

## **Investigate the Relationship between Audit opinion and Information Asymmetry in Listed Firms of Tehran Stock Exchange**

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### **Abstract.**

The main objective of financial reporting is to provide useful financial information for decision-making concerning investment, credit and other questions related to the allocation of resource (IASB, 2011). As a consequence, high-quality accounting information is a pre-requisite for the correct functioning of the capital markets and the economy and can be considered as a means of reducing information asymmetry and agency conflicts. The aim of this paper is to investigate the Relationship between Audit opinion and Information Asymmetry in Listed Firms of Tehran Stock Exchange. The research period is from 2009-2014 and research sample consists of 65 firms that are listed at Tehran Stock Exchange (TSE). The results indicate that the relationship between information asymmetry and audit opinion is significant. Also results show that firms with audit qualifications show higher information asymmetry than those with unqualified opinions. Also firms with non-quantified qualifications show higher information asymmetry than firms with quantified qualifications. In contrast, there is no significant difference between quantified qualification and non-quantified qualifications in relation to information asymmetry.

**Keywords:** Audit opinions; Financial reporting quality; Information asymmetry; Tehran Stock Exchange

### **1. Introduction.**

The main objective of financial reporting is to provide useful financial information for decision-making concerning investment, credit and other questions related to the allocation of resources (IASB, 2011). As a consequence, high-quality accounting information is a pre-requisite for the correct functioning of the capital markets and the economy and can be considered as a means of reducing information asymmetry and agency conflicts. To this end, since the accounting scandals of the early 2000s, researchers, practitioners and regulators have focused considerable attention on financial reporting quality in general, and the role played by auditors in particular. An important issue within this framework is the effectiveness of auditors and intermediaries who intervene in the process of assessing and communicating the reliability of financial information to enhance the credibility of financial reporting (Healy and Palepu, 2001). Effectively, because management is responsible for preparing financial reports, accounting users, such as market participants, expect an objective third party to provide assurance that the information reported is accurate. The audit report presents the auditor's opinion regarding whether a firm's financial statements conform to generally accepted accounting principles (GAAP). In other words, the external auditor assesses the validity and reliability of publicly reported financial information. In this sense, through a non-qualified audit report, the auditors express that, in their opinion, all accounting standards have been properly observed by the company, thus enhancing the credibility of the financial statements. By contrast, a qualified audit opinion is the auditors' way of communicating with outside investors their concerns or reservations about the quality of the firm's financial statements or their inability to gather sufficient and appropriate information. Hence, the audit opinion is likely to affect the interpretation of financial information by stock market participants as it is through audit qualifications that auditors signal that earnings numbers generated by the firm are noisier or less credible than in unqualified reports (Choi and Jeter, 1992). In this study, we focus on the effectiveness of audit reports to enhance the credibility of financial statements.

### **2. Related literature and hypotheses.**

Previous theoretical research has shown that more and better firm disclosure reduces information asymmetry between the firm and its stakeholders or among traders in the stock market. Higher disclosure quality should reduce information asymmetry by reducing private information search incentives (Diamond, 1985; Diamond and Verrecchia, 1991; Easley and O'Hara, 2004), and the relative amount of informed trading (Fishman and Hagerty, 1989; Merton, 1987). The evidence shows that higher quality disclosure is negatively associated with effective bid-ask spreads (Welker, 1995; Healy et al., 1999), adverse selection spread components (Heflin et al., 2005) and the average level of information asymmetry measured by PIN (Brown and Hillegeist, 2007). From an earnings quality perspective, Bhattacharya et al. (2013) find that higher reporting quality, proxy by measures of accrual-based earnings management, leads to higher liquidity and lower trading

costs. Our study differs from this stream of literature in that it is focused on the role played by the audit report in enhancing the credibility of financial information reported by firms. Financial information may reduce investors' assessed information risk in the market if investors perceive financial information to be credible (Hope et al., 2011). In this sense, auditors contribute to assess the reliability of financial information, with the audit opinion representing a crucial piece of information for financial statement users (Butler et al., 2004). Studies such as Firth (1978), Dodd et al. (1984) and Pucheta Mart\_inez et al. (2004) show that qualified opinions do not provide investors with new information, in part because they can be anticipated. On the other hand, other studies such as Dopuch et al. (1986), Chen et al. (2000) and Soltani (2000) report significant negative price revisions to qualified audit reports, suggesting that qualified audit opinions convey adverse information to the market. Choi and Jeter (1992) examine another insight into the capital market effects of audit opinions and, for a sample of 'subject to' and consistency qualifications, find a reduction in the earnings response coefficient after the issuances of qualified audit opinions.

We hypothesise that qualified audit opinions affect the investors' perception of earnings uncertainty or quality, but our study differs from previous research in that we are not interested in the reaction of stock prices around the date of the audit report announcement. We examine how audit opinions are related to the average level of information asymmetry among market participants. Therefore, we examine the audit opinion information asymmetry relation in an association study context. In this sense, a branch of literature which is more related to our study design is one which analyses the effect of audit opinions on contracting in the private debt market (Niemi and Sundgren, 2012; Chen et al., 2014).<sup>1</sup> Moreover, this type of analysis will help both to ascertain whether audit opinions provide the market with useful information, avoiding the weaknesses of traditional event studies, and to look deeper into the directional association between audit qualification opinions and information asymmetry. Our first hypothesis can be stated as follows:

**H<sub>1</sub>: Firms with qualified audit reports will show higher information asymmetry in the stock market than those with unqualified opinions.**

Audit qualifications can be of different types and it is expected that their market effects depend on the information conveyed in the audit report to investors. Following classifications used in previous research (Melumad and Ziv, 1997; Pucheta Mart\_inez et al., 2004), we group audit qualifications into those that quantify their repercussions on financial statements—for example qualifications for asset realization, timing of revenue recognition and GAAP compliance—and those that cannot be quantified—uncertainties and scope limitations. We analyze whether either category of qualification reveals differences in information asymmetry in the market when compared to unqualified opinions. We expect that those qualifications that involve higher uncertainty and which, as a consequence, are less easily adjusted by market participants will be associated with higher information asymmetry than those that are easily adjusted. So our second hypothesis is the following:

**H<sub>2</sub>: Firms with non-quantified audit qualifications will show higher information asymmetry in the stock market than those with quantified qualifications.**

### 3. Model specification.

To examine the association between the audit opinion and different proxies for information asymmetry, we use the following regression model:

$$ASY_{i,t} = \beta_0 + \beta_1 QAO_{i,t-1} + \beta_2 Size_{i,t} + \beta_3 Turnover_{i,t} + \beta_4 Volat_{i,t} + \beta_5 BIG1_{i,t-1} + \beta_6 Zscore_{i,t} + \sum \beta_j Year + \sum \beta_j Ind + \varepsilon_{i,t}$$

where ASY is our proxy for information asymmetry, and QAO corresponds to the different types of qualified audit opinions. QAO is lagged by 1 year relative to ASY because the audit report released each year refers to annual financial statements for the previous one. As control variables, we include Size, Turnover, Volat, BigN and Zscore. The microstructure literature shows that firm size, trading volume and stock volatility are important determinants of stock liquidity and the information asymmetry level. In particular, prior studies provide empirical evidence of big, frequently traded and less volatile firms being more liquid and suffering lower information asymmetry problems (Easley et al, 1996; Stoll, 2000). Size is measured as the logarithm of the total assets at the end of the fiscal year. Turnover is the logarithm of the average daily trading volume in euros scaled by the market value of the firm's equity at the end of the year. Volat is a proxy for stock return volatility calculated as the daily squared close-to-open mid-quote return. We expect  $b_2 < 0$ ,  $b_3 < 0$  and  $b_4 > 0$ . The variable BigN is a proxy for audit quality, which takes value 1 if the firm is audited by a Big N auditor and 0 otherwise. Clinch et al. (2012) find that employing a Big N auditor is associated with lower information asymmetry between traders ( $b_5 < 0$  is expected). Zscore represents firms' financial strength measured with the re-estimated Altman Z-score by Begley et al. (1996).

We compute ASY as follows:

$$ASY = \frac{2 * |Pt - Qt|}{Qt}$$

where  $p_t$  is the marginal price of trade  $t$ .  $Q_t = (a_t + b_t)/2$  is the quoted midpoint in  $t$ , commonly used as a proxy for the efficient price;  $a_t$  and  $b_t$  correspond to the ask and the bid quotes in  $t$ .

We define QAO as a dummy variable that takes the value 1 in the case of a qualified opinion, and zero in the case of an unqualified opinion. Non-quantified (NQAO) is a dummy variable that takes the value 1 in the case of non-quantified audit opinions (going concern, scope limitations and uncertainties), and zero in the case of unqualified audit opinions.

**4. Data and sample.**

This study analyses the relationship between the content of the audit reports and information asymmetry levels in the stock market for a sample of Iranian firms. The research period is from 2011-2015 and research sample consists of 77 firms that are listed at Tehran Stock Exchange (TSE).

Table 1 reports descriptive statistics for the variables of our sample. Panel A reports the mean value, the median, the standard deviation and the min and max for continuous variables. The mean of the ASY is 0.020 and standard deviation is 0.029. also min and max are 0.000 and 0.241, respectively. The statistical distributions of the above measures show that there are clear differences in the degree of asymmetric information among the firms included in our sample. Finally, market control variables (size, turnover and volatility) show a significant level of dispersion in their values reflecting the heterogeneity of our firm-year sample. Panel B shows the frequencies of dummy variables for audit opinions: 68 percent of the audit report observations present qualifications, whereas 32 percent are unqualified. Qualifications are distributed into uncertainties, going concern and scope limitations (40 percent), and quantified (60 percent). Percent of audit reports are issued by Big N auditors is 30 percent.

**5. Results.**

Table 2 reports the results for the information asymmetry used as dependent variables. Consistent with our first hypothesis, we find that the coefficient on QAO is positive and statistically significant (5 percent level), suggesting that qualified audit reports are significantly associated with higher levels of information asymmetry once we control for other variables. In addition, the signs of the coefficients on control variables are as expected according to prior literature, and all of them, except turnover and Zscore are statistically significant.

Table 1

Sample variables descriptive statistics  
Panel A: Continuous variables

	MEAN	MEDIAN	SD	MIN
ASY	0.020	0.007	0.029	0.000
MAX				0.241
TURNOVER	5.794	5.713	0.588	4.493
VOLATI	0.038	0.029	0.028	0.006
SIZE	13.727	13.519	1.343	11.341
ZSCORE	0.305	0.281	0.184	-0.070
				0.972

Panel B: Dummy variables

	0 (%)	1 (%)
No. obs		
QAO	120 (32%)	265 (68%)
NQAO	159 (60%)	106 (40%)
BigN	270 (70%)	115(30%)

our next step is to test whether this relationship depends on the type of qualified opinion issued by the auditor. Table 6 reports the estimated coefficients for the regression of the composite index of information asymmetry ( $ASY_t$ ) on each of type of qualified opinion and control variables. We observe that the coefficient on Non-quantified audit qualifications is positive and significant (at the 1 percent level), which means that non-quantified audit reports generate more information asymmetry than unqualified reports.

**6. Conclusions.**

This study analyses the role of the audit report in enhancing the credibility of financial information in the stock market. find that firms with audit qualifications show higher information asymmetry than those with unqualified opinions. In a subsequent analysis, we investigate the relation between the type of audit qualification and information asymmetry, and find that firms with non-quantified qualifications show higher information asymmetry than firms with unqualified opinions. these findings indicate that higher levels of information asymmetry in qualified opinions are generated by those qualifications that include unquantifiable uncertainties and going concern qualifications

Table2

variable	(1)	(2)
QAO	0.0034**	
NQAO		0.0007***
TURNOVER	0.0039	0.0046
VOLATI	0.1527***	0.1530***
SIZE	-0.0074*	-0.0062**
BIG	-0.0010**	-0.0009***
ZSCORE	-0.0037	-0.0026
Intercept	-0.1069***	-0.0966**
Year dummies	Yes	Yes
Industry dummies	Yes	Yes
R <sup>2</sup>	0.587	0.581
No.obs	384	384

\*, \*\* and \*\*\* represent significance levels of two-tailed tests at 10, 5 and 1 percent, respectively.

Furthermore, we also find that both uncertainties, scope limitations and going concern qualifications, on the other, present higher information asymmetry than unqualified opinions. These findings are consistent with the hypothesis that audit qualifications are a signal of low accounting quality, thus increasing the uncertainty of earnings and reducing the credibility of firms' financial reporting. Nevertheless, whereas earnings in firms whose qualifications are quantified can be adjusted by market participants and thus are not associated with information asymmetry, the earnings numbers of firms whose qualifications are non-quantified are noisier and more difficult to interpret by market participants and, as a consequence, create information asymmetry in the market. An alternative explanation of these results is that information asymmetry is caused by the underlying economic environment or reporting characteristics of firms, which could also lead to qualified audit opinions, or even that there is an endogenous relation between information asymmetry and audit opinions.

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