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The Reversal of Impairment Losses, Future Firm Performance and Reporting Incentives: Evidence from Malaysia

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Abstract

This study posits that there are two main motivations for impairment reversals. First, the impaired assets have recovered so the reversal is required for the carrying amount to accurately reflect the current economic value of the assets. Second, firms reverse the previously recognized impairment losses opportunistically to increase earnings. A sample of 182 Malaysian firms that report impairment reversals during the period 2006-2009 are matched by industry and size with 182 control firms. We find that reversing firms outperform control firms in the year of the reversal suggesting that firms in Malaysia on average reverse impairments to reflect the recovery in the value of assets. In additional analysis we find that reversal reporting by Malaysian firms that are less likely to manage earnings is positively associated with future firm performance. In contrast, reporting of impairment reversal by firms with extremely high abnormal working capital accruals (an indication of earnings management) is negatively associated with future operating performance.

Keywords: Reversal of impairment losses, firm performance, financial reporting standards, abnormal working capital accruals, Malaysia

1. INTRODUCTION

This study tests if the reversal of impairment losses by Malaysian companies is more closely associated with economic reasons or reporting incentives. Financial Reporting Standard (FRS) 136¹, which is based on IAS 36, was issued in 2005 and became effective for financial years beginning after 1 January 2006. Reversal recognition is required as outlined under FRS 136 when the values of the impaired assets are recovered or partly recovered. Prior studies pertaining to reversal reporting focus on the opportunistic behaviour of managers (e.g. Duh et al. 2009; Zhang et al. 2010). This study is different in that it considers the possibility of both informative reversal reporting and opportunistic reversal reporting. Thus, this study tests whether the firms reverse the impairment loss to reflect the true recovery of the assets as well as the use of reversal to manage earnings. Drawing on the literature pertaining to the revaluation of fixed assets (e.g. Aboody et al. 1999): we predict that if a firm is motivated to accurately reflect the economic value of an asset by reversing an impairment charge, the reversal will be associated with future operating performance. If reporting incentives underlie the decision to

¹ Under the Malaysian Financial Reporting Standards Framework, the related accounting standard for asset impairment is MFRS 136 Impairment of Assets

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reverse the impairment we should not observe these relations. As well as contributing to the literature on asset impairments the study also contributes to the burgeoning literature pertaining to the adoption of IFRS but in this regard it is unusual in that it addresses a specific accrual under IFRS and links its findings with respect to this specific accrual to the more general earnings management literature.

2. LITERATURE REVIEW

FRS 136 deals with the impairment of assets and allows for the reversal of impairment charges whenever appropriate. The carrying value is the book value of the assets while the recoverable amount is the higher of an asset's net selling price and value in use. An impairment loss occurs when the carrying value is higher than recoverable amount. This difference should be recorded as a loss in the income statement and such losses should be accrued whenever the situation arises. If there is an indication that an impairment loss previously recognized for a particular asset (other than goodwill) no longer exists, the company is required to recalculate the recoverable amount for the asset and if the recoverable amount in the current period is higher than its carrying amount, the impairment loss previously recognized needs to be reversed or partly reversed.

Accounting for asset impairment has been claimed as giving management substantial flexibility to exercise judgments in determining and reporting impairment losses (Titard and Pariser, 1996; Healy and Wahlen, 1999; Alciatore et al. 1998; Riedl, 2004; Sandra, 2013). For example, the determination of an appropriate discount rate that reflects current market expectations and the appropriate risks is often difficult and requires consideration and input from financial management, line management and, perhaps, valuation professionals. Input from these parties is also required to formulate assumptions regarding growth rates used to project future cash flows until the end of the asset's useful life. These forecasts also require significant judgment. Titard and Pariser (1996) argue that International Accounting Standards give managers considerable discretion in the timing and the amount of write-downs of impaired assets. The use of estimates in projecting future cash flows allows managerial discretion in determining the amount of impairment and the amount of reversals (Sevin and Schroeder, 2005). When managers are provided with choices in determining the value of assets, expenses and the profit of their firms, the risk that creative or aggressive accounting is employed increases (Healy and Wahlen, 1999).

In Asia, Duh et al. (2009) study the reversal of impairment losses reported by Taiwanese firms. They report that companies reverse more if they have previously recognized higher impairment losses and when such reversals could avoid an earnings decline in the subsequent period. The study also provides evidence that corporate governance in reversal firms is weak as compared to non-reversal firms. A more recent study by Zhang et al. (2010) also provides evidence of opportunistic impairment reversal reporting by firms listed on Chinese stock exchanges during the transition period following the announcement of the prohibition of the reversal of impairments. They find that Chinese firms made less impairment charges during the period after the announcement of the ban than they had previously made. This result indicates that the ban makes impairment charges less attractive because they could no longer be used as "cookie jar reserves". Trottier (2013) examine whether the reversibility of asset impairment affect the decision to record impairment loss. He finds that managers are more likely to record impairment loss when the losses are reversible especially when they have bonus plan. In contrast, a study in Thailand finds that the decision to record impairment loss for economic reason dominates the opportunistic decision (Pimpana and Kittima, 2012).

In terms of the effect on the balance sheet the reversal of an impairment charge is equivalent to an upward revaluation of a fixed asset. However, the reversal of an impairment charge can directly influence a firm's income in a way that the upward revaluation on an unimpaired asset cannot. In terms of reflecting the economic fundamentals of the firm both should provide clear indications that the value of an asset has increased during the accounting period and should be harbingers of enhanced future operating performance. There are a number of studies that examine asset revaluation behaviour. Easton et al. (1993) investigate the relationship between the revaluation of tangible long-lived assets and share prices and stock returns. They suggest that an upward revaluation of assets increases their alignment with the market value of the firm. Moreover, they report that the balance of the revaluation reserve and the annual revaluation have significant explanatory power when the debt level is relatively high. Aboody et al. (1999) investigate the revaluation of assets in UK firms. They report that upward revaluations of fixed assets by UK firms are significantly and positively related to future firm performance.

The reversal of an impairment charge is essentially and upward revaluation of non-current assets. Most studies suggest that the upward revaluation of fixed assets is associated with firm's future performance and that it increases the alignment of the value of the asset with the market value of the firm (e.g. Aboody et al. 1999). We

posit that there are two primary motives for a reversal of an impairment charge. The first is an unbiased one designed to reflect a positive change in the true economic circumstances of the company. Alternatively, the management of the company may be attempting to obfuscate poor current performance using the reversal of a previously created “cookie jar reserve” to manipulate earnings upwards.

3. DATA AND METHODOLOGY

3.1 Data and Sample Selection

The annual reports of all public companies listed on the Kuala Lumpur Stock Exchange (KLSE) are used to identify reversal firms. Reversal firms are those recognizing at least one reversal of an impairment loss in their income statements during the period 2006 to 2009. Financial institutions are excluded because they have different accounting and regulatory systems for the preparation of companies’ annual reports. Reversal firms are identified through a keyword search. Using this approach, this study initially identifies a sample of 242 reversal firm-year observations relating to 151 distinct non-financial firms. We match the reversal firm with control firm based on size and industry. The control firm had a beginning balance in the accumulated impairment losses account in any of four types of non-current assets and did not reverse the impairment recognized during the four years of study (2006-2009). We fail to find a match for 60 of our original sample of 242 firm-years. Thus, our final sample comprises 364 observations made up of 182 reversal firm-years and 182 control firm-years.

3.2 Research Models

We use Equations 1 and 2 to examine the relation between reversals and the future operating performance of earnings managers and firms that are not earnings managers. The models are similar to those used by Aboody et al. (1999) with respect to the revaluation of fixed assets in the UK.

$$CFO_{t+1} = \alpha + D + \beta_1 REV_t + \beta_2 D * REV_t + \beta_3 CFO_t + \beta_4 WC_t + \beta_5 SIZE_t + \beta_6 MTB_t + \varepsilon_t \quad (1)$$

$$\Delta CFO_{t+1} = \alpha + D + \beta_1 REV_t + \beta_2 D * REV_t + \beta_3 \Delta CFO_t + \beta_4 \Delta WC_t + \beta_5 SIZE_t + \beta_6 MTB_t + \varepsilon_t \quad (2)$$

where,

CFO_{t+1} = net cash flow from operations in year t+1 divided by total assets at end of year t;

ΔCFO_{t+1} = change in net cash flow from operations from year t to year t+1, CFO_{t+1} - CFO_t, divided by total assets at end of year t;

REV_t = reversal amount scaled by total assets at end of year t;

CFO_t = net cash flow from operations in year t divided by total assets at end of year t;

ΔCFO_t = change in net cash flow from operations from year t-1 to year t divided by total assets at end of year t;

WC_t = working capital in year t divided by total assets at end of year t;

ΔWC_t = change in working capital from year t-1 to year t divided by total assets at end of year t;

SIZE_t = the natural log of total sales at end of year t;

MTB_t = the market to book ratio at end of year t;

D = 1 if the firm is a not an earnings manager, i.e. its AWCA lies in the range between 31st and 70th percentile among reversal firms. D takes the value 0 if the firm is an earning manager, i.e. its AWCA is above 70th percentile;

Earnings managers are defined as those reversal companies which are above the 70th percentile in terms of AWCA. Firms that are not earnings managers are those who lie in the range between 31st and 70th percentile. Abnormal working capital accruals (AWCA) is measured by the DeFond and Park (2001) model as shown below.

$$AWCA_t = WC_t - [(WC_{t-1}/S_{t-1}) * S_t] \quad (3)$$

where:

AWCA_t = abnormal working capital accruals in year t;

WC_t = non-cash working capital in year t that is defined as

(current assets - cash and cash equivalent) – (current liabilities – short-term debt);

WC_{t-1} = working capital in the previous year;

S_t = sales in year t;

S_{t-1} = sales in the previous year.

This procedure yields 55 reversal earning managers and 73 reversal non-earning managers. Equations 1 and 2 estimates the relationship between reversal recognition by both earnings managers and firms that are not earnings managers and one-year future cash flow from operations. The coefficient on REV, β₁, represents the

relation between the level of impairment reversals by earnings managers and one-year future cash flow from operations. β_2 captures the difference between the effect of reversals on performance for firms that are not earnings managers relative to earnings managers. The sum of $\beta_1 + \beta_2$ represents the impact of reversals by firms that are not earnings managers on future cash flow. We do not expect that reversal recognition by earnings managers to explain future cash flow: β_1 is not expected to be significantly different from zero. We expect that the reversals of firms that are not earnings managers to be associated more positively associated with future operating performance: β_2 is expected to be positive and significant. Similarly, we predict that $\beta_1 + \beta_2$ is significantly positive.

4. RESULTS

4.1 Descriptive Statistics and Univariate Analyses

Table 1 presents descriptive statistics for reversal firms and control firms and also includes the test of differences in means and medians for all relevant continuous variables. A number of indicators show that reversal firms actually perform better than non-reversal firms. Total sales generated by reversal firms are larger than non-reversal firms. The average beginning balance of accumulated impairment losses of reversal firms is significantly larger than that of non-reversal firms. This may indicate a previously conservative approach to impairments reversal by reversal firms or alternatively they may have deliberately created a “cookie-jar reserve” in previous periods. The mean and median differences are significant at the 1% level.

Reversal firms report higher return on equity than non-reversal firms. The difference is significant at the 1% level. The higher return on equity may have resulted from the recognition of higher reversal of impairment losses, which increase the reported net income as compared to non-reversal firms. The reversal amount is therefore removed from the calculation of earnings change (Duh et al., 2009). After this procedure, ROEadj of reversal firms is still significantly higher than that of non-reversal firms. The difference in mean (median) is significant at the 1% (5%) level.

Table 1. Descriptive statistics of reversal firm-years and control firms, 2006-2009.

Variables	Assets	REV	AWCA	Sales	BACC ^a	ROE	ROEadj
<i>Test sample: Firm-years with impairment loss and reversals (n=182)</i>							
Mean	20.096	0.0037	0.0007	19.594	0.0176	0.0822	0.0733
Median	20.029	0.0012	-0.0009	19.406	0.0058	0.0866	0.0814
SD	1.2746	0.0057	0.0933	1.4535	0.0274	0.1361	0.1386
Min	17.268	0.0000	-0.2558	16.005	0.0000	-0.3481	-0.3540
Max	24.286	0.0271	0.2667	24.250	0.0981	0.5376	0.5232
Skew	0.5642	2.7461	0.2538	0.4396	2.0583	0.0911	-0.1040
Kurtosis	3.5439	7.8388	4.4581	3.2466	6.0890	6.4979	6.1498
<i>Control sample: Firm-years with impairment, without reversal (n=182)</i>							
Mean	20.054	-	-0.0041	19.301	0.0087	0.0166	0.0166
Median	19.985	-	0.0011	19.299	0.0011	0.0540	0.0540
SD	1.2628	-	0.1022	1.5934	0.0157	0.2358	0.2356
Min	17.543	-	-0.2768	9.3056	0.0000	-0.8454	-0.8454
Max	24.091	-	0.2553	23.284	0.0845	0.8743	0.8745
Skew	0.6189	-	-0.4363	-1.1461	2.1752	-1.5068	-1.5067
Kurtosis	3.5941	-	4.5302	10.627	6.7934	8.5524	8.5524
Diff in means (p-value)	0.0418 (0.754)	-	0.0048 (0.639)	0.2930 (0.068)	0.0089 (0.001)	0.0656 (0.001)	0.0567 (0.005)
Diff in medians (p-value)	0.0440 (0.640)	-	-0.0020 (0.968)	0.1070 (0.091)	0.0047 (0.000)	0.0326 (0.003)	0.0274 (0.017)

The difference (diff) in means and medians between reversal firms and control firms are tested using two-tailed *t*-tests and Mann Whitney test, respectively.

^aThe sample size is 155 reversal observations and 155 control firms. The difference (27) is not traceable as the firms combined accumulated impairment and accumulated depreciation into one account.

All data (except for Assets and Sales) are winsorized at three standard deviations from the mean.

Variable definitions:

Assets = natural logarithm of total assets at end of year *t*;

REV = amount of impairment loss reversal deflated by total assets at end of year *t*;

AWCA = abnormal working capital accrual (DeFond and Park, 2001) deflated by total assets at end of year *t*;

Sales = natural logarithm of total sales at end of year *t*;

BACC = beginning balance of accumulated impairment loss in year *t* deflated by total assets at end of year *t*;

ROE = return on equity, calculated as net income in year *t* divided by total equity at end of year *t*;

ROEadj = return on equity (adjusted), calculated as net income minus impairment reversal in year *t* divided by total equity at end of year *t*.

In summary, the analysis shows that reversal firms are more profitable than non-reversal firms. They also generate more sales than non-reversal firms. Both groups (reversal and non-reversal firms) have similar levels of abnormal working capital accruals. Furthermore, the beginning balance of accumulated impairment losses of reversal firms is significantly larger than non-reversal firms. Thus, the preliminary evidence indicates that on average the reversal impairments in Malaysia reflect the underlying economic fundamentals.

4.2 The Relation between Reversal of Impairment Losses and Firm Performance

We postulate that while overall impairment reversals are undertaken in Malaysia for sound economic reasons, this finding may have concealed the activities of some earnings managers. We now turn to the estimation of Equations 1 and 2 to establish if the impairment reversals of earnings managers and firms that are not earnings managers have similar effects with respect to future operating performance. Panel A (Panel B) of Table 2 presents the regression results which relate reversals to one-year future cash flow from operations (change in cash flow from operations). In Panel A, the coefficient on reversals, REV, is negative and significant at the 1% level. This result indicates that the larger reversals by earnings managers are associated with lower the future cash flows. This suggests that reversals recognition by earnings managers does not reflect asset value changes and are, to some extent, opportunistic. This finding is consistent with Duh et al. (2009). The coefficient on D*REV, β_2 , is positive and significant at the 1% level, indicating that the reversals reported by firms that are not earnings managers have a significantly more positive impact on future performance than the reversals reported by earnings managers. The latter coefficient is larger in absolute terms than β_1 and the sum of $\beta_1 + \beta_2$ (not tabulated) is significantly positive at the 1% level, suggesting that reversal recognition by firms that are not earnings managers predicts high future higher cash flows. The result is consistent with Aboody et al. (1999) and Pimpana and Kittima (2012). This finding provides strong evidence that the reversal reporting by firms that are not earnings managers is an efficient choice of accruals recognition. The results outlined in Panel A also indicate that, as expected, the cash flow from operations in the reversal year is significantly (at the 1% level) and positively associated with future cash flows. The regression results in Panel B show similar findings.

Table 2. Relationship between impairment loss reversal and future firm performance, moderated by incentive to manage earnings
Panel A: Dependent variable is future cash flow from operations

$$CFO_{t+1} = \alpha + D + \beta_1 REV_t + \beta_2 D*REV_t + \beta_3 CFO_t + \beta_4 WC_t + \beta_5 SIZE_t + \beta_6 MTB_t + \varepsilon_t(1)$$

	Predicted sign	Coefficient	t-Statistic	p-value
D	?	-0.0181	-1.35	0.178
REV	0	-1.2406	-4.00	0.000
D*REV	+	1.5664	2.81	0.005
CFO	+	0.3563	3.59	0.000
WC	?	0.0401	1.32	0.188
SIZE	?	0.0137	3.07	0.002
MTB	?	0.0074	0.89	0.376
Intercept		-0.2275	-2.61	0.010
N		128		
Adjusted R ²		0.2626		
p-value (F-statistic)		0.0000		

Panel B: Dependent variable is change in future cash flow from operations

$$\Delta CFO_{t+1} = \alpha + D + \beta_1 REV_t + \beta_2 D*REV_t + \beta_3 \Delta CFO_t + \beta_4 \Delta WC_t + \beta_5 SIZE_t + \beta_6 MTB_t + \varepsilon_t(2)$$

	Predicted sign	Coefficient	t-Statistic	p-value
D	?	-0.0158	-1.27	0.206
REV	0	-1.1170	-3.22	0.002
D*REV	+	1.5459	2.89	0.004
ΔCFO	+	-0.6709	-9.53	0.000
ΔWC	?	0.0406	0.91	0.367
SIZE	?	0.0070	1.90	0.060
MTB	?	-0.0029	-0.50	0.621
Intercept		-0.1096	-1.58	0.116
N		128		
Adjusted R ²		0.4684		
p-value (F-statistic)		0.0000		

Variable definitions:

CFO_{t+1} = net cash flow from operations in year t+1 divided by total assets at end of year t;

ΔCFO_{t+1} = change in net cash flow from operations from year t to year t+1, $CFO_{t+1} - CFO_t$, divided by total assets at end of year t;

REV_t = reversal amount scaled by total assets at end of year t;

CFO_t = net cash flow from operations in year t divided by total assets at end of year t;

ΔCFO_t = change in net cash flow from operations from year t-1 to year t divided by total assets at end of year t;

WC_t = working capital in year t divided by total assets at end of year t;

ΔWC_t = change in working capital from year t-1 to year t divided by total assets at end of year t;

SIZE_t = the natural log of total sales at end of year t;

MTB_t = the market to book ratio at end of year t;

D = 1 if the firm is a non-earning manager, i.e. its AWCA lies in the range between 31st and 70th percentile among reversal firms. It is equal to 0 if the firm is an earning manager, i.e. its AWCA is above 70th percentile.

To sum up, the association between the recognition of reversal gains and future performance is conditional on the level of abnormal accruals. Firms that are not classified as earnings managers report reversals which explain future profitability, whereas earnings managers' reversal recognitions are negatively related to future performance.

5. CONCLUSION

This study tests the motivations to undertake the reversal of impairment with respect to FRS 136 in Malaysia. We follow a paired sample approach where reversal firms are matched with non-reversal firms on the basis of size and industry class. We document that in the year of the reversal, firms that reverse all or part of an impairment charge perform better than their matched firms as measured by their ROE. This result holds after adjusting earnings for reversals. The levels of abnormal working capital accruals of both groups are similar. Thus, on average there is no evidence that reversal firms manage earnings more than those who do not undertake reversals. We conclude that in general the evidence points to Malaysian firms being motivated to reverse impairments due to the altered economic circumstances that pertain to their previously impaired assets.

However, we note that reversal firms have higher impairment balances than control firms. We suspect that not all reversals are a result of managers appropriately responding to a recovery in the value of impaired assets and some may be due to earnings management. Thus, we partition the reversal firms into potential earnings managers and firms that are not managing earnings. For firms we deem not be managing earnings we confirm that the reversal of impairment accruals are positively related to the future profitability. In contrast the reversals of firms classified as earnings managers are negatively related to future firm performance. Thus, the information content of the reversal of impairment charges is conditional on indications of the existence of earnings management in the firm.

The findings of this study contribute to and extend the literature on earnings management using specific accruals. Unlike prior research on impairment reversals, our findings provide evidence that reversal firms on average recognize the unrealized gain that reflects the changes in non-current asset values. Thus, the discretionary element provided in FRS 136 allows managers to communicate their expectations about current and future firm performance and this is the dominant motivation for the reversal of impairment charges in Malaysia.

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