

Creative Accounting around Contemporaneous Involuntary Bank Mergers and Acquisitions, and Non-Routine Board Changes

Asogwa, Cosmas.I¹ Chukwuma, Joseph.N² Edeh, Jude, K² Anyakoha, Chukwunonye. N²
Madu, Maureen. A²

1. Department of Accountancy, University of Nigeria Enugu Campus, Nigeria

2. Department of Vocational Teacher Education, University of Nigeria, Nsukka, Nigeria

Abstract

This paper examines the magnitude and direction of creative accounting following contemporaneous mergers and acquisitions consummated under duress, and abnormal corporate board changes taking evidence from Nigeria. But most importantly, the paper determines whether any likely resultant abnormal accrual following corporate acquisitions can be unconsciously normalized by ‘big bath’ accounting players following contemporaneous non-routine board leader replacement. Evidence has shown that following acquisitions, managers can engage in income-increasing management on one hand. On the other hand, new CEOs can give earnings a ‘big’ downward ‘bath’ blaming their predecessors for the poor performance while pursuing personal contractual performance benefit. Hence, within extensive researches already carried out on the impacts of acquisitions and board replacement on creative accounting, there remains unanswered question of the extent of accrual manipulation when the two events occur simultaneously. Drawing heavily from Jones and Dechow models in estimating normal accrual, normal cash flow from operations and both discretionary accrual and cash flow, we report consistent with extant literatures, that under consolidation duress, the victim firms engage in a significant discretionary income-increasing manipulation. Our study also confirms that significant downward accrual management follows corporate board changes in Nigeria. However, the board changes that follow consolidation restructuring limit the persistence of the abnormal accrual in the end. We find that the ‘Big bath’ accounting players reverse although unconsciously a significant proportion of the upward managed accrual from opportunistic perspective. The ratio of pre consolidation accrual hiking to post-consolidation board changes reversal is 3:2, which indicates 67% normalization for stock based acquisitions. For cash based acquisitions however, the reversal is much lower. Our findings suggest that where abnormal earnings is highly suspected following involuntary acquisitions, board restructuring that will lead to new managers could help in correcting or reversing significant proportion of the accrual abnormality.

Keywords: Discretionary Accounting, Consolidations, Earnings management, Mergers and acquisitions, Accrual

Introduction

The past few years have witnessed significant bank mergers and acquisitions with evidence of rising contemporaneous board changes that are regulatory in nature. While bank mergers and acquisitions are targeted towards solidifying the weighted asset bases to help absorb any likely insolvency threat, there has been a rising concern that the phenomena encourage earnings management or creative accounting. Similarly, because mergers and acquisitions at times precede corporate restructuring, the phenomena have also evoked significant board turnover, which as well has the potential of encouraging incoming executive officers with private interest to manipulate earnings while blaming their predecessors—a phenomenon called ‘big bath’ accounting as suggested originally in Moore (1983). The purpose of this study is, therefore, to examine the magnitude and direction of accrual management from the context of contemporaneous involuntary acquisition decisions, and non-routine board changes, and then be able to determine whether the interaction of the likely inverse relationship could actually net off to the extent of normalizing the abnormal accrual in the post-acquisitions and board turnover periods.

Earnings management has been defined by Healy and Wahley (1999) as that which occurs “when managers use judgment in financial reporting and in structuring transactions to alter financial reports either to mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting number”. From the perspective of acquisitions, there has been real documentary evidence that significant earnings management follows mergers and acquisitions as extensively discussed in Erickson and Wang (1999), and board changes as previously pointed out in Moore (1973) and investigated in Mark and Liang, (2010). Comparatively, the discretionary accrual relationship between the two scenarios is in an opposite direction. That is, while potential outgoing managers have the tendency to manage accrual upward following acquisitions; potential incoming managers manage accrual downward following board changes. For acquisition consummated voluntarily, an incentive to report higher earnings during acquisitions boards on the managers’ desire to obtain stock exchange benefits and sustain higher stock prices due to the association between executive pay and performance goal realization according to extant literatures. Following the study of Erickson and Wang (1999), and Louis (2004), several firms have managed accrual to obtain stock benefits

around corporate acquisitions. For instance, they found that among several US firms, earnings management heavily occurs prior to their mergers and acquisitions particularly when the acquisitions involve share-for-share exchange deals. In another instance, among the Japanese firms, managers manipulated earnings prior to consummating mergers and acquisitions to obtain share for share advantage.

Although this evidence of upward accrual manipulation following acquisitions can provide useful information to investors, we suspect that there could be little likelihood that this abnormal accrual will persist in the future where acquisitions bring in new board leaders. This is because there is documentary strong evidence that during board changes, incoming CEOs stripe earnings of normal accrual to obtain a private gain in the future in several studies such as Moore (1973); Wells (2002), and Mark and Liang, (2010). It is arguable that this trade-off relationship can significantly reverse abnormal accrual and normalize spurious earnings following mergers and acquisitions. If this anticipated relationship is significant in normalizing abnormal earnings, then it has significant implications for policy makers, who view mergers and acquisitions as gate ways for misleading investors even in the short run. This suggests that there will be a need to rethink our earnings management model as a guide for our decisions particularly in Nigeria where significant mergers and acquisitions with contemporaneous board changes have taken place within the past decade. Unfortunately, these phenomena more or less have been involuntary and there has remained little or no evidence on how managers, incoming and outgoing board leaders contemporaneously manage earnings around the involuntary events in Nigeria.

Mergers and acquisitions are really complex phenomena usually targeted towards aligning the consummating firms with risk weighted assets to save particularly investors and creditors from the risks associated with corporate failures. This means, for the regulators, the main purpose of forcing firms to merge is to solidify them against destroying investors' stakes. Purgaliya and Vjih (2009) discovered that the phenomena are important events associated with the creation, destruction and redistribution of shareholders' wealth. This accounts for perhaps why in most cases the measures to achieve such alignment could be urgent and mandatory leading to the victim firms merging involuntarily to meet the demand. Take for instance; firms in Nigeria have involuntarily merged to the extent that 89 firms out of pressure from regulatory authority merged into few mega firms. These were involuntary mergers and acquisitions, which were not strategic. Involuntary mergers and acquisitions are usually consummated under duress to avoid a liquidation penalty. The regulation in Nigeria has always been merge, recapitalize or be liquidated. Banks have always preferred to merge rather than being liquidated. However, the queer issue emerging in these kinds of involuntary events is that in the course of the consummations, managers could engage in earnings management for various reasons. First, they can cook their books not only to influence the outcome to the benefit of some stakeholders, but also to enhance capital in order to meet the upward capital review demand. Second, they can engage in discretionary accrual to achieve future selfish compensation advantage. Finally, they can embark on early manipulation to leverage their capital to meet the floor capital requirement and escape default risk like liquidation threat particularly if they are not willing to merge with any bank.

While the incumbent managers may have manipulated the accounting information to avoid liquidation threat, the incoming managers may have another strategy targeted toward servicing their selfish aims. If this desire downplays on earnings, it could normalize the previously abnormal earnings following the acquisitions. Previous reports on the likelihood of reversing abnormal accrual concentrated on the role of performance news in the following year as investigated in the studies of Pyung et al (2015) and Sloan (1996). Pyung et al (2015) document that earnings related news is very influential in correcting accrual. However, they revealed that earnings could be corrected without earnings performance news. Our study therefore investigates the likelihood of accrual correction through interaction of upward accrual by former CEOs and new CEOs motivated by the desire for performance contractual benefit. These opportunistic individuals engage in a 'big bath' accounting while blaming their predecessors for the charade poor performance. Because of the reversible nature of accrual, they can make higher provision for depreciation that can counter the previous under provision by the former managers to obtain share for share benefits. Therefore, our study is in two dimensions and contributes to literature as such. First, we investigate the direction and the extent of discretionary accrual following involuntary acquisitions period of firms and second, we determine whether the direction could be reversed by incoming CEOs where restructuring brings them in board leadership. Although this work draws largely from other related studies such as Erickson and Wang (1999) and Louis (2004) in terms of discretionary accrual around mergers and acquisitions, and the work of Pyung et al (2015) and Sloan (1996) in terms of accrual corrections, it makes a difference and significantly contributes to literatures by being among the first to examine the direction and magnitude of discretionary accrual following involuntary acquisitions and board turnover.

In the remainder of the paper, we shall be dealing with sections, which involve literature review and hypotheses development, research methodology, univariate and multivariate tests, and discussion of the results.

Literature Review Based on Specific Objectives and Hypotheses Development.

Earnings management around Mergers and Acquisitions Stock-for-Stock and Cash Deals

The main objective of this review is to examine what the previous researchers have found as it affects earnings management around mergers and acquisitions. The summary of this review will lead us into postulation of our specific hypotheses.

Investors have found that earnings management can trail mergers and acquisitions particularly when the acquisitions are voluntary. For instance, Erickson and Wang (1999) found that among US firms, managers increase earnings by means of managing accrual to obtain advantage of stock-for-stock benefits. If the acquirers manage earnings upward, the shareholders fund will increase. This retained earnings, which forms a part of equity can be converted to shares prior to mergers and acquisitions. This will increase the number of stock exchangeable with the acquired. This means when acquisition involves stock for stock exchange deals, earnings management takes an upward direction. Erickson and Wang (1999) and Louis (2004) confirmed this position. However, they found that when mergers and acquisitions involve cash deals, the direction is neither positive nor negative, but zero. This suggests that there could be no earnings management following mergers and acquisitions when the cost of acquisitions involves cash. A couple of studies in this regard such as Heron and Lie (2002) and Purgaliya and Vijh (2009), show that the possibility of earnings management following stock-for-stock exchange mergers is due largely to estimation error. From their studies when the accrual estimation is properly done, there could be no earnings management around consolidation. The above finding involves strategic acquisitions where managers have in mind the maximization of shareholders' value. In an involuntary mergers and acquisitions, firms are expected to merge not just to maximize shareholders value but also and mainly to escape liquidation option. Hence, we expect to find significant earnings management around this kind of consolidation. First, they can engage in earnings management to take advantage of share for share exchange. Second, they can manage earnings to increase shareholders' fund to leverage capital to meet the capital demand, which will be finalized through consumption. In this case, we expect that even when the acquisition involves outright cash payment, they can engage in a significant discretionary accounting if not for managers to maximize their personal interests, then to increase reserves to meet the minimum floor capital demand. Based on the above expositions, we postulate the following hypotheses stated in the null.

H1: Significant upward discretionary accounting does not occur when mergers and acquisitions are involuntary and are based on stock-for-stock exchange.

H2: When acquisitions are involuntary and cash based, significant upward discretionary accounting does not occur.

Earnings Management around Board Turnover

Starting from Enron, WorldCom failures, and Nigerian banks' financial crises that led to the loss of millions of dollars and Naira, emphasis has been led to corporate governance. One such governance mechanism was to shorten the tenure of CEOs. This shortage has however led to more CEOs' turnover, which has led to another complication of earnings management. Originally, from the context of corporate board changes, Moore (1973) has identified although anecdotal in nature a game among new CEOs where they discretionarily give earnings a downward 'big bath' through accrual manipulations (Graham et al 2005) and/or real activity manipulations (Roychowdhury 2006) to purchase charade future growth for enhancement of their compensation packages. This they often do blaming their predecessors because CEOs know that few months following their incumbency, expectations from shareholders would be low. However, subsequently the expectation will rise in the future. Therefore, in the future when the expectation would rise, they would reverse the accrual or real activity manipulated thereby falsely enhancing the firms' value and their rewards. Many investors have been hoodwinked of their hard earned-income because of the CEOs use of their managerial latitudes to play the game at their favor (Ramzi 2009). Based on this realization, there has been a growing concern in relation to how the new board leaders manage earnings. The prevailing opinion is that if the change is non-routine for instance because of sacking, mergers and acquisitions or death of incumbent CEOs, the incoming CEOs would likely manage earnings downward blaming such poor performance on their predecessors (Well 2002). Mark and Liang (2009) found that if the change is contemporaneous with chairpersons, downward management of earnings could occur. Paul et al (2013) found that significant real earnings management follows both routine and non-routine CEOs' changes if the manipulation is based on real activities rather than accrual. Evidence also shows that new CEOs manage earnings downward if the change is forced, but engage in upward big bath if they are recruited from outside. The interesting thing to note in these literatures is that there is the presence of earnings management following board changes. Having established such, we argue that this behavior of new CEOs could correct the previously upward managed earnings during acquisitions to obtain stock-for-stock advantage. Our major interest boards on whether the incoming CEOs will engage in discretionary accounting that will reverse the earnings managed upward by the outgoing CEOs during mergers and acquisitions to benefit from stock for stock exchange or to leverage earnings to enhance their firms' capital standing. Previous literatures on accrual mispricing correction have been focused on performance news. Pyung et al (2015) found that clustering returns on news announcement is consistent with the financial press

revealing information valuable for the correction of accrual mispricing. They discovered that earnings-related news is more influential in the correction process than non-earnings news. Sloan (1996) investigated the role of news in accrual correction. He provides evidence according to that because investors fixate on bottom-line earnings, they overvalue firms with high accrual and undervalue firms with low accrual. Through his study, he according to Pyung et al (2015) found that a significant portion of the resulting mispricing is corrected during the following year. He established that nearly 40% of the correction in the first subsequent year is concentrated around earnings announcement. The question now arising that depicts research gap is what motivates the news and who makes the news? Accrual correction could not just be mechanical that. In our argument, we connect desire for contractual benefit as a driving force for managers managing earnings downward and correcting accrual mispricing. Therefore, since there is clear evidence of 'big bath' accounting by incoming board leaders, based on our review, we postulate the third null hypothesis as follows.

H3: Outgoing managers will always manage earnings upward following mergers and acquisitions restructuring, but if the acquisitions involve board changes, the new managers engages in big bath accounting that will counter the previously managed earnings by the outgoing CEOs.

Empirical Test

Research Design and Sample Selection

We made use of ex-post facto research design since the event under investigation has taken place. The advantage of this design is that it does not permit the manipulation of domain variables. Hence, it eschews researcher's bias. Following Dechow et al (1995), who found that rather than using firm time series data in estimating the model, industry data could be used. Hence, we used industry data of all the banks that were involved in involuntary mergers and acquisitions. We took our sample of involuntary consolidations from BGL Equity Report Database and Nigerian Capital Market Bulletins of various volumes. Although financial firms have gross revenue different from the normal trading firms, we select all the 24 banks that consolidated under duress, we adjust the earnings management detection model in the real analysis as the application of Jones (1991) model and real activity manipulation detection model of Dechow et al (1998) and Roychowdhury (2006), which we adopted in our analysis are based mainly on trading firms rather than financial service firms. One thing is clear about studies involving consolidations. It always suffers from poor sample representation but the poor representation does not always impair the result. This is expected to be high when it involves involuntary consolidations as few firms have been pressured to merge by regulations. Expectedly, we sampled through purposive sampling technique only 24 banks about which there is clear evidence of involuntary consolidations based on our observation of annual financial report of several firms between the periods 1996 and 2014. The industry's data chosen between 1995 and 2005 constituted the estimation period data for normal accrual following Jones (1991) requirement. Following Dechow et al (1995), we switched off the estimation periods by assigning the value 0 to them while we assigned value 1 to the event years in this case period from 2006 to 2014, which are periods for most firms that consummated under duress with contemporaneous board changes. Since our concern in this paper is to determine the discretionary accrual from involuntary acquisition perspective and to determine if the contemporaneous board changes can correct the accrual anomaly, we featured board turnover. Firms that consolidated involuntarily and as well carried out post consolidation board changes were assigned the value 1. Otherwise, we switched them off by assigning zero to them.

Earnings Management Detection Models, Model Specifications and Variable Definitions

There are several models scholars have formulated in an attempt to detect earnings management. The most famous ones are Healey (1985), DeAngelo (1986) Jones (1991), Dechow et al (1995) and models. Based on the previous extant literatures and theoretical reviews, we adopted both Jones (1991) and Dechow et al (1995 & 1998) models. Therefore, our analysis will be based on the Jones (1991) models and Dechow et al (1998) models. We adopted Jones model because according to Dechow et al (1995), when compared with Healey and DeAngelo models, Jones model has much more potency of detecting discretionary accrual. Researchers apply Dechow et al (1998) in detecting discretionary cash flow due to earnings manipulation through real activities. Roychowdhury (2006) confirms the efficiency of this model in detecting earnings manipulation through real activity manipulations.

Jones model is based on a linear regression where researchers can regress change in sales (ΔREV) and property, plant and equipment (PPE) on total accrual. Total Accrual is determined from the balance sheet or statement of income. The model predicts normal accrual by regressing up to 10 years firm's specific data or industries' data during an estimation period relating to changes in sales to control for current accrual (working-capital accrual) and changes in PPE to control for accrual due to depreciation and amortization. The estimated normal accrual is then compared to the total accrual from the balance sheet to determine the level of discretionary accrual involved. The model deflates all the variables including the constant with total assets lagged one year. The difference between the total accrual and the predicted normal accrual is the discretionary accrual. The traditional Jones model is given thus:

$$\Delta TACC_t = \beta_0 + \beta_1 \Delta REV + \beta_2 PPE + \epsilon \quad (1)$$

$\Delta TACC_t$ = change in total accrual at the year t deflated by total gross assets at the year t-1. ΔREV equals change in sales at year t, which captures current accrual from sales. PPE controls for provision for depreciation and amortization. However, Dechow et al (1995) has adjusted the model to remove the bias that will arise due to changes in receivables that are not due to discretionary accounting. The adjusted model, which Jones accepted is:

$$\Delta TACC_t = \beta_0 + \beta_1 (\Delta REV - \Delta REC) + \beta_2 PPE + \epsilon \quad (2)$$

All the variables are deflated by lagged total asset at t-1. $\Delta TACC$ is change in total accrual determined from balance sheet thus: $TACC = \Delta CA_t - \Delta CL_t - \Delta CASH + \Delta STD - DEP_t$

$TACC$; Total Accrual; ΔCA = Change in Current Assets; ΔCL = Change in Current Liabilities; $\Delta CASH$ = Change in Cash and Cash Equivalent; ΔSTD = Change in Debt included in Current Liabilities; DEP = Depreciation and Amortization Expense and ΔREC is the change in receivables. ϵ is the residual. β s are the coefficients of the variables. Therefore, from the above the normal discretionary accruals will be determined using the prediction model:

$$\Delta TACC_t = \alpha_0 + \alpha_1 \Delta REV + \alpha_2 PPE \quad (3)$$

α_0 , α_1 and α_2 are estimators of β_0 , β_1 and β_2 . The discretionary accrual is then determined by subtracting the non-discretionary accruals from the total accruals. Following several scholars such as Dechow et al (1995), and Kothari et al (2005), we shall carry out a two stage regression analysis. First regression is to determine the discretionary accrual as we have already demonstrated above. The second is to regress the variable of interest (Ω) on the discretionary accrual (D). The model, following Dechow et al (1995), takes the form thus:

$$D_{it} = \alpha + \beta_1 \Omega_{it} + \beta_2 \delta \epsilon \quad (4)$$

We test for discretionary accounting following involuntary mergers and acquisitions by estimating the coefficient of Ω_{it} , which is β . Ω_{it} is the partitioning variable in this context involuntary mergers and acquisitions, and board turnover. δ represent the control variables which also influence discretionary accrual. Since our study pools data over 18 years between observations and estimations, we set Ω_{it} to be equal to 1 if the observation is from the event period. However, if the observation is from the estimation period, we set the partitioning variable to zero following Dechow et al (1995). The coefficient on Ω_{it} provides the estimate of the earnings management in response to the variable Ω_{it} . If the coefficients are positive, the influence is then to increase discretionary accrual. If, however, the sign is negative, the influence of the variable on the discretionary accrual is to decrease it. The probability associated with β s will determine whether the influence is statistically significant or not. If significant, the p-value is expected to be less or equal to 5%. In this case, we shall reject the null that there is no discretionary accounting following involuntary acquisitions in response to the partitioning variable Ω_{it} . Therefore, our model-equation 4-is specified thus:

$$Disc_{it} = \alpha + \beta_{1i} mer + \beta_{2i} \ln vaq_t + \beta_{3i} BTR_{it} * mer + \beta_{4i} \ln VSK + \beta_{5i} SZ_{it} + \beta_{6i} ROAE_{it} + \beta_{7i} CFO_{it} + \beta_{8i} AQ_{it} + \beta_{9i} DBT_{it} + \beta_{10i} OS_{it} + \beta_{11i} BDS_{it} + \beta_{12i} PNED_{it} + \beta_{13i} Loss + \epsilon \quad (5)$$

Where, α is a dependent variable's ($Disc_{it}$) intercept, which captures other controlled variables not included in the model. β_{1i} through β_{13i} are the explanatory variables' coefficients. $Disc_{it}$ is the discretionary accrual at year t for firm i, mer is a dummy variable that captures the effect of discretionary accrual for firms that merged under duress and used stock as a means of settlement. It takes the value 1 if the involuntary consolidation was stock based. Otherwise, it takes zero. $btr_{it} * mer$ is the interaction between board turnover dummy variable and consolidation under duress involving stock for stock exchange. The outcome of this variable determines whether we would accept or reject our third hypothesis. btr_{it} as a variable takes the value 1 if the involuntary merger resulted in a change of a CEO and otherwise, 0. sz_{it} is an explanatory variable that controls for market size measured by the stock market prices multiplied by the total number of shares divided by the total gross asset for the current year. $roae_{it}$ is the performance control variable, which is defined as return on average equity. That is, profit after tax but before extra-ordinary items divided by shareholders' fund. Evidence from Kothari et al (2005) has shown that firm with high $roae$ will less likely involve in earnings management than firms that are at low profit margin. cfo is a control variable measuring the level of earnings management due to the level of cash flow from operating activities. It takes value 1 if the firm has negative cash flow from operations otherwise it takes 0. aq_{it} controls for audit quality. The higher the quality of audit is less the likelihood that managers will engage in earnings management (Defond and Jiambalvo, 1991). Previous researches indicate that firms audited by the BIG 4 have more audit quality service than those not audited by the BIG 4. Hence, we assign 1 for those firms under our sample that are audited by the BIG 4. Otherwise, we assigned 0 for the firms. dbt_{it} : This is the debt to book value ratio that controls for debt covenant. Firms with high debt ratio are likely to manage earnings upward to hide the reality from the creditor who may demand repayment (Watts and Zimmerman, 1986). Managing earnings upward will increase the book value thereby reducing the ratio. $ostri_{it}$: This measures the influence of ownership structure on firm management. We measure this by the level of minority shareholders. The higher the level of minority shareholders is the higher the level of significant influence and the lower the level of controlling influence. How both concentrate can

influence the level of information to be disclosed. Hence, they both can influence firms' earnings management behavior. The higher the level of institutional investors is the lower the likelihood of earnings management. This variable is expected to contain the level of earnings management. **BDSz_{it}** controls for firm characteristic defined in terms of board size. This variable will likely constrain discretionary accounting behavior of CEOs if the number of board members increases. **pnedi_{it}**: We feature this variable following Ramzi (2009). It controls for the presence of independent non-executive board members. Previous research from Ramzi (2009) shows that the variable limits the managers' discretionary accounting behavior. **Loss** is a variable featured to capture the earnings management behavior of firm with negative **roae**. Firms with losses are more likely to engage in earnings management to cover the loss than those that have positive earnings. We assign 1 to firms with **roae** negative otherwise, they receive 0. ϵ is the estimation error.

Real Activity Manipulation Model for Real Discretionary Cash Flow Detection

Major model relating to real activity manipulation has been formulated by Dechow et al (1998). The model expresses in a regression the relationship between Cash Flow from Operation (CFO), sales and changes in sales. With the estimation coefficient determined, the normal CFO will be determined at firm level. The different between the actual CFO from balance sheet and the expected CFO is the discretionary CFO. The Discretionary CFO measures the level real activity manipulation. The model is stated thus:

$$cfo = \alpha_0 + \alpha_1 + \beta_1 S_t + \beta_2 \Delta S_t + \epsilon_t \quad (6)$$

The variables except α_0 are deflated by the lagged total asset variable at time t-1. S is the revenue or sales during the current year. ΔS is the marginal value of the current year's sale and the previous year's sales. **cfo** equals Cash flow from Operation at year t. That is, it measures the difference between the two consecutive sales at period t and t-1. From the above model 15, we estimate the level of discretionary cash flow from operation following acquisition by cash. We assume that when acquisition is by cash, real activity will be manipulated rather than accrual. Therefore, we specify our model thus:

$$Dcfo_{it} = \alpha + \beta_{1it} mercash + \beta_{2it} btr_{it} * mercash + \beta_{3it} ivaq_{it} + \beta_{4it} SZ_{it} + \beta_{5it} roae_{it} + \beta_{6it} cfo_{it} + \beta_{7it} aq_{it} + \beta_{8it} dbt_{it} + \beta_{9it} ostr_{it} + \beta_{10it} bdsz_{it} + \beta_{11it} pnedi_{it} + \beta_{12it} Loss + \epsilon \quad (7)$$

Where **Dcfo** is the discretionary cash flow from operation deflated with lagged gross asset at year t-1. Other variables are as previously defined in equation 5. However, **mercash** equals **mer⁻¹** taking value 1 for acquisitions involving cash and otherwise zero. This shows we switched off firms whose method of acquisition is by stock exchange as our target is cashed-based acquisitions where manipulation of real activity can impact on real cash flow from operation.

Results

Univariate Analysis

We start the discussion of the result of this paper by providing the univariate result relating to descriptive statistics and correlation matrix. Our main result discussion will be based on the multivariate analyses from where we would determine our postulated hypotheses.

Table 3: Descriptive Statistics

<i>Variables</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Sum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Disc</i>	24	.04	11.27	62.8	2.617	2.78039
<i>Cfo</i>	24	.00	1.00	11.0	.4583	.50898
<i>Roae</i>	24	2.07	27.51	303.	12.66	6.47069
<i>Sz</i>	24	.00	2.40	11.1	.4630	.51806

Source; Author Data used from BGL Database, CBN Database

Table 3; Descriptive Statistics Continues

<i>Variables</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Sum</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>Btr</i>	24	.00	1.00	20.0	.8333	.38069
<i>Aq</i>	24	.00	1.00	16.0	.6667	.48154
<i>Pned</i>	24	.00	1.00	17.0	.7083	.46431
<i>Dbt</i>	24	.01	17.27	85.3	3.556	4.76234
<i>Ostr</i>	24	.00	7.39	46.9	1.954	2.20578
<i>Bdsz</i>	24	2.00	16.00	206.	8.583	3.74069
<i>Mer</i>	24	.00	1.00	17.0	.7083	.46431
<i>Loss</i>	24	.00	1.00	12.0	.5000	.51075
Valid N (listwise)	24					

Source: Author; Data used from BGL Database, CBN Database

DISC= Discretionary Accrual Computed as the difference between total accrual from the balance and estimated normal accrual using Jones Model; *MER*=variable representing consolidation under duress and involving stock for stock exchange. *CFO*= cash Flow from Operation; *LOSS*=loss; taking real value when the consolidating firm is making loss. *BDSZ*= board size; *SZ*=market capitalization measured as the ratio of total market value to book value. *PNEED*; this is a variable representing the presence of non-executive direction. *ROAE*=a measure of performance-return on average equity. *BDT*=variable for debt covenant; *OSTR*= ownership structure.

The maximum value of discretionary accrual by the merged firms is 11.27 while the minimum is .04. Compared to the mean value of 2.6177, we can infer that significant discretionary accounting occurred among the consolidating firms within the suspecting period. Although, we cannot judge the influence of board turnover on this high likelihood accrual manipulation, we can reasonably assume that the high level may be reversed by the 'big bath' accounting behavior of incoming CEOs. Our main analysis will centre on the multivariate result. Meanwhile, let us look at the correlation matrix below.

Table 5: Pearson Correlation

Var.	1	2	3	4	5	6	7	8	9	10	11	12
Disc	1	.50*	.38	.48*	-.4	-.2	.02	.44*	.22	.25	.14	.45*
Cfo		.01	.06	.03	.08	.2	.91	.03	.28	.22	.49	.02
		1	.36	.51*	-.3	-.2	.03	.39	.07	.26	-.1	.58**
			.08	.010	.21	.26	.85	.057	.72	.21	.49	.003
			1	.56**	.29	.17	.34	.004	.5*	.31	.06	.43*

Source: The Author; **Pearson Correlation *** Significant at 1%; ** Significant at 5%; * Significant at 10%**. Variables are as previously explained. Please, refer to table 1 above or variable definition for details.

Table 5: Pearson Correlation Continues

Var.	1	2	3	4	5	6	7	8	9	10	11	12	
Roe				.01	.16	.40	.10	.98	.01	.12	.75	.03	
Sz				1	-.1	-.3	.16	.45*	.5**	.5*	-.1	.43*	
Btr					.80	.15	.43	.02	.01	.02	.63	.03	
Aq					1	.39	.21	-.5*	-.1	-.2	.5*	.00	
Pned						.05	.34	.01	.80	.34	.02	1.0	
Dbt						1	.13	-.5**	-.1	-.2	.13	-.17	
Ostr							.54	.01	.48	.24	.54	.40	
Bdsz							1	-.26	.07	-.3	.19	.09	
Mer								.21	.71	.19	.36	.67	
Loss								1	.37	.22	-.1	.21	
									.07	.29	.53	.30	
									1	.4*	-.3	.15	
										.04	.11	.46	
										1	-.3	.36	
											.12	.08	
											1	-.27	
												.19	
													1

Pearson Correlation

***** Significant at 1%; ** Significant at 5%; * Significant at 10%**

Variables are as previously explained. Please, refer to table 1 above or variable definition for details.

The above table gives us good insight into the relationship between discretionary accounting, consolidation under duress and contemporaneous board replacement. First, we can see from the result that when the board changes do

not interact with consolidation, managers do not seem to manage earnings to obtain stock-for-stock exchange. However, the second consolidation variable suggests that accrual manipulation follows consolidation. We found that board decrease limit CEOs earnings management behavior as the relationship is negative.

Multivariate Results

Involuntary Consolidation and Contemporaneous Board Turnover Analysis

The result of this analysis is presented in table 4 below. We used 432 firm years in our analysis. Based on the multivariate result presented in table 4 below, we shall test the first and third hypotheses (H1) and (H3) we postulated respectively that ‘*upward discretionary accounting does not occur when mergers and acquisitions are involuntary and are based on stock-for-stock exchange*’, and ‘*New CEOs that come along with mergers and acquisitions restructuring will not reverse the magnitude of earnings manipulation the outgoing CEOs perpetrated by managing earnings downward to blame the acquired outgoing managers for poor performance when acquisition is consummated under duress*’. We use the result of the following discretionary accrual multiple regression analysis in our tests. The key variables of interests are *BTR_{it}*mer*, and *mer*. We shall accept or reject our hypotheses based on the direction of their coefficients. Negative vectors indicate that the variables limit and reverse discretionary accrual following consolidations under duress and/or board replacement. The main testing model is given thus:

$$Disc_{it} = \alpha + \beta_{1it}mer + \beta_{2it}btr_{it} * mer + \beta_{3it}btr + \beta_{4it}sz_{it} + \beta_{5it}roae_{it} + \beta_{6it}cfo_{it} + \beta_{7it}aq_{it} + \beta_{8it}dbt_{it} + \beta_{9it}ostr_{it} + \beta_{9it}bdsz_{it} + \beta_{10it}pned_{it} + \beta_{11it}Loss + \epsilon \tag{8}$$

Table 4: Involuntary Consolidation and Contemporaneous Board Turnover Multivariate Analysis

Dependent Variable: Disc; Method of Analysis: Least Squares; Sample 24 banks				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
Variable	Coef.	Std. Error	t-Statistic	Prob.
<i>mer</i>	9.419530	1.924013	4.89577***	0.0005
<i>Btr</i>	-3.582842	1.791381	-2.000045*	0.0708
<i>mer*btr</i>	-6.264591	2.373089	-2.63984**	0.0230
<i>Cfo</i>	0.623594	1.235774	0.504618	0.6238
<i>roae</i>	-0.034396	0.113142	-0.304004	0.7668
<i>Sz</i>	1.729491	1.144710	1.510855*	0.1090
<i>Aq</i>	0.667913	1.034271	0.645781	0.5317
<i>pned</i>	-0.250931	0.895864	-0.280099	0.7846
<i>dbt</i>	-0.166053	0.137308	-1.209349	0.2519
<i>ostr</i>	0.492793	0.387754	1.270890	0.2300

*** Significant at 1%

** Significant at 5%

* Significant at 10%

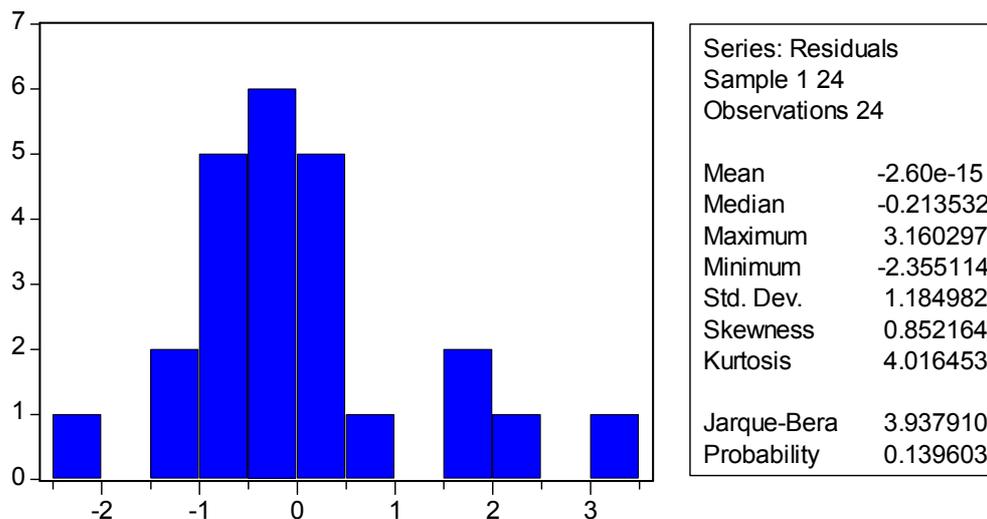
Table 4: Involuntary Consolidation and Contemporaneous Board Turnover Multivariate Analysis Continues

Dependent Variable: Disc; Method of Analysis: Least Squares; Sample 24 banks				
White Heteroskedasticity-Consistent Standard Errors & Covariance				
<i>bdsz</i>	-0.071628	0.205675	-0.348260	0.7342
<i>Loss</i>	2.138272	1.531261	1.396413*	0.1001
<i>A</i>	1.362567	2.563080	0.531613	0.6056
<i>R-squared</i>	0.818360	Mean dependent var		2.617713
<i>Adjusted R-squared</i>	0.620207	S.D. dependent var		2.780390
<i>S.E. of regression</i>	1.713481	Akaike info criterion		4.218105
<i>Sum squared resid</i>	32.29617	Schwarz criterion		4.856218
<i>Log likelihood</i>	-37.61726	F-statistic		4.129944
<i>Durbin-Watson stat</i>	2.045459	Prob(F-statistic)		0.012706

Source: Author; Data used from CBN Statistical Bulletin, AfricanFinancial.com, BGL Database and Financial Statement of the sampled firms. Variables are as previously defined. Please refer to variable definition section.

Before, we discuss the above result; we would like to examine the residual to ascertain the robustness of our multivariate result. We present the result in figure 1 below.

Figure 1: Residual Test



Source: Author

The Jarque-Bera statistic indicates that the residual is normal and hence the outcome of the analysis will not lead to bias conclusion. The p-value (0.1386) is greater than 5% benchmark. Hence, we conclude that the residual is normally distributed.

Discussion of Accrual Manipulation around Involuntary stock for stock Mergers and Acquisitions

In table 4, we can see that the analysis shows that managers significantly manipulate accrual following mergers and acquisitions (coefficient=9.419530; p-value <1%). The variable that captures this effect is *mer*. The coefficient is positive and the positive sign points to the fact that managers are smoothening earnings with accrual to obtain share for share advantage. Based on this we reject our first hypothesis and conclude that significant earnings management occurs following involuntary acquisitions when the means of settlement involves stock for stock exchanges. This finding is consistent with the work of Erickson and Wang (1999) and Louis (2004) who found that, for instance in US, managers manipulate earnings to obtain share for share advantage. Our finding is however not consistent with findings of Heron and Lie (2002) and Purgaliya and Vijh (2009) who found that under good estimation model, there was no evidence of discretionary accounting following acquisitions for the purpose of benefiting from stock-for-stock exchange. We used strong estimation model. This can be seen from the high value of the R-Squared-0.82. Yet, we found that prior to consummating mergers, managers skewed earnings to favor a sect of investors. This favor relates to manipulating earnings to give the acquiring investors the chances of obtaining advantage of stock-for-stock exchange.

Discussion on Discretionary Accrual, Involuntary Mergers and Acquisitions, and Contemporaneous Board Turnover

In our third hypothesis (H3), we made an assumption that when CEOs manage earnings upward, change in board leadership as a result of consolidation restructuring can correct or reverse the anomaly by engaging in a ‘big bath’ accounting. Already, our previous alternative hypothesis that upward earnings management following mergers and acquisitions occurs has been accepted. From table 4, this level of earnings manipulated appears to be limited by income-decreasing incoming CEOs. The variable that indicates this behavior is *BTR*MER*. The interaction between board turnover and consolidation under duress negatively relates to discretionary accrual ($\beta=-6.26$). This is significant at 5%. When mergers and acquisitions are involuntary, but not interacting with board turnover the result is negative. However, the magnitude is low compared to when it interacts with involuntary consolidation. Comparing the two effects of *mer* and *btr*mer*, there is no complete reversal as the positive effect is greater than the negative effect. With this result, we reject our third null hypothesis (H3) that New CEOs that come along with mergers and acquisitions restructuring will not correct or reverse the magnitude of earnings manipulation the outgoing CEOs perpetrated by managing earnings downward to blame the acquired outgoing managers for poor performance when acquisition is consummated under duress. Therefore, we accept the alternative that when consolidation occurs with board leadership change, the likely accrual manipulated will be reversed by ‘big bath’ accounting new CEOs. Our result seems to suggest that where significant earnings management is observed following mergers and acquisitions, a change in some key officers could correct the abnormal earnings reported due to consolidations. From our result however, there seems not to be a total reversal as already announced. This

is because while CEOs are manipulating accrual upward by 9 point basis, the incoming CEOs are reversing the accrual at 6 point basis. The velocity of the accrual manipulation surpasses that of the correction by 3%. The reversal is statistically significant. However, since the relationship between the variable is not linear, the likelihood of the incoming CEOs totally offsetting the abnormal accrual exists in the long-run. The effectiveness of accrual correction due to restructuring that brings in a ‘big bath’ accounting players is more than the effectiveness of correcting the accrual by performance news as found by Pyung et al (2015) and Sloan (1996). Sloan (1996) for instance found that 40% of accrual is reversed due to counter performance news. However, when income-decreasing non-routine CEOs take the leadership, in order to maximize their future compensation, they would reverse 67% of the managed accrual by their predecessors. However, this correction appears to be temporal as they would likely reload the accrual when the time is ripe for their promotion.

In relation to other control variables, our study seems quite bizarre. First, we found that firms that are consolidating with negative cash flow do engage in incoming increasing accrual manipulations. Previous literatures report that when firms are at the border line of negative cash flow that they would likely engage in an upward discretionary accounting. Our study confirms this result as *CFO* has positive coefficient ($\beta=0.62$). However, the result is not statistically significant at 5% and 10% level. *PNED* and *BDSZ*, which represent the presence of non-executive directors and board size composition both constrain discretionary accounting, which is consistence with the extant literatures for instance (Ramzi 2009). Audit quality (*aq*) seems to be an unimportant constraint to accrual manipulation during involuntary acquisitions. Perhaps, under some pressure, the Big 4 accounting firms relax their strictness. Only this could account for why the variable yielded positive result. Our result also shows that as the number of board members increases, the earnings management behavior of consolidating firms decreases consistent with extant literatures. Board characteristics constitute a good constraint to discretionary accounting. Several scholars believe that debt covenant leads to income increasing behavior of managers. However, our present result does not appear to agree with this view under the circumstances of involuntary acquisitions. High debt does not increase earnings management. Rather, we found that the variable reduces firms’ earnings management disposition under involuntary consolidation.

Cash based Acquisition and contemporaneous Board Turnover: The Case Where Discretionary Cash Flow through Real Activity Manipulations Is Suspected.

The previous researchers found that there is no real discretionary accounting following acquisition by cash. We postulated a hypothesis to test this assertion under involuntary acquisitions where real activity manipulations have occurred. There is strong anecdotal evidence that firms can engage in real activity manipulations when acquisitions involve outright cash payment. Therefore, the essence of this analysis is to examine the extent and direction of accrual manipulation when the acquisition is cash based and resulted in real activity manipulation. We use the Dechow et al (1998) and Roychowdhury (2006) models to estimate the discretionary cash flow. We then regress the discretionary cash flow (*DCFO*) with board turnover and consolidation under duress to test the influence of the partitioning variables on the discretionary cash flow behavior of managers using the following model:

$$Dcfo_{it} = \alpha + \beta_{1i}ivaq_{it} + \beta_{2i}SZ_{it} + \beta_{3i}roae_{it} + \beta_{4i}cfo_{it} + \beta_{5i}btr_{it} * mercash + \beta_{6i}aq_{it} + \beta_{7i}dbt_{it} + \beta_{8i}ostr_{it} + \beta_{9i}bdsz_{it} + \beta_{10i}pned_{it} + \beta_{11i}mercash + \beta_{12i}Loss + \epsilon \quad (9)$$

We restate our second hypothesis (H2) that: When acquisitions are involuntary and cash based, significant upward discretionary accounting does not occur. The table 5 below provides us with the result of the analysis for the test. The main variables of interest are *mercash* and *btr*mercash*. *Mercash* is a variable that takes value 1 when acquisition is cash based. Otherwise 0, it will be switched off by assigning 0 to it. Hence, *mercash* equals the inverse of *mer* (*mer⁻¹*). However, we do not expect this relationship in terms of the effect on discretionary accrual.

Table 5: Multivariate Analysis of the Relationship between Discretionary Cash flow from Operation, Cash Based Acquisitions and Board turnover

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
<i>Aq</i>	0.687481	0.390223	1.761767	0.1529
<i>bdsz</i>	-0.090936	0.032573	-2.791787	0.0492
<i>btr*mercash</i>	-0.541727	0.522952	-1.035901	0.3588
<i>Loss</i>	0.957669	0.559971	1.710212	0.1624
<i>mercash</i>	0.997446	0.759273	1.313686	0.2592
<i>pned</i>	-0.231526	0.405280	-0.571275	0.5984
<i>Roae</i>	-0.030196	0.046480	-0.649652	0.5513
<i>Ostr</i>	0.040139	0.094493	0.424781	0.6928
<i>Cfo</i>	0.295648	0.320404	0.922736	0.4084
<i>Sz</i>	0.024248	0.024621	0.984857	0.3805
<i>A</i>	0.090830	0.464909	0.195372	0.8546
<i>R-squared</i>	0.835238	Mean dependent var		0.386000
<i>Adjusted R-squared</i>	0.423335	S.D. dependent var		0.440500

Source: Author Using E-view; Data used as outlined in table 3 and sample selection section. DCFO =discretionary cash flow from operation measuring real activity manipulation during acquisition involving cash payment.

The above table 5 shows that when acquisitions involve cash, firms manipulate real activity to impact on cash flow. Having switched of acquisition involving stock exchange, we found that firms consolidating under duress manipulated discretionary cash flow to leverage capital or to obtain benefit of lower real cash out flow during acquisitions. The coefficient of *Mercash*, which captures this behavior, is positive ($\beta=0.99$). However, the manipulation is not statistically significant (p-value > 5%). We, therefore, accept the null hypothesis (H2) that when acquisitions are involuntary and cash based, significant upward discretionary accounting does not occur despite real activity being manipulated. With board leadership change, the incoming CEOs reduce this reality but at a rate not above 55%. However, in comparison with the acquisition involving stock-for-stock exchange, the reversal is well over 66% and statistically significant at 5%. This suggests that the bulk of discretionary accounting reversal or correction will stem from acquisition involving stock swaps. Our present result is, however, inconsistent with Erickson and Wang (1999) and Louis (2004), who believe that when acquisition involves cash, that managers do not engage in an upward income manipulation at all.

Summary and Conclusion

We have, through this study, provided empirical evidence that under involuntary consolidation, firms engage in upward earnings management to obtain share for share exchange benefit on one hand and on the other hand to escape liquidation option. Likewise, when the cost of acquisition involves cash payment, firms contrary to previous findings do engage in upward earnings management through real activity manipulation. Although we found an upward discretionary accounting behavior of consolidating firms, where the activity involves change of board leaders, the incoming CEOs engage in ‘big bath’ accounting that has the potency to reverse the manipulated earnings. However, this reversal is substantial when the method of consummation is stock for stock exchange rather than cash based. We can infer that where discretionary accounting is suspected around mergers and acquisitions particularly the case of bank mergers and acquisitions involving stock for stock exchange, corporate restructuring that ushers in new board leaders could be healthy in deleting spurious accrual.

References

- Alexandra F, (2006), Earnings Management in Corporate Accounting: An Overview; Available online @Eview.anu.edu/.../ch06.pdf
- DeAngelo I (1986), Accounting Numbers as Market Valuation Substitutes; a Study of Management Buyout of Public Stockholders’ the Accounting Review, vol. 61, no.3 pp400-420
- Dechow P.M; Kothari S.P and Watts R.L (1998), The Relationship Between Earnings and Cash Flow; Journal of Accounting and Economics; 17, 145-176
- Dechow, P.M., R.G. Sloan and A.P, Sweeny (1995) Detecting Earnings management, Accounting Review 70; 193-225
- Erickson, M. and Wang, S (1999), Earnings By Acquiring Firm in Stock for Stock Mergers, Journal of Accounting and Economics 27(2) 149-176

- Graham J.R, Harvey C.R and S Rajgopal S (2005), The Economic Implications of Corporate Financial Reporting. *Journal of Accounting and Economics* 40(1); 3-73
- Healy P.P (1985), The effect of bonus schemes on accounting decision, *journal of accounting and economics* vol.,7, no.1-3 pp.85-107
- Healy P.M and Wahley J.M (1999), A Review of Earnings management Literature and Its Implications for Standard Setting, *Accounting Horizons*, Vol.13 No 114 pp. 365-383
- Heron, R and Lie, E (2002), Operating Performance and the Method of payment in Takeover, *Journal of Financial and Quantitative Analysis*, 37(1), 137-156
- Houng, N.H (ND); Do Stock-for Stock Mergers and Acquisitions Manage Earnings? Evidence from Japan, *Journal of Accounting and Public Policy*
- Jones J.J (1991), Earnings Management during import relief investigation', *Journal of Accounting Research*, Vol. 29 No. 2 pp.1
- Kothari S. P, Leone, A. J; and Wasley C.E (2005). Performance Matched Discretionary Accruals. *Journal of Accounting and Economics*. Vol 39 pp23-49
- Luo H (2004), Earnings Management and the Market Performance of Acquiring Firms, *Journal of Financial Economics*, 74(1), 121-148
- Mark, W and Liang W. W (2010), Earnings Management Following Chief Executive Officers Changes: The Effect of Contemporaneous Chairperson and Chief Financial Officer Appointments, *Accounting and Finance*; 50; 447-480
- Moore, M.L (1973), Management Changes and Discretionary Accounting Decisions, *Journal of Accounting Research*, 101-107
- Oye, A (2011). *Financial Management*, El-TODA Ventures Ltd Allafia Street, Lagos Nigeria.
- Paul G, David H and Lont, H.L (2013) Earnings Management around CEO Turnovers; University of Otago
- Pungaliya, S.R and Vijn A.M (2009), Do Acquiring Firms manage earnings? Working Paper University of Iowa
- Pyung K.k; Dan P, and Ari Y (2015), Does News Play an Important Role in Correction Process of the Accrual Anomaly, *Accounting and Finance*, 55, 497-518
- Ramzi. B (2009). Does the Presence of Independent Directors Influence Accruals Management? *The Journal of Applied Business Research*? Vol. 25
- Roychowdhury 2006 (2006), Earnings Management Through Real Activities Manipulation. *Journal of Accounting and Economics* 42: 335-370
- Schipper, K (1989). Commentary on Earnings Management, *Accounting Horizons*, Vol. 3; 19-102
- Sloan, R. G (1996), Do Stock Prices Reflect Information in Accrual and Cash Flow about Future Earnings, *Accounting Review* 71; 289-315
- Thomas J, and Zhang X (2000) Identifying Unexpected Accruals: A Comparison of Current Approaches' *Journal of Accounting and Public Policy* Vol. 19 No. 4-5, Pp. 347-376
- Vinciguerra, B and O'Reilly-Allen M, An Examination of Factors Influencing Managers' and Auditors' Assessments of the Appropriateness of an Accounting Treatment and Earnings Management Intentions, *American Business Review*
- Watts, R., and Zimmerman J.,(1986). *Positive Accounting Theory*. Prentice Hall, P.388
- Wells P (2002), Earnings Management Surrounding CEO Changes: *Accounting and Finance* 42 (2) 169-193