

# INTERNATIONAL FINANCIAL REPORTING STANDARDS COMPLIANCE AND INFORMATION ASYMMETRIES: THE ROLE OF ENFORCEMENT AUTHORITY AND AUDIT QUALITY

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***Abstract:** This paper aims to investigate whether firms operating in Gulf Co-operation Council (GCC) countries with International Financial Reporting Standards (IFRS) compliance enforcement authority vis-à-vis countries without IFRS compliance enforcement authorities exhibit cross-sectional differences in proxy for information asymmetries and market liquidity. In addition, the study examines whether firms operating in the GCC countries that require firms to be audited by two or more auditors vis-à-vis countries that do not require firms to be audited by two or more auditors exhibit cross-sectional differences in proxy for information asymmetries and market liquidity. Using trading volume as a measure of information asymmetries and market liquidity, I find that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authority than firms operating in countries without IFRS compliance enforcement authority. I also find that information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. The findings of this study suggest that the merit of IFRS is optimal if institutions such as enforcement authorities and auditors enforce adherence to IFRS and provide assurance that financial statements comply with IFRS. This study shed light on the fundamental accounting questions using samples drawn from firms located in countries in the GCC that are often ignored by accounting researchers. Thus, this study helps to widen our knowledge of accounting practices around the globe and understand the accounting and economic issues compared to samples drawn from developed and mature markets.*

***Keywords:** Gulf Co-operating Council; Information Asymmetries; Audit Quality; Enforcement Authority.*

## 1. INTRODUCTION

Prior studies suggest that the link between accounting information disclosure quality and information asymmetry and cost of capital of firms is one of the most important issues in accounting (Verrecchia, 2001; Leuz & Verrecchia, 2000; Lambert *et al.*, 2007; Daske *et al.*, 2008). For instance, Verrecchia (2001) and Leuz & Verrecchia

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(2000) provide evidence that information asymmetry and liquidity proxies are associated with firms' accounting information disclosure and accounting policies. Similarly, Daske *et al.* (2008) argues that the adoption of mandatory International Financial Reporting Standards (IFRS) reporting increases transparency and improves the quality of financial reporting. However, it is not clear whether firms implement IFRS in ways that make disclosure information more informative. Consistent with this argument, Daske *et al.* (2013) demonstrates that "serious" IFRS adoptions are associated with an increase in liquidity and a decline in cost of capital, whereas "label" adoptions are not.<sup>1</sup> In this study, I investigate whether firms operating in Gulf Co-operation Council countries with IFRS compliance enforcement authority vis-à-vis countries without IFRS compliance enforcement authorities exhibit cross-sectional differences in proxy for information asymmetries and market liquidity. In addition, I examine whether firms operating in Gulf Co-operation Council (GCC) countries that require firms to be audited by two or more auditors vis-à-vis countries that do not require firms to be audited by two or more auditors exhibit cross-sectional differences in proxy for information asymmetries and market liquidity.

The empirical evidence of this study is important for the following reasons. First, although the International Accounting Standards Board (IASB) suggests that IFRS brings transparency by enhancing international comparability and quality of financial information, enabling investors and other market participants to make informed economic decisions,<sup>2</sup> empirical studies provide mixed results. For instance, Daske *et al.* (2008) finds that, on average, market liquidity increases around the time of the introduction of IFRS, while other studies argue that the capital market effect of IFRS adoption may be small or even negligible (Leuz, 2003; Ball *et al.*, 2000; Burgstahler *et al.*, 2006). Second, the introduction of IFRS has generated debate over its benefits compared to the U.S. GAAP. Thus, while proponents of IFRS claim that standards have improved substantially over the years to a high quality level, opponents of IFRS argue that the standards are less rigorous, less detailed, afford more flexibility, or require less disclosure (Leuz, 2003). Third, although prior studies provide useful insights into the economic consequences of IFRS (Daske *et al.* 2008; Daske *et al.* 2013; Leuz, 2003), only a few studies have examined the impact of standards enforcement authorities and audit quality on IFRS disclosure compliance (Hodgon, 2009). Most importantly, prior studies investigate the economic consequences of accounting disclosure using samples drawn from developed and mature capital markets. This study takes a first step to fill the evident gaps in the literature by exploiting a unique setting that are often ignored by accounting researchers, and this helps to widen our knowledge on accounting practices across the globe.

Prior studies (Healy & Palepu, 2001) argue that IFRS is likely to have the greatest benefits if institutions that monitor and enforce adherence to standards to work

equally well across firms and countries, and when auditors provide assurance that their financial statements comply with accounting standards. Because independent enforcement authorities and external auditors are crucial in promoting compliance with accounting standards and providing assurance that financial statements comply with IFRS, I predict that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authorities than for firms operating in countries without the enforcement authorities. Moreover, I expect information asymmetries to be lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors.

As predicted, I document that the information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authorities than for firms operating in countries without the enforcement authorities. Moreover, I find information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. These results are consistent with the idea that institutional factors such as IFRS compliance enforcement authorities and audit quality are indeed crucial for promoting IFRS compliance and ensuring that financial statements comply with IFRS. As a result, capital market benefits only occur to IFRS adopting firms located in countries with strong legal enforcement and audit quality.

This study contributes to the literature in several ways. First, despite the crucial role of enforcement authorities and audit quality in promoting compliance with accounting standards, only a few studies have examined their relevance to investors. This study extends prior studies by providing empirical evidence that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authorities than for firms operating in countries without IFRS compliance enforcement authorities. Moreover, this study extends prior studies by providing empirical evidence that information asymmetries are lower for firms that are required to be audited by two or more auditors than for firms that are not required to be audited by two or more auditors. Second, prior studies on the effectiveness of monitoring and the penalties for non-compliance have focused on developed and mature markets. This study shed light on the fundamental accounting questions using samples drawn from firms located in countries in GCC that are often ignored by accounting researchers. Thus, this study helps to widen our knowledge of accounting practices around the globe and understand the accounting and economic issues compared to samples drawn from developed and mature markets. Finally, this study assists regulators and standards setters by providing empirical evidence on the importance of institutional factors, such as enforcement authorities and audit quality, in promoting standards

compliance. Regulators and standards setters need to be aware of the impact of these institutional factors when designing regulations.

The remainder of this study is structured as follows. The next section presents the intuitional background. Section 3 reviews previous studies. Section 4 describes the theory and develops the hypotheses. Section 5 presents the research design. Section 6 presents sample selection and descriptive statistics. Section 7 discusses the main results. Section 8 provides a brief summary and conclusion.

## **2. INSTITUTIONAL BACKGROUND**

The GCC, comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, was established in 1981. The alliance was formed to strengthen relations among its member countries and to formulate similar regulations in various fields such as economy, finance, tourism, trade, and customs. The region has strong religious and economic ties, a shared Muslim culture. The GCC is one of the largest Islamic banking markets, with approximately \$300 billion in financial assets, above one third of the total global Islamic banking sector. The countries produce an aggregate GDP of above \$1.6 trillion (World Bank, 2013). The oil and gas sector contributes more than one half of GDP.

With regard to financial markets, developing financial stock markets to be globally integrated is an important policy objective in most GCC countries. As a result, stock markets developed very dramatically over the past decade, reaching an average capitalization of 44% of GDP in 2013. The market capitalization for all GCC countries increased from US\$120 billion in 2002 to US\$1,000 billion in 2006. The rapid growth and opening up of financial markets in the region has led the countries to adopt the international financial reporting standards.

Although the GCC countries have similarities with respect to several characteristics, such as social, cultural, and religious, there are pronounced differences in accounting procedures, auditing, regulatory enforcement, and the underlying economic and political circumstances in each country. For instance, it is only in Oman and Kuwait that the enforcement authorities have become more active in monitoring compliance with the IASs (Al-Shammari, 2008). Listed companies in Kuwait, for example, are required to submit audited financial statements to the Kuwait Stock Exchange within three months of the company's year-end. They are also required to submit quarterly financial statements within forty-five days from the date of the quarterly financial statements. The audited financial statements are subject to rigorous review by regulatory authorities such as the Ministry of Commerce and Industry and the Central Bank of Kuwait. Company officers or directors may be fined between US\$17,000 and US\$68,000 and imprisoned for a maximum of two years for violations. Non-compliance with the rules will expose the companies not only to penalties but also suspension of license.

### 3. LITERATURE REVIEW

Studies on the economic consequences of voluntary corporate disclosure argue that more disclosure can reduce adverse selection problems in the capital market and mitigate the information asymmetry problem by leveling the playing field among investors (Diamond & Verrecchia, 1991; Leuz & Verrecchia, 2000; Verrecchia, 2001; Lambert *et al.*, 2007). Studies by Verrecchia (2001) and Diamond & Verrecchia (1991) show that greater disclosure reduces information asymmetry as more corporate disclosure makes it harder and more costly for traders to become privately informed. Similarly, Lang, & Lundholm (1996) and Walker (1995) find that increased disclosure is negatively associated with bid-ask spreads, thus reducing information asymmetries. Welker (1995) also finds that useful disclosure policy increases liquidity in equity markets by reducing information asymmetries. Similarly, Lang & Lundholm (1996) provide evidence that increased disclosure reduces estimated risk and reduced information asymmetries. Healy *et al.* (1999) examines a sample of firms that voluntarily increased their disclosures. They find these firms had a significant increase in their liquidity (bid-ask spreads and trading volume) after the perceived increase in their disclosure quality.

Recently, Lambert *et al.* (2007) examines whether and how the quality of a firm's accounting information manifests in its cost of capital. They demonstrate that higher quality of accounting information can lower a firm's cost of capital by affecting market participants' perceptions about the distribution of future cash flows. Similarly, Brown, & Hillegeist (2007) examine how the quality of a firm's disclosures is related to the average level of information asymmetries among investors over a year. They find a negative relationship between disclosure quality and information asymmetry because quality disclosure reduces the likelihood that investors discover and trade on private information. Cheng *et al.* (2006) also provides evidence that increased voluntary disclosure can reduce market information asymmetries among market participants. The results suggest that while increased voluntary disclosure reduces adverse selection and lowers the level of informed trading, transaction cost, and risk, average trading volume may lessen due to diminished informed trading activity.

In an international setting, Leuz & Verrecchia (2000) investigate the transition of German firms from German GAAP to an international reporting regime. They find that switching firms have smaller bid-ask spreads and higher trading volume following the switch relative to German GAAP firms. Similarly, Daske *et al.* (2008) examine the effects of mandatory IFRS around the world. Analyzing a large sample of firms from 26 countries that mandated IFRS adoption, they find that, on average, market liquidity increases around the time of the introduction of IFRS. They also document a decrease in firms' cost of capital and an increase in equity valuations. Platikanova & Perramon (2012) analyze measures of liquidity and information asymmetry in four European countries. They find heterogeneous liquidity changes

for these countries but reported that liquidity differences across countries become smaller after the adoption of IFRS. Hodgdon *et al.* (2008) examines the association between analysts' earnings forecast errors and firms compliance with the disclosure requirements of IFRS. Using a comprehensive disclosure index, they find that compliance reduces information asymmetry and enhances the ability of financial analysts to provide more accurate forecasts.

#### 4. HYPOTHESES DEVELOPMENT

As previously discussed, prior studies suggest that IFRS reporting increases transparency and improves the quality of financial reporting. As a result, the standard yields significant capital market benefits. For example, Verrecchia (2001), Healy *et al.* (1999), and Leuz & Verrecchia (2000) show that information asymmetry and liquidity proxies are indeed associated with firms' disclosure. Similarly, Armstrong *et al.* (2007) argues that IFRS reporting makes it less costly for investors to compare firms across markets and countries. For instance, a common set of accounting standards can help investors differentiate between lower and higher quality firms, which in turn reduces information asymmetries among investors.

Other studies, however, argue that the capital-market effect of IFRS adoption may be small or even negligible (Leuz, 2003; Ball *et al.*, 2000; Burgstahler *et al.*, 2006). The reason behind this argument is that the application of accounting standards involves considerable judgment and use of private information, which means firms have considerable discretion in how they implement IFRS. However, the use of this discretion is likely to depend on different institutional factors such as the enforcement regime, audit quality, and a firm's characteristics. For instance, Street *et al.* (1999), Al-Shamaari *et al.* (2008), and Street & Gray (2001) document significant non-compliance with IFRS disclosure requirements in many areas. These studies suggest that developing institutional mechanisms such as enforcement, quality audit, and a supply of qualified accounting professionals are important in ensuring compliance with IFRS. Similarly, Healy & Palepu (2001) argue that the global standards are likely to have the greatest benefits if institutions mentor and enforce adherence to standards to work consistently across firms and countries. For instance, the Security and Exchange Commission (SEC) has enforcement authorities, and U.S. auditors provide investors with independent assurance that a firm's financial statements conform to GAAP. In this regard, Dechow *et al.* (1996) finds that U.S. companies face a significant stock price penalty if the SEC decides to pursue them for violating accounting standards. Consequently, the IASB and capital market regulators are increasingly turning their attention to compliance and enforcement issues related to IFRS. Recent studies find a positive relationship between auditor choice and IFRS compliance (Hodgdon *et al.*, 2009) and between serious IFRS adopters and liquidity (Daske *et al.*, 2013). Daske *et al.* (2013), for example, argues that some firms may make very few changes and adopt IAS/

IFRS more in name, while for others the change in the standards may be part of a strategy to increase their commitment to transparency. Analyzing voluntary IAS adopters from 1990 to 2005 across 30 countries, they find that serious adoptions are associated with an increase in liquidity and a decline in the cost of capital, whereas label adoptions are not. Other studies report that accounting standards' compliance is greater for companies with high quality audits and effective enforcement authorities (Al-Shammari *et al.*, 2008; Glaum & Street, 2003). Similarly, Comprix *et al.* (2003) examined the abnormal returns of EU firms on event dates in 2000 that increased the likelihood of mandatory IFRS reporting. They find a weakly significant, negative market reaction to the four event dates. However, firms that were audited by a "Big 5" auditor, located in countries that are expected to have shown greater improvements in reporting quality due to IFRS adoption, or subject to higher legal enforcement experiences, show significantly more positive returns on some of the event dates they examined.

Based on the above discussion, I expect the IFRS is likely to have the greatest benefit if institutions that monitor and enforce adherence to standards to work consistently across firms and countries, and when auditors provide assurance that financial statements comply with accounting standards. Specifically, because independent enforcement authorities and external auditors are crucial in promoting compliance with accounting standards and providing assurance that financial statements comply with IFRS, I predict information asymmetries to be lower for firms operating in countries with IFRS compliance enforcement authority than for firms operating in countries without IFRS compliance enforcement authorities. Moreover, I predict information asymmetries to be lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. Hence, I formulate the following hypotheses:

- H1:** *Information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authority than for firms operating in countries without IFRS compliance enforcement authorities.*
- H2:** *Information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors.*

## **5. RESEARCH DESIGN**

### **5.1. Variable measurement**

#### **5.1.1. Measurement of information asymmetry**

Prior studies show that a firm's disclosure and accounting policy are associated with different proxies of information asymmetries, such as bid-ask spreads, in

addition to trading volume (Leuz & Verrecchia, 2001). Like Linsmeier *et al.* (2002), my empirical tests focus on trading volume rather than other metrics because prior studies show a reliable association between trading volume and information asymmetries and, thus, market liquidity. These studies suggest that investors' disagreements are associated more strongly with trading volume than with price changes. Consistent with Linsmeier *et al.* (2002), I define trading volume (SQVOL) as the square root of the number of shares traded divided by the number of shares outstanding for such firms. Lower information asymmetries are associated with higher trading volumes (Core, 2001).

### **5.1.2. Measurement of enforcement authority and audit quality**

Previous studies show that the application of IFRS allows firms considerable judgment discretion and the use of private information (Daske *et al.*, 2008). How firms respond is likely to depend on factors such as each country's legal institutions and firms' characteristics. For instance, effective enforcement and audit quality are important in promoting compliance with standards (SEC, 2000; Schipper, 2005). That said, an independent enforcement authority and audit quality are the two important explanatory variables in this study. Following prior studies (Al Shammari *et al.*, 2008), I measure enforcement authority (*ENF\_IFRS*) using an indicator variable that takes the value one for firms operating in a country where there is an independent enforcement authority that checks IFRS compliance, and equals zero otherwise. I measure audit quality (*AUDIT*) using an indicator variable that takes the value one for firms that are required to use at least two external auditors to audit their accounts, and equals zero otherwise. Prior studies (Al Shammari *et al.*, 2008) indicate that at least two external auditors are required to audit company's accounts in Qatar, Saudi Arabia, and the UAE. In Oman and Kuwait, the enforcement authorities have become more active in monitoring compliance with IAS.

### **5.1.3. Measurement of control variables**

I include a number of control variables in my regression analyses based on variables identified in the literature related to information asymmetries among investors. Prior research indicates that factors such as growth opportunity, profitability, firm size, and debt covenants may affect information asymmetries among investors (Hayes & Lundholm, 1996; Healy *et al.*, 1999). I control for firm size because some prior studies show that firm size affects IFRS disclosure compliance. For instance, Ali *et al.* (2004) finds a positive relationship between firm size and IFRS disclosure compliance, although Street & Gray (2001) find no significant relationship. Consistent with Daske *et al.* (2013), I measure firm size (*SIZE*) as the natural logarithm of the market value of equity. I control for firm profitability because previous research indicates a link between firm profitability and level of disclosure



(Wallace & Naser, 1995), although Street & Gray (2001) find no significant relationship. Like Inchausti (1997) and Tessema (2016), I measure profitability (*ROA*) as the ratio of net income to total assets. I control for the level of leverage because previous studies show that increased leverage reduces disclosure because leverage helps to control free cash flow problems (Eng & Mak, 2003). Following Eng & Mak (2003), I measure leverage (*LEV*) as the ratio of total liabilities to total assets. I control for the level of firm growth opportunity because previous studies show that growing firms have greater information asymmetry (Eng & Mak, 2003). Like Eng & Mak (2003), I measure firm growth opportunity (*MTB*) as a ratio of each firm's market value of equity to book value. Consistent with Linsmeier *et al.* (2002), I control for firm returns (*SQRET*), measured as the square root of the absolute value of the stock returns. Finally, I control for time trend (*TIMEY*), which is measured as the rank of the financial reporting dates.

## 5.2. Model for testing hypotheses 1 and 2

To test the hypotheses, I examine whether firm's shares traded for firms operating in countries with enforcement authorities are different from for firms operating in countries without enforcement authorities. Moreover, I examine whether a firm's shares traded for firms that are required to be audited by two or more auditors are different from for firms that are not required to be audited by two or more auditors. Equations 1 and 2 below specify the regression models used to test my first and second research hypotheses, respectively.

$$SQVOL_{it} = \beta_0 + \beta_1 ENF\_IFRS_{it} + \beta_2 MTB_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 SQRET_{it} + \beta_6 ROA_{it} + \beta_5 TIMEY_t + \varepsilon_{it} \quad (1)$$

$$SQVOL_{it} = \alpha_0 + \alpha_1 AUDIT_{it} + \alpha_2 MTB_{it} + \alpha_3 SIZE_{it} + \alpha_4 LEV_{it} + \alpha_5 SQRET_{it} + \alpha_6 ROA_{it} + \alpha_5 TIMEY_t + \varepsilon_{it} \quad (2)$$

Where:

*SQVOL* = the square root of the number of shares traded divided by the number of shares outstanding for such firms;

*ENF\_IFRS* = takes the value one for firms operating in a country where there is an independent enforcement authority that checks IFRS compliance, and equals zero otherwise;

*AUDIT* = takes the value one for firms that are required to use at least two external auditors to audit their accounts, and equals zero otherwise;

*MTB* = the ratio of firm market value of equity to book value;

*SIZE* = the natural logarithm of the market value of equity;

*LEV* = the ratio of total liabilities to total assets;

*SQRET* = the square root of the absolute value of the stock returns;

*ROA* = the ratio of net income to total assets;

*TIMEY* = the rank of the financial reporting dates.

The coefficients of interest in equations 1 and 2 are  $\beta_1$  and  $\alpha_1$ , respectively.  $\beta_1$  essentially measures whether the information asymmetries are different in countries with enforcement authority compared to countries without enforcement authority. Given my prediction that the information asymmetries are lower for firms operating in countries with enforcement authority than countries without enforcement authority, I expect  $\beta_1$  to be positive and significant. The coefficient on *AUDIT*, i.e.,  $\alpha_1$ , measures whether the information asymmetries are different for firms that are required to be audited by two or more auditors compared to firms that are not required to be audited by two or more auditors. Given my prediction that the information asymmetries are lower for firms that are required to be audited by two or more auditors than for firms that are not required to be audited by two or more auditors, I expect  $\alpha_1$  to be positive and significant.

I employ two different regression models: pooled OLS regression and industry-fixed-effects model, where I include industry dummies in the regressions. This allows me to control for unobserved industry effects on information asymmetries that are assumed to be constant through time but vary across industry (Wooldridge, 2002).

## 6. SAMPLE SELECTION AND DATA SOURCES

My analyses are based on a sample of firms listed by GCC member states between 2000 and 2013. Price and volume data are hand collected from Bloomberg. I obtain financial accounting data along with the reporting dates from Compustat Global database.

To mitigate the influence of outliers, all variables are winsorized at the 0.5 and 99.5 percentiles. I deleted observations with missing values. The final sample consists of 334,742 firm-day observations from 2000 to 2013.

### 6.1. Descriptive statistics

Table 1 provides descriptive statistics of the key variables used in the regression analyses for the complete sample. The average value of *ENF\_IFRS* and *AUDIT* is 41.15 and 0.81, respectively. The small difference between the means and the medians indicate that the variables are not highly skewed.

Table 2 presents correlations of the key variables used in the regression analyses. Pearson correlations are presented above the diagonal and Spearman rank correlations below. As expected, *SQVOL* and *ENF\_IFRS* and *SQVOL* and *AUDIT* are positively correlated, as indicated by both Spearman and Pearson correlation

**Table 1**  
**Descriptive statistics**

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Minimum</i>	<i>Median</i>	<i>Maximum</i>
<i>SQVOL</i>	334742	41.1469	42.2832	0.6431	27.4049	260.617
<i>ENF_IFRS</i>	334742	0.6438	0.4789	0.0000	1.0000	1.0000
<i>AUDIT</i>	334742	0.8080	0.3938	0.0000	1.0000	1.0000
<i>MTB</i>	334742	1.6425	1.2763	0.2459	1.2989	8.5271
<i>SIZE</i>	334742	5.7047	2.3242	1.5711	0.4542	11.3539
<i>LEV</i>	334742	0.4674	0.2632	0.0123	0.1132	0.9134
<i>SQRET</i>	334742	0.1120	0.0841	0.0000	0.0360	0.3230
<i>ROA</i>	334742	0.0447	0.0851	-0.3011	10.000	0.3090
<i>TIMEY</i>	334742	9.7881	3.0076	2.0000		14.0000

The table reports descriptive statistics for the variables used in the regression analyses. *SQVOL* is the square root of the number of shares traded divided by the number of shares outstanding for such firms; *ENF\_IFRS* takes the value one for firms operating in a country where there is independent enforcement authority that checks IFRS compliance, and equals zero otherwise; *AUDIT* takes the value one for firms that are required to use at least two external auditors to audit their accounts, and equals zero otherwise; *MTB* is the ratio of firm market value of equity to book value; *SIZE* is the natural logarithm of the market value of equity; *LEV* is the ratio of total liabilities to total assets; *SQRET* is the square root of the absolute value of the stock returns; *ROA* is the ratio of net income to total assets and *TIMEY* is the rank of the financial reporting dates.

**Table 2**  
**Correlations between Variables Used in Regression Analyses**

	<i>SQVOL</i>	<i>ENF_IFRS</i>	<i>AUDIT</i>	<i>MTB</i>	<i>SIZE</i>	<i>LEV</i>	<i>SQRET</i>	<i>ROA</i>	<i>TIMEY</i>
<i>SQVOL</i>	1.000	0.068***	0.095***	-0.037***	-0.121***	-0.083***	0.194***	-0.018***	-0.078***
<i>ENF_IFRS</i>	0.068***	1.000	-0.161***	-0.011***	-0.667***	0.024***	-0.020***	-0.061***	-0.058***
<i>AUDIT</i>	0.096**	-0.161***	1.000	-0.083***	0.198***	-0.089***	0.142***	-0.135***	0.061***
<i>MTB</i>	-0.037***	-0.011***	-0.034***	1.000	0.360***	0.147***	-0.057***	0.346***	-0.306***
<i>SIZE</i>	-0.122***	-0.668***	0.198***	0.360***	1.000	0.230***	-0.067***	0.185***	-0.007***
<i>LEV</i>	-0.083***	0.025***	-0.089***	0.147***	0.231***	1.000	-0.050***	-0.256***	0.026***
<i>SQRET</i>	0.194***	-0.021***	0.142***	-0.058***	-0.068***	-0.050***	1.000	-0.081***	-0.008***
<i>ROA</i>	-0.018***	-0.061***	-0.136***	0.347***	0.185***	-0.257***	-0.082***	1.000	-0.254***
<i>TIMEY</i>	-0.079***	-0.059***	0.062***	-0.306***	-0.008***	0.027***	-0.009***	-0.255***	1.000

The table reports the values of the correlation between each variable used in the main analysis. Spearman (Pearson) correlations are above (below) the diagonal. *SQVOL* is the square root of the number of shares traded divided by the number of shares outstanding for such firms; *ENF\_IFRS* takes the value one for firms operating in a country where there is independent enforcement authority that checks IFRS compliance, and equals zero otherwise; *AUDIT* takes the value one for firms that are required to use at least two external auditors to audit their accounts, and equals zero otherwise; *MTB* is the ratio of firm market value of equity to book value; *SIZE* is the natural logarithm of the market value of equity; *LEV* is the ratio of total liabilities to total assets; *SQRET* is the square root of the absolute value of the stock returns; *ROA* is the ratio of net income to total assets and *TIMEY* is the rank of the financial reporting dates. \*\*\*, \*\*, and \* denote two-tailed significance at the 1%, 5%, and 10% level, respectively.

coefficients. There is a positive correlation between *SQVOL* and *SQRET*, which suggests that trading volume is higher for firms with higher returns.

## 7. EMPIRICAL RESULTS

### 7.1. Information asymmetries and independent IFRS compliance enforcement authorities

Table 3 reports the regression results for equation (1), examining whether information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authority than for firms operating in countries without IFRS compliance enforcement authorities. The results of the pooled OLS regression model reported in Column 1 of Table 3 show that the estimated coefficient on *ENF\_IFRS* is positive and significant ( $\beta_1 = 1.0799$ ;  $t = 4.95$ ). Column

**Table 3**  
IFRS Compliance Enforcement authorities and information asymmetries among investors

	Predicted sign	I	II
<i>ENF_IFRS</i>	+	1.0799*** (4.95)	2.1861*** (8.87)
<i>MTB</i>	±	-0.2058*** (-2.99)	1.7244*** (23.96)
<i>SIZE</i>	±	-1.5017*** (-30.17)	-0.5510*** (-9.28)
<i>LEV</i>	±	-9.2148*** (-30.07)	-0.1272 (-0.29)
<i>SRET</i>	±	92.1685*** (108.18)	89.8621*** (111.70)
<i>ROA</i>	±	-10.3237*** (-10.68)	9.1389*** (9.29)
<i>TIMEY</i>	±	-1.1600*** (-45.76)	-1.2713*** (-51.08)
<i>INTERCEPT</i>	±	55.1565*** (121.78)	
<i>Industry-fixed-effects</i>		No	Yes
<i>No. of Observations</i>		334,742	334,742
<i>R</i> <sup>2</sup>		5%	19%

The table reports regression coefficient estimates and (in parentheses) t-statistics. Industry-fixed-effects are included in the regression reported in column 2. *SQVOL* is the square root of the number of shares traded divided by the number of shares outstanding for such firms; *ENF\_IFRS* takes the value one for firms operating in a country where there is independent enforcement authority that checks IFRS compliance, and equals zero otherwise; *MTB* is the ratio of firm market value of equity to book value; *SIZE* is the natural logarithm of the market value of equity; *LEV* is the ratio of total liabilities to total assets; *SQRET* is the square root of the absolute value of the stock returns; *ROA* is the ratio of net income to total assets and *TIMEY* is the rank of the financial reporting dates. \*\*\*, \*\*, and \* denote two-tailed significance at the 1%, 5%, and 10% levels, respectively.

2 shows the results when correcting for industry-fixed-effects in the regression model. The estimated coefficient on *ENF\_IFRS* is also positive and significant ( $\beta_1 = 2.1861$ ;  $t = 8.87$ ). Consistent with my first hypothesis, the results reported in Table 3 show that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authority than countries without IFRS compliance enforcement authorities. The findings suggest that independent enforcement authorities are crucial in promoting compliance with the accounting standards.

The negative coefficients on *LEV*, *ROA*, *MTB*, and *SIZE* indicate that firms with a high rate of leverage, profitability or growth opportunities, and large firms disclose less information, which increases information asymmetries.

## **7.2. Information asymmetries and two or more auditors**

Table 4 reports the regression results for equation (2), examining whether information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. The results of the pooled OLS regression model reported in Column 1 of Table 4 show that the estimated coefficient on *AUDIT* is positive and significant ( $\beta_1 = 10.6124$ ;  $t = 55.03$ ). Column 2 shows the results when correcting for industry-fixed-effects in the regression model. The estimated coefficient on *AUDIT* is also positive and significant ( $\beta_1 = 7.4697$ ;  $t = 33.99$ ). Consistent with my second hypothesis, the results reported in Table 4 show information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. This suggests that accounting standard compliance is greater when companies are required to be audited by two or more auditors.

Overall, the results reported in Table 3 and 4 generally support my two hypotheses that information asymmetries are lower when an independent enforcement authority checks firms' IFRS compliance and when firms are required to be audited by two or more auditors. The findings suggest that the quality of auditors and independent enforcement authorities are crucial in promoting compliance with IFRS and consequently in reducing information asymmetries. Thus, capital market benefits only occur to IFRS adopting firms located in countries with strong legal enforcement and quality audit requirements.

## **7.3. Sensitivity tests**

To test whether the results are not driven by the differences across countries, I repeat the regression analyses after controlling for countries. The results reported

**Table 4**  
**Audit quality and information asymmetries among investors**

	Predicted sign	I	II
AUDIT	+	10.6124*** (55.03)	7.4697*** (33.99)
MTB	±	0.2052*** (3.11)	2.2556*** (32.70)
SIZE	±	-2.2659*** (-63.93)	-1.5865*** (-34.66)
LEV	±	-5.7336*** (-19.03)	-0.0705 (-0.17)
SRET	±	85.3143*** (99.84)	87.0178*** (107.95)
ROA	±	0.0082 (0.01)	16.4613*** (16.64)
TIMEY	±	-1.1424*** (-45.27)	-1.2041*** (-48.39)
INTERCEPT	±	49.4679*** (131.13)	
Industry-fixed-effects		No	Yes
No. of Observations		334,742	334,742
R <sup>2</sup>		7%	19%

The table reports regression coefficient estimates and (in parentheses) t-statistics. *SQVOL* is the square root of the number of shares traded divided by the number of shares outstanding for such firms; *AUDIT* takes the value one for firms that are required to use at least two external auditors to audit their accounts, and equals zero otherwise; *MTB* is the ratio of firm market value of equity to book value; *SIZE* is the natural logarithm of the market value of equity; *LEV* is the ratio of total liabilities to total assets; *SQRET* is the square root of the absolute value of the stock returns; *ROA* is the ratio of net income to total assets and *TIMEY* is the rank of the financial reporting dates. Industry-effects are included in the regression reported in Column 2 of the table. \*\*\*, \*\*, and \* denote two-tailed significance at the 1%, 5%, and 10% level, respectively.

in Column I of Table 5 show that the estimated coefficients on *ENF\_IFRS* is positive and significant ( $\beta_1 = 2.6142$ ;  $t = 11.71$ ). Column 2 shows that the estimated coefficient on *AUDIT* is also positive and significant ( $\alpha_1 = 10.8840$ ;  $t = 5648$ ). Thus, the results continue to suggest that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authority than for firms operating in countries without IFRS compliance enforcement authorities. Moreover, the results suggest that information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors.

**Table 5**  
**IFRS Compliance Enforcement authorities, Audit quality and information asymmetries**

	<i>Predicted sign</i>	<i>I</i>	<i>II</i>
<i>ENF_IFRS</i>	+	2.6142*** (11.71)	
<i>AUDIT</i>	+		10.8840*** (56.48)
<i>MTB</i>	±	0.0406 (0.59)	0.5932*** (8.87)
<i>SIZE</i>	±	-1.8129*** (-35.78)	-4.8144*** (-15.94)
<i>LEV</i>	±	-8.8974*** (-29.06)	-4.8144*** (-15.94)
<i>SRET</i>	±	89.6512*** (104.92)	82.2247*** (95.78)
<i>ROA</i>	±	-8.5587*** (-8.85)	2.4950*** (2.55)
<i>TIMEY</i>	±	-1.1760*** (-46.45)	-1.1542*** (-45.81)
<i>COUNTRY</i>	±	-1.8217*** (-31.58)	-1.8128*** (-32.31)
<i>INTERCEPT</i>	±	55.1565*** (121.78)	57.7553*** (126.74)
<i>No. of Observations</i>		334,742	334,742
<i>R</i> <sup>2</sup>		6%	7%

The table reports regression coefficient estimates and (in parentheses) t-statistics. *SQVOL* is the square root of the number of shares traded divided by the number of shares outstanding for such firms; *ENF\_IFR* takes the value one for firms operating in a country where there is independent enforcement authority that checks IFRS compliance, and equals zero otherwise; *MTB* is the ratio of firm market value of equity to book value; *SIZE* is the natural logarithm of the market value of equity; *LEV* is the ratio of total liabilities to total assets;

## 8. SUMMARY AND CONCLUSION

This study examines whether firms operating in GCC countries with IFRS compliance enforcement authority vis-à-vis countries without IFRS compliance enforcement authorities exhibit cross-sectional differences in proxy for information asymmetries and market liquidity. In addition, I examine whether firms operating in GCC countries that require firms to be audited by two or more auditors vis-à-vis countries that do not require firms to be audited by two or more auditors exhibit cross-sectional differences in proxy for information asymmetries and market liquidity. Following prior studies (Healy & Palepu, 2001), I expect that IFRS is likely to be beneficial in countries with strong legal enforcement and quality audit requirements. Specifically, because independent enforcement authorities and external auditors are crucial in promoting compliance with accounting standards

and providing assurance that financial statements comply with IFRS, I predict that information asymmetries to be lower for firms operating in countries with IFRS compliance enforcement authority than for firms operating in countries without IFRS compliance enforcement authorities. In addition, I expect that information asymmetries to be lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. Consistent with my predictions, I find that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authority than for firms operating in countries without IFRS compliance enforcement authorities. I also find that information asymmetries are lower for firms operating in countries that require firms to be audited by two or more auditors than for firms operating in countries that do not require firms to be audited by two or more auditors. These results suggest that factors such as IFRS compliance enforcement authorities and auditors are important in promoting compliance with accounting standards and in providing assurance that financial statements comply with IFRS.

This study contributes to the literature in several ways. First, despite the crucial role of enforcement authorities and auditors in promoting compliance with accounting standards, only a few studies have examined their relevance to investors. This study extends prior studies by providing empirical evidence that information asymmetries are lower for firms operating in countries with IFRS compliance enforcement authorities than for firms operating in countries without IFRS compliance enforcement authorities. Moreover, this study extends prior studies by providing empirical evidence that information asymmetries are lower for firms that are required to be audited by two or more auditor than for firms that are not required to be audited by two or more auditor. Second, prior studies on the effectiveness of monitoring and the penalties for non-compliance have focused on developed and mature markets. This study also shed light on the fundamental accounting questions using samples drawn from firms located in countries in GCC that are often ignored by accounting researchers. Thus, this study helps to widen our knowledge of accounting practices around the globe and understand the accounting and economic issues compared to samples drawn from developed and mature market.

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