-term market impact of the reforms? If KAMs inform investors of potential problems, bubbles may be less likely to develop and with less intensity.

Conflicts of Interest: The authors declare no conflict of interest.

Data Availability: The data that support the findings of this study are openly available in Zenodo at https://doi.org/10.5281/zenodo.3992231, reference number 3992231.

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