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MANAGING EARNINGS USING CLASSIFICATION SHIFTING: NOVEL EVIDENCE FROM JORDAN

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ABSTRACT

In response to McVay calls for more research to provide additional cross-sectional tests of classification shifting, the current paper examines whether Jordanian public companies engage in earnings management through classification shifting. Using a sample consisting of 112 public firm from Jordan during the 2010-2014 period, this study applies McVay (2006) Model to investigate the relationship between the non-recurring items (NREC) and the variation in unexpected core earnings (UCE). This analysis was supplemented with employing Fan et al., (2010) Model as a robustness check. Our empirical results reveal that managers in Jordan misclassify their recurring expenses to inflate their core earnings. More precisely, we find that non-recurring items (NREC) are significantly and positively associated with the variation in unexpected core earnings (UCE), thus, classification shifting is a common practice among Jordanian firms. Additionally, we find out stronger evidence on classification shifting when our sample was restricted to those firms with a more significant opportunity to misclassify recurring items (firms with positive NREC). This study contributes to the body of accounting literature by providing the first empirical evidence in the Middle East region overall on the use of classification shifting by Jordanian firms. We are also the first to apply McVay (2006) and Fan et al., (2010) models in the Middle East region. Our findings have important policy implications for standard setters, regulators, auditors and investors in their attempts to constrain earnings management practices and improve the financial reporting quality in Jordan.

Keywords: Classification Shifting, Core Earnings, Earnings Management, Jordan, Non-Recurring Items.

INTRODUCTION

Earnings management can be classified into two main categories; accrual-based and real earnings management (Roy Chowdhury, 2006; Lo, 2008; Gunny, 2010; Enomoto et al., 2014; Kuo et al., 2014; Alhadab et al., 2015; Ho et al., 2015). However, there is another, less investigated, channel through which earnings could be manipulated called "*Classification Shifting or Misclassification*"; which refers to the deliberate misclassification of some recurring expenses (e.g. cost of goods sold and sales, general and administrative expenses) as non-recurring (e.g. special items) within the income statement with the purpose of inflating earnings before exceptional items[1] (McVay, 2006; Haw et al., 2011). Managers are motivated to inflate their core earnings instead of bottom line net income because investors and analysts give more attention to "*street*" or pro forma earnings and build their investment decisions on the light of this number than the GAAP net income (Bradshaw & Sloan, 2002; Elliott, 2006; Gu & Chen, 2004; Bhattacharya et al., 2007). According to Bradshaw & Sloan (2002), pro-forma earnings are

primary determinants of stock prices and companies which meet or beat earnings benchmarks might earn higher stock returns than those which fail to do so (Bartov et al., 2002).

Also, classification shifting provides managers with a low-cost method to inflate core earnings. In particular, there are no accruals that reverse in subsequent accounting periods or foregone returns from real activities manipulations, this, in turn, reduces the scrutiny of auditors and regulators (Nelson et al., 2002; McVay, 2006). Furthermore, it provides a flexible tool to meet the changes in analysts' forecasting over time, and it includes disclosures that do not follow through the accounting system, which in turn create information asymmetry between managers and investors, since the latter do not know the nature of the expenses assigned to non-recurring items (Athanasakou et al., 2009; Barua et al., 2010). Thus, firms have incentives to engage in classification shifting. In this regard, the U.S. Securities Exchange Commission (SEC) has detected several firms were engaging in such kind of manipulation. For example, Borden, Inc. has classified $192 million of marketing expenses as part of a restructuring charge when it should be included in selling, general, and administrative expenses (Hwang 1994). Other examples include; Symbol Technologies, Inc., Dell, Inc. and SafeNet, Inc. The SEC has charged these companies with misclassification of ordinary operating expenses as non-recurring expenses (Abernathy et al., 2014). Thus, "the appropriate classification of amounts within the income statement is as important as the appropriate measurement or recognition of such amounts" (SEC, 2000).

Most of the previous literature on classification shifting has been conducted in developed countries such as the US and UK (McVay, 2006; Athanasakou et al., 2009; Fan et al., 2010; Barua et al., 2010; Fan et al., 2010; Haw et al., 2011; Zalata & Roberts, 2015). However, a little attention has been paid to investigate this issue in emerging markets, such as Jordan, which differs in its institutional settings compared to Anglo-Saxon counterparts. Thus, our study contributes to the body of existing accounting literature by providing a comprehensive understanding of the case of classification shifting in the Jordanian context. Jordan is an appropriate setting to explore the subject matter of this study because it has sufficient data for analysis and thus, importantly, may be a window to more insights not just for Jordan itself, but also for many other developing economies where there is less information. It is worth noting here that, in recent years, the Middle East region has witnessed several conflicts known as "*The Arab Spring*". Jordan was able to protect its political stability whilst other countries suffered terribly due to these conflicts and arguably missed opportunities for more moderate social reforms. Despite all the mayhem in the region, Jordan continued with reforms, labeling them, "*The Need for the King and the Citizens*", achieving remarkable success in providing a stable and attractive financial environment for both local and foreign investors. Sadly, the relative political stability in Jordan means it benefits from capital flight from neighboring countries experiencing great political instability including serious armed conflict and post conflict situations, such as Syria, Yemen, Libya and Iraq. Those Jordanian corporate sectors may offer a safe haven for investors' funds at risk in conflict affected countries distinguishes the Jordanian market from many other MENA countries.

In fact, the Jordanian capital market has a distinctive advantage of having almost half of its market capitalisation comprised of foreign ownership. That is, by the end of 2014, non-Jordanian ownership in listed companies formed about 49% of the total market capitalisation of the Amman Stock Exchange (ASE Annual Report, 2015). Thus, the presence of foreign ownership may motivate managers to engage in earnings manipulations as they may feel pressurized to make sure that positive financial results are achieved.

The Jordanian Association of Certified Public Accountants (JACPA) which was established in 1987 requires the Jordanian publicly listed firms to adopt International Accounting Standards (IAS), which in 2002 were changed to International Financial Reporting Standards (IFRS), in preparing and publishing their financial statements (Mardini, 2012). IAS 1 of IFRS does require that any material income and expense items should be reported as a separate line item within income from operations and their nature disclosed. So, firms using IFRS might still have the opportunity to signal to the users of financial statement that a particular item is non-recurring based on the name given to the income statement line item. Consequently, managers in Jordanian listed firms are possibly engaged in this type of manipulation besides the other manipulation methods. Jordan is, therefore, considered as an appropriate setting for exploring the subject matter of our study as it has a sufficient dataset for conducting the empirical analysis. To the best of our knowledge, our study is the first in Jordan and the whole South-western Asia region to examine the existence of classification shifting practices. That is, we are the first to use McVay (2006) and Fan et al., (2010) methodologies to detect classification shifting practices in the Middle Eastern region overall. Based on a sample of 112 Jordanian non-financial firms over the 2010-2014 periods, our results demonstrate that classification shifting is a common practice among Jordanian firms. More specifically, non-recurring items (NREC) appeared to be significantly and positively associated with the variation in unexpected core earnings (UCE).

The remainder of this paper proceeds as follows: first, it reviews the previous literature and explains how the research hypothesis is raised in light of the previous literature. Second, it describes our research design. Third, it presents the empirical results. Finally, it concludes the study.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Simply, classification shifting is an earnings management tool that shifts certain, expenses, revenues, gains and losses to different line items on the income statement. The seminal work of McVay (2006) is considered as a milestone in classification shifting literature; she was the first researcher who developed an expectation model to capture the manipulation through misclassification of expenses within the income statement. In particular, she assumes that, to inflate core earnings, managers have incentives to report core expenses[2] as income decreasing special items. Using a sample of 76,901 firm-year observations from the US in the period from 1988 to 2003, McVay (2006) found that managers opportunistically shift core expenses to special items, and suggested that such kind of classification shifting is more prevalent when it enables the firm to meet analyst forecasts.

A study was undertaken by Athanasakou et al. (2009) examined two mechanisms used by managers to meet analysts' forecasts in the post-FRS three periods in the UK. Crucially, they investigate the positive abnormal working capital accruals; and classification shifting of core expenses to non-recurring items. Their results failed to find any evidence regarding the use of discretionary accruals as a technique to meet analysts' forecasts. Instead, they found that firms manage down analysts' expectations. Nevertheless, by using McVay (2006) model to investigate whether UK firms use classification shifting to meet analysts' expectations, they reported weak evidence of classification shifting. Notably, Athanasakou et al. (2009) documented a little piece of evidence of practicing classification shifting by small and large firms where the misclassification of small other non-recurring items allows them to meet the forecasts. Similarly, Fan et al. (2010) extended the work of McVay (2006), using a sample consisted of 132,393 firm-quarter observations along with a subsample includes the available analysts' forecasts of 67,980

firm-quarters, for the period that spanned from 1988 to 2007 from Compustat Industrial Quarterly. They suggest that classification shifting is more likely to take place in the fourth quarter, and it is more prevalent in companies meeting/beating various earnings benchmarks. Relatedly, using a sample of 79,643 firm-year observations, from 1989 to 2005, Barua et al. (2010) reported consistent results with the hypothesis that firms shift operating expenses to income-decreasing discontinued operations to increase core earnings. Given that, their results imply that managers of US firms use classification shifting to meet or beat analysts' forecasts.

In an international study consisting of eight East Asian economies, Haw et al., (2011) suggest that expense misclassification is a pervasive and economically significant phenomenon, in East Asia. In particular, they argue that income-decreasing special items are positively associated with unexpected core earnings (reported core earnings minus predicted core earnings) in the current year, but negatively related to unforeseen changes in core earnings in the subsequent year. This implies that firms across the East Asian region are opportunistically shifting core expenses to special items to exaggerate core earnings, and firms with controlling shareholders are associative of a higher degree of misclassification. Consistent with the results of McVay (2006), Haw et al., (2011) argue that misclassification increases when the shifting of core expenses allows a firm to meet or beat analysts' earnings forecasts, and the existence of strong legal institutions in a given country could be attributed to less classification shifting practices.

In Japan, Shirato & Nagata (2012) find that managers have a tendency to use classification shifting as a method to increase core earnings, and this tendency increases as long as classification shifting enables managers to meet their earnings forecasts. Consistently, Chae & Nakano (2015) argue that Japanese firms overstate their operating income using classification shifting method. In other words, those firms using misclassification are associated with a low level of analysts' forecast accuracy. Likewise, Noh et al., (2014) concluded a positive association between income-increasing other operating income and unexpected operating profits among Korean listed companies, suggesting that classification shifting using other operating income occurs in the IFRS adoption year. Conversely, their results show a negative association between income-decreasing special expense items and unexpected operating profits, suggesting that performance-induced effect is greater than the classificatory shifting effect of special expense items. Therefore, companies shift other income items rather than special expense items to increase operating profits in the IFRS adoption year in Korea. Zalata & Roberts (2015) examine whether internal corporate governance, namely boards and audit committees, can constrain classification shifting behaviour in the UK. They report that companies with high-quality internal governance mitigate classification shifting. This suggests that effective internal governance work as a substitute for strict accounting standards. However, they stated that more share ownership and CEO Directors might lead to lower quality monitoring. Another study from the UK context was conducted by Malikov et al., (2018), for a sample of 12,804 UK listed firm-year observations during the 1995-2014 periods. They show that firms engage in classification shifting of non-operating revenues to inflate operating revenues. Further, consistent with IFRS offering greater scope for manipulation, they find that firms in the period following mandatory IFRS adoption are associated with an increase in this practice.

Although previous studies focused on the investigation of classification shifting in developed countries, there is a little attention has been paid to misclassification in a few developing economies. For example, Nagar & Sen (2016) examined whether Indian companies are likely to engage in shifting operating expenses to income-decreasing special items in order to

inflate operating earnings. They concluded that financially distressed firms in India are more likely to be involved in classification shifting practices. Most recently, using a sample of 18,029 firm-year observations over the 2000-2010 period, Li & Guo (2018) investigate the relationship between audit fees and earnings management through classification shifting. They find a significant positive cross-sectional association between the magnitude of abnormal audit fees and classification shifting levels. This implies that greater abnormal audit fees allow for more earnings manipulations through classification shifting.

Overall, there are a few studies investigated the occurrence of earnings management using classification shifting method in developed countries such as the U.S and the UK (McVay, 2006; Athanasakou et al., 2009; Fan et al., 2010; Zalata & Roberts, 2015), and East Asian countries (Haw et al., 2011; Shirato & Nagata, 2012; Noh et al., 2014), whereas a very little, is known about misclassification practices in developing countries such as Jordan. Our study, therefore, seeks to address this existing gap in the literature by bringing up new evidence of classification shifting from a developing Middle Eastern country, namely Jordan. Responding to recent calls for in-depth cross-sectional investigation of classification shifting practices in developing countries (Nagar & Sen, 2016), and given the possibility of Jordanian managers engagement in this kind of earnings management,[3] we investigate whether Jordanian companies are considering classification shifting as viable manipulation method to increase both core earnings and non-recurring expenses.

Drawing on the results of previous studies (McVay, 2006; Athanasakou et al., 2009; Fan et al., 2010; Haw et al., 2011; Shirato & Nagata, 2012; Noh et al., 2014; Zalata & Roberts, 2015; Nagar & Sen, 2016), we assume that if Jordanian companies misclassify some of their recurring expenses to inflate their core earnings, there should be a significant positive relationship between NREC and UCE. Given this probability, the primary hypothesis to examine in our study is as follows:

H1: Ceteris paribus, there is a significant positive relationship between non-recurring items (NREC) and unexpected core earnings (UCE).

H0: Ceteris paribus, there is an insignificant negative relationship between non-recurring items (NREC) and unexpected core earnings (UCE).

RESEARCH DESIGN

Data and Sample Considerations

We use a sample of Jordanian firms listed on the Amman Stock Exchange (ASE) over the period from 2010 to 2014. The study covers two main sectors in Jordan namely, the industrial and the services sectors. Data on classification shifting variables are hand-collected from the annual reports of the sample firms that are publicly available on the Amman Stock Exchange (ASE) website. Following previous earnings management literature, the financial sector is excluded since it has different financial reporting regulations. The exclusion of financial firms resulted in 112 non-financial firms divided into 57 services firms and 55 industrial firms. Our investigation is, therefore, inclusive of the 112 non-financial firms listed on ASE during a five-year period which finally resulted in 560 firm-year observations.

Measures

Table 1 below defines our variables operationally. In testing the main research hypothesis, we divide our analysis into four stages. First, we measure the non-recurring expenses (NREC) by the difference between the reported core earnings and the bottom line net income scaled by sales. Second, our dependent variable (i.e., unexpected core earnings (UCE)) is scaled by sales. Third, we use a set of firm-specific characteristics to control for the relationship between NREC and UCE in the context of the study to address any potential endogeneity problems connecting to omitted variables (Gujarati, 2003; Wooldridge, 2010). The selected control variables are the firm size (SIZE), leverage (LEV), cash flows from operations (CFO), and book to the market value (BMV). These control variables have been chosen to be tied to prior earnings management literature (See Zalata & Roberts, 2015; Chae & Nakano, 2015; Nagar & Sen, 2016). Fourth, we investigate the relationship between NREC and UCE using McVay Model (2006), and we employ Fan et al., (2010) Model as a robustness analysis.

Variables	Definition
Table 1 **VARIABLES DEFINITIONS**	
CE_t	Core Earnings calculated as ($Sales_t$ -Cost of Goods Sold - Selling, General, and Administrative Expenses)/$Sales_t$.
ATO_t	The asset turnover ratio measured as $Sales_t/((NOA_t + NOA_{t-1})/2)$
$ACCRUALS_t$	Operating Accruals, calculated as [(net income before extraordinary items - cash from operations)/Sales]
$\Delta SALE_{St}$	The percentage change in sales from year $_{t\_1}$ to t ($Sales_t$ - $Sales_{t\_1}$)/($Sales_{t\_1}$)
NEG_ΔSALES	The $\Delta SALES_t$ if Δ_SALES_t is negative and 0 otherwise.
UCE	Unexpected core earnings scaled by sales.
NREC	Non-recurring expenses measured as the difference between reported core earnings and bottom-line net income scaled by sales.
SIZE	The natural log of total assets
LEV	Total liabilities scaled by total assets.
CFO	Cash flows from operations scaled by lagged total assets
ROA	Return on assets measured as net income divided by average total assets.
BMV	Book to the market value measured as total assets divided by market capitalisation

ANALYSIS

Detecting Classification Shifting

The unobservable nature for normal core earnings makes the direct measurement of unexpected or abnormal core earnings impossible. Thus, similar to accruals and real earnings management, scholars are forced to develop a proxy for abnormal core earnings by regressing core earnings against its determinants. The following sub-sections present the main two models developed by previous studies to detect classification shifting.

McVay Model (2006)

The first model developed to capture the manipulation through the misclassification of expenses within the income statement is the McVay model (2006). This model associates firms' core earnings with other performance measures that capture normal core earnings. According to

this model, normal core earnings for a given firm are based on previous period core earnings, asset turnover, and change in sales, and the current period, and prior period accruals. Therefore, in order to estimate the normal or expected core earnings, she regressed the core earnings against the above economic factors cross-sectionally for each industry-year. Particularly, she developed the following model;

$$CE_{i,t} = \alpha_0 + \beta_1 CE_{i,t-1} + \beta_2 ATO_{i,t} + \beta_3 ACCRUALS_{i,t-1} + \beta_4 ACCRUALS_{i,t} + \beta_5 \Delta SALES_{i,t} + \beta_6 NEG\_\Delta SALES_{i,t} + u_{i,t}$$

Where, CE_t is Core Earnings, calculated as ($Sales_t$ -Cost of Goods Sold - Selling, General, and Administrative Expenses)/$Sales_t$. ATO_t is the asset turnover ratio, defined as $Sales_t/((NOA_t + NOA_{t-1})/2)$, where NOA is Net Operating Assets calculated as the difference between operating assets and operating liabilities; Operating Assets is calculated as total assets less cash and short-term investments. Operating Liabilities is calculated as total assets less total Debt, less book value of common and preferred equity, fewer minority interests. An average net operating asset is required to be positive. $ACCRUALS_t$ is Operating Accruals, calculated as [(net income before extraordinary items - cash from operations)/Sales]. $\Delta SALE_{St}$ is the percentage change in sales from year $_{t\_1}$ to t ($Sales_t$ - $Sales_{t\_1}$)/($Sales_{t\_1}$). $NEG\_\Delta SALES_t$ is $\Delta SALES_t$ if Δ_SALES_t is negative and 0 otherwise.

Lagged core earnings are included in the model because core earnings are persistent. Asset Turnover Ratio, ATO_t, is added to control for the negative relationship between asset turnover and profit margin (Nissim & Penman 2001). Both current and lagged accrual levels ($Accruals_t$, $Accruals_{t-1}$) are associated with firm performance (Sloan 1996; DeAngelo et al. 1994), thus they are included as controls. Sales growth ($\Delta Sales_t$) is included because as sales increase, fixed costs become smaller per sales dollar. As costs increase more when activity arises than they decrease when activity falls by the same amount (Anderson et al., 2003), $NEG\_\Delta SALES_t$ is included to allow the slope to differ between sales increase and decreases (Fan et al. 2010). McVay predicts that manager's shift core expenses to special items, to test whether companies increase core earnings by using classification shifting of special items she developed the following regression:

$$UE\_CE_t = \alpha_0 + \%\ SI_t + \varepsilon$$

Where UE_CE_t is unexpected core earnings in year t, $\%\ SI_t$ is defined as income-decreasing special items scaled by sales, both in year t. If managers shift core expenses to non-recurring items, then a positive relation between classification shifters' unexpected core earnings and the magnitude of the negative special items is expected. One shortcoming to the core earnings expectation model developed by McVay (2006) is the use of contemporaneous accruals including accruals related to special items as a control for firm performance. The inclusion of special item accruals in the expectation model generates a potential bias in favour of her hypotheses. She acknowledges the dependence on an imperfect model is a limitation of her study. In response, additional research was conducted by Fan et al. (2010) with more performance controls to improve the core earnings model.

Fan et al. Model

This model extends McVay (2006) s' methodology to measure expected and unexpected core earnings. More specifically, drawing on Fan et al., (2010), the major limitation of the McVay (2006) model is that the positive relation between expected core earnings and special items may be driven mechanically by the inclusion of current accruals. The inclusion of accruals aims to control for firms` extreme performance. However, accruals may also contain special item accruals. Therefore, high special item accruals might cut down the expected core earnings and result in higher unexpected core earnings, which are positively related to special items in the second step regression. Essentially, when accruals are removed from the model, the relation between unexpected core earnings and special items becomes negative (McVay, 2006). Such criticism of the McVay (2006) model leads Fan et al. (2010) to develop an advanced core earnings level model as shown below:

$$CE_q = \alpha 0 + \beta_1 CE_{q-1} + \beta 2 CE_{q-4} + \beta_3 ATO_q + \beta_4 ACCR_{q-1} + \beta_5 ACCR_{q-4} + \beta 6 \Delta SALES_q + \beta 7 NEG\_\Delta SALES_q + \beta 8 RETURNS_q + \beta 9 RETURNS_{q-1} + \varepsilon_q$$

Thus, there are two main differences between the Fan et al. (2010) and the McVay (2006) model. First, current accruals are removed and only lagged accruals are retained. Second, the current period returns, $RETURNS_q$, and previous period return $RETURNS_{q-1}$ are added to the model as controls for performance. The reason behind adding prior period returns is that the market may detect deteriorating performance and decrease its expectations of core earnings before it is reported in the current quarter. This model, therefore, overcomes the concern that the positive relationship between the unexpected core earnings and the special items is mechanical.

However, classification shifting is still an emerging area of research with very little evidence on which expectation model minimises the measurement error arising from the failure to control for firm normal underlying performance adequately. Given this, the present study will use McVay Model, which is the most popular model, to predict the unexpected core earnings[4]. In addition, we employ the Fan et al., (2010) model as a robustness test. The main results remain the same.

RESULTS AND DISCUSSION

Table 2 provides the mean regression results for the model of expected core earnings. The mean adjusted R^2 is quite high, at approximately 70 per cent, consistent with 75.5 per cent in the US reported by McVay (2006), and 69.4% in China by Nagar & Sen (2016). For the mean regression, prior-year core earnings (CE_{t_1}) is a strong predictor of core earnings, as expected, with a coefficient of 0.61 and a p-value of less than 0.0001. The asset turnover ratio (ATO_t) is not significant. Prior-year accruals ($ACCRUAL_{St\_1}$) has a coefficient of -0.009, consistent with higher levels of accruals having lower earnings persistence. The positive coefficient of 0.18 on current-year accruals ($ACCRUAL_{St}$) is also as predicted. The overall results in Table 1 are consistent with those reported by McVay (2006) for U.S. firms and indicate that the expectation model works well for Jordanian companies.

Table 3 presents the descriptive statistics for the full sample (560 firm-year observation). Consistent with Zalata & Roberts (2015); Chae & Nakano (2015); Nagar & Sen (2016) and Hu & Duncan (2018), to present the range of data, the current study does not focus on the Max and Minimum value as this will lead to a range that is not representative of the variability within the

data because it depends on the two most extreme values within data. The mean (median) of unexpected core earnings (UCE) as a percentage of sales is -0.0000 (0.00%) which, as expected, is near to zero. It ranges from -0.039 to 0.034 which is relatively higher than the number reported in the UK by Zalata & Roberts (2015) who reported that it ranges from- 0.025 to 0.018. However, it is, to some extent, in line with McVay (2006) that reported it range from -0.033 to 0.044. Also, it is similar to what has been reported recently in China (-0.035 to 0.038) by Hu & Duncan (2018). The mean (median) of non-recurring items (NREC) as a percentage of sales is 1.24% (-0.026) which is relatively lower than the 6.1% (0.4%) reported in the UK by Zalata & Roberts (2015), suggesting that recurring expenses misclassification might be less pervasive in Jordan.

Table 2 DESCRIPTIVE STATISTICS - *MODEL PARAMETERS* MODEL OF EXPECTED CORE EARNINGS LEVELS		
Independent Variables	Predicted Sign	Mean Coefficients
Intercept		0.020196 0.588623
CE_{t_-1}	+	0.613420937 (8.63548347)***
ATO_t	-	0.0473197 (1.376076431)
$ACCRUALS_{t-1}$	-	-0.009261513 (-0.156036512)
$ACCRUALS_t$	+	0.12019511 (2.450787763)***
$\Delta SALES_t$	+	0.0209469 (0.346506689)
$NEG\_\Delta SALES_t$	+	0.441903203 (3.468601369)***
Adjusted R^2		70.26%
***, **, * Indicate significance at 1 percent, 5 percent, and 10 percent levels respectively. The parameter estimates are based on the following model: $CE_{i, t} = \alpha0 + \beta_1 CE_{i, t-1} + \beta_2 ATO_{i, t} + \beta_3 ACCRUALS_{i, t-1} + \beta_4 ACCRUALS_{i,t} + \beta_5 \Delta SALES_{i,t} + \beta_6 NEG\_\Delta SALES_{i,t} + u_{i,t}$ *There are 560 observations and 30 industry-year regressions. Regressions are estimated by industry and fiscal year, and the p-values shown are based on one-tailed tests for each of the independent variables except the intercept, which does not have a significant prediction. All variables as defined in Table 1.*		

Table 3 DESCRIPTIVE STATISTICS FOR THE FULL SAMPLE CLASSIFICATION SHIFTING VARIABLES					
Variables	*Mean*	*Median*	*St. DV*	*25%*	*75%*
UCE	-0.00000	-0.0001235	0.0960947	-0.0393415	0.0348001
NREC	0.0124455	-0.0266642	0.3707124	-0.1250034	0.0540535
All variables as defined in Table 1.					

Table 4 shows the Pearson correlations for the independent variables used in the multivariate regression. According to Gujarati (2006), the presence of high correlations, in excess of 0.80, between the explanatory variables is an indication of serious multicollinearity problems. However, the table reveals that the proxies for the hypothesis are not highly correlated

with each other or with the control variables. The highest pairwise correlation coefficient between the independent variables is 0.55, suggesting that multicollinearity does not appear to be a problem in our study. Consistent with the main hypothesis of our study, Table 4 shows that there is a significant positive relationship between UCE and NREC. This provides initial support for our prediction in the hypothesis, which means that our hypothesis has been statistically accepted.

Table 4 CORRELATION MATRIX							
Variables	**UCE**	**NREC**	**SIZE**	**LEV**	**CFO**	**ROA**	**BMV**
UCE	1.0000						
NREC	**0.0891*****	1.0000					
SIZE	**0.0915****	**-0.2149*****	1.0000				
LEV	0.0862	**0.1829*****	**0.3675*****	1.0000			
CFO	**0.1311*****	**-0.3265*****	**0.1527*****	**-0.0868***	1.0000		
ROA	**0.1075****	**-0.5507*****	**0.3016*****	**-0.2626*****	**0.3835*****	1.0000	
BMV	0.0323	-0.0032	0.0459	**0.1808*****	**0.1487*****	0.0646	1.0000
This table presents the Pearson correlations for the independent variables used in the multivariate regression. Coefficients in bold are statistically significant, ***, **, * Indicate significance at 1 percent, 5 percent, and 10 percent levels. *All variables as defined in Table 1.*							

In order to investigate whether Jordanian firms misclassify their recurring expenses as non-recurring, following the majority of previous literature (e.g. Zalata & Roberts, 2015; Chae & Nakano, 2015; Nagar & Sen, 2016), this study uses the McVay (2006) model after adding some control variables that may affect the UCE. Thus, the following model is estimated:

$$UCE= \alpha 0+ \beta_1 NREC+control\ variables$$

Where unexpected core earnings (UCE) is the difference between reported core earnings and normal (or expected) core earnings as calculated using the McVay (2006) model scaled by sales. Similar to previous literature (Athanasakou et al. 2009; Zalata & Roberts, 2015), non-recurring expenses (NREC) is the difference between actual core earnings and bottom line net income scaled by sales. When firms engage in classification shift, the unexpected core earnings increase with non-recurring items and thus the study expects β_1 to be positive. SIZE is the firm size, measured as the natural log of total assets; LEV is leverage, measured as total debts divided by total assets; CFO is the cash flows from operations scaled by lagged total assets; ROA is the return on assets measured as net income divided by total assets; and BMV is the book to market value, measured as total assets scaled by market capitalization. The analysis is conducted using two samples; a full sample of 560 firm-year observations and a smaller sample of 255 firm-year observations excluding firms with non-recurring revenues, so the analysis is further narrowed down to those firms that might have an opportunity to engage in classification shifting.

Table 5 reports the results of the multivariate regression analysis which examines whether there is a positive relationship between non-recurring items (NREC) and unexpected core earnings (UCE). As expected, it shows that, consistent with our prediction in our hypothesis and similar to McVay (2006), Haw et al. (2011), Chae & Nakano (2015) and Zalata & Roberts (2015), there is a significant positive relationship between NREC and UCE in the full sample (coefficient = 0.0116 and p <0.05), suggesting that the non-recurring items are systematically

associated with the variation in unexpected core earnings, and thus classification shifting is a common practice among Jordanian firms.

Table 5 REGRESSION OF UNEXPECTED CORE EARNINGS ON NON-RECURRING ITEMS USING MACVAY (2006) MODEL				
	All Firms		Positive NREC	
Variables	Coefficients	t. Statistic	Coefficients	t. Statistic
NREC	0.0116255	2.45**	0.0685989	2.99***
SIZE	0.0002228	0.05	0.0042389	0.47
LEV	0.0652119	2.50**	0.0808157	2.56**
CFO	0.1244673	2.08**	0.0238962	2.22**
ROA	0.1541865	1.29	0.1296088	0.65
BMV	-0.0018167	-0.25	0.0034382	0.38
Intercept	-0.0264478	-0.37	-0.1195112	-0.81
INDDUM	Inc.	Inc.	Inc.	Inc.
YEARDUM	Inc.	Inc.	Inc.	Inc.
R^2	10.22%		16.42%	
***, **, * Indicate significance at 1 percent, 5 percent, and 10 percent levels respectively. The parameter estimates are based on the following model: UCE= α0+ β1 NREC+ β2SIZE+ β3LEV+ β4CFO+ β5ROA+ β6BMV+ β7- β10 YEARDUMit + β11- β15 INDDUMit +ε it All variables as defined in Table 1.				

Moving to control variables, in line with Barua et al. (2010), the current study does not predict as to the control variables' signs. Unlike Barua et al. (2010), Table 5 shows that there is an insignificant negative relationship between UCE and SIZE providing modest support to the fact that large-sized firms are less likely to engage in earnings manipulation through classification shifting. Other control variables demonstrate the same relationship reported by prior studies (e.g. Barua et al. 2010). Similar to previous literature (e.g. Barua et al. 2010; Zalata & Roberts, 2015) a significant positive relationship is found between UCE and CFO. Similarly, a significant positive relationship is found between UCE and LEV, suggesting that firms with more cash flow and high debt levels are more likely to increase their core earnings. Nevertheless, in line with Chae & Nakano (2015), the firm size (FSIZE) and book to market value (BMV) appeared to be unrelated to UCE. Notably, when the sample was restricted to those firms that have a greater opportunity to misclassify recurring items (firms with positive NREC), the adjusted R^2 increased from 10.22% to 16.42%. Consequently, the significance level of the positive relationship between NREC and UCE has increased to 1%, supporting, therefore, our prediction in (H1) and our results for the full sample.

Collectively, consistent with the results of previous literature in developed and East Asian countries, Jordanian firms appeared to have a clear tendency to overstate their operating income. This might be related to the fact that operating income can affect the stock prices more than the net earnings. Thus, managers have incentives to use classification shifting, which is less scrutinised by auditors, has relatively low opportunity costs but has more value relevance to stock prices (Chae & Nakano, 2015).

ROBUSTNESS TEST

Under the primary analysis of this study, classification shifting was measured using the McVay Model (2006). However, in this section, we employ Fan et al., (2010) model to test the consistency and sensitivity of our main results. The results of this analysis are reported in the following Table 6.

Table 6 REGRESSION OF UNEXPECTED CORE EARNINGS ON NON-RECURRING ITEMS USING FAN ET AL., (2010) MODEL				
All Firms			**Positive NREC**	
Variables	**Coefficients**	**t. Statistic**	**Coefficients**	**t. Statistic**
NREC	0.0651879	2.95***	0.0520221	3.22***
SIZE	0.0112578	0.15	0.0030366	0.65
LEV	0.0245611	2.74**	0.0439331	2.75**
CFO	0.0061095	2.20**	0.0226990	2.88**
ROA	0. 0.00916	1.07	0.0155001	0.65
BMV	-0.0026145	-0.01	0.0042280	0.69
Intercept	-0.0542141	-0.13	-0.0095541	-0.91
INDDUM	Inc.	Inc.	Inc.	Inc.
YEARDUM	Inc.	Inc.	Inc.	Inc.
R^2	11.07%		17.72%	
***, **, * Indicate significance at 1 percent, 5 percent, and 10 percent levels respectively. The parameter estimates are based on the following model: $UCE= \alpha0+ \beta1\ NREC+ \beta2SIZE+ \beta3LEV+ \beta4CFO+ \beta5ROA+ \beta6BMV+ \beta7- \beta10\ YEARDUMit + \beta11- \beta15\ INDDUMit +\varepsilon\ it$ *All variables as defined in Table 1.*				

As the above Table 6 shows, the results of this analysis are qualitatively similar to those reported previously in the main analysis. However, these regressions provide better results in terms of the adjusted R-squared 11.07%, and 17.72% respectively. The results demonstrate that the NREC is significantly and positively associated with the UCE in the models. This supports our main results and suggests that. The inferences on the other variables in the model remain unchanged and comparable to those reported in the main analysis.

CONCLUSION

The present study examines whether Jordanian public companies engage in earnings management through classification shifting. Most of the previous studies offered information about classification shifting in the U.S and the UK, and a few East Asian mature and emerging markets. We extend previous literature by investigating the case of classification shifting in a Middle Eastern country (i.e., Jordan), where firms' use of IFRS still has the opportunity to signal to the users of financial statements that a particular item is non-recurring based on the name given to the income statement line item. Based on a sample consisting of 112 publicly Jordanian non-financial listed firms during the 2010-2014 period and consistent with the results of previous literature, our empirical results reveal that the non-recurring items (NREC) are significantly and positively associated with the variation in unexpected core earnings (UCE). This implies that managers in Jordan misclassify their recurring expenses in an attempt to increase their core earnings. Thus, classification shifting, which is less scrutinised by auditors, is a common practice among Jordanian firms. Our main results are robust to the inclusion or exclusion of current-

period accruals. To the best of our knowledge, we are the first in the South-western Asia region overall to use McVay (2006) and Fan et al., (2010) models and to document the tendency of firms' managers to engage misclassification practices.

Our study has some important policy implications for international and local standard setters, regulators, auditors and investors. While standard setters focus primarily on the measurement and recognition issues (Haw et al., 2011), our findings suggest that they have to pay more attention to the appropriate classification of items within the income statement. Similarly, auditors and regulators should be encouraged to have more scrutiny over classificatory manipulation. Likewise, investors encouraged to conduct a comprehensive review of the financial statements of a firm before making any investment decision.

Although our results are rigorous and reliable, our study may suffer from measurement error in the estimation of the abnormal core earnings, that is, the McVay (2006) expectation model might not be perfect in capturing classification shifting practices. Thus, future researchers are encouraged to consider further advancements on this model in order to enrich the research on classification shifting internationally.

ENDNOTE

1. Earnings before exceptional items are known in accounting literature as core earnings or pro forma earnings. Accordingly, the current study will use these different terminologies.
2. Core expenses are defined as cost of goods sold and selling, general, and administrative expenses.
3. To the best knowledge of researcher, until now, there is no study in Jordan or in the Middle East region overall that investigates the classification shifting behaviour.
4. To the best of our knowledge, this is the first study in Jordan and the Middle-East region overall that applies McVay (2006) model to investigate whether the practice of classification exists in Jordan or not.

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