The Role of IFRS in Financial Reporting Quality: Evidence from a Panel of MENA Countries

Nicholas Apergis[1]

[1] Business School, Northumbria University, Newcastle upon Tyne, U.K.

Correspondence: Nicholas Apergis, Business School, Northumbria University, Newcastle upon Tyne, U.K. E-mail: nicholas.apergis@northumbria.a.c.uk

Abstract

This paper provides evidence on the impact of the adoption of the IFRS accounting regime on financial reporting quality a number of MENA listed firms. The financial reporting quality is examined for the period from 2002 to 2012 using the panel methodological approach of the multifactor model. The empirical results indicate that the adoption of the new IFRS regime results contributes a better financial reporting quality. The findings survive a number of robustness checks, while they show that listed firms' higher level of financial reporting quality under IFRS can be different across MENA countries, probably due to different institutional, economic and regulatory environments.

Keywords: IFRS, financial reporting quality, MENA countries, multifactor model

1. Introduction

The adoption of International Financial Reporting Standards (hereafter, IFRS) is considered one of the standard-setting strategies used in many economies across the globe (Perera and Baydoun, 2007; Belkaoui, 2002). It is noteworthy that a number of studies advocate the adoption of IFRS as national standards, especially, for emerging economies (Assenso-Okofo et al., 2011; Al-Akra et al., 2009; Tyrrall et al., 2007; Chamisa, 2000). Prior works reported a number of potential benefits that economies stand to gain from IFRS adoption, including a reduction in the cost of accounting standards elaboration (Madawaki, 2012; Joshi et al., 2008), international legitimacy (Irvine, 2008; Larson and Street, 2004), access to international markets (Perumpral et al., 2009; Whittington, 2005), and a growth of foreign direct investment (Madawaki, 2012; Ritsumeikan, 2012). However, these studies have exemplified the fact that many emerging markets are not characterized by strong legal enforcement and investor protection, which may cast serious cloudiness to the benefits these countries can reap off by adopting the IFRS regime.

In addition to the above benefits for firms as well as the economy itself, the adoption of IFRS is also expected to facilitate the financial reporting in firms where experience greater incentives to communicate with outside investors (Francis et al., 2005). Therefore, the quality of financial reporting, especially under the new accounting regime, is expected to be determined by factors such as industrial classification, state control, foreing ownership and government subsidies. These factors can have a direct impact on the demand for external capital, and thus, on the quality of financial reporting. The adoption of IFRS could potentially benefit firms that cannot have equal access to capital acquisition, especially when government subsidies are not equally distributed across those firms. The individual benefits firms receive through the adoption of IFRS will be reflected onto the countries' future growth rates.

However, given the very limited number of studies in the literature on the impact of IFRS adoption of financial reporting quality, this paper attempts to explore whether the adoption of the IFRS regime by the Middle East and North Africa (MENA) countries has affected the financial reporting quality of their listed firms. The empirical findings will display not only whether such reporting quality has been improved, but also whether the adoption of IFRS has been really beneficial for the financial landscape of those countries, given that they are conditioned by political and economic institutional factors. To study the financial performance in MENA countries seems to be substantially important given that these countries play a significant role in the global economy, provided that the majority of them are leading oil exporters.

The paper evolves as follows. Section 2 provides the description of the methodological approach used, while in Section 3 the research model along with the hypotheses associated with this as well as the description of the data used are discussed. Section 4 is dedicated to the empirical analysis as well as to the discussion and analysis of results, and, finally, Section 5 concludes the paper.

2. Methodology: The Multifactor Model

Pesaran (2006) introduces a new method to estimation and inference that addresses cross-sectional dependence. The proposed methodology allows serially correlated and heteroskedastic individual-specific errors. Pesaran (2006) adopts a multifactor residual model as follows:

$$y_{jt} = \alpha'_j d_t + \beta'_j x_{jt} + u_{jt} \tag{1}$$

$$u_{jt} = \gamma'_j f_t + e_{jt} \tag{2}$$

where d_t denotes the ($Nx1$) vector of deterministic components (such as intercepts). y_{jt} is the dependent variable and x_{jt} is the regressor, while f_t is the ($mx1$) vector of unobserved common effects, which are assumed to be weakly stationary. To deal with the residual cross-sectional dependence, Pesaran (2006) suggests using

$h_t = (d'_t, z'_t)'$ as observable proxies for f_t, where $z_t = (y_t \quad x'_t)'$, $y_t = \frac{1}{N}\sum_{j=1}^{N} y_{jt}$, and $x_t = \frac{1}{N}\sum_{j=1}^{N} x_{jt}$.

Then, can be we consistently estimate β_j, as well as their means β, in the framework of the auxiliary regression:

$$y_{jt} = \alpha'_j d_t + \beta'_j x_{jt} + \gamma'_j z_t + e_{jt} \tag{3}$$

Pesaran (2006) refers to the resulting estimators, $\hat{b}_j$, as the "Common-Correlated-Effect Estimator" (CCE).

Assuming slope cross-sectional homogeneity, the proposed new estimator is called the CCE Pooled estimator (CCEP) and is given by:

$$\hat{b}_P = \left(\sum_{j=1}^{N} w_j X'_j M X_j\right)^{-1} \sum_{i=1}^{N} X'_j M Y_j \tag{4}$$

where $X_j = (x_{j1}, x_{j2}, \dots, x_{jT})'$ and $Y_j = (y_{j1}, y_{j2}, \dots, y_{jT})'$ are the ($T \times k$) and ($T \times 1$) observation matrices,

w_j are the pooling weights typically set equal to $1/N$, M is given by:

$$M = I_T - H(H'H)^{-1}H' \tag{5}$$

$H = (D, Z)$, D and Z are, respectively, the ($T \times N$) and $[T \times (k+1)]$ matrices of observations on d_t and

z_t. The new CCEP estimator follows asymptotically the standard normal distribution. Specifically:

$$\sqrt{n}(\hat{b}_P - \beta) \xrightarrow{d} N(0, \Sigma_P) \tag{6}$$

A series of Monte Carlo experiments in Pesaran (2006) demonstrate that the CCE estimators exhibit the correct size and, in general, better small-sample properties than the alternatives available in the literature, while they hold irrespectively of the stationarity properties of the variables involved. Furthermore, they show that residual serial correlation does not seem to affect the small-sample properties of the CCE estimators.

3. Research Model and Data

Our sample consists of the following MENA countries: Algeria (2010), Bahrain (1996), Jordan (2005), Kuwait (2005), Libya (2006), Morocco (2004), Oman (2006), Qatar (2005), Tunisia (2008), United Arab Emirates (2006). We should mention, however, that in the case of Jordan the regulatory authorities have not made yet mandatory the adoption of the IFRS regime, but since 2005 they have allowed firms to make use of them for reporting purposes. The numbers in parentheses show the year of the IFRS regime adoption. There are also other MENA countries which are not included in our sample, mainly because they have very recently adopted the new accounting regime and its impact on financial reporting quality cannot be assessed yet. Based on the years of adoption we make use of a dummy variable that takes one over the country adoption period and zero prior to the adoption period, while the time span is from 2002 to 2012.

The dependent variable is proxied by the share marke price of a firm. We made use only of firms that survived over the entire time span. To this end, we used the following number of firms from each country: Algeria (4), Bahrain (26), Jordan (39), Kuwait (61), Libya (6), Morocco (24), Oman (56), Qatar (35), Tunisia (29), United Arab Emirates (48), with a total of 328 listed firms.

The quality of financial reporting is reflected by the stock price of the firm. This variable seems to reflect the quality of financial reporting based on arguments set forward by Barth et al. (2014). According to them, the value-relevance hypothesis assesses whether a number of accounting variables provide the necessary information used by market participants to reach profitable financial decisions in relevance to the firms' equity. The model that will be used to serve the empirical ends of this study yields:

$$P_{ijt} = a_{ij} + b_1 \, BVPS_{ijt} + b_2 \, EPS_{ijt} + c_1 \, state_{ijt} + c_2 \, foreign_{ijt} + c_3 \, subs_{ijt} + c_4 \, IFRS + d_1 \, IFRS \times BVPS_{ijt} + d_2 \, IFRS \times EPS_{ijt} + \varepsilon_{it} \tag{7}$$

where i denotes the firm, j denotes the country and t is the time dimension. *P* is the stock price, *BVPS* is the book value per share, *EPS* is the earnings per share, *state* denotes the share of the state in each firm, *foreign* displays the foreign investors' share in each firm and, finally, *subs* shows the subsidies each firm receives scaled by the market value of the firm. *IFRS* is a dummy variable that takes one over the country's after IFRS period and zero over the prior adoption period. ε denotes the residual term, while a_{ij} controls for the presence of fixed effects across firms and countries. When we are after the IFRS adoption period, the model includes two interactive terms: the term $IFRS \times BVPS_{ijt}$ and the term $IFRS \times EPS_{ijt}$. The second interactive term is justified on the grounds that there exist significant differences in value relevance of reported earnings over the periods prior and after the adoption of IFRS, with the significance of the term indicating that listed firms turn out to be more transparent in conveying information to equity investors under the new accounting regime.

Based on the above modeling approach, the hypothesis expected to be tested is in relevance to the null hypothesis H_0 that the adoption of the IFRS regime is expected to positively affect financial reporting quality as it is reflected upon higher stock prices. In terms of the model described by equation (7), the null hypothesis is tested through *the positive (and statistically significant) sign of the coefficients c_4, d_1 and d_2.*

Quarterly data on stock prices were obtained from Bloomberg, while those on book values per share and earnings per share were obtained from the site of each firm. The second set of independent (control) variables consists of a number of other factors that may also affect the impact of IFRS on financial reporting quality. This set contains the following variables:

i)   State control = there is no doubt that MENA countries have made substantial efforts to support a free economy system; however, the state still exerts significant control over many parts of the economy either through a subsidy system or through direct controls of the majority of listed firms. In terms of the latter approach, Szamosszegi and Kyle (2011) argue that state-controlled firms tend to serve the governments' political and social objectives.

ii) Foreign ownership = foreign investors (especially from developed economies) demand higher levels of transparency (Leuz et al., 2010), especially if information on local arrangements and the working of institutional mechanisms is not fluent. Therefore, the adoption of IFRS is expected to increase informational transparency, which will maximize the benefits to foreign owners and investors (Tan et al., 2012).

iii) Government subsidies = firms under strong subsidies from the government have weaker financial constraints and, therefore, they need reduced outside capital to fund their financial needs. As a result, the adoption of IFRS is expected to increase the benefit for firms with weaker subsidies, since these firms will have increased demand for outside capital.

Data on the above control variables were also obtained from the site of each firm included the sample under investigation.

4. Empirical Anaysis

4.1 Baseline Results

Table 1 reports the findings of estimating the model equation presented above. The   two primary coefficients of interest, i.e. those on both BVPS and EPS are documented to be positive and statistically significant at the 1% significance level. These findings imply that both the book value per share and the earnings per share variables have been statistically important for MENA firms even before the adoption of the IFRS regime. In addition, the dummy IFRS is also positive and statistically significant at 1%, indicating that the new accounting regime had a positive impact on firms' stock prices. Finally, both interactive terms turn out to be positive and statistically significant. More specifically, the positive and statistically significant interactive term of IFRS x BVPS implies that the positive effect of the BVPS variable exerts a strong (and statistically significant) effect on stock prices after the adoption of the new accounting regime, suggesting the validity of the value relevance of reported earnings hypothesis. Similarly for the second interactive term, i.e. IFRS x EPS. The reported results also indicate that the overall explanatory power of the model is high according to the value of adjusted R^2. In terms of the other control variables, the signs of the estimated coefficients are as expected from theory. In particular:

i) The higher the state share in those firms, the higher their stocks prices. The association between state share ownership and stock prices is in relevance to the belief about public ownership inefficiency which is underlined by the property rights perspective in economics (Villalonga, 2000) as well as the residual claimant theory (Rowthorn and Chang, 1993). According to the property rights hypothesis, such rights in the private sector are more clearly defined than in the public sector, and thus, the incentive for seeking profits by private owners leads to a more effective monitoring of management performance (McCormick & Meiners, 1988).

However, the empirical evidence for the relationship between state ownership and firm performance has been mixed. Hess et al. (2010) examine Chinese listed firms and find a convex relationship between state ownership and market performance, therefore, rendering empirical investigation between state ownership and firms' performance inconclusive. In a recent study, Yu (2013) provides empirical evidence that a higher level of state ownership is superior to a dispersed ownership structure due to the substantial benefits of government support and political connections. Our results for the MENA countries seem to be consistent with these findings.

ii) The higher the foreign ownership in the firms under study, the higher their sock prices as well. These results are consistent with the hypothesis that firms under stronger state ownership provide certain benefits, which is reflected on higher stock prices. Dahlquist and Robertsson (2001) compare the preference of foreign investors to that of domestic institutions using Swedish firms listed from 1991 to 1997. Their results reveal that foreign investors show a preference for firms paying lower dividends, large firms, and firms with large cash positions on the balance sheets, while Lin and Shiu (2003) investigate foreign ownership in the Taiwan stock market from 1996 to 2000. From the perspective of informational asymmetry, foreign investors appear to favour large firms and low book-to-market stocks and firms with high export ratios with which they are more familiar on account of their higher foreign sales.

Once again, the evidence for the effect on stock prices is inconclusive. By contrast, the study by Ko et al. (2007) examines the foreign and institutional investors' preference for firm attributes in Japan and Korea. Their results document that the stocks that are preferred simultaneously by foreign investors show statistically significant positive abnormal returns in both countries.

iii) Finally, the higher the subsidies these firms receive, the lower their stock prices turn out to be. This finding is consistent with the hypothesis that the higher the state subsidies a firm receives, the lower its stock price, since such subsidies tend to hide potential internal problems of the firm and/or to discourage the firm from undertaking projects that will enhance its financial performance. By contrast, higher subsidies reduce the firms' reliance on external capital, which leads to higher stock prices. Our results are the opposite to those reached by Tzelepis and Skuras (2004) who analyze the impact of investment subsidies on firms' performance in the Greek food and drinks manufacturing sector. Their results document that subsidies do not have any significant effect on firms' efficiency, profitability and leverage, while capital subsidization is an effective industrial policy in promoting firms' growth which is refected upon firms' higher stock prices.

Other studies that also explore the role of subsidies for stock prices evaluate whether public R&D subsidies are either complementary and, thus, 'additional' to company-financed R&D or whether they substitute for and, thus, 'crowd out' private R&D (David et al., 2000). The empirical evidence, however, in this strand of the literature is

mixed with the disparity in results being attributed to differences in the populations under study (time periods, countries of interest, business sectors), the variables used, and the empirical approach (Aerts & Schmidt, 2008; González & Pazó, 2008). Our empirical findings seem to be in favour of the 'substitution' hypothesis, with higher subsidies leading to lower stock prices.

Table 1. Baseline results

Variables	Coefficients	p-values
Constant	4.176	0.00
BVPS	0.964	0.01
EPS	2.146	0.00
state	0.085	0.00
foreign	0.146	0.01
subs	-0.329	0.01
IFRS	2.782	0.00
IFRS x BVPS	0.074	0.01
IFRS x EPS	0.419	0.00
Diagnostics		
R^2 - adjusted	0.63	

4.2 Robustness Checks: The Role of Confounding Effects

Interactions between business cycles and asset prices, such as stock prices play an important role in shaping recessions and recoveries. Specifically, recessions associated with financial disruption episodes, such as house price busts, are often longer and deeper than other recessions. Conversely, recoveries associated with rapid growth of credit and house prices tend to be more robust.

A large number of empirical studies focus on the dynamic links between asset prices and output (Engel & West, 2005). In particular, related work has examined whether asset prices are leading, coincident, or lagging indicators for economic activity. Some recent studies, notably Reinhart and Rogoff (2009), concentrate on the behaviour of real and financial variables surrounding financial crises. Bordo and Haubrich (2010) analyse cycles in money, credit and output between 1875 and 2007 in the U.S. Their findings document that financial stress events exacerbate cyclical downturns, but their study is limited to a small number of recessions.

While most work has used aggregate data, some credit-related studies have been based on micro data, i.e. banks or corporations (Kannan, 2010). However, the degree and source of causality between asset price changes and future activity is not always clear. A number of studies interpret the association between stock returns and output growth as evidence that equity markets are able to anticipate correctly future earnings growth and other fundamentals, while others interpret it as evidence of some form of a 'financial accelerator mechanism', where changes in equity prices affect access to finance, and thus impact consumption and investment, and thereby help predict future GDP growth (Barro & Ursua, 2009).

This part of the empirical paper explores whether the effect of both the BVPS and the EPS variables on stock prices is caused not by the presence of the new accounting regime (i.e., the IFRS dummy and the interactive terms), but from a number of confounding effects, such as the business cycle. To this end, we re-estimate the model described in equation (1), by explicitly introducing the business cycle effect. To this end, first real GDP data are obtained from the International Monetary Fund's IFS database and next we measure the cyclical component of output through the Hodrick-Prescott (1997) filter as a proxy of the business cycle. By explicitly incorporating the business cycle effect in equation (1), the new model yields:

$$P_{ijt} = a_{ij} + b_1\ BVPS_{ijt} + b_2\ EPS_{ijt} + c_1\ state_{ijt} + c_2\ foreign_{ijt} + c_3\ subs_{ijt} + c_4\ IFRS + d_1\ IFRS\ x\ BVPS_{ijt} + d_2\ IFRS\ x\ EPS_{ijt} + d_3\ YGAP_t + \varepsilon_{it} \tag{8}$$

where YGAP denotes the cyclical component of real output, while the remaining variables are defined as before. The new results are reported in Table 2. They highlight that in spite of the inclusion of the business cycle effect, the estimations of the key variables retain not only their expected sign, but also their statistical significance, indicating once again the substantial role of the IFRS accounting regime adoption in enhancing the quality of financial reporting, albeit their quantitative impact is reduced. The variable that proxies the business cycle effect exerts a positive effect on stock prices, indicating that over the booming phase of the cycle stock prices are on the rise.

Table 2. Estimation results: The role of business cycles

Variables	Coefficients	p-values
Constant	3.375	0.01
BVPS	0.884	0.00
EPS	2.039	0.00
state	0.076	0.00
foreign	0.125	0.01
subs	-0.297	0.00
IFRS	2.348	0.00
IFRS x BVPS	0.063	0.01
IFRS x EPS	0.364	0.01
YGAP	0.116	0.01
Diagnostics		
R^2 - adjusted	0.67	

4.3 Robustness Checks: Disaggregated Estimates-Industry Classification

The leading oil exporting performance of MENA countries has established them as key players in the global economy. Athough the non-oil manufacturing firms have a smaller share in those exporting activities, the low energy cost has significantly contributed these firms to demonstrate a strong exporting performance as well. Based on those arguments, the adoption of the IRFS regime is expected to impact manufacturing firms in MENA countries. Our firms' sample is classified in the followings categories: agriculture (37), construction (29), information technology (27), manufacturing (87), oil (52), services (44), trade (38), utilities (24), with the number in parentheses denoting the number of firms in each industrial sector.

Table 3 presents the value-relevance estimates conditional on industry cassification. In particular, it breaks down the industries to the most detailed sector classification. The new empirical findings display that the coefficients in relevance retain their expected sign as before indicating the all industrial sectors have improved their financial reporting quality after the adoption of the IFRS accounting regime.

However, the sector that really demonstrates the highest increase in such reporting quality is firms in the manufacturing sector, given that firms in that sector are characterized by a greater need to communicate with outside investors as a result of higher competition for external capital. By contrast, the lowest impact of the IFRS regime is shown in the utilities and oil-related sectors, probably due to the fact that most capital is injected from state sources, which reduces the competition for external capital and, thus, the need to communicate more efficiently with external investors.

Moreover, the results indicate that for manufacturing-related industries, the book-value related variable has a stronger post-IFRS effect than the variables of earnings per share. These findings are consistent with those reached by Chebaane and Othman (2014).

Table 3. Estimation results: An industrial sectoral approach

Var/bles	Bahrain	Jordan	Kuwait	Morocco	Oman	Qatar	Tunisia	UAE
Constant	2.179	1.783	2.017	2.472	2.638	2.146	2.914	3.277
	[0.00]	[0.01]	[0.02]	[0.00]	[0.01]	[0.01]	[0.01]	[0.00]
BVPS	0.648	0.268	0.758	1.345	0.948	1.316	0.279	0.941
	[0.00]	[0.14]	[0.00]	[0.00]	[0.00]	[0.00]	[0.13]	[0.00]
EPS	0.763	0.149	3.144	2.573	2.817	2.492	0.309	0.953
	[0.00]	[0.13]	[0.00]	[0.00]	[0.00]	[0.00]	[0.11]	[0.00]
state	0.086	0.075	0.035	0.069	0.046	0.059	0.084	0.038
	[0.00]	[0.00]	[0.06]	[0.01]	[0.02]	[0.06]	[0.00]	[0.07]
foreign	0.062	0.098	0.165	0.136	0.149	0.265	0.094	0.187
	[0.01]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.01]	[0.00]
subs	-0.146	-0.229	-0.065	-0.182	-0.147	-0.078	-0.276	-0.184
	[0.03]	[0.00]	[0.07]	[0.00]	[0.00]	[0.08]	[0.00]	[0.00]
IFRS	0.683	0.305	2.672	3.839	1.784	2.583	0.417	1.958
	[0.00]	[0.05]	[0.00]	[0.00]	[0.00]	[0.00]	[0.05]	[0.01]
IFRSxBVPS	0.055	0.019	0.092	0.146	0.137	0.257	0.031	0.071
	[0.00]	[0.15]	[0.00]	[0.00]	[0.00]	[0.01]	[0.12]	[0.00]

IFRSxEPS	0.124	0.026	0.238	0.429	0.245	0.259	0.023	0.236
	[0.00]	[0.12]	[0.00]	[0.00]	[0.00]	[0.00]	[0.14]	[0.00]
YGAP	0.081	0.118	0.167	0.172	0.149	0.125	0.143	0.096
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.01]
Diagnostics								
R2-adjusted	0.46	0.42	0.69	0.65	0.58	0.61	0.44	0.62

Note. Figures in brackest denote p-values.

4.4 Robustness Checks: Country Estimates

This subsection presects country estimates. We have excluded Algeria and Libya due to the small number of firms included. The new results are reported in Table 4. Although in the majority of countries the results are similar to those obtained in the baseline case presented in Table 1, there is one exception, that of Tunisia, in which the adoption of the IFRS accounting regime does not seem to positively affect the quality of financial reporting (though the relevant variables carry the expected signs), since the estimates turn out to be statistically insignificant.

The results for the Tunisian case indicate that the adoption of the new accounting regime has faced problems in the application of the law. Compliance with accounting requirements in Tunisia is not always effectively and consistently enforced due to deficiencies in the three core pillars of any enforcement regime, i.e., management, statutory auditors, and regulators (Ben Ayed & Abaoub, 2013). While both the Central Bank of Tunisia and the Ministry of Finance seek to enforce accounting standards in credit institutions and insurance undertakings, respectively, their mandate implies a focus on prudential requirements. The Financial Market Council seeks to enforce accounting standards in general purpose financial statements of companies raising funds from the public but does not consistently demand restatement of accounting issues it discovers or imposes sanctions on offenders. Managers and auditors do not consistently comply with accounting and auditing requirements.

Overall, the empirical findings document that the adoption of IFRS in the majority of the MENA countries affects positively and statistically significantly the quality of financial reporting. In other words, these findings indicate that value relevance of quality reporting has improved in the post-IFRS period considering both book values and earnings.

Table 4. Estimation results: Country estimates

Var/bles	Bahrain	Jordan	Kuwait	Morocco	Oman	Qatar	Tunisia	UAE
Constant	2.179	1.783	2.017	2.472	2.638	2.146	2.914	3.277
	[0.00]	[0.01]	[0.02]	[0.00]	[0.01]	[0.01]	[0.01]	[0.00]
BVPS	0.648	0.268	0.758	1.345	0.948	1.316	0.279	0.941
	[0.00]	[0.14]	[0.00]	[0.00]	[0.00]	[0.00]	[0.13]	[0.00]
EPS	0.763	0.149	3.144	2.573	2.817	2.492	0.309	0.953
	[0.00]	[0.13]	[0.00]	[0.00]	[0.00]	[0.00]	[0.11]	[0.00]
state	0.086	0.075	0.035	0.069	0.046	0.059	0.084	0.038
	[0.00]	[0.00]	[0.06]	[0.01]	[0.02]	[0.06]	[0.00]	[0.07]
foreign	0.062	0.098	0.165	0.136	0.149	0.265	0.094	0.187
	[0.01]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.01]	[0.00]
subs	-0.146	-0.229	-0.065	-0.182	-0.147	-0.078	-0.276	-0.184
	[0.03]	[0.00]	[0.07]	[0.00]	[0.00]	[0.08]	[0.00]	[0.00]
IFRS	0.683	0.305	2.672	3.839	1.784	2.583	0.417	1.958
	[0.00]	[0.05]	[0.00]	[0.00]	[0.00]	[0.00]	[0.05]	[0.01]
IFRSxBVPS 0.055	0.019	0.092	0.146	0.137	0.257	0.031	0.071	
	[0.00]	[0.15]	[0.00]	[0.00]	[0.00]	[0.01]	[0.12]	[0.00]
IFRSxEPS 0.124	0.026	0.238	0.429	0.245	0.259	0.023	0.236	
	[0.00]	[0.12]	[0.00]	[0.00]	[0.00]	[0.00]	[0.14]	[0.00]
YGAP	0.081	0.118	0.167	0.172	0.149	0.125	0.143	0.096
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.01]
Diagnostics								
R^2-adjusted	0.46	0.42	0.69	0.65	0.58	0.61	0.44	0.62

Note. Figures in brackest denote p-values.

5. Conclusions

The empirical results suggested that the introduction of the IFRS accounting regime by a number of MENA listed firms experienced higher levels of earing quality. The empirical results survived a number of robustness checks, while in the case of individual country estimates the only case the results did not receive any statistical support was in relevance to Tunisia, where the implementation of the regime seems to have been problematic. A potential explanation could be related to problems with the institutional framework. In other words, this finding suggests that institutional factors have an effect on accounting quality even under the same set of standards. Overall, the results imply that MENA listed firms exhibit improved financial reporting quality over the post-IFRS era.

The findings could contribute to the debate on whether IFRS are effective to emerging economies, and, especially, to the MENA countries. They, also, could aware governments in emerging economies, which are planning to adopt IFRS in the near future of the benefits (i.e., improvements of value relevance) or disadvantages of implementing these international standards.

References

Aerts, K., & Schmidt, T. (2008). Two for the Price of One? Additionality Effects of R&D Subsidies: A Comparison Between Flanders and Germany. *Research Policy, 37*, 806-822. http://dx.doi.org/10.1016/j.respol.2008.01.011

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211. http://dx.doi.org/10.1016/0749-5978(91)90020-T

Al-Akra, M., Ali, M. J., & Marashdeh, O. (2009). Development of Accounting Regulation in Jordan. *The International Journal of Accounting, 44*, 163-186. http://dx.doi.org/10.1016/j.intacc.2009.03.003

Assenso-Okofo, O., Ali, M. J., & Ahmed, K. (2011). The Development of Accounting and Reporting in Ghana. *The International Journal of Accounting*, 46, 459-480. http://dx.doi.org/10.1016/j.intacc.2011.09.010

Barro, R. J., & Ursúa, J. F. (2009). *Stock-Market Crashes and Depressions*. NBER Working Paper, No. 14760, National Bureau of Economic Research, Inc.

Barth, M. E., Landsman, W. R., Young, D. Q., & Zhuang, Z. L. (2014). Relevance of Differences Between Net Income Based on IFRS and Domestic Standards for European Firms. *Journal of Business Finance and Accounting, 41,* 297-332. http://dx.doi.org/10.1111/jbfa.12067

Belkaoui, A. R. (2002). *International Accounting and Economic Development: The Interaction of Accounting, Economic and Social Indicators.* West Port: Quorum Books.

Ben Ayed, M. R., & Abaoub, E. (2013). The Impact of the Law on Strengthening the Security of Financial Relations on the Value Relevance of Accounting Information in Tunisian Stock Exchange. *International Journal of Accounting and Financial Reporting, 3*, 42-62. http://dx.doi.org/10.5296/ijafr.v3i1.2978

Bordo, M. D., & Haubrich, J. G. (2010). Credit Crises, Money and Contractions: A Historical View. *Journal of Monetary Economics, 57*, 1-18. http://dx.doi.org/10.1016/j.jmoneco.2009.10.015

Chamisa, E. E. (2000). The Relevance and Observance of the IASC Standards in Developing Countries and the Particular Case of Zimbabwe. *The International Journal of Accounting, 35*, 267-286. http://dx.doi.org/10.1016/S0020-7063(00)00049-2

Chebaane, S., & Othma, H. B. (2014). The Impact of IFRS Adoption on Value Relevance of Earnings and Book Value of Equity: The Case of Emerging Markets in African and Asian Regions. *Procedia - Social and Behavioral Sciences, 145*, 70-80. http://dx.doi.org/10.1016/j.sbspro.2014.06.012

Dahlquist, M., & Robertsson, G. (2001). Direct Foreign Ownership, Institutional Investors, and Firm Characteristics. *Journal of Financial Economics, 59*, 413-440. http://dx.doi.org/10.1016/S0304-405X(00)00092-1

David, P. A., Hall, B. H., & Toole, A. A. (2000). Is Public R&D a Complement or Substitute for Private R&D? A Review of Econometric Evidence. *Research Policy, 29*, 497-529. http://dx.doi.org/10.1016/S0048-7333(99)00087-6

Engel, C., & West, K. D. (2005). Exchange Rates and Fundamentals. *Journal of Political Economy, 113*, 485-517, http://dx.doi.org/10.1016/S0022-1996(99)00011-2

Francis, J. R., Khurana, I. K., & Pereira, R. (2005). Disclosure Incentives and Effects on Cost of Capital Around

the World. *The Accounting Review, 80*, 1125-1162. http://dx.doi.org/10.2308/accr.2005.80.4.1125

González, X., & Pazó, C. (2008). Do Public Subsidies Stimulate Private R&D Spending? *Research Policy, 37*, 371-389. http://dx.doi.org/10.1016/j.respol.2007.10.009

Hess, K., Gunasekarage, A., & Hovey, M. (2010). State-Dominant and Non-State-Dominant Ownership Concentration and Firm Performance: Evidence from China. *International Journal of Managerial Finance, 6*, 264-289. http://dx.doi.org/10.1108/17439131011074440

Hodrick, R. J., & Prescott, E. C. (1997). Postwar U.S. Business Cycles: An Empirical Investigation. *Journal of Money, Credit and Banking, 29*, 1-16. http://dx.doi.org/10.2307/2953682

Irvine, H. (2008). The Global Institutionalization of Financial Reporting: The Case of the United Arab Emirates. *Accounting Forum, 32*, 125-142. http://dx.doi.org/10.1016/j.accfor.2007.12.003

Joshi, P. L., Bremser, W. G., & Al-Ajmi, J. (2008). Perceptions of Accounting Professionals in the Adoption and Implimention of a Single Set of Global Accounting Standards: Evidence from Bahrain. *Advances in Accounting, Incoporating Advances in International Accounting, 24*, 41-48. http://dx.doi.org/10.1016/j.adiac.2008.05.007

Kannan, P. (2010). *Credit Conditions and Recoveries from Recessions Associated with Financial Crises*. IMF Working Paper, No. 10/83, International Monetary Fund. http://dx.doi.org/10.5089/9781451982657.001

Ko, K., Kim, K., & Cho, S. H. (2007). Characteristics and Performance of Institutional and Foreign Investors in Japanese and Korean Stock Markets. *Journal of the Japanese and International Economies, 21*, 195-213. http://dx.doi.org/10.1016/j.jjie.2005.11.002

Larson, R. K., & Street, D. L. (2004). Covergence with IFRS in an Expanding Europe: Progress and Obstacles Identified by Large Accounting Firms' Survey. *Journal of International Accounting Auditing and Taxation, 13*, 89-119. http://dx.doi.org/10.1016/j.intaccaudtax.2004.09.002

Leuz, C., Lin, K. V., & Warnock, F. E. (2010). Do Foreigners Invest Less in Poorly Governed Firms? *The Review of Financial Studies, 23*, 3245-3285. http://dx.doi.org/10.1093/rfs/hhn089.ra

Lin, C. H., & Shiu, C. Y. (2003). Foreign Ownership in the Taiwan Stock Market: An Empirical Analysis. *Journal of Multinational Financial Management, 13*, 19-41. http://dx.doi.org/10.1016/S1042-444X(02)00021-X

Madawaki, A. (2012). Adoption of International Financial Reporting Standards in Developing Countries: The Case of Nigeria. *International Journal of Business and Management, 7*, 152-161. http://dx.doi.org/10.5539/ijbm.v7n3p152

McCormick, R. E., & Meiners, R. E. (1988). University Governance: A Property Rights Perspective. *Journal of Law and Economics, 31*, 423-442. http://dx.doi.org/10.1086/467163

Perera, H., & Baydoun, N. (2007). Convergence with International Financial Reporting Standards: The Case of Indonesia. *Advances in International Accounting, 20*, 201-227. http://dx.doi.org/10.1016/S0897-3660(07)20007-8

Perumpral, S. E., Evans, M., Agarwal, S., & Amenkhienan, F. (2009). The Evolution of Indian Accounting Standards: Its History and Current Status with Regard to International Financial Reporting Standards. *Advances in Accounting, incorporating Advances in International Accounting, 25*, 106-111. http://dx.doi.org/10.1016/j.adiac.2009.02.003

Pesaran, M. H. (2006). Estimation and Inference in Large Heterogeneous Panels with a Multifactor Error Structure. *Econometrica, 74*, 967-1012. doi: 10.1111/j.1468-0262.2006.00692..

Reinhart, C. M., & Rogoff, K. S. (2009). *This Time is Different: Eight Centuries of Financial Folly*. Princeton University Press.

Ritsumeikan, L. (2012). The Unwanted Effects of International Financial Reporting Standards (IFRS) Adoption on International Trade and Investments in Developing Countries. *Journal of Economics and Economic Education Research, 13*, 1-14.

Rowthorn, B., & Chang, H. J. (1993). Public Ownership and the Theory of the State. In T. Clarke, & Pitelis, C. (Eds.), *The Political Economy of Privatisation* (pp. 54-69). Routledge, London.

Szamosszegi, A., & Kyle, C. (2011). *An Analysis of State-Owned Enterprise and State Capitalism in China*. US-China Economic and Security Review Commission.

www.ccsenet.org/ijef
International Journal of Economics and Finance
Vol. 7, No. 10; 2015

Tan, H. P., Wang, S. H., & Welker, M. (2011). Analysts' Following and Forecast Accuracy after Mandated IFRS Adoptions. *Journal of Accounting Research, 49*, 1307-1357. http://dx.doi.org/10.1111/j.1475-679X.2011.00422.x

Tyrrall, D., Woodward, D., & Rakhimbekova, A. (2007). The Relevance of International Financial Reporting Standards to a Developing Country: Evidence from Kazakhstan. *The International Journal of Accounting, 42*, 82-110. http://dx.doi.org/10.1016/j.intacc.2006.12.004

Tzelepis, D., & Skuras, D. (2004). The Effects of Regional Capital Subsidies on Firm Performance: An Empirical Study. *Journal of Small Business and Enterprise Development, 11*, 121-129. http://dx.doi.org/10.1108/14626000410519155

Villalonga, B. (2000). Privatization and Efficiency: Differentiating Ownership Effects from Political, Organizational, and Dynamic Effects. *Journal of Economic Behavior & Organization, 24*, 43-74. http://dx.doi.org/10.1016/S0167-2681(00)00074-3

Whittington, G. (2005). The Adoption of International Accounting Standards in the European Union. *European Accounting Review, 14*, 127-153. http://dx.doi.org/10.1080/0963818042000338022

Yu, M. (2013). State Ownership and Firm Performance: Empirical Evidence from Chinese Listed Companies. *China Journal of Accounting Research, 6*, 75-87. http://dx.doi.org/10.1016/j.cjar.2013.03.003