

# An Analysis of Quasi-Qualification, Modified Auditor Opinions and Special Treatment Status on China's Shenzhen Market

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## **Abstract**

The development of accounting, auditing and capital markets in Shenzhen and Shanghai were an integral component of China's economic reforms; auditing was regarded as being critically important to achieving the desired policy objective of delivering a market economy (Yang & Yang, 1998). This paper examines the quasi-qualification hypothesis and tests whether investors valued the introduction of Special Treatment (ST) status for firms in 1998. Our empirical analysis fails to find any support for the quasi-qualification hypothesis. In contrast, it appears that the issuance of ST status was valued by investors suggesting that it fulfilled its role as a signaling mechanism.

*Keywords:* Quasi-qualification, Modified Auditor Opinions, Special Treatment

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## 1. Introduction

Prior to its transition to a market economy the state allocation of investment capital in China was inefficient, and in many cases resulted in significant waste of resources (Zheng, 2000). An integral component of China's economic reforms involved tailoring extant international accounting and auditing standards to meet the needs of its nascent market economy. What has emerged from this metamorphosis is an eclectic accounting and auditing system which combines international practice with Chinese idiosyncrasies.

Probably one of the most prominent idiosyncrasies is the concept of 'quasi-qualification' in the Chinese auditing system. Auditors have the discretion to compel firms to report explanatory paragraph(s) for events and/or transactions that do not have direct influence on the financial statements but are important enough to be explained. A view that has emerged is that firms reporting explanatory paragraph(s) are in receipt of a form of quasi-qualification which has been used by their auditors as a convenient alternative to issuing a Modified Opinion (MAO). It appears that this is the Chinese Securities Regulatory Commission's (CSRC) interpretation also (CSRC, 2001). This suggests an anomaly. An objective of this paper is to make a contribution to this issue by examining the economic consequences for Shenzhen listed firms reporting explanatory paragraphs. The CSRC introduced in 1998 Special Treatment (ST) status as a mechanism to signal to investors loss-making firms. A significant number of firms given ST status also reported MAOs. The second contribution of this paper is to test whether investors distinguish between MAOs in receipt of ST status and vice versa. Collectively, exploration of both issues is

important to enable our understanding of China's reporting and regulatory environment over the unique 1995 to 2000 period when China's capital markets did not have a delisting system.

The results from the empirical analysis fail to find any support for the quasi-qualification hypothesis in the period immediately before, during and after the publication of the annual financial report. In contrast firms given ST status were found to experience returns significantly less than the control portfolio in the period immediately before and after the report day. This finding supports the notion that ST status is an effective signaling mechanism to investors in the context that it reflects a much more homogeneous information set distributed across audit qualification categories. The significant pre-event period ST effect raises issues both for auditors and exchange regulators. In the post-event period declining performance is driven by ST status.

The remainder of this paper is organised as follows. The next Section provides an overview of the theoretical framework. Section 3 is a synopsis of the auditing literature focusing specifically on empirical evidence for China's markets. Section 4 develops the hypotheses while section 5 outlines the study's research design. Our empirical findings are reported in Section 6. Section 7 summarises the reported findings and discusses them within the context of the literature.

## **2. Theoretical framework: Asymmetric Information**

Corporate disclosure is critical for capital markets to function efficiently. Insufficient disclosure could, at least at a theoretical level, lead to market collapse (Akerlof, 1970). Healy and Palepu (2001) provide a schematic for the role of disclosure and financial intermediaries in the working of a capital market. This general model encapsulates the flow of capital from households to firms and the flow of information from business to savers and intermediaries. In a developed economy firms communicate with investors by a variety of means: including regulated financial statements and voluntary disclosure, while at the same time information intermediaries attempt to gain as much information as possible from any source relevant to their portfolio of firms. Collectively, the flow of information helps resolve the “Lemons” problem and contributes to well functioning capital markets (Akerlof, 1970).

In developed markets, the flow of information has increased to the extent that the declining value-relevance debate of earnings and book values emerged (Collins, Mayhew and Weiss, 1997; Francis, Schipper and Vincent, 2002). In contrast, over the period of this study accounting, auditing and capital markets in China were at the nascent stages of development. China’s economic reforms provided a skeletal financial infrastructure relative to that discussed in Healy and Palepu. From a purely theoretical perspective it would be expected that in a less competitive information environment investors would value regulated financial statements, *ceteris paribus*. Over the period of this study the

financial analysts' profession was at the early stages of development, and the annual financial report containing the auditor's opinion was the only source of financial information for investors' investment decisions (Chen et al, 2000). It would therefore be expected that the issuance of MAOs and the conferring of ST status would have the potential for a strong signaling effect in an incomplete market. The aim of this paper is to explore whether this conjecture has any empirical validity.

### **3. literature**

Market-based studies of developed markets provide empirical evidence that accounting information is value relevant (Kothari, 2001). The extant auditing literature has, for the most part, examined audit effectiveness for developed markets, focusing on whether audit qualification adds value for investors and whether auditors' actions are independent from the interests of their clients (Healy and Palepu, 2001). A salient feature of the early literature is the paucity of evidence linking audit qualification to contemporaneous stock prices. Alderman's (1977) seminal paper finds little evidence of the informational value of audit qualifications. However, Chow and Rice (1982) report that qualified audit opinions convey adverse information which is associated with stock price decline. Studies focusing on the period prior to audit qualification indicate that prices for qualified firms do decline in the pre-event period (Elliott, 1982). However the lack of a systematic contemporaneous relationship between audit qualification and stock prices indicated that, in general, qualified audit opinions did not convey timely, useful information to investors

due to the fact that it could be anticipated (Dodd, Dopuch, Holthausen and Leftwich, 1986; Dopuch, Holthausen and Leftwich, 1984).

In contrast, subsequent studies demonstrate the need to disentangle earnings and audit information when assessing valuation effects as well as the importance of isolating unanticipated audit information only when drawing inferences (Fields and Wilkins, 1991; Fleak and Wilson, 1994; Holder-Webb and Wilkins, 2000; Jones, 1996; Louder, Khurana, Sawyers, Cordery, Johnson, Love and Wunderle, 1992; Blay and Geiger, 2001; Carlson, Glezen and Benefield, 1998). This body of literature provides evidence in favour of value relevance; collectively suggesting that audit qualification does provides incremental information content, *ceteris paribus*.

While there is a plethora of empirical evidence for developed markets there are a limited number of studies examining China's Shanghai and Shenzhen markets. What does exist suggests that accounting information does affect investors' pricing decisions (Liu, 1997; Sun, Zhang and Zhou, 1997; Wu and Huang, 1997). In relation to auditing, DeFond, Wong and Li (1999) document what they refer to as '*flight from auditor quality*' where big audit firms lose market share subsequent to issuing modified opinions. Chen, Su and Zhao (2000) test the quasi-qualification hypothesis and also examine whether GAAP and non-GAAP related MAOs are valued differently for a sample of Shanghai listed firms' over the period 1995 to 1997. They found that MAOs were significantly negatively correlated with returns, but there was no discernible difference between GAAP and non-GAAP related MAOs. Their analysis also failed to find any support for the quasi-

qualification hypothesis. More recently, Chen, Su and Wang (2005) sought to explain the underlying reasons for such large numbers of MAOs in China. They cite that approximately 15 per cent of listed Chinese firms received Modified Audit Opinions (MAOs) on their annual report every year from 1995 to 2000. Their analysis of the auditing environment suggests that Government regulations through licensing and disciplinary actions, self-protection considerations, poor earnings management, and weak corporate governance help explain the motivations for MAOs.

#### **4. Hypotheses development**

##### *4.1. Quasi-Qualification*

Under Independent Auditing Standard No. 7 (Audit Reports) four categories of audit opinions are available: unqualified, qualified, disclaimer and adverse. Auditors also have the discretion to compel unqualified firms to report explanatory paragraph(s). Official guidance from the Chinese Institute of CPAs (CICPA) indicates that explanatory paragraph(s) should be reported for events and/or transactions that *'do not have direct influence on financial statements but are important enough to be explained'*<sup>1</sup>. Chen et al (2000) point out that this is equivalent to *'emphasis of matter'* in US terms. A view that has emerged is that the addition of explanatory paragraph(s) is effectively a form of quasi-qualification. It is used as a convenient alternative to MAOs to minimize the probability of losing clients, while at the same time avoiding direct violation of auditing standards (Chen et al, 2000). The Official interpretation of the inclusion of explanatory paragraph(s) appears to be that this is not a benign gesture. Chen et al (2005) point out that the CSRC interprets accounts that are unqualified but reporting explanatory

paragraph(s) the same as MAOs (CSRC, 2001). The use of explanatory paragraph(s) is anomalous. Auditors appear to use them as an alternative to qualification, while the CSRC interprets their use as qualification, while Chen et al (2000) provide economic evidence that investors don't value the information content. This leads us to our first testable hypothesis: the quasi-qualification hypothesis:

**H1.** *Ceteris paribus*, Shenzhen listed firms whose financial statements are unqualified, but report explanatory paragraph(s) experience market returns significantly *less* than the control portfolio.

#### *4.2. Modified Auditor Opinions and Special Treatments*

In addition to MAOs the CSRC also introduced ST status which took effect from January 1998. It was introduced as a signaling device to warn investors of the risks of investing in loss-making companies in an environment with no delisting system. It wasn't until 24<sup>th</sup> February 2000 that the CSRC released the implementation measures for suspending and terminating the listing of loss-making companies. Therefore, the 1998 to 2000 period provides a unique opportunity to examine valuation effects at a time when an emerging economy was attempting to develop credible signalling mechanisms to promote investor confidence and enhance market stability. Typically, a firm is in receipt of ST status for three main reasons: (1) a listed company has negative net profits for two or more consecutive fiscal years; (2) the shareholders' equity is lower than the registered capital (the par value of the share); (3) a firm's operations have been stopped and has no hope of restoring in three months due to natural disasters or serious accidents or if the firm is

involved in a damaging lawsuit or arbitration. In practice, firms with MAOs, or are unqualified but report explanatory paragraphs, can also be given ST status.

**H2.** *Ceteris paribus*, Shenzhen listed firms in receipt of Special Treatment status, experience market returns significantly less than firms with Modified Auditor opinions or reporting explanatory paragraphs only.

## **5. Research Design**

### *5.1. Data*

To test **H1** and **H2** a matched-pair sample was constructed. The *Securities Times* along with its companion website, where the financial statements are simultaneously disclosed, was scanned for annual financial report announcements<sup>2</sup>. The announcements were cross-referenced with the Shenzhen Stock Exchange home page. From 1994 to 2000 1,164 annual report announcements were identified<sup>3</sup>. Out of these firms, 229 firms' annual reports were either modified or reported explanatory paragraph(s). This left a pool of 935 firms to construct a control portfolio. For firms to be included in the control portfolio there must not have been any price sensitive news announcements in the test period, except for earnings announcements or clearly defined events which could be included in subsequent modeling, e.g. dividend cut; applying this criteria led to a reduction in candidate firms to 590. From this pool firms were matched by their annual financial report announcement date, industry, size and the sign of their profit signal (+/-). For this sample we were able to match 215 control firms. Firms for which a suitable match could not be identified were excluded from the final sample for analysis<sup>4</sup>.

**INSERT TABLE ABOUT 1**

Table 1 provides a breakdown for the sample firms. Panel A reports the sample broken down by frequency of auditor opinion and by audit qualification category. First-time MAOs and unqualified opinions but reporting explanatory paragraph(s) account for 68 per cent of the sample. Firms in receipt of a second qualification comprise 22 per cent of the sample, while the remaining 10 per cent consists of third-time qualification and above. The high percentage of repeat qualifications reflects the significant number of firms reporting recurrent losses which led to the introduction of ST status in 1998 to warn investors of investment in a period when firms couldn't be delisted.

Panel B reports the sample broken down by year, audit qualification category and ST status. The majority of observations are in the unqualified opinion but reporting explanatory paragraph(s) category; with 108 observations accounting for 50 per cent of the sample. Qualified opinions account for 44 per cent of observations. The severest MAO category in the sample includes 12 disclaimer qualifications which accounts for 6 per cent of the sample. The final row in Panel B reports the number of firms given ST status. Not surprisingly eleven of the twelve disclaimer opinions were also give ST status. Fifteen qualified opinions were given the same status. Interestingly ST status was conferred on eight of the observations in the unqualified category but reporting explanatory paragraphs.

## 5.2. Model development

Initially, an event study is conducted to generate the Cumulative Abnormal Returns (CARs) for subsequent multivariate analysis. Mean Abnormal Returns (MARs) are generated from the single index market model:

$$R_{it} = \hat{\alpha}_i + \hat{\beta}_i R_{mt} + \varepsilon_{it}, i = 1, \dots, N, t = -150 : -22 \quad (1)$$

where  $R_{it}$  is the return for firm 'i' on day  $t$ ,  $R_{mt}$  is the market return (Shenzhen Composite Index) on day  $t$ , and  $\varepsilon_{it}$  is the regression residual. The market model parameters  $\hat{\alpha}_i$  and  $\hat{\beta}_i$  are estimated over the 128-day period,  $t = -150$  to  $t = -22$ , where  $t = 0$  is the event day. Scholes and Williams' (1977) asynchronous trading adjustment was employed. Abnormal returns over the test period are generated from:

$$AR_{\tau} = N^{-1} \sum_{i=1}^N R_{i\tau} - (\alpha_i + \beta_i R_{m\tau}), \quad i = 1, \dots, N, \quad \tau = -21 : 21 \quad (2)$$

Cumulating the abnormal returns ( $AR_{\tau}$ ) over various holding periods provides a measure of market value. We have:

$$CAR_{i(t_1, t_2)} = \sum_{\tau=t_1}^{t_2} R_{i\tau} - (\alpha_i + \beta_i R_{m\tau}), \quad \tau = t_1 : t_2 \quad (3)$$

where  $CAR_{i\tau}$  is the Cumulative Abnormal Return for firm 'i' over 'τ' days. The firm specific parameters, on the right hand side of equation 3 are estimated using equation 1.

Equation 4 empirically tests **H1**:

$$\begin{aligned}
 CAR_{ij} = & \alpha + \beta_1 UnQualExp_{it} + \beta_2 Qual_{it} + \beta_3 Disc_{it} + \dots \\
 & + \beta_4 \Delta EPS_{it} + \beta_5 ANT_{it} + \beta_6 REPEAT_{it} + \dots \\
 & + \beta_7 \ln(TA)_{it} + \beta_8 DIV_{it} + \beta_9 M \& A_{it} + \beta_{10} CTL_{it} + \dots \\
 & + \beta_{11} \Delta EXEC_{it} + \lambda_k Time_{kit} + \varepsilon_{it}
 \end{aligned} \tag{4}$$

where:

$i, t$  and  $k$  = firm, year and coefficient indicators, respectively,

$\lambda$  and  $\beta$  = are coefficient estimates.

The variable UnQualExp is an indicator variable taking the value '1' for observations which were unqualified but reporting explanatory paragraphs and '0' otherwise. Its coefficient,  $\beta_1$ , tests **H1**: the quasi-qualification hypothesis. *A priori*, the sign of  $\beta_1$  should be negative. The MAO categories are captured by indicator variables for qualified (Qual) and disclaimer (Disc) opinions. The expected sign on the coefficients for both variables is negative. Each category represents a different level of severity. Hypothetically, the point estimate for  $\beta_3$  should be less than  $\beta_2$  which in turn should be less than  $\beta_1$ . Given the research design the coefficients provide an estimate of the

difference in the return relative to the control portfolio which is captured in the constant term ( $\alpha$ ).

To assess the price impact of the audit information it is important to control for the remaining annual report information and any other price sensitive information released around the announcement date. Earnings information is controlled for by the inclusion of the change in earnings per share scaled by market price ( $\Delta\text{EPS}$ ). *A priori*, we would expect that an increase in EPS would be positively correlated with market value. Chen et al (2000) adopt this measure and report that it is robust in relation to alternative specifications. Only unexpected audit information should affect prices. A number of approaches have been adopted in the literature to partition firms into those whose audit qualification was either anticipated or not. These include multiple discriminant analysis, Z-Scores and the market's expectation approach (Mutchler, 1985; Fleak and Wilson, 1994; Blay and Geigher, 2001; Holder-Webb and Wilkins, 2000). This study employs the market's expectation approach. For each company the cumulative market-adjusted return ( $CMR_i$ ) was computed during the estimation period, defined as:

$$CMR_i = \sum_{t=-150}^{-22} (R_{it} - R_{mt}) \quad (5)$$

where

$R_{it}$  = return on company  $i$  for day  $t$

$R_{mt}$  = return on Shenzhen Composite Index for day  $t$

From each series a dummy variable is created where a value of ‘1’ is assigned if the  $CMR_i$  is negative and a value of ‘0’ is assigned otherwise. We refer to this variable as ANT. This variable controls for what could be described as market surprise. If a firm’s  $CMR_i$  is positive then the market’s recent view for this firm was favourable. The remaining variables control for repeat qualification (REPEAT), possible size effects (Ln(TA): natural log of Total Assets), dividend cuts (DIV), announcement of a merger or acquisition (M&A), the announcement of a top executive departure in the event period ( $\Delta EXEC$ ), an announcement of a change of controlling shareholder (CTL), and year dummies are also included to control for possible time effects.

To investigate **H2** equation 4 is augmented to include an indicator variable ST; it takes the value ‘1’ for observations given ST status and ‘0’ otherwise. Consequently the ST variable subsumes Disc and excludes from UnQualExp and Qual their ST status observation.

$$\begin{aligned}
CAR_{ij} = & \alpha + \beta_1 UnQualExp_{it} + \beta_2 Qual_{it} + \beta_3 ST_{it} + \dots \\
& + \beta_4 \Delta EPS_{it} + \beta_5 ANT_{it} + \beta_6 REPEAT_{it} + \dots \\
& + \beta_7 \ln(TA)_{it} + \beta_8 DIV_{it} + \beta_9 M\&A_{it} + \beta_{10} CTL_{it} + \dots \\
& + \beta_{11} \Delta EXEC_{it} + \lambda_k Time_{kit} + \varepsilon_{it}
\end{aligned} \tag{6}$$

Comparison of the point estimated for equations 4 and 6 allows inferences to be made in relation to the joint effect of auditor opinions and ST status.

## 6. Results

### 6.1. Descriptive statistics & correlations

Table 2 reports descriptive statistics for the matched sample and firms reporting audit information in their annual reports. Matched firms are defined as ‘0’ and sample firms as ‘1’. On average, the firms are similar in size. We are unable to reject the null hypothesis for equality of means (medians) both for market value (MV) and for total assets (TA). The firms differ in terms of their reported net income (NI). Whereas both samples have positive median NI of 21.5 and 12.4 respectively, which are significantly different at the 1 per cent level, the audit information firms are negatively skewed with a mean NI of -5.8. A similar pattern emerges for ROE. Median ROE is positive for both sets of firms at 0.06 and 0.03 respectively.

### **INSERT TABLE 2 ABOUT HERE**

The mean ROE for the sample firms is -0.04, though we are unable to reject the null hypothesis of equality of means (or medians) at a reasonable probability level. Examination of changes in performance in relation to the previous year ( $\Delta$ ROE) suggests that the firms are similar. Again there is no significant difference between the two sets of firms, but both have negative mean and median  $\Delta$ ROE. As would be expected the sample firms are slightly more negative. Likewise, both samples also report negative changes in accounting earnings ( $\Delta$ EPS). Both groups of firms are negatively skewed. This is evidenced by the fact that the matched firms have a mean  $\Delta$ EPS of -0.017 compared to the sample firms’  $\Delta$ EPS is -0.023 - both have a median  $\Delta$ EPS of -0.01. The  $\Delta$ EPS is much

more stable in relation to  $\Delta$ ROE and ROE. Examination of standard deviations and percentiles highlights the fact that the  $\Delta$ EPS is similar for both the matched and sample firms. The 1<sup>st</sup> (99<sup>th</sup>) percentile is -0.38 (0.29) for matched firms and -0.47 (0.30) for the sample for  $\Delta$ EPS. In contrast, the standard deviations for  $\Delta$ ROE are 0.19 and 0.67 for matched and sample firms. Also, the 1<sup>st</sup> (99<sup>th</sup>) percentile is -0.64 (0.77) for matched firms and -1.72 (2.98) for the sample. Overall the descriptive statistics suggest that the matched and sample firms are similar in size, profitability and changes in accounting earnings. Where the two groups of firms differ significantly is their reported net income. Overall, the descriptive statistics are consistent with what would be expected given that a matched pair approach was adopted.

### **INSERT TABLE 3 ABOUT HERE**

Panels A and B of Table 3 reports correlations for three CAR holding periods: a pre-event CAR over holding period -21:-1, an event CAR spanning the release day from -1:1 and a post-announcement CAR from 1:21, with the key variables of interest. In China the audit report is published contemporaneously with the annual financial report. If a firm is also given ST status this information is also released on the same day. Consequently, there should not be any information leakage associated with these signals prior to the event day. In reality anecdotal evidence suggests that Chinese investor's investment horizon in this period was short-term with price movements being very sensitive to rumours. Qualitative enquiry by Chen et al (2005) indicated that transaction trading volume on the Shanghai Stock Exchange over the same period of this study was higher than that for

NYSE but a fraction of its monetary amount. The pattern emerging from the three holding period correlations suggests a pre- and post-announcement effect. In the pre-event period the signs of the bivariate correlations are broadly consistent with prior expectations. Both  $\Delta$ EPS and  $\Delta$ ROE are positively correlated with CAR  $-21:-1$  with respective  $p$ -values of 0.001 (0.001) and 0.082 (0.005) for Pearson (Spearman) correlations. The relationship between UnQualExp and pre-event CAR  $-21:-1$  is positive and significant, it persists for the event-period CAR, but becomes insignificant for the post-event CAR. This initial empirical analysis is inconsistent with the quasi-qualification hypothesis. As expected, the MAO dummy variable is significantly negatively correlated with CAR  $-21:-1$ . The MAO sub-category indicator variables, Qual and Disc, are negatively correlated with the pre-event CAR at reasonable probability levels. ST has the most negative correlation co-efficient of -0.196 with a  $p$ -value of 0.001. Over the event period this relationship breaks down. Six out of the seven variables are un-correlated with CAR  $-1:1$  at conventional levels, while the signs on the correlation coefficients for Disc and ST switch to positive. In the post-event period Qual, Disc and ST revert to being negative with associated  $p$ -values of 0.020, 0.021 and 0.001. The correlation co-efficient for ST is much higher than that for Disc or Qual. Both have a correlation coefficient of -0.112 compared to -0.216 for ST. Given that ST encompasses Disc and observations from both Qual and UnQualExp this provides tentative support for **H2**. The correlations between the variables, reported in Panel C, are consistent. For example, ST is highly correlated with Disc, and Qual and Disc are negatively correlated as expected given the audit qualification categories are mutually exclusive.

## 6.2. Returns analysis

Table 4 and figures 1 and 2 report the Mean Abnormal Returns (MARs) and CARs for the sample and control portfolio. The sample firms experience a 0.94 (0.86) of a per cent decline on day -2 with the single-index market model (market-adjusted) returns generating benchmark, and is significant using both the parametric *t*-test and Corrado's (1989) non-parametric rank test. On day 0 the sample firms experiences a decline of 0.39 of a per cent which is significant at the 5 per cent level for the *t*-test only, suggesting the presence of outliers. In contrast, the control sample suffers a decline of 0.53 of a per cent on day -2 which is significant for the *t*-test only. The market reaction for the control sample is centered on day 0 with an associated decline of 1 percent. Days -1 and +1 also experience a significantly negative market reaction of approximately 0.5 of a per cent. Figure 1 depicts the MARs for both the sample and control firms. The market reaction for the control portfolio is centered on the event day whereas it is day -2 for the sample firms.

### **INSERT TABLE 4 AND FIGURES 1 & 2 ABOUT HERE**

This finding is significant given that Chinese firms are required to contemporaneously publish auditor's report with their financial statements and the issuance of STs on the same day. A pessimistic conjecture explaining the MARs is insider trading. We leave this conjecture as a possible avenue for further research. The primary focus of this paper is in explaining returns in relation to auditors' opinions and ST status. An investigation of insider trading would require much more detailed data on trader identities which, to the

authors' knowledge, is not available for this period. Figure 2 illustrates how the two portfolios behave over the test period. In the pre-event period both portfolios experience positive returns. This most likely reflects the order-flow characteristic for this market which, assuming it follows similar anecdotal evidence for the Shanghai market, is made up of liquidity traders who generate large numbers of relatively small trades. Given that the annual financial report is the only source of regulated financial information available to investors at this time it is not surprising that there would be a trading in the period prior to announcement. Though, the price build-up does appear to be less for the sample firms suggesting a degree of investor sophistication discriminating between firms. It is evident that in the post-event period the two portfolios diverge.

### 6.3. *Multivariate analysis*

Table 5 reports the results from the multivariate analysis of the pre-event CAR -21:-1. The first two columns of results are for equation 4 with the remaining two columns for equation 6. The overall  $F$ -statistic for equation 4, using the OLS estimator, is 3.71 and significant at the 1 per cent level. The adjusted  $R^2$  is 0.063 per cent. The coefficient on UnQualExp tests the quasi-qualification. With a significant point estimate of 0.050 this provides no evidence to support **H1**. On the contrary, it suggests that firms which are unqualified but reporting explanatory paragraph(s) have returns in the pre-event period which are marginally significantly higher than the control portfolio. Qual has a point estimate of -0.021 but is insignificant. The point estimate for Disc is -0.141 and significant at the 5 per cent. This implies a return in the pre-event period of -0.075 per cent (0.066-0.141). These results appear to be influenced by outliers. The Jarque-Bera

test convincingly rejected the normality null hypothesis; given the stylized distributional properties of returns data, leptokurtosis, this result is not surprising. In an attempt to mitigate the influence of outliers and appropriately model the data generating process, the Quantile Regression (QR) is also used to estimate equations 4 and 6 (Greene, 2003). This effectively changes the benchmark. Estimating the models from the 50<sup>th</sup> quantile measures the marginal difference with respect to the median.

#### **INSERT TABLE 5 ABOUT HERE**

The most significant effect of the QR estimator, column 2, is to reduce the point estimate on Disc to -0.085, which is now also insignificant. Estimates of equation 6 reported in the remaining two columns fail to provide any evidence to support **H1**, the quasi-qualification hypothesis, but provide support for **H2** across both estimation techniques; the point estimate for the ST indicator variable is -0.106 for the OLS estimator and -0.133 for the QR estimator. Additional control variables, across models and estimation techniques, are consistent with prior expectations in terms of sign and magnitude of the coefficients. For example, Ant and  $\Delta$ EPS.

#### **INSERT TABLE 6 ABOUT HERE**

The results reported in Table 6 don't provide any empirical evidence in favour of either **H1** or **H2** over the event period: CAR -1:1. The only co-efficients which is significant is for UnQualExp, which is the wrong sign. The signs for the remaining key variables,

Qual, Disc and ST, are all positive and insignificant. These results concur the correlation results for the same period reported in table 3.

### **INSERT TABLE 7 HERE**

The results for the post-event period, CAR 1:21, are reported in table 7. A similar pattern emerges to that reported in table 5. Across models and estimation techniques, there is no evidence to support **H1**. The ST variable is again significant for both the OLS and QR estimators. The OLS point estimate is -0.075 whereas for the QR estimator it is -0.091. When we compare the coefficients to the control portfolio both are negative: -0.039 per cent (0.036-0.075 for OLS) and -0.009 per cent (0.082-0.091 for QR). Interestingly, the Ant variable is again significant, highlighting the importance of expectations in the pre- and post-event period, while the  $\Delta$ EPS is insignificant across the board. This would suggest that earnings information has been incorporated into prices with the ST signal driving post-announcement price divergence with respect to the control portfolio.

## **7. Conclusion**

This paper examines the information content of MAOs, quasi-qualification and firms given ST stautus during accounting, auditing and capital market's nascent stages of development in China: 1994 to 2000. Our analysis failed to provide empirical support for the quasi-qualification hypothesis. While auditors may use explanatory paragraphs as an alternative to qualifying the annual financial report, and the CSRC 's interpretation is that

the use of explanatory paragraphs is a form of qualification, it appears that investors do not value their information content. Next, there is consistent evidence that investors distinguish between firms given ST status. Our empirical analysis indicates that ST firms' returns are significantly less than that for the control portfolio over the pre- and post event periods.

What is the implication for auditing and exchange regulators? It must be remembered that firms in the ST category are an amalgamation of firms across audit qualification categories. While the disclaimer category wasn't significant as a stand alone variable the construction of the ST variable, which was an amalgamation of information across all auditing groups, was. The ST variable could be viewed as a contemporaneous correction factor negating the timeliness issue. Firms' performance may have deteriorated since the audit report was filed making the issuance of the ST necessary to update investor. A more pessimistic conjecture would be that ST status was necessary signal to investors to ameliorate auditors' reticence to issue more accurate opinions in the most severe audit qualification categories. What can be concluded is that the introduction of ST status led investors to discriminate between firms. This supports its introduction as a signalling mechanism.

A final issue raised in this analysis is the appropriate modeling of returns data. The results reported, and subsequent conclusions drawn, were sensitive to the choice of estimator. In an attempt to ensure the robustness of our conclusions, the Quantile Regression estimator was adopted in conjunction with OLS.

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## NOTES

- 1 CICPA Auditing Standard Committee, 1996, p. 211.
- 2 <http://www.securitiestimes.com.cn/>
- 3 The major source for the published financial reports from which the qualified audit opinions were identified, was China Securities Information Library (1990-1999) which was jointly published by China Remin University Press and Beijing Jotech Computer Technologies Company Ltd. The accuracy of the qualified audit opinion was cross-checked with three internet sites. <http://www.p5w.net>, <http://www.cnlist.com/> and <http://stock.cis.com.cn/> .
- 4 Of the 14 firms deleted 5 fell into the unqualified with explanatory paragraphs category, 7 in qualified and 2 in disclaimer.

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Table 1  
Sample Breakdown

*Panel A: Sample breakdown by frequency and auditors' opinions*

Qualification type	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	Row total	% total
UnQualExp	84	18	4	1	-	1	108	50
Qual	60	24	6	2	2	1	95	44
Disclaimer	2	5	3	1	1	-	12	6
Adverse	-	-	-	-	-	-	-	-
Column total	146	47	13	4	3	2	215	100.0
% total	68	22	6	2	1	1	100.0	-

*Panel B: Sample breakdown by year and auditors' opinions*

Year	UnQualExp	Qual	Disclaimer	Adverse	Row total	% Total
1994	1	1	-	-	2	1
1995	1	5	-	-	6	3
1996	-	17	-	-	17	8
1997	6	15	-	-	21	10
1998	22	20	1	-	43	20
1999	34	16	8	-	58	27
2000	44	22	3	-	68	31
Column total	108	95	12	-	215	100.0
% total	50	44	6	-	100.0	-
No. ST	8	15	11	-	34	-

*Notes:* Total number of firms 130. Sample includes unqualified auditor opinion but reporting explanatory paragraph (UnQualExp), and two modified auditor opinion categories: qualified opinion (Qual) and disclaimer (Disc). ST is for firms in receiving special treatment status.

Table 2  
Descriptive Statistics

Variable	Qualified	Mean	Std. dev.	1%	25%	Median	75%	99%
<i>MV</i>	0	2,062	2,253	391	946	1,560	2,360	13,633
	1	1,943	1,521	301	1,066	1,500	2,138	9,293
<i>TA</i>	0	1,124	1,230	241	423	755	1,311	7,094
	1	1,290	1,349	168	453	753	1,596	7,821
<i>NI</i>	0	27.8 <sup>‡</sup>	93	-180	0.96	21.5 <sup>‡</sup>	48	523
	1	-5.8	176	-654	-21.4	12.4	39	693
<i>ROE</i>	0	0.01	0.20	-0.71	0	0.06	0.10	0.23
	1	-0.04	0.63	-2.01	-0.08	0.03	0.10	1.14
$\Delta ROE$	0	-0.05	0.19	-0.64	-0.09	-0.03	0.0	0.77
	1	-0.08	0.67	-1.72	-0.15	-0.04	0.1	2.98
$\Delta EPS$	0	-0.017	0.08	-0.38	-0.03	-0.01	0.01	0.29
	1	-0.023	0.12	-0.47	-0.04	-0.01	0.01	0.30

Notes:

For *t* and Wilcoxon test significance, for mean and median, respectively:

‡ Significant at 0.01 level

\* Significant at 0.05 level

*Qualified* = 1 for sampled firms 0 for matched firms.

*MV* = market value in millions of RMB.

*TA* = total assets in millions of RMB.

*NI* = net income

*ROE* = return on equity (net income/year-end total equity)

$\Delta ROE$  = change in ROE ( $ROE_{ij} - ROE_{ij-t}$ ).

$\Delta EPS$  = change in earnings per share ( $EPS_{ij} - EPS_{ij-t}$ ) over stock price at *t*-1.

Table 3  
Correlation Analysis

Variable	CAR -21:-1		CAR -1:1		CAR 1:21		
<i>Panel A. Pearson correlation</i>							
$\Delta EPS$	<b>0.169</b>	(0.001)	<b>0.090</b>	(0.063)	<b>0.072</b>	(0.135)	
$\Delta ROE$	<b>0.084</b>	(0.082)	<b>0.087</b>	(0.073)	<b>0.044</b>	(0.364)	
MAOs	<b>-0.159</b>	(0.001)	<b>-0.005</b>	(0.912)	<b>-0.150</b>	(0.002)	
UnQalExp	<b>0.101</b>	(0.037)	<b>0.139</b>	(0.004)	<b>0.056</b>	(0.243)	
Qual	<b>-0.105</b>	(0.029)	<b>-0.012</b>	(0.800)	<b>-0.112</b>	(0.020)	
Disc	<b>-0.153</b>	(0.001)	<b>0.017</b>	(0.727)	<b>-0.112</b>	(0.021)	
STs	<b>-0.196</b>	(0.001)	<b>0.021</b>	(0.662)	<b>-0.216</b>	(0.001)	
<i>Panel B. Spearman correlation</i>							
$\Delta EPS$	<b>0.181</b>	(0.001)	<b>0.083</b>	(0.086)	<b>0.096</b>	(0.046)	
$\Delta ROE$	<b>0.134</b>	(0.005)	<b>0.175</b>	(0.001)	<b>0.053</b>	(0.277)	
MAOs	<b>-0.162</b>	(0.001)	<b>-0.004</b>	(0.940)	<b>-0.137</b>	(0.005)	
UnQalExp	<b>0.097</b>	(0.044)	<b>0.165</b>	(0.001)	<b>0.044</b>	(0.358)	
Qual	<b>-0.113</b>	(0.019)	<b>-0.016</b>	(0.745)	<b>-0.096</b>	(0.046)	
Disc	<b>-0.142</b>	(0.003)	<b>0.030</b>	(0.533)	<b>-0.116</b>	(0.016)	
STs	<b>-0.198</b>	(0.001)	<b>0.047</b>	(0.331)	<b>-0.212</b>	(0.001)	
<i>Panel C. Correlations between variables</i>							
	$\Delta EPS$	$\Delta ROE$	MAOs	UnQalExp	Qual	Disc	STs
$\Delta EPS$	1						
$\Delta ROE$	<b>0.235</b> (0.001)	1					
MAOs	<b>-0.098</b> (0.043)	<b>0.021</b> (0.661)	1				
UnQalExp	<b>0.063</b> (0.192)	<b>-0.048</b> (0.324)	<b>-0.333</b> (0.001)	1			
Qual	<b>-0.080</b> (0.096)	<b>0.063</b> (0.190)	<b>0.925</b> (0.001)	<b>-0.308</b> (0.001)	1		
Disc	<b>-0.054</b> (0.267)	<b>-0.104</b> (0.031)	<b>0.294</b> (0.001)	<b>-0.098</b> (0.042)	<b>-0.066</b> (0.170)	1	
ST	<b>-0.186</b> (0.001)	<b>-0.032</b> (0.514)	<b>0.350</b> (0.001)	<b>-0.011</b> (0.825)	<b>-0.013</b> (0.790)	<b>0.526</b> (0.001)	1

**Notes:**

*p*-values are in parentheses

*N* = 430 in all cells

*CAR* = Cumulative Abnormal Return for various holding periods.

$\Delta ROE$  = change in ROE ( $ROE_{ij} - ROE_{ij-1}$ ).

$\Delta EPS$  = change in earnings per share ( $EPS_{ij} - EPS_{ij-1}$ ) over stock price at *t*-1.

*MAO* = 1 for a Modified Auditor's Opinions and 0 otherwise.

*UnQualExp* = 1 for unqualified with explanatory notes and 0 otherwise.

*Qual* = 1 for a qualified audit report and 0 otherwise.

*Disc* = 1 for disclaimer qualification audit report and 0 otherwise.

*ST* = 1 if special treatment was issued and 0 otherwise

Table 4  
Mean Abnormal Returns

<i>Test Period</i>	<i>MARs (%)</i>	<i>MARs (%)</i>	<i>MARs (%)</i>	<i>MARs (%)</i>
<i>Days</i>	<i>Audit sample<sup>a</sup></i>	<i>Audit sample<sup>b</sup></i>	<i>Control sample<sup>a</sup></i>	<i>Control sample<sup>b</sup></i>
-5	-0.21	-0.18	0.14	0.16
-4	0.10	0.08	-0.10	-0.03
-3	-0.31	-0.39	-0.19	-0.27
-2	-0.94**,#	-0.86**,#	-0.53**	-0.53**
-1	0.03	-0.05	-0.50**,#	-0.37**,#
0	-0.39*	-0.38*	-1.00**,#	-1.01**,#
1	-0.09	-0.01	-0.50**,#	-0.58**,#
2	-0.04	-0.04	-0.19	-0.25
3	-0.27	-0.26	-0.24	-0.22
4	-0.04	0.05	-0.15	-0.12
5	0.08	0.08	-0.28	-0.25

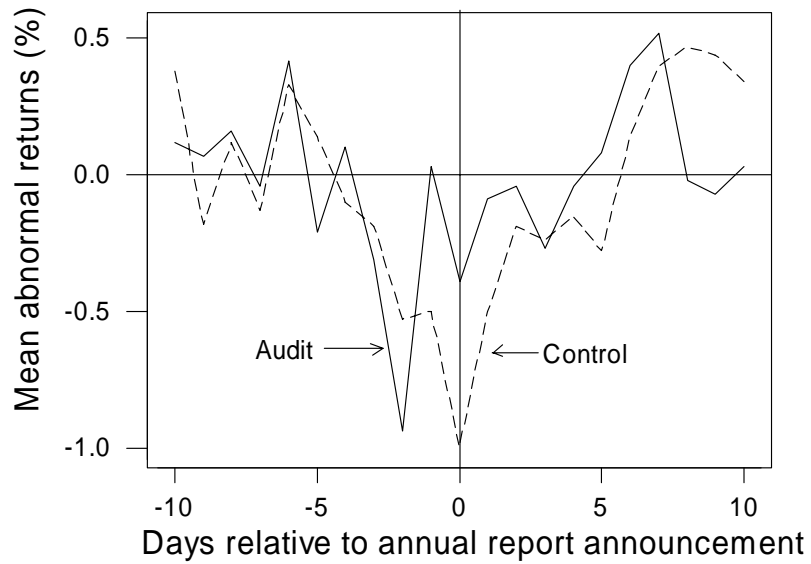
*Notes:*

<sup>a</sup>MARs are mean abnormal returns generated from adopting the market-model benchmark.

<sup>b</sup>MARs are mean abnormal returns generated from adopting the market-adjusted benchmark.

<sup>c</sup>\*Significant at the 0.05 level (1 tailed) *t*-test; \*\*Significant at the 0.01 level (1 tailed) *t*-test; #Significant at the 0.01 level (1 tailed), Corrado's (1989) rank test.

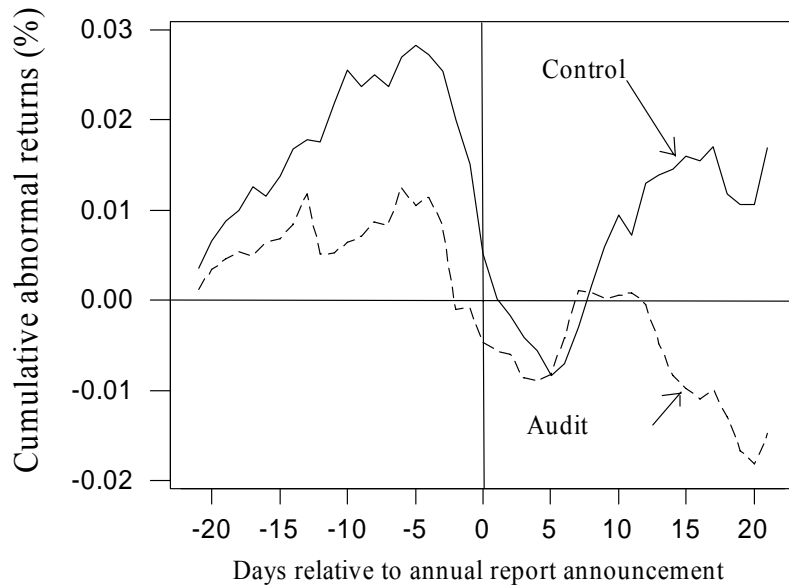
Figure 1  
Mean Abnormal Returns



*Notes:*

Plot of mean abnormal returns for the sample firms reporting audit information in their annual report (Audit) and the matched control firms (Control).

Figure 2  
Cumulative Abnormal Returns



*Notes:*

Plot of the cumulative abnormal returns for the matched paired sample (Control) and the sampled firms who reported audit information in their annual report (Audit).

Table 5  
Multivariate Analysis: Pre-event Period (CAR -21:-1)

<i>Variable</i>	<i>Estimation technique</i>			
	<i>OLS</i>	<i>Quantile</i>	<i>OLS</i>	<i>Quantile</i>
Constant	0.066 (0.51)	0.114 (1.04)	0.056 (0.45)	0.125 (1.32)
UnQualExp	<b>0.050</b> (1.96)*	<b>0.072</b> (2.77)**	<b>0.053</b> (2.16)*	<b>0.037</b> (1.42)
Qual	<b>-0.021</b> (-0.71)	<b>-0.007</b> (-0.27)	<b>-0.003</b> (-0.10)	<b>-0.002</b> (-0.08)
Disc	<b>-0.141</b> (-2.37)*	<b>-0.085</b> (-1.43)	-	-
ST	-	-	<b>-0.106</b> (-2.27) *	<b>-0.133</b> (-3.23) **
Ant	-0.048 (-1.91)	-0.065 (-2.63) **	-0.054 (-2.23) *	-0.057 (-2.30) *
ΔEPS	0.293 (3.22) **	0.239 (2.91) **	0.255 (2.71) **	0.263 (2.86) **
ln(TA)	-0.017 (-1.42)	-0.009 (-0.88)	-0.018 (-1.48)	-0.011 (-1.05)
ΔDiv	-0.032 (-2.33) *	-0.034 (-1.99) *	-0.031 (-2.25) *	-0.034 (-2.88) **
M&A	0.002 (0.06)	0.041 (0.75)	0.027 (0.60)	0.084 (1.51)
ΔCTL	0.041 (0.80)	0.082 (1.83)	0.048 (0.96)	0.072 (1.64)
ΔExec	-0.106 (-2.16) *	-0.134 (-2.88) **	-0.097 (-2.11) *	-0.115 (-2.48) *
Repeat	-0.005 (-0.16)	-0.016 (-0.59)	-0.001 (-0.03)	0.023 (0.81)
YR1995	0.042 (0.38)	-0.056 (-0.56)	0.050 (0.47)	-0.057 (-0.70)
YR1996	0.035 (0.31)	-0.042 (-0.45)	0.039 (0.35)	-0.055 (-0.72)
YR1997	0.094 (0.84)	-0.054 (-0.59)	0.102 (0.93)	-0.056 (-0.75)
YR1998	0.067 (0.62)	-0.041 (-0.46)	0.085 (0.80)	-0.040 (-0.56)
YR1999	0.056 (0.52)	-0.061 (-0.68)	0.073 (0.69)	-0.050 (-0.72)
YR2000	0.077 (0.72)	-0.046 (1.04)	0.095 (0.91)	-0.030 (1.32)
<i>Adj. R<sup>2</sup>/Pseudo R<sup>2</sup></i>	0.063	0.062	0.070	0.076
<i>F-Statistic</i>	3.71 **	-	4.57 **	-
No. in sample	430	430	430	430
J-B test	0.001	-	0.001	-

**Notes:**

*t*-statistics are in parentheses. Heteroskedasticity and autocorrelation adjusted standard errors were computed for OLS. Quantile regression is for the 50<sup>th</sup> quantile (median). Adjusted  $R^2$  (*Adj. R<sup>2</sup>*) computed for Ordinary Least Squares (OLS). Pseudo  $R^2$  computed for quantile regression. \*Significant at 0.05 level; \*\*Significant at 0.01 level or less. J-B test is the Jarque-Bera test for departure from normality.

Table 6  
Multivariate Analysis: Event Period (CAR -1:1)

<i>Variable</i>	<i>Estimation technique</i>	
	<i>OLS</i>	<i>OLS</i>
Constant	-0.027 (-0.65)	-0.027 (-0.64)
UnQualExp	<b>0.024</b> (2.45)*	<b>0.022</b> (2.29)*
Qual	<b>0.005</b> (0.44)	<b>0.004</b> (0.36)
Disc	<b>0.006</b> (0.30)	- -
ST	- -	<b>0.006</b> (0.41)
Ant	-0.003 (-0.34)	-0.003 (-0.27)
$\Delta$ EPS	0.058 (1.80)	0.058 (1.79)
ln(TA)	-0.005 (-1.48)	-0.005 (-1.49)
$\Delta$ Div	-0.004 (-0.78)	-0.004 (-0.78)
M&A	0.019 (1.32)	0.018 (1.21)
$\Delta$ CTL	-0.019 (-1.27)	-0.017 (-1.16)
$\Delta$ Exec	-0.031 (-1.45)	-0.029 (-1.36)
Repeat	0.019 (1.63)	0.020 (1.69)
YR1995	0.053 (1.33)	0.053 (1.34)
YR1996	0.028 (0.68)	0.028 (0.68)
YR1997	0.051 (1.32)	0.051 (1.32)
YR1998	0.042 (1.11)	0.042 (1.12)
YR1999	0.040 (1.08)	0.041 (1.1)
YR2000	0.046 (1.25)	0.047 (1.26)
<i>Adj. R<sup>2</sup>/Pseudo R<sup>2</sup></i>	0.035	0.033
<i>F-Statistic</i>	1.92 *	1.95 *
No. in sample	430	430
J-B test	0.001	0.001

**Notes:**

*t*-statistics are in parentheses. Heteroskedasticity and autocorrelation adjusted standard errors were computed for OLS. Quantile regression is for the 50<sup>th</sup> quantile (median). Adjusted  $R^2$  (*Adj. R<sup>2</sup>*) computed for Ordinary Least Squares (OLS). Pseudo  $R^2$  computed for quantile regression. \*Significant at 0.05 level; \*\*Significant at 0.01 level or less. J-B test is the Jarque-Bera test for departure from normality.

Table 7  
Multivariate Analysis: Post-event period (CAR 1:21)

<i>Variable</i>	<i>Estimation technique</i>			
	<i>OLS</i>	<i>Quantile</i>	<i>OLS</i>	<i>Quantile</i>
Constant	0.047 (0.41)	0.109 (1.33)	0.036 (0.31)	0.082 (1.37)
UnQualExp	<b>0.036</b> (2.04)*	<b>0.008</b> (0.43)	<b>0.035</b> (2.04)*	<b>0.001</b> (0.00)
Qual	<b>-0.011</b> (-0.50)	<b>-0.013</b> (-0.67)	<b>0.006</b> (0.25)	<b>-0.002</b> (-0.13)
Disc	<b>-0.043</b> (-1.00)	<b>-0.073</b> (-1.72)	-	-
ST	-	-	<b>-0.075</b> (-2.04) *	<b>-0.091</b> (-4.34) **
Ant	-0.042 (-2.25) *	-0.027 (-1.52)	-0.046 (-2.53) *	-0.033 (-2.56) *
ΔEPS	0.065 (0.93)	0.057 (0.91)	0.036 (0.54)	0.024 (0.52)
ln(TA)	-0.010 (-1.20)	-0.003 (-0.42)	-0.011 (-1.22)	-0.003 (-0.57)
ΔDiv	-0.007 (-0.50)	0.000 (0.02)	-0.007 (-0.48)	-0.005 (-0.53)
M&A	-0.039 (-0.95)	0.005 (0.13)	-0.018 (-0.39)	0.021 (0.74)
ΔCTL	0.009 (0.25)	0.026 (0.83)	0.015 (0.43)	0.012 (0.50)
ΔExec	-0.067 (-1.58)	-0.064 (-1.97) *	-0.060 (-1.46)	-0.045 (-1.87)
Repeat	-0.017 (-0.78)	0.001 (0.05)	-0.008 (-0.34)	0.019 (1.27)
YR1995	0.014 (0.13)	-0.084 (-1.13)	0.019 (0.18)	-0.075 (-1.34)
YR1996	0.014 (0.13)	-0.105 (-1.49)	0.016 (0.15)	-0.086 (-1.67)
YR1997	0.081 (0.76)	-0.079 (-1.13)	0.086 (0.81)	-0.057 (-1.12)
YR1998	0.052 (0.49)	-0.070 (-1.03)	0.066 (0.63)	-0.035 (-0.70)
YR1999	0.025 (0.24)	-0.098 (-1.45)	0.041 (0.39)	-0.067 (-1.35)
YR2000	0.030 (0.28)	-0.091 (-1.36)	0.045 (0.43)	-0.058 (-1.18)
<i>Adj. R<sup>2</sup>/Pseudo R<sup>2</sup></i>	0.044	0.030	0.0983	0.050
<i>F-Statistic</i>	2.16 **	-	2.64 **	-
No. in sample	430	430	430	430
J-B test	0.001	-	0.001	-

**Notes:**

*t*-statistics are in parentheses. Heteroskedasticity and autocorrelation adjusted standard errors were computed for OLS. Quantile regression is for the 50<sup>th</sup> quantile (median). Adjusted *R*<sup>2</sup> (*Adj. R*<sup>2</sup>) computed for Ordinary Least Squares (OLS). Pseudo *R*<sup>2</sup> computed for quantile regression. \*Significant at 0.05 level; \*\*Significant at 0.01 level or less. J-B test is the Jarque-Bera test for departure from normality.