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The Impact of IAS vs. IFRS$_{(Voluntary)}$ and IFRS$_{(Voluntary)}$ vs. IFRS$_{(Mandatory)}$ on Accounting Quality over Time: Inferences from Jordan

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Abstract
The aim of this study is to investigate the impact of applying IFRS by Jordanian listed companies on the value relevance (quality) of accounting financial reporting. Using a sample of Jordanian banks and industrial companies reporting under IAS during 1997-2002 period, and IFRS$_{Voluntary}$ during 2003-2005 periods and IFRS$_{Mandatory}$ during 2006-2014 period based on measures of earnings management, timely loss recognition and price-earnings association. The results show that we are unable to find systematic evidence that IFRS results in improved accounting quality for mandatory adopters over the last years. Our findings on earnings and book value of equity are becoming less value relevant during the IFRS$_M$ period compared to both the IAS and the IFRS$_V$ periods findings on earnings smoothing and timely loss recognition corroborate largely, while our findings with respect to the value relevance of accounting financial reporting. We do not find any change in meeting earnings targets for IFRS adopting relative to Jordanian companies. Further analysis shows that the value relevance (quality) of accounting financial reporting has worsened with the adoption of IFRS over time. Overall, these findings maintain several possible evidence of accounting quality improvement following the IFRS implementation and highlight the importance of accountings standards for financial reporting quality.
Keywords: IAS, IFRS adoption, Earnings management, Earnings smoothing, Value relevance, Jordan

1. Introduction

The main purpose of the current study is to investigate and compare the impact of change in quality of accounting information using a sample of Jordanian industrial companies reporting under International Accounting Standards (IAS) during 1997-2002 (IAS period), with those under International Financial Reporting Standards (IFRS) during 2003-2005 (IFRSVoluntary period) and 2006-2014 (IFRSMandatory period)[1]. In other words, this study aims to elicit perceptions regarding the influence, motivations and techniques of "quality of accounting" application. Identifying common motivations for the use of "quality of accounting" from different perspectives in Jordan will involve the following: (1) improve the quality of information to investors and other account users; (2) contribute to recent literature and the enactment of the quality of accounting numbers as IASB revises existing IAS and issues new IFRS to formulate a set of high quality IASs for global accounting harmonization and the efficiency of standard; (3) detect the weaknesses and strengths regarding the quality of accounting practices from users' perspective in Jordan; finally, the study will provide valuable knowledge about the quality of accounting practices not yet discussed or studied such as the relation between the quality of accounting information and IAS/IFRS, and will indicate the negative aspects of the quality of accounting. Depending on the previous objectives, the key study question is as follows: *Whether or not there is a change in quality of accounting caused by the revisions made to IASs and the development of new IFRSs during these* periods of time. Through the accounting literature survey, many of these revisions of IASs and the development of new IFRS of accounting standards reflect IASB's preference for fair-value measurement of assets, liabilities, revenue and equity (Schipper, 2005; Whittington, 2005; Alexander and Jermakowicz, 2006; Hung and Subramanyam, 2007). Taking into consideration the developments in the IFRS framework, we expect that these changes are likely to affect the quality of accounting amounts as a result of IASB's increased orientation towards fair-value accounting.

Since IFRS adopted in Europe Union (EU) in January 1st 2005, most of European enterprises have put on practice as the main accounting standard model in the world (Armstrong et al., 2010). IFRS consider current and potential investors as the main users of financial statements (IASC, 2010, par. 10), which are often described as principle-based system (Carmona and Trombetta, 2008; Chen et al., 2010; Atwood et al., 2011; Sun et al., 2011; IASB, 2012; Lin et al., 2012; Dimitropoulos et al., 2013) are intended to ensure a high degree of transparency of financial statements, to get better corporate transparency and to enhance the usefulness of financial reporting. Furthermore, IFRS are supposed to reflect economic gains and losses in a more timely fashion (Barth et al., 2008) and to provide more useful balance sheets than the accounting rules governing most continental EU countries (Ball, 2006).

[1] International Accounting Standards (IAS) refers to standards issued by the International Accounting Standards Committee (IASC) and revised by the International Accounting Standards Board (IASB). IFRSs are issued by the IASB, the successor body to the IASC. For ease of exhibition, we use the term "IFRS" to refer to these standards.

Essentially, IAS was used by International Accounting Standards Committee (IASC) from 1973 to 2001. After 2001, the new IASB Framework has replaced by IASC and then it has developed to IFRS of accounting standards which is used till now. Under the IFRS framework, different countries have different focus areas. In order to provide this, take Jordan for instance, this country was chosen for this study for some a significant points as follow: (1) the Jordanian accounting system was exposed to major changes during the last fifteen years, and the stock market rapidly embraced the IASs for listed companies in 1989 (IAS, 1989; AI-Shiab, 2003). The impact of the new regulations effectively constitute an accounting reform that aims to improve the usefulness of accounting information in the Amman Bourse and will enhance the truthfulness of reported accounting numbers. (2) Jordan has made great strides towards the global economy. This is evidenced by the association agreement with the EU countries in 1999; furthermore, membership of the World Trade Organization (WTO) in 2002, and a free-trade agreement with the U.S in 2001 have boosted Jordan's economic reform agenda and enabled the country to become one of the leaders in the MENA region (Al-Jaghoub and Westrup, 2003). (3) The reform program has been encouraged the current trend of opening up the Jordan capital market to foreign investors (Al-Awaqleh, 2010). Thus, the issue of accounting information disclosure is more critical than ever before, as the publishing of financial information will inspire confidence, especially for foreign investors who may wish to invest in Jordan. (4) It is important to study the quality of accounting practices objectively and critically (especially in light of recent issuance and validity of the application of IAS/IFRS standards and the scarcity of studies addressing it) as well as identifying the obstacles facing the application of this standards and the means to overcome them. Finally, the recent study is considered as responded to examine the change in quality of accounting caused by the revisions made to IASs and the development of new IFRSs.

In Jordan, the first accounting regulations go back to the 1960s and were very limited in scope. In 1987, the Jordanian Association of Certified Public Accountants (JACPA) has 539 registered members, of which 350 are in public practice, which was brought into existence and in 1989 JACPA recommended that Jordanian companies adopt IASs, effective January 1990. Today's trainee accountants do not seem to be interested in pursuing JACPA membership; many continue to try for foreign qualifications, as the U.S. Certified Public Accountant (CPA) and the United Kingdom's Association of Chartered Certified Accountants (ACCA). In 1996, Jordan embarked on its privatisation program and ensures' its success, which revamped its corporate disclosure rules through the enactment of the 1997 Company Law No. 22, in 2002 the Securities Law No. 76 was enacted (ASE, 2009) mandating the adoption of the full version of IAS/IFRS by all Jordanian public shareholding companies. Further, an amendment to the Securities Law in 2004, Article (14), asserted on the adoption of IFRS by all Jordanian firms subject to Jordan Securities Commission (JSC) monitoring. Income Tax Laws and the Amman Financial Market (AFM) required Jordanian firms to prepare annual reports in accordance with Generally Accepted Accounting Principles (GAAP) but did not provide an interpretation of what constitutes GAAP (Naser, 1998). These reforms led to improved accounting disclosure quality. Discover new evidence from new country (Jordan) regarding change in quality of accounting. This encouraged me to go back and re-examine the existing debates and to critically evaluate it. Our primary contribution is that we exclusively examine the impact of international standards over time on accounting quality and value relevance of accounting measures as these standards goes through revisions and new standards are issued. No study, to our knowledge, has empirically examined this issue in Jordan area. Our second contribution is that we include more recent data and investigate the effects of the mandatory adoption of IFRS since 2006 on accounting quality.

2. Literature Review

Given earlier studies that supports the benefit of the international standards and consistent with the IASB goal to develop an internationally acceptable set of high quality financial reporting standards that better reflect a firm's economic position and performance; we expect IFRS earnings to be of higher quality than their local GAAP. These anticipated benefits are based on the premise that mandating the use of IFRS raises transparency and get better the quality of financial reporting. On its own, worldwide researchers in the academic literature demonstrate that the implementation of (IFRS) leads to higher earnings' quality. For instance, Barth et al. (2008) investigate the application of IAS in 21 countries over the period 1994-2003.They point out that companies applying IAS exhibit less earnings smoothing, less managing of earnings towards a target, and more timely recognition of losses. According to Daske et al. (2009), find that market liquidity increased around the time of the mandatory IFRS adoption. Li (2010) finds that mandatory adoption of IAS in the EU countries significantly reduced the cost of equity capital for mandatory adopters. In the German, Gassen and Sellhorn (2006) find that German firms that voluntary adopted IFRS during the period between 1998 and 2004 have more persistent, less predictable and more conditionally conservative earnings. In this context, Hung and Subramanyam (2007) examine the financial statement effects of adopting IAS using a sample of 80 German firms during the period 1998 to 2002. They find that book value and income are no more value relevant under IAS than under German GAAP, but there is weak evidence that IAS income exhibits greater conditional conservatism than German GAAP income.

More recently, Kouser and Azeem (2011) point out that IFRS adoption leads to a strong and increasing relationship of the share price with earnings and book value of equity in Pakistan. Sun et al. (2011) also examine that the impact of IFRS implementation on earnings' quality of firms cross-listed in the U.S that are domiciled in countries that have adopted IFRS on a mandatory basis. They find no difference in the change in earnings' quality from the pre- to post-IFRS period for the cross-listed firms and the matched U.S firms in term of discretionary accruals and timely loss recognition. Moreover, they get evidence of improved earnings' quality for the cross-listed firms based on small positive earnings and earnings persistence. Zéghal et al. (2011) pointed out that the mandatory adoption of IAS/IFRS is associated with a reduction in the earnings management level in France. While, Chua et al. (2012) find evidence that following the mandatory adoption of IFRS, Australian firms engage in less earnings management by way of income smoothing, better timely loss recognition, and improvement in value relevance of accounting information.

In addition, Liu et al. (2012) demonstrate that value relevance improved in Peru, from the IAS period to the early IFRS period (from 1999-2001 to 2002-2004) when the (IASB) took over the IASC, but worsened from the early IFRS period to the recent IFRS period (from 2002-2004 to 2005-2007) when more accounting standards started to reflect IASB's preference for fair value measurement of assets and liabilities. Ferrari et al. (2012) supports the idea that the IAS adopters are generally characterised by a level of earnings management lowers than or equal to the German local (GAAP) adopters. However, Landsman et al. (2012) show a positive association between the mandatory adoption of IFRS and the information content of earnings, as measured by both abnormal return volatility and abnormal trading volume. Following Dimitropoulos et al. (2013) find realistic evidence that the implementation of IFRS contributed to less earnings management, more timely loss recognition and greater value relevance of accounting figures, compared to the Greek accounting standards. Kang (2013) investigates the impact of mandatory IFRS adoption on the value relevance of financial reports in 13 European countries by comparing the earnings–returns relation pre- and post-IFRS mandatory adoption in 2005. He found that the implementation of mandatory IFRS improves the value relevance of financial reports in Europe.

In the case of accounting quality studies, Jeanjean and Stolowy (2008) find that the pervasiveness of earnings management did not decline in Australia and the UK, and in fact increased in France, after the mandatory introduction of IFRS standards. Gjerde et al. (2008) find little evidence of increased value relevance after adopting IFRS in Norway. Goodwin et al. (2008) find that IFRS earnings and equity are not more value relevant than Australian GAAP earnings and equity. Further, Paananen and Lin (2009) find evidence that accounting quality has not improved but worsened over time after mandatory adoption using a sample of German companies. Similarly, Tsalavoutas et al. (2010) find no significant change in the value relevance of book value of equity and earnings in a weak corporate governance environment, namely Greece. Using a broad sample from 21 countries, Ahmed et al. (2010) find that mandatory adoption results in smoother earnings, more aggressive reporting of accruals, and a reduction in timeliness of loss recognition relative to gain relative to benchmark firms. The results by Balsari et al. (2010) demonstrate that IFRS adoption has increased both the timeliness and earnings' conservatism in Turkey.

The study by Chen et al. (2010), find that the majority of accounting quality indicators improved after IFRS adoption in the Europe. Explicitly, they get evidence that there is less of managing earnings toward a target, a lower magnitude of absolute discretionary accruals, and higher accruals quality. Iatridis (2010) conclude that the implementation of IFRS in UK reduces the scope for earnings management, is related to more timely loss recognition and leads to more value relevant accounting measures. Iatridis and Rouvolis (2010) provide evidence that the implementation of IFRS has reduced the level of earnings management (smoothing and earnings toward a target) as compared to what occurred under Greek GAAP. More recently, Wang and Campbell (2012) show that IFRS implementation does not seem to deter earnings management for the Chinese publicly listed companies. Lin et al. (2012) also provided empirical evidence on accounting numbers under IFRS generally exhibit more earnings management, less timely loss recognition, and less value relevance compared to those under U.S (GAAP). They indicate that the application of U.S (GAAP) generally resulted in higher accounting quality than the application of IFRS, and a transition from U.S (GAAP) to IFRS reduced accounting quality.

As shown previously, overall, the results of these studies do not provide clear evidence on how the recent development in the global accounting standards impacts the quality of the accounting amounts. A later study by Van Tendeloo and Vanstraelen (2005) note, the quality of financial statements prepared using IAS/IFRS depends on both the quality of these standards and their implementation. This paper attempts to contribute to the debate which involves professionals as well as academics, surrounding the value added of IFRS regulation. Thus, the prior literature findings cannot be interpreted, for instance, Jermakowicz et al. (2007) and Barth et al. (2008) cover a period including both IAS and IFRS data, which makes it difficult to interpret their results regarding the impact on accounting quality as the IAS' go through changes over time. In addition, the fact that, it is not clear that changing one element (i.e. accounting standards) would necessarily result in improved accounting quality (Ball 2006; Hail et al., 2010). Consistent with this argument, for strong enforcement countries, if IFRS of higher-quality than domestic GAAP and they are appropriately enforced, than would expect an improvement in

accounting quality. For instance, if IFRS eliminate accounting alternatives that were opportunistically used by managers, elimination of these alternatives would improve accounting quality (Daske et al., 2009; Li, 2010; Byard et al., 2011). However, if IFRS are of lower-quality than domestic GAAP in the sense that they increase managerial discretion, accounting quality would decline even in strong enforcement countries given that managers have incentives to exercise their discretion in their own interests. Moreover, accounting quality may decline after mandatory IFRS adoption because principles-based standards are looser, on average, than domestic standards and thus may be more difficult to enforce.

3. Methodology

Previous international accounting research has focused on developed countries particularly Europe and northern America, while in the case of Jordan (and the Middle Eastern region) has been neglected despite recent changes in its economic and accounting regulatory environments. Understanding the environmental factors that helped shape Jordan's accounting practices and disclosures and documenting their impact takes on a particular importance at this time of change and growth. This paper, therefore, fills a gap in international accounting research. It explores key environmental factors and links them to the development of accounting regulation in Jordan. Further, it discusses the recent economic and accounting reforms in detail, with specific reference to changes in the quality of accounting, which resulted from financial reporting and economic developments in Jordan. Given the competing arguments, whether mandatory IFRS adoption results in an increase or a decrease in accounting quality over time is an empirical question. Thus, we test a two-tailed hypothesis stated in null form as follows: *Accounting quality does not change after mandatory IFRS adoption.* Following this section, we outline our methodology and explain the research design and establish our empirical models. More specifically we describe the sample selection procedure and data collection.

3.1 Research Design

In line with Lang et al. (2006) and Barth et al. (2006, 2008) on constructing the matched sample, we testing our predictions of the change in higher quality of accounting of the firms as the IASB framework that defined accounting quality with such key components of relevance, reliability, understandability, and comparability (IFRS, 2006), revises IAS and issues new challenge of IFRS in the recent years, we divide our study period (1997-2014) to three time periods: the IAS period ranging from 1997-2002; the IFRSVoluntary (IFRSV) IFRSMandatory (IFRSM) period ranging from 2003-2005 and the period ranging from 2006-2014, respectively. Following prior research, the variables used included those earlier variables applied in the literature, as Barth et al. (2006, 2008), and Charistensen et al. (2009). We used following variables to testing the quality of accounting such as: earnings management (smoothing), timely recognition of losses measures, and value relevance.

Earnings management models (NI)

Four measures of earning management there are two kinds of earnings are used in this study; (earnings smoothing and managing towards small positive earnings), as explained in the previous studies, (e.g. Lang et al., 2006; Barth et al. 2006, 2008). The ratio of the earnings smoothing is measured by (1) variability of the change in net income; (2) variability of the change in earrings relative to the variability of change in operating cash flows; and (3) the correlation between accruals and cash flows and the frequency of small positive net income. The second kind of earnings management variables referred to the managing towards small positive earnings rather than negative net income (Lang et al., 2006; Barth et al., 2006, 2008, Outa, 2011), therefore, the measure of earnings smoothing metric is the variability of the change in net income scaled by total assets, ΔNI . The variance of the residuals from the regression of change in net income on control variability is the variance of the residuals from the regression of change in ΔNI on control variables indentified in early studies (Pagano et al., 2002; Tarca, 2004; Lang et al., 2006; Barth et al., 2006, 2008, Outa, 2011). Using the models developed by Lang et al. (2006), Barth et al. (2006, 2008) and Outa (2011) regarding the factors that the residuals of the regression is our measure of the earnings variability. The ΔNI is an estimated equation as follows:

$$\Delta NI_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GRWOTH_{it} + \alpha_3 LEV_{it} + \alpha_4 EISSUE_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 CF + \alpha_8 NUMEX_{it} + \alpha_9 AUD_{it} + \alpha_{10} XLIST_{it} + \alpha_{11} CLOSE_{it} + \varepsilon_{it} \quad (1)$$

Where:

ΔNI_{it} change in annual earnings (based on end of year total assets) for firm i year *t*.

Size = the natural log of total assets;
GROWTH = the percentage of change in sales;
LEV = the total liabilities divided by shareholders' equity;
EISSUE = the percentage change in common shareholders' equity;
DISSUE = the percentage change in total liabilities;

TURN = turnover divided by end of year total assets;
CF = the cash flow from operating activities scaled by total assets;
NUMEX = the number of stock exchanges on which a firm's stock is listed;
AUD = a dummy variable taking the value one if the firm's auditor is one of the large international accounting firms and zero otherwise;
XLIST = a dummy variable taking the value one if the firm is listed on any international stock exchange and zero otherwise;
CLOSE = the average number of shares traded the last day of the month during the fiscal year divided by number of common shares outstanding at the fiscal year-end.

In the context of earning management, the second measure of earnings smoothing is the ratio of the variability of the change in net income (ΔNI), to the variability of the change in operating cash flows (ΔCF), as explained by Lang et al., 2006; Barth et al., 2006, 2008. ΔCF is the variance of the change in net operating cash flows scaled by total assets. The principle behind this measure is that when ΔNI, to control for other accounting factors that affect cash flows variability unrelated to financial reporting system, we regress ΔCF on a number of control variables similar to equation (1), hence the need for ΔCF as the dependent variable of residuals from Eq. (2).

$$\Delta CF_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GRWOTH_{it} + \alpha_3 LEV_{it} + \alpha_4 EISSUE_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 CF + \alpha_8 NUMEX_{it} + \alpha_9 AUD_{it} + \alpha_{10} XLIST_{it} + \alpha_{11} CLOSE_{it} + \varepsilon_{it} \quad (2)$$

where ΔCF_{it} = change in annual net cash flow from operations (based on end of year total assets) for firm i year t. The rationale for using this ratio is that when firms use accruals to manage earrings, then variation in income should be lower than that of operating cash flow.

The third measure of earnings smoothing is the correlation between accruals and cash flows. It is expected that firms with less earnings smoothing exhibit a more negative correlation between the residuals of operating accruals (ΔNI) and operating cash flows (CF) (e.g., Myers and Skinner, 2002; Leuz et al., 2003; Lang et al., 2006; Barth et al., 2006, 2008) as included in Equations 1 and 2, except CF.

$$CF_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GRWOTH_{it} + \alpha_3 LEV_{it} + \alpha_4 EISSUE_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 NUMEX_{it} + \alpha_8 AUD_{it} + \alpha_9 XLIST_{it} + \alpha_{10} CLOSE_{it} + \varepsilon_{it} \quad (3)$$

$$ACC_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GRWOTH_{it} + \alpha_3 LEV_{it} + \alpha_4 EISSUE_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 NUMEX_{it} + \alpha_8 AUD_{it} + \alpha_9 XLIST_{it} + \alpha_{10} CLOSE_{it} + \varepsilon_{it} \quad (4)$$

where CF_{it} = Annual net cash flow from operating activities scaled by end of year total assets for firm i year t. ACC_{it} = earnings less cash flow from operating activities scaled by end of year total assets for firms for firm i year t. All the metrics will be calculated separately then compare and test the correlation of the residuals from equations (3) and (4) applying t-test based on the empirical distribution of the difference.

Small Positive Earnings Models (SPOS) NI

To test managing towards small positive net income (NI) we estimate the following an equations including two periods (IAS vs. IFRSV and IFRSV vs. $IFRS_M$) at a time to test if firms in one period are more expected to manage towards small positive earnings (Lang et al., 2006; Barth et al., 2006, 2008) than they do in the other. The coefficient on the small positive net income (NI) is our measure of managing earnings towards small positive. In its simplest form the *IAS/IFRS* is defined by the following equations:

$$IAS(0,1)_{it} = \alpha_0 + \alpha_1 SPOS_{it} + \alpha_2 SIZE_{it} + \alpha_3 GRWOTH_{it} + \alpha_4 LEV_{it} + \alpha_5 EISSUE_{it} + \alpha_6 DISSUE_{it} + \alpha_7 TURN_{it} + \alpha_8 CF + \alpha_9 NUMEX_{it} + \alpha_{10} AUD_{it} + \alpha_{11} XLIST_{it} + \alpha_{12} CLOSE_{it} + \varepsilon_{it} \quad (5)$$

$$IFRS(0,1)_{it} = \alpha_0 + \alpha_1 SPOS_{it} + \alpha_2 SIZE_{it} + \alpha_3 GRWOTH_{it} + \alpha_4 LEV_{it} + \alpha_5 EISSUE_{it} + \alpha_6 DISSUE_{it} + \alpha_7 TURN_{it} + \alpha_8 CF + \alpha_9 NUMEX_{it} + \alpha_{10} AUD_{it} + \alpha_{11} XLIST_{it} + \alpha_{12} CLOSE_{it} + \varepsilon_{it} \quad (6)$$

where $IAS(0,1)$ is an indicator variable that equal to 1 for the *IAS* period and zero for the *IFRSV* period and in the second estimation, the $IAS(0,1)$ is equal to 1 for the *IFRSV* and zero for the $IFRS_M$ period. *SPOS* is an indicator variable that equal to 1 if net income *NI* scaled by total assets is between 0 and 0.01 and set to 0 otherwise. It appears from the discussion so far that a positive coefficient on *SPOS* in the estimation covering the IAS (*IFRSV*) period and the *IFRSV* period indicates that firms in the *IAS* (*IFRSV*) period manage earnings toward small positive amounts more frequently than firms in the (*IFRSV*, $IFRS_M$) period. A negative coefficient on *SPOS*

suggests that firms in the *IAS* period manage earrings towards a small positive target in the (*IFRSV*, $IFRS_M$) period.

Timely Loss Recognition Models (LNEG)

Timely loss recognition relate to an organization's ability to recognize losses as they occur by not engaging in activities that reschedule the losses to other periods. For the measure of timely loss recognition, we estimate equations similar to Eq. (5) and (6), with replacing SPOS with *LNEG* in the regressions Eq. (7) and (8).

$$IAS(0,1)_{it} = \alpha_0 + \alpha_1 LNEG_{it} + \alpha_2 SIZE_{it} + \alpha_3 GRWOTH_{it} + \alpha_4 LEV_{it} + \alpha_5 EISSUE_{it} + \alpha_6 DISSUE_{it} + \alpha_7 TURN_{it} + \alpha_8 CF + \alpha_9 NUMEX_{it} + \alpha_{10} AUD_{it} + \alpha_{11} XLIST_{it} + \alpha_{12} CLOSE_{it} + \varepsilon_{it} \quad (7)$$

$$IFRS(0,1)_{it} = \alpha_0 + \alpha_1 LNEG_{it} + \alpha_2 SIZE_{it} + \alpha_3 GRWOTH_{it} + \alpha_4 LEV_{it} + \alpha_5 EISSUE_{it} + \alpha_6 DISSUE_{it} + \alpha_7 TURN_{it} + \alpha_8 CF + \alpha_9 NUMEX_{it} + \alpha_{10} AUD_{it} + \alpha_{11} XLIST_{it} + \alpha_{12} CLOSE_{it} + \varepsilon_{it} \quad (8)$$

where *LNEG* is an indicator variable that equals 1 for observations for which annual net income scaled by total assets are less than -0.20 and 0 otherwise. A positive coefficient on *LNEG* suggests that IAS/IFRSV firms' period recognize large losses more frequently than those in IFRSV/$IFRS_M$ period. Also according to Basu's (1997) reverse regressions of earnings on return, dummy variable for loss, bad news (negative returns), annual return, and an interaction variable of return and the dummy variable for bad news. We use the magnitude of the coefficient estimate on the interaction between bad news and returns (*Basu R*DUM)* as a measure of the timeliness with which bad news is reflected in earnings[2]. A larger coefficient on bad news earnings indicates more timely loss recognition. The stronger results for bad news are consistent with the Ball et al. (2000) observation that the effects of the institutional environment are likely to be most pronounced for bad news observations. Additionally, the other measure of timely loss recognition is the *skewness* of earnings per share. Ball et al. (2000) and Ball (2001) suggests that one potential outcome of accounting conservatism is that timely loss recognition results in earnings will tend to be negatively skewed. Accordingly, our *skewness of EPS* variable is annual earnings per share deflated by price at beginning of the period.

Price, Return and Accounting Data Models

Another important distinction found in the literature is that the impact of IFRS adoption on the in formativeness of accounting quality, one could either use a stock return or stock price model. In order to examine of relative value relevance were based on a valuation framework provided by Ohlson (1995) where a firm's share price is a function of both earnings and book value of equity. We use a reverse regression with earnings as the dependent variable and returns as the independent variable. Estimation models with high explanatory power (R^2) reflect high reporting quality between the respective accounting variable (s) and stock price. The study uses the following model.

$$P_{it} = \alpha_0 + \alpha_1 BVPS + \alpha_2 EPS + \varepsilon_{it}$$

$$EPS \begin{cases} \alpha_0 + \alpha_1 POSR + \varepsilon \\ \alpha_0 + \alpha_1 NEGR + \varepsilon \end{cases} \quad (9)$$

where P_{it} is the market price per share six months after fiscal year-end for firm i year t on book value per share and net income per share. Our price regression R^2 variable is the R^2 resulting from that regression. Return is price three months after fiscal year-end less-price at the beginning of the year divided by price at the beginning. *BVPS* and *EPS* are book value of stockholders' equity per share, and earnings before extraordinary items, respectively, and ε_{it} is the other value-relevant information of firm i year t. To examine the association between earnings and returns, we estimate a regression of earnings on returns, splitting between cases of positive and negative return; *POSR* and *NEGR* are earnings per share on positive returns (*good news*), and earnings per share on negative returns (*bad news*), respectively. Thus, we predict an increase in the association between earnings and return over time periods under investigation.

3.2 Sample Size and Data Collection

Focusing on a single country like Jordan allows us to control for institutional, socio-economic and political factors that affect companies' reporting and stock market participants' investing behaviour and that are difficult to control for in an international comparative study (Ruland et al., 2007). Our inferences are based on a sample of banks and firms listed from Amman stock exchange with data available that adopted IAS sample of 32 firm-

[2] *Basu R*DUM* Coefficient is the coefficient from the regression: $EPS = \alpha_0 + \alpha_1 R + \alpha_2 DUM + \alpha_3 R * DUM + \varepsilon$ where *EPS* is annual earnings per share deflated by price at the beginning of the period, *R* is annual return, and *DUM* is 1 if the return is negative and 0 otherwise.

year, and 12 bank-years observations for 44 industrial companies and banks. IFRSV, sample of 45 firm-year, and 13 bank-years observations for 58 industrial companies and banks. $IFRS_M$ sample of 65 firm-year, and 13 bank-years observations for 78 industrial companies and banks. Following Goncharov and Hodgson (2011) firm-years and bank-years with missing accounting or market data and firms in financial distress, signaled by a negative value of the book value of equity, were disqualified. To avoid problems with outliers we use the test of Hadi (1994) "multivariate's outliers test". Thus we drop observations identified by the outliers test Hadi (1994). Table 1 outlines our sample selection process to observe improvements on the value relevance tests of accounting quality. The analysis covers the period 1997-2014, split into three sub-periods: the IAS period ranging from 1997-2002, the IFRSV period ranging from 2003-2005, and the $IFRS_M$ period ranging from 2006-2014, respectively, in order to mitigate the effect of different firms in each period on the regression estimations. Quantitative methods were used to collect secondary data related to all accounting and market data are gathered from the Jordanian annual Public Shareholding Companies Guide (1997-2014). Information collected was sourced from the firms' reports on revenues, income, balance sheet and cash flow statement. *SPSS* was used in the analysis of the data collected.

Table 1. Sample Selection Process (1997-2014)

	From Datastream Excluded observations due to missing data				Total sample
IAS	Firms	54	(30)	24	**44**
	Firm-Years	68	(36)	32	
	Banks	13	(2)	11	
	Bank-years	16	(4)	12	
IFRSV	Firms	65	(20)	45	**58**
	Firm-Years	65	(20)	45	
	Banks	15	(2)	13	
	Bank-years	15	(2)	13	
$IFRS_M$	Firms	80	(15)	65	**78**
	Firm-Years	80	(15)	65	
	Banks	15	(2)	13	
	Bank-years	15	(2)	13	

4. Results and Discussion

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics for the main variables in the study, followed by the control variables. In terms of the test main variables, several are significantly different across subsamples. The change in net income (ΔNI) increases significantly from the IAS period to the $IFRS_V$ periods. The ΔNI then decreases between the $IFRS_V$ period and the $IFRS_M$ period, which implies a sharp in the annual earnings with respect to the total asset. Interestingly, however, we find evidence of there is no significant difference in change in cash flows from operations (ΔCF) between the IAS and the $IFRS_V$ periods, potentially explained by the lower mean accruals for the Jordanian firms and banks. While, there is a significant decrease between the $IFRS_V$ and the $IFRS_M$ periods. In contrast, we find evidence of there is a significant increase in accruals (ACC), measured as net income minus cash flow from operations scaled by total assets, between the $IFRS_V$ and the $IFRS_M$ periods. Additionally, we find that there is no significant difference in the prevalence of reporting of small positive earnings (*SPOS*) across the three periods. With respect to the *LNEG*, there is a significant decrease in the reporting of large negative earnings (*LNEG*) across the IAS and the $IFRS_V$ periods, although this decrease could be a sign of an increase in income smoothing behavior. These results provide some preliminary evidence that there is a significant increase in book value of shareholders' equity per share (*BVPS*) between the $IFRS_V$ and the $IFRS_M$ periods. However, the earnings per share (*EPS*) increases significantly across the periods, consistent with an economic upturn during the latter half of our sample period. Further, we find a significant increase in stock returns (*RETURN*) between the $IFRS_V$ and the $IFRS_M$ periods.

The descriptive statistics on the control variables suggests that there is a decrease in (*SIZE*) of the sample industrial companies (measured as the natural log of total assets) between the IAS and the $IFRS_V$ periods, although this decrease could be driven by a lot of write downs during the IAS period due to the economic situation at that time. We also find that there is a decrease in growth between the IAS and the $IFRS_V$ periods but an increase in (*GROWTH*) between the $IFRS_V$ and the $IFRS_M$ periods. Further, we find latter increase in growth which could be related to the new industrial companies adopting IFRS in 2006. However, we also find that there is no statistically significant difference in change in (*LEV*) (measured as total liabilities to total shareholders'

equity) over the three periods. There is no statistically significant difference in (*EISSUE*) witch connotes a change in the common stock over the three periods. Additionally, we find that there is no significant difference in changes in total liabilities (*DISSUE*) between the IAS and the $IFRS_V$ periods but there is significant increase between the $IFRS_V$ and the $IFRS_M$ periods. With respect to the a significant increase in the $IFRS_M$ period could be driven by the fact that several industrial companies now should adopt IFRS and this result in the inclusion of industrial companies that are less capital market oriented and more reliant on debt in $IFRS_M$ sample. However, we find evidence of there is no significant difference in the asset turnover rate from operations (*TURN*) over the three periods. Finally, the cash flow (*CF*) from operations increased significantly between the IAS period and the $IFRS_V$ periods, this may also be explained by the improved economic conditions in the following periods. Further, we find a decrease significantly in the cash flow between the $IFRS_V$ and the $IFRS_M$ periods, consistent with the inclusion of a large number of new IFRS adopters during the latter half of our sample period.

Table 2. Descriptive Statistics of Accounting Quality Analysis (1997-2014)

Variables	IAS Firms and Banks N=44			$IFRS_V$ Firms and Banks N= 58			$IFRS_M$ Firms and Banks N=78		
Main Variables	Mean	Median	S.D	Mean	Median	S.D	Mean	Median	S.D
ΔNI	-0.067	-0.010	0.210	0.241***	0.020***	0.213	0.016**	0.009***	0.158
ΔCF	0.021	0.013	0.124	0.018	0.011	0.128	-0.009	-0.005***	0.120
ACC	0.110	0.044	0.178	-0.077	-0.054	0.162	-0.017***	-0.012**	0.109
SPOS	0.127	0.003	0.288	0.122	0.002	0.276	0.110	0.001	0.291
LNEG	0.141	0.010	0.299	0.075	0.009	0.265	0.062**	0.004**	0.210
BVPS	0.601	0.354	0.492	0.552**	0.410***	0.348	0.489	0.362	0.287
EPS	0.121	0.014	0.338	0.102	0.045	0.286	0.024***	0.047***	0.209
RETURN	-29.204	31.128	30.675	22.012***	16.110***	44.231	20.563**	13.443***	36.298
Control Variable									
SIZE	11.295	10.301	3.221	10.332**	9.442***	3.298	10.265	10.102	2.990
GROWTH	0.241	0.042	0.621	0.0882	0.031	0.293	0.153*	0.077**	0.339
LEV	0.447	0.542	0.198	0.412	0.180	0.202	0.395	0.402	0.193
EISSUE	0.045	0.002	0.174	0.057	0.001	0.201	0.103	0.000	0.291
DISSUE	0.352	0.029	1.442	0.211	0.010	1.260	0.196	0.040	1.300
TURN	1.002	0.722	0.652	1.114	1.099	0.543	1.022*	1.009*	0.472
CF	0.039	0.046	0.097	0.066**	0.067**	0.110	0.040*	0.044**	0.091
NUMEX	1.442	0.981	0.805	1.204	1.136	0.776	1.098	1.054	0.719
AUD	0.543	0.892	0.331	0.418	0.810	0.375	0.409	0.376	0.376
XLIST	0.012	0.000	0.092	0.009	0.000	0.082	0.007	0.000	0.080
CLOSE	82.441	12.773	178.002	53.152	9.220	120.601	39.561**	10.442**	102.004

Notes: Asterisks indicate that there is significantly different from the previous time period using a two-tailed t-test is a significant at: *p < 0.1, **p < 0.05, and ***p < 0.01.

Δ*N*I is the change in annual earnings scaled by total assets. Δ*CF* is the change in cash flow from operating activities scaled by total assets. *ACC* is earnings less cash flow from operating activities scaled by total assets. *SPOS* is a dummy variable taking on the value 1 for observations for which the annual earnings scaled by total assets is between 0 and 0.01, and 0 otherwise. *LNEG* is a dummy variable taking on the value 1 for observations for which the annual earnings scaled by total assets is less than -0.20, and 0 otherwise. *BVPS* is the book value of shareholders' equity per share at the end of the fiscal year deflated by the share price 6 months after the preceding fiscal year-end. *EPS* is earnings per share at year-end of the fiscal year deflated by the share price 6 months after the preceding fiscal year-end. *RETURN* is the annual return of company *i* at time *t*. *Size* is the natural log of total assets. *GROWTH* is the percentage of change in sales. *LEV* is total liabilities divided by shareholders' equity. *EISSUE* is the percentage change in common shareholders' equity. *DISSUE* is the percentage change in total liabilities. *TURN* is turnover divided by end of year total assets. *CF* is the cash flow from operating activities scaled by total assets. *NUMEX* is the number of stock exchanges on which a firm's stock is listed. *AUD* is a dummy variable taking the value one if the firm's auditor is one of the large

international accounting firms and zero otherwise. *XLIST* is a dummy variable taking the value one if the firm is listed on any international stock exchange and zero otherwise. *CLOSE* is the average number of shares traded the last day of the month during the fiscal year divided by number of common shares outstanding at the fiscal year-end.

4.2 Empirical Results

In Table 4 we present the results from panels A through E presents our primary results tests of the small positive earnings models, tests of the timely loss recognition models and tests of the price, return and accounting data models.

4.2.1 Tests of the Small Positive Earnings Models

A related question is how such accruals management might affect the resulting distribution of earnings. As can be seen from Table 3, Panel A, the results of the tests of earnings smoothing are contrary to our expectations in some instances. The first measure of earnings smoothing is the variability of net income (ΔNI). The variability in the change in net income does increase significantly between the IAS and the $IFRS_V$ periods, however, there is a significant decrease between the $IFRS_V$ and the $IFRS_M$ periods, which suggesting an increase in income smoothing behavior. The second measure in terms of the control variables for the firm-specific volatility in cash flow from operations by using the ratio of income variability and cash flow from operations variability. The results show that the variability increases significantly between the IAS and the $IFRS_V$ periods, but decrease sharply and end up below the IAS level in the $IFRS_M$ period, and this test the difference is statistically significant on the 5% level.

The third measure of earnings management is the Spearman partial correlation between the residuals of operating accruals (*ACC*) and operating cash flows (*CF*). Table 3, panel A provides evidence that the regression on accruals (*ACC*) and cash flow from operations (*CF*) shows an increase in the magnitude of the negative correlation indicating a significant increase in earnings management across the three periods. It should be noted that the correlation between *ACC* and *CF* is positive in the IAS period, however, there is significantly more negative for the $IFRS_V$ and the $IFRS_M$ periods, which suggesting this result likely helps explain why the earnings stream tends to be smoother than the cash flow stream for cross-listed banks and firms relative to Jordanian economy. The evidence is not sensitive to inclusion of the control variables. The fourth measure of earnings management is the small positive income variable (*SPOS*). This result suggests that there is no significant difference between the (*SPOS*) variable across the three periods.

4.2.2 Tests of the Timely Loss Recognition Models

A related question is how the smoothness of earnings is manifested in the timely recognition of losses. A result in table 3, Panel B shows a significant decrease in the reporting of *large negative* earnings. As previously pointed out, the change in reporting of *large negative* earnings may be the result of a development of the economic circumstances since the IAS period. However, most of our tests support the notion that the quality of accounting has decreased among Jordanian industrial companies reporting under IAS and IFRS over time. There is a difference in *skewness* of earnings per share between across the three periods. Further, *skewness* for the $IFRS_V$ periods is significantly negative while skewness for the IAS and $IFRS_M$ period is positive. These results are generally consistent with more timely loss recognition for the $IFRS_V$ periods, as are different from the results for the frequency of *large negative* earnings observations.

Similar conclusions obtain based on the Basu-style analysis of timely loss recognition. the coefficients on Basu *R*DUM* are positive and significant, consistent with the findings in prior studies (e.g., Basu 1997; Ball et al., 2000; Ball et al., 2003) that bad news is recognised in earnings in a more timely manner than good news between the IAS period and $IFRS_V$ periods, as predicted. Overall, the tests of timely loss recognition complement those for earning smoothing. Both suggest that not only is there more evidence of earnings smoothing in Jordanian banks and firms, but smoothing appears to come at the expense of timely loss recognition.

4.2.3 Tests of the Price, Return and Accounting Data Models

Our final tests assess the degree of association between accounting data and stock prices. Table 3, Panel C presents results for the value relevance tests. It can be seen that, overall, the level of the regression models R^2 for each of the time period examined was 0.23 in the IAS period, 0.04 in the $IFRS_V$ periods, and 0.12 in the $IFRS_M$ period. As suggested in Cramer's (1987) test indicates a significant difference in R^2 between all three periods. We also measure the R^2 value of a reverse regression where earnings are dependent variable and returns as the independent variable (Basu, 1997) model. Contrary to our expectations, the R^2s of both the IFRS periods are lower than the R^2 of the IAS period, indicating a lower usefulness of financial reporting under IFRS compared to IAS. As predicted, there seem to be an increase in the association between earnings and returns between the IAS and the $IFRS_V$ periods (from 0.11 to 0.17) which is statistically significant. However, this development is once

again reversed between the $IFRS_V$ and the $IFRS_M$ periods (from 0.17 to 0.10).
The R^2 of the regression of earnings per share on positive returns (good news) is higher for IAS (0.019) than the $IFRS_V$ and the $IFRS_M$ periods (0.013 and 0.009) respectively. Prior research generally assumes that firms with higher quality accounting exhibit more timely loss recognition (e.g. Barth et al., 2008). Although research evidence suggests that the R^2 of the regression of earnings per share on negative returns (bad news) observations is increase in the association between the IAS and the $IFRS_V$ periods. Nevertheless, contrary to expectations, this turns into a significant decrease from 0.211 to 0.098 between the $IFRS_V$ and the $IFRS_M$ periods. Hung and Subramanyam (2007) point out that these tests assume that stock prices aggregate value relevant information independent of the nature and form of information disclosed in financial statements. Moreover, Barth et al. (2001) point out that value relevance tests are joint tests of relevance and reliability.
To conclude, our results suggest that the quality of accounting increased between the IAS period and the $IFRS_V$ periods, but that this development reverses between the $IFRS_V$ and the $IFRS_M$ periods. However, our results are consistent with those of recent studies by Goodwin et al. (2008), Tsalavoutas et al. (2010) and Clarkson et al. (2011), and each of which demonstrated that mandatory IFRS adoption does not necessarily improve accounting quality.

Table 3. Accounting Quality Analysis of Jordanian **Split Into Three Sub-periods (1997-2014)**

Research Models	**IAS N=44**	**IFRSV N=58**	**$IFRS_M$ N=78**
Panel A: Small Positive Earnings Models[a]			
Variability of ΔNI[1]	0.018	0.022**	0.012**
Variability of ΔNI over ΔCF[2]	1.853	2.420*	1.056*
Correlation of ACC and CF[3]	0.053	-0.024	-0.026
Small Positive NI[4]	-0.183	0.104##	
Panel B: Timely Loss Recognition Models[b]			
Large Negative NI[5]	0.217##	0.148##	
Skewness of EPS[6]	0.702#	-2.085##	1.009##
Basu Regression of Return * DUM Coefficient[7]	0.143#	0.225*#	0.018**##
Panel C: Price, Return and Accounting Data Models[c]			
Return Regression (R^2)[8]:			
Price	0.228	0.039	0.121*
Pooling Good News and Bad News Observations	0.112	0.170	0.103
Basu Good News	0.019	0.013	0.009
Basu Bad News	0.102	0.211*	0.098*

Notes: *,** Significantly different between each category at the 0.01 and 0.05 levels respectively (two-tailed). #,## Significantly different from zero at the 0.01 and 0.05 levels respectively (two-tailed).
We define variability of model ([a]): [1]Δ*NI** is the variance of residuals from a pooled regression of the changes in annual net income Δ*NI* (net cash flows) scaled by total assets on the control variables. The variability of Δ*NI* over Δ*CF*[2] is defined as the ratio of the variability of Δ*NI* divided by the variability of Δ*CF*. The residuals are winsorized at the 1% level to control for outliers. Correlation of *ACC* and *CF*[3] is the partial Spearman correlation between the residuals of accruals ACC and the residuals of net cash flow CF regression; we compute both sets of residuals from a regression of each variable (scaled by total assets) on the control variables. The residuals are winsorized at the 1% level to control for outliers. Small positive *NI* (*SPOS*)[4] is a dummy variable taking on the value 1 for observations for which the annual earnings scaled by total assets is between 0 and 0.01, and 0 otherwise. Model ([b]): Large negative *NI* (*LNEG*)[5] is a dummy variable taking on the value 1 for observations for which annual net income scaled by total assets is between 0 and 0.01 (less than -0.20) and set to 0 otherwise; the coefficient on the indicator variable is reported. Skewness of *EPS*[6] is annual earnings per share deflated by price at beginning of the period. We use the Sheskin (2000) test for differences in skewness. Basu *R*DUM* Coefficient[7] is the coefficient from the regression: $EPS = \alpha_0 + \alpha_1 R + \alpha_2 DUM + \alpha_3 R * DUM + \varepsilon$ where *EPS* is annual earnings per share deflated by price at the beginning of the period, *R* is annual return, and *DUM* is 1 if the return is negative and 0 otherwise. Model ([c]): Return regression (R^2)[8]; *Price* The price regression is $P = \alpha_0 + \alpha_1 BVPS + \alpha_2 EPS + \varepsilon$ where *P* is price as of six months after the fiscal year-end, *BVPS* is book value of shareholders' equity per share, and *EPS* is earnings per share. All variables are scaled by share price six months after the preceding year-end. The Basu good/bad news regression is $EPS = \alpha_0 + \alpha_1 R + \varepsilon$, where *EPS* is annual earnings per share deflated by price at the beginning of the year and *R* is the annual return. Good news observations are those for which *R* is positive and (bad news) are those for which return is negative. The

residuals from these regressions are then used in the second stage model to determine an incremental R^2. We winsorize all continuous variables at the 1% level to control for outliers.

4.3 Sensitivity Analysis

The data presented in the Table 4 Panel A, show that the results for tests of earnings smoothing and timely loss recognition to some extent support the findings in the analysis using the whole sample, while the reduction in accounting quality seems to be considerably lesser. Our findings in the main analysis may be a result of a structural change in the type of companies that report under IFRS since it became mandatory for most public companies in Jordan. In order to examine whether a self-selection bias in our pre-2005 sample drives the results we also rerun all tests using a sub-sample consisting of companies with bank and firm-years observations in both the IAS and the IFRS period. This sample has 57observations (38 companies) for the IAS period and 38 observations (38 companies) for the IFRSV periods, and 42 observations (42 companies) for the IFRSM period.

The variability in the change in net income, ΔNI, increases significantly between the IAS and the $IFRS_V$ periods. However, as in the case with the whole sample, decreases significantly compared to the $IFRS_M$ period. It seems that although when controlling for the volatility in cash flow from operating activities, by using the ratio of net income variability and cash flow from operations variability, we find the same pattern, a significant increase between the IAS and the $IFRS_V$ periods followed by a significant between the $IFRS_V$ and the $IFRS_M$ periods. In fact, the Spearman partial correlation between the residuals of operating accruals (*ACC*) and operating cash flows (*CF*) shows a significant decrease between the IAS and the $IFRS_V$ periods. It is noticeable that the correlation is positive only in IAS period, although it becomes negative in the $IFRS_V$ and the $IFRS_M$ periods; however, the change is not statistically significant. A more negative correlation between residuals of *ACC* and *CF* suggests earnings management, that is, firms use accruals to smooth variability in earnings. In addition, there is no evidence of significant difference in the frequency of reporting small positive earnings across the two periods.

Table 4 Panel B, shows that there is no significant change in reporting of large negative earnings, indicative for less timely loss recognition. However, contrary to the previous measure, the coefficient of the interaction variable of annual return and negative return is significantly larger for the $IFRS_V$ periods compared to the IAS period. On the other hand, there is no significant difference between the $IFRS_V$ and the $IFRS_M$ periods. Therefore the findings of *skewness of EPS* suggest that there is no significant difference in the frequency in skewness of earnings per share between both groups of periods. Furthermore, as shown in Table 6 Panel C, the value relevance measures are also contradicting. The overall R^2 of the regression models for time periods examined was 0.15 in the IAS period and 0.03 in the $IFRS_V$ periods, but shows a significant increase between the $IFRS_V$ and the $IFRS_M$ periods (from 0.03 to 0.20), and this test the difference is statistically significant on the 1% level. This result is consistent with Cramer's (1987) test indicates a significant difference in R^2 between the two periods on the 1% level. The explanatory power of the earnings on returns regressions model shows a significant increase between IAS period and the $IFRS_V$ periods and a decrease between the $IFRS_V$ and the $IFRS_M$ periods (even if this is not significant). Accordingly, it could be concluded that there is no significant change in accounting quality of Jordanian companies using bad news observations only we find an incremental increase in the value relevance across all three periods.

Table 4. Accounting Quality Analysis Using a Sub-Sample of IFRS Standards Adopters

Research Models	IAS N=57		IFRSV N=38		$IFRS_M$ N=42
Panel A: Small Positive Earnings Models[a]					
Variability of ΔNI[1]	0.018		0.022**		0.012**
Variability of ΔNI over ΔCF[2]	1.853		2.420*		1.056*
Correlation of ACC and CF[3]	0.053		-0.024		-0.026
Small Positive NI[4]		-0.183		0.104##	
Panel B: Timely Loss Recognition Models[b]					
Large Negative NI[5]		0.217##		0.148##	
Skewness of EPS[6]	0.702#		-2.085##		1.009##
Basu Regression of Return * DUM Coefficient[7]	0.143#		0.225*#		0.018**##
Panel C: Price, Return and Accounting Data Models[c]					
Return Regression (R^2)[8]:					
Price	0.152		0.029		0.201*
Pooling Good News and Bad News Observations	0.112		0.170		0.103
Basu Good News	0.019		0.013		0.009
Basu Bad News	0.102		0.211*		0.098*

Notes: *,** Significantly different between each category at the 0.01 and 0.05 levels respectively (two-tailed). #,## Significantly different from zero at the 0.01 and 0.05 levels respectively (two-tailed).
We define variability of model ([a]): [1]ΔNI* is the variance of residuals from a pooled regression of the changes in annual net income ΔNI (net cash flows) scaled by total assets on the control variables. The variability of ΔNI over ΔCF[2] is defined as the ratio of the variability of ΔNI divided by the variability of ΔCF. The residuals are winsorized at the 1% level to control for outliers. Correlation of *ACC* and *CF*[3] is the partial Spearman correlation between the residuals of accruals ACC and the residuals of net cash flow CF regression; we compute both sets of residuals from a regression of each variable (scaled by total assets) on the control variables. The residuals are winsorized at the 1% level to control for outliers. Small positive *NI* (*SPOS*)[4] is a dummy variable taking on the value 1 for observations for which the annual earnings scaled by total assets is between 0 and 0.01, and 0 otherwise. Model ([b]): Large negative *NI* (*LNEG*)[5] is a dummy variable taking on the value 1 for observations for which annual net income scaled by total assets is between 0 and 0.01 (less than -0.20) and set to 0 otherwise; the coefficient on the indicator variable is reported. Skewness of *EPS*[6] is annual earnings per share deflated by price at beginning of the period. We use the Sheskin (2000) test for differences in skewness. Basu *R*DUM* Coefficient[7] is the coefficient from the regression: $EPS = \alpha_0 + \alpha_1 R + \alpha_2 DUM + \alpha_3 R * DUM + \varepsilon$ where *EPS* is annual earnings per share deflated by price at the beginning of the period, *R* is annual return, and *DUM* is 1 if the return is negative and 0 otherwise. Model ([c]): Return regression (R^2)[8]; *Price* The price regression is $P = \alpha_0 + \alpha_1 BVPS + \alpha_2 EPS + \varepsilon$ where *P* is price as of six months after the fiscal year-end, *BVPS* is book value of shareholders' equity per share, and *EPS* is earnings per share. All variables are scaled by share price six months after the preceding year-end. The Basu good/bad news regression is $EPS = \alpha_0 + \alpha_1 R + \varepsilon$, where *EPS* is annual earnings per share deflated by price at the beginning of the year and *R* is the annual return. Good news observations are those for which *R* is positive and (bad news) are those for which return is negative. The residuals from these regressions are then used in the second stage model to determine an incremental R^2. We winsorize all continuous variables at the 1% level to control for outliers.

5. Conclusion

This study compares the characteristics of accounting amounts using a sample of Jordanian banks and industrial companies reporting under IAS during 1997-2002, and IFRS during 2003-2005 and 2006-2014, in order to mitigate the effect of different firms in each period on the regression estimations. Specifically, a central goal of mandating IFRS is to improve accounting quality (see IASC, 1989). Thus, we investigate whether there is a change in accounting quality during these three time periods as IASB revises existing IAS and issues new IFRS to formulate a set of high-quality IAS for global financial reporting purpose. Following prior research, we provide evidence on the effects of mandatory IFRS adoption on several proxies for accounting quality with income smoothing, accrual aggressiveness, timeliness of loss recognition, and meeting earnings targets. Our findings can be summarised as follows. Contrary to our expectations, we are unable to find systematic evidence that IFRS results in improved accounting quality for mandatory adopters over the last years. We find evidence of earnings and book value of equity are becoming less value relevant during the $IFRS_M$ period compared to both the IAS and the $IFRS_V$ findings on earnings smoothing and timely loss recognition corroborate largely our findings with respect to the value relevance of accounting information. We do not find any change in meeting earnings targets for IFRS adopting relative to Jordanian companies. Our results consistently indicate that accounting quality has worsened over time. There are three possible explanations for this. First, it may be that using a matched sample we cannot find any clear indication of either an improved or a worsened quality of financial reporting. Second, it is possible that a strong institutional framework compensates for higher-quality accounting standards. Finally, we acknowledge that IFRS may not be superior to local accounting rules. Further analysis of the 2006 to 2014 period provides a few weak indications that this might have been partly driven by new adopters of IFRS prior 2006, however, only the difference in value relevance is statistically significant. Our findings, consistent with those of other studies in mandatory adoption reinforce the notion that it is difficult to draw general conclusions from voluntary IFRS studies (e.g. Goodwin et al., 2008; Ahmed et al., 2010). Overall, our findings imply that the last revisions of IASs and the addition of new IFRSs may not be optimal because it caused a decrease the quality of financial reporting to use in Jordanian industrial companies. This in turn suggests the importance of future research on understanding the role of implementation guidance in standard setting and needs to establish which standards drive this development.
One of the strengths of this study is that we can focus on data from one country split into three sub-periods from 1997 to 2014. It is difficult to observe underlying accounting quality effects by studying firms in different countries because there is substantial variation in their market and regulatory environments. On the other hand, we believe that our results may be generalised most naturally to other countries with similar economic, institutional, and accounting environments, namely to other developing countries. Newness of an idea or practice should also be considered in terms of its adoption of the IFRS quality accounting amounts which is likely to

improve in future years because of learning effects among managers, regulators, auditors, and others. The current study makes a significant contribution to the field of knowledge by offering contributions towards a methodological position. This has been done by developing a new perspective for the examination of the impact of applying IFRS by Jordanian listed companies on the value relevance (quality) of accounting financial reporting.

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