# Type of Earnings Management and Different Economic Consequences

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*Abstract*—**The purpose of this study is to investigate whether different types of earnings management have different effect on the firms future profitability and market value. Using multiple regressions and large sample, this study finds evidence that accrued earnings management is positive related with firms future profitability and firms market value, but real earnings management is negative related with firms future profitability and firms market value. It indicate that accrual earnings management is effective, real earnings management is aggressive in China.**

*Keywords-Earnings Management; Type; effective; aggressive; Economic Consequences*

## I. INTRODUCTION

When talk about of earnings management, the common views regard it would harm to the firms future development, damage the firms health. However, the earnings managements are not all damage the firm future value. According to prior literature, There are two views of earnings management: one view think that earnings management was effective, earnings management can improve earnings informativeness in communicating private information. The other view regard as earnings management is opportunistic, management using it to reports high earnings opportunistically to maximize his or her utility(Scott, 2000)[1]. Subramanyam(1996)[2], Gul et al.(2000)[3], and Krishnan (2003) research find that the behavior of discretionary accruals (a proxy for accrual earnings management, AEM) is consistent with the efficient perspective, because discretionary accruals have a positive and significant relationship with future profitability. On the other hand, Burgstahler and Dichev (1997)[4] and Balsam et al.(2002)[5] research evidence that the earnings management is consistent with the opportunistic perspective.

We examine the relationship between earnings management and firms future profitability and market value, in order to investigate the earnings management is efficient or opportunistic. Our research find that different types of earnings management have different effect on the firms future profitability and market value in China.

## II. LITERATURE REVIEW

### A. Prior Research on Type of Earnings Management.

Earnings management can be divided into efficient earnings management and opportunistic earnings management according to its economic consequences

(Scott,2000)[1]. On the other hand, Healy & Whalen`s(1999) earnings management definition contains AEM and REM two aspects, "earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers." Scott(2000)[1] define accrual earnings management as within the permission scope of Generally Accepted Accounting Principles, the behavior that maximize operator's own interests or (and) the company's market value through accounting policy choice. Roychowdhury(2006)[6] define real earnings management as departures from normal operational practices with the primary objective of meeting near-term earnings goals.

Meanwhile, we can use Jones or other models to decompose accruals into non-discretionary accrual and discretionary accrual; Use Roychowdhury(2006)[6] developed models to separate the normal from the abnormal levels of real operational activities as reflected in cash flows from operations (CFO), production costs, and discretionary expenditures. Since Roychowdhury's work, subsequent studies dealing with REM issues have provided evidence supporting that managers engage in real activities manipulation to meet certain earnings targets.

### B. AEM: Effective Hypothesis and Opportunistic Hypothesis

According to prior literatures, AEM can be divided into two types: efficient earnings management (i.e., to improve earnings informativeness in communicating private information) and opportunistic earnings management (i.e., management reports earnings opportunistically to maximize his/her utility) (Scott, 2000)[1]. Several studies find evidence consistent with the opportunistic perspective. Burgstahler and Dichev(1997)[4]find that management engages in earnings management to avoid reporting losses or earnings decline. Balsam et al.(2002) find a negative relationship between unexpected discretionary accruals and stock returns around the earnings announcement date, this result indicates that the market views discretionary accruals as opportunistic. In contrast, other studies find evidence that is consistent with the efficient perspective. Subramanyam(1996)[2] concludes that discretionary accruals are efficient because they have a positive and significant relationship with future profitability. This positive relationship describes the ability that discretionary accruals have to communicate information about a firm's

future profitability to the public. Gul et al. (2000)[3] and Krishnan (2003), following Subramanyam(1996)[2], also find consistent evidence.

## C. REM: Information Communicate Hypothesis and Value Damage Hypothesis

The view of "Information Communicate Hypothesis" consider real earnings management could conveying to the market a signal of better performance (Gunny, 2010). Bartov (1993) documents that managers alter real activities such as selling fixed assets to avoid debt covenant violations, suggesting one potential benefit of real earnings management to shareholders. As Roychowdhury (2006)[6] suggest, not all deviations from normal real activities are intended to avoid earnings disappointments. For example, managers may cut R&D budgets either because other long-term projects are more likely to be successful or because they are faced with decreasing returns on R&D. Gunny (2010) finds that REM is positively associated with future period earnings and cash flow performance for the firms that just meet or beat their earnings benchmarks, which indicates that these firms use REM to signal future firm prospects.

"Value Damage Hypothesis" views regard real earnings management as more likely to entail substantial costs to shareholders. Some research find that Real earnings management is an opportunistic behavior that benefits managers while impairing shareholder interests (e.g., Dechow and Sloan,1991[7]; Bens et al., 2002). Stein's (1988) prediction that real earnings management, a more costly earnings management activity that allows managers to meet earnings targets by altering real activities, thus signaling the firm's future performance. After that, Zang(2006)[8], Bhojraj et al.(2009), Leggett et al.(2009) all find evidence that REM have negative effect on firms future profitability, support the viewpoint of REM is not the optimum decision making. Using a sample of SEO firms, Mizik and Jacobson (2007) find that to temporarily inflate stock prices at the time of SEOs, managers engage in boosting reported earnings via cutting marketing expenses, but in the long run, such managerial myopia leads to a decline in stock market performance. Francis et al.(2011) find that REM has more interpretation than AEM for stock "price diving" after issue SOX. Cohen and Zarowin (2010) document significant post-SEO earnings declines that are attributable to abnormal real activities around SEOs. In addition, Zhao et al.(2012) find that abnormal real activities in the absence of just meeting earnings targets are negatively associated with firms' future performance. Kim and Sohn(2013) research find that REM is positively associated with the implied cost of equity after accounting for the effect of AEM, and the use of REM could be costly to a firm because the market sees through its cash flow consequences and is able to factor this into the increased cost of capital.

## III. HYPOTHESES DEVELOPMENT AND RESEARCH METHODOLOGY

### A. Hypotheses Development

AEM within-GAAP discretionary accounting choices are less costly and less resource-consuming. Unlike accruals management affects the output of the accounting system with no direct cash flow consequences, real earnings management generally sacrifices firms' long-run cash flows in order to inflate short-run reported earnings. Jeong-Bon Kim(2013)[9] study documents evidence that REM is positively associated with the implied cost of equity after accounting for the effect of AEM. Widely accepted view considers real activities manipulation have more harm to the firms health compared to accrued earnings management. It is said that accrued earnings management is more efficient, but real earnings management is more opportunistic. So, put forward the following hypothesis:

H1: accrued earnings management is positive related with firms future profitability and firms market value.

H2: real earnings management is negative related with firms future profitability and firms market value.

### B. Research Methodology and Research Model

Following Subramanyam (1996)[2], we use the following research model to test Hypothesis. If the coefficient on AEM(1) more than zero the H1 is confirmed, and if the coefficient on REM(r) less than zero, the H2 is confirmed.

$$FutProf_{it}/MV = a_0 + a_1DAC_{it} + a_rREM_{it} + a_3NDAC_{it} + a_4NMCFO_{it} + a_5Size_{it} + a_6Lev_{it} + \sum\lambda_jID_j + \sum kYear_k + \varepsilon_{it} \quad \text{(Model 1)}$$

$$FutProf_{it}/MV = a_0 + a_1DAC_{it} + a_2RE_{it} + a_3NDAC_{it} + a_4NMCFO_{it} + a_5Size_{it} + a_6Lev_{it} + \sum\lambda_jID_j + \sum kYear_k + \varepsilon_{it} \quad \text{(Model 2)}$$

Where: A. Dependent variables

$FutProf_{it}/MV$: Future Profitability and market value, measured by each of the following variables: (1) $OI_{t+1}$=Next year operation income; (2) $NI_{t+1}$=Next year net income; (3)$ROA_{t+1}$=next year return of asset; (4) $MV_{t+1}$=Next year market value; (5)$TQ_{t+1}$=Next year TobinQ.

B. Independent variables are as defined in Table 1

Earnings are decomposed into four variables: non-discretionary accruals (NDAC), discretionary accruals (DAC), normal CFO(NMCFO), and abnormal CFO(-abn CFO). DAC and REM is the variable of interest and if the type of earnings management is efficient, the coefficient (aa, ar) will be positive, otherwise, it will be negative. Other variables relate to firm size, Lev, ID, Year are included as control variables.

### C. Main Variables Measure

Following the previous research, we measure earnings management(EM) use different earnings management proxy that will be calculated by using different models.

#### 1) Discretionary Accruals (DAC) Proxy

We measure accrual earnings management use Discretionary Accruals (DAC) proxy that will be calculated by using the modified Jones model (Jones, 1991)[10]. This model has been found to be the most powerful in detecting earnings management among competing models (Dechow et al., 1995; Subramanyam, 1996[2]; Bartov et al.,2002[11], as well as effective (Davidson et al., 2004) and reliable(Guay et al.,1996). DeFond and Jiambalvo(1994), Subramanyam(1996),

develop the Jones time series model to the cross section model and find the measurement effect of cross section model is better than the time series model. So, this article selects cross section data perform OLS regression.

The model involves the estimation of earnings management as the difference between the firm's actual and expected accruals. Accruals are measured as the difference between reported earnings and operating cash flows, the proxy "DAC" is the difference between reported net income and operating cash flows. Expected accruals (NTACC) were computed by regressing total accruals in the firm's 2-digit SIC-code industry on total assets, revenues, property, plant, and equipment, and accounts receivable.

Intuitively, the discretionary accruals proxy will be calculated by using the flowing modified Jones model (Eq. 1):

$$DAC_{it}=ANAC_{it}=TAC_{it}-NTAC_{it}= NI_{it} - CFO_{it} -NTAC_{it}$$
$$= TAC_{it}/A_{it-1}-[a_0(1/A_{it-1})+a_1[\triangle REV_{it}-\triangle REC_{it}]/A_{it-1}+a_2$$
$$(PPE_{it}/A_{it-1})] \quad (Eq. 1)$$

Where, TAC is total accruals; DAC: Discretionary accruals; NI: Net income; $CFO_{it}$: cash flows from operating activities of firm i for period t; ANAC: Abnormal accruals; NTAC: Normal total accruals, expected total accruals by modified Jones model; $A_{it-1}$: Beginning total asset for firm i in year t; $\Delta REV_{it}$: Change in revenue from year t-1 to year t ($REV_t-REV_{t-1}$); $PPE_{it}$: gross property, plant, and equipment in year t; $\Delta REC_{it}$: Change in net accounts receivables in year t from year t−1 to year t ($REC_{it}-REC_{it-1}$).

*2) The Estimate of the Real Activities Manipulation(REM)*

As in prior studies (e.g., Roychowdhury, 2006; Cohen et al., 2008; Cohen and Zarowin, 2010), we measure a firm's deviations from its normal business practices by computing its abnormal production costs (conducting overproduction to report a lower cost of goods sold in the current period), abnormal discretionary expenditures (reducing discretionary expenditures in the current period), and abnormal cash flows from operations (offering excessive sales discounts or lenient credit terms to temporarily boost sales revenues in the current period).

We using the following industry-year linear regression Eqs. (2), (3) and (4) to decompose the actual CFO, production costs, and discretionary expenses into the normal, expected portion and the abnormal, unexpected portion, respectively. Where each industry is defined by its two-digit Standard Industrial Classification (SIC) code:

$$CFO_{it}/A_{it-1}=\beta_1(1/A_{it-1})+\beta_2(S_{it}/A_{it-1})+\beta_3(\Delta S_{it}/A_{it-1})+\varepsilon_t \quad (Eq. 2)$$

$$Prod_{it}/A_{it-1}=\beta_1(1/A_{it-1})+\beta_2(S_{it}/A_{it-1})+\beta_3(\Delta S_{it}/A_{it-1})$$
$$+\beta_4(\Delta S_{it-1}/A_{it-1})+\varepsilon_t \quad (Eq. 3)$$

$$DEXP/A_{it-1}=\beta_1(1/A_{it-1})+\beta_2(S_{it}/A_{it-1})+\varepsilon_t \quad (Eq. 4)$$

In the above Eqs. (2), (3) and (4), for each firm i and year t, CFO is cash flow from operations, $A_{it-1}$: total assets for firm i in year t-1. $S_{it}$ the firm i's revenues in year t, $\Delta S_{it}$ the firm i's change in revenues between year t-1 and year t, and $\varepsilon_t$ is the error term. Prod refers to production

costs, which is the sum of the cost of goods sold and the change in inventory (Compustat item COGS + change in INVT), and DEXP denotes discretionary expenses computed by the sum of advertising expenses, selling, general and administrative expenses (Compustat items XAD + XSGA).

Abnormal CFO, abnormal Prod, and abnormal Dis EXP, denoted by abn CFO, abn Prod, and abn DEXP, respectively, are the differences between actual values of CFO, Prod, and DEXP (all lagged-asset deflated) and their normal levels (i.e., the fitted values of Eqs. (2), (3) and (4), respectively). To make the direction of the discretionary expenditure-based measure consistent with abn Prod, we construct our first proxy for abnormal real activities (-abn CFO) as the abnormal CFO multiplied by -1, such that a higher value of -abn CFO indicates more severe manipulation of real activities; We construct our third proxy for abnormal real activities (-abn DEXP) as the abnormal discretionary expenditures multiplied by -1, such that a higher value of -abn DEXP indicates that it is more likely the firm cuts discretionary expenditures.

In order to capture the overall level of real activities manipulation, consistent with Zang(2006)[8], we also compute comprehensive metrics of abnormal real activities as our fourth proxy for abnormal real activities by aggregating all three individual measures (i.e., abn Prod, -abn DExp and -abnCFO) into one measure(RE). As is true for the individual measures, the higher the values of the comprehensive metrics, the more likely that the firm is engaging in real activities manipulation.

TABLE I. DEFINITIONS OF VARIABLES USED IN THE MODELS

| Variables | | Definitions |
|---|---|---|
| DAC | = | The discretionary accruals calculated using modified Jones model |
| abn CFO | = | The level of abnormal cash flows from operations multiplied by -1 |
| abn PROD | = | The level of abnormal production costs, where production costs are defined as the sum of cost of goods sold and the change in inventories |
| -abn DEXP | = | The level of abnormal discretionary expenses multiplied by -1 |
| RE | = | Comprehensive metrics of abnormal real activities by aggregating abn Prod, -abnDExp and -abn CFO into one measure. |
| OI | = | Operation income. |
| NI | = | Current year net income scaled by total sales |
| ROA | = | Return on assets |
| MV | = | Market value. |
| TQ | = | Tobin Q. |
| CFO | = | Cash flows from operating activities |
| NMCFO | = | Normal cash flows from operating activities |
| Size | = | Natural logarithm of total assets |
| Lev | = | leverage ratio, equals to total liabilities divided by total assets |
| ID | = | Industry dummy variable, a control based on two-digit SIC codes |
| Year | = | dummy variables for years 2007-2010 (A control based on calendar year). |
| t | = | 2007, 2008, 2009, 2010, 2011 |
| t+1 | = | 2008, 2009, 2010, 2011, 2012 |

IV. DATA

*A. Sample selection*

We obtained data from Wind and CSMAR database for all firms that appeared during the period 2007–2011, we initially obtained all listed firms in the CSMAR 12350 firm-years. The following criteria are applied in selecting

firms for the sample: (1) Excluding in financial firms, insurance industry firms, real estate industry firms, communication and cultural industries firms (Roychowdhury,2006)[6]; (2) Excluding Incomplete data firms; (3) Excluded owner's equity is less than or equal to zero firms; Main business income is less than or equal to zero firms; (4) Excluded industry unavailable firms. Because we further require that financial data is available from database for at least 8 firms operating in the same 2-digit SIC industry, in order to compute earnings management as the deviation of firms accruals relative to the industry norm. (5) Excluded continuous 3 years data were unavailable firms. We have the final sample composed of 5984 firm-year observations.

### B. Descriptive Statistics

Table 2 shows the mean, standard deviation, variance, minimums and maximums all variables of sample. The mean of every earnings management proxy is 0.0054, -0.0092, -0.0156, -0.0088, -0.0336 respectively, the maximum is 0.3580, 0.3580, 0.5249, 1.7592, 0.3193, 1.9779 respectively.

TABLE II.　　PRESENTS DESCRIPTIVE STATISTICS FOR ALL SAMPLE

|  | N | MIN | MAX | MEAN | VAR | STD |
|---|---|---|---|---|---|---|
| $OI_{t+1}$ | 5984 | -1.3450 | 9.3595 | 0.0517 | 0.1718 | 0.0300 |
| $NI_{t+1}$ | 5984 | -1.3075 | 9.8013 | 0.0609 | 0.1763 | 0.0310 |
| $CFO_{t+1}$ | 5984 | -1.7688 | 9.4864 | 0.0627 | 0.1707 | 0.0290 |
| $ROA_{t+1}$ | 5984 | -1.2915 | 0.5322 | 0.0340 | 0.0722 | 0.0050 |
| $MV_{t+1}$ | 5984 | 0.0000 | 78.1955 | 2.3060 | 2.0825 | 4.3370 |
| $TQ_{t+1}$ | 5984 | 0.4196 | 21.8956 | 1.9546 | 1.3689 | 1.8740 |
| DAC | 5984 | -0.4132 | 0.3580 | 0.0054 | 0.0849 | 0.0070 |
| -abnCFO | 5984 | -0.4168 | 0.5249 | -0.0092 | 0.0885 | 0.0080 |
| abnPROD | 5984 | -1.1387 | 1.7592 | -0.0156 | 0.1360 | 0.0190 |
| -abn DEXP | 5984 | -0.4042 | 0.3193 | -0.0088 | 0.0673 | 0.0050 |
| RE | 5984 | -1.4575 | 1.9779 | -0.0336 | 0.2304 | 0.0531 |
| NDAC | 5984 | -0.7999 | 2.2878 | -0.0084 | 0.0651 | 0.0040 |
| NMCFO | 5984 | -0.3267 | 0.6064 | 0.0438 | 0.0497 | 0.0020 |
| Size | 5984 | 18.1624 | 28.2833 | 21.7569 | 1.2332 | 1.5210 |
| lev | 5984 | 0.0071 | 0.9981 | 0.5021 | 0.1910 | 0.0360 |

## V.　REGRESSION RESULTS OF MODEL

We report the regression results in Table 3 and Table 4.

### A. Analysis effects of AEM

Table 3 note that AEM(DAC) are all positive(0.383, 0.388, 0.305, 2.928, 1.325,) and significant(t=9.948, 9.772, 21.053, 6.895,5.165; p=0.000) at 1% level associated with firms next year OI, NI, ROA, MV and Tobin Q. In Table 4: The effects of AEM are also all significantly positive associated with firms future profitability and market value. This is consistent with Subramanyam(1996)[2], Gul, et al.(2000)[3], and Krishnan (2003) views of discretionary accruals is consistent with the efficient perspective, opposite to Burgstahler, et al.(1997) and Balsam, et al.(2002) views of the earnings management is opportunistic perspective.

### B. Analysis effects of REM

The effects of -abnCFO and abnPROD are all significantly negative associated with firms future profitability and market value in table 3; In table 4：The effects of RE are all significantly negative associated with firms future profitability and market value.

The coefficient on -abn DEXP are not significant associated with OIt+1, NIt+1, MVt+1 and TQt+1, it only negative related with ROAt+1 significant at 1% level, it indicate that -abn DEXP has not significant effect on firms future profitability and the firms value in China capital market.

This indicate that managers manipulate real earnings management(mainly abn CFO, abn PROD) affect firms future operation activities and firms value significantly. This is consistent with views of Value Damage Hypothesis(Dechow and Sloan, 1991[7]; Bens et al., 2002; Zang, 2006[8]; Bhojraj et al., 2009; Mizik and Jacobson, 2007; Leggett et al., 2009; Cohen and Zarowin, 2010; Francis et al., 2011; Zhao et al., 2012; Kim and Sohn, 2013). Suggesting a general value-destroying effect of managers manipulate real earnings management activities.

The results(list in Table 3, Table 4) for other control variables show that: large firms have lower market value; and Firms with high LEV are significantly negative correlated with the firms future profitability and market value . They are all consistent with the previous literature.

Based on above analysis, AEM(discretionary accruals manipulation)in China firms is consistent with the efficient perspective, on the contrary, REM is consistent with the Value Damage Hypothesis. It is say that abnormal accrual has positive significantly affect on firms future profitability and market value, but real earnings management has negative significantly affect. Therefore, the H1 and H2 are all confirmed.

TABLE III.　　REGRESSION RESULT OF MODEL 1

|  | $OI_{t+1}$ | $NI_{t+1}$ | $ROA_{t+1}$ | $MV_{t+1}$ | $TQ_{t+1}$ |
|---|---|---|---|---|---|
| Intercept | .070*** | .139*** | -.059*** | 14.614*** | 11.677*** |
|  | (1.578) | (3.048) | (-3.580) | (30.026) | （39.664） |
| DAC | .383*** | .388*** | .305*** | 2.928*** | 1.325*** |
|  | (9.948) | (9.772) | (21.053) | (6.895) | （5.165） |
| abnCFO | -.520*** | -.527*** | -.396*** | -3.833*** | -2.137*** |
|  | (-11.89) | (-11.671) | (-24.02) | (-7.937) | （-7.322） |
| abnPROD | -.072*** | -.068*** | -.039*** | -1.024*** | -.767*** |
|  | (-3.511) | (-3.202) | (-5.000) | (-4.521) | （-5.605） |
| -abnDEXP | .000 | -.018 | -.045*** | .060 | -.293 |
|  | (.011) | (-.483) | (-3.273) | (.147) | （-1.190） |
| NDAC | .277*** | .258*** | .162*** | 1.254*** | 1.089*** |
|  | (7.992) | (7.209) | (12.434) | (3.276) | (4.706) |
| NMCFO | .579*** | .583*** | .413*** | 3.464*** | 1.797*** |
|  | (10.931) | (10.672) | (20.694) | (5.924) | (5.084) |
| Size | -.001 | -.004** | .004*** | -.580*** | -.450*** |
|  | (-.653) | (-2.120) | (5.524) | (-25.942) | (-33.276) |
| Lev | -.064*** | -.051*** | -.049*** | -.452*** | -.481*** |
|  | (-4.797) | (-3.675) | (-9.654) | (-3.065) | (-5.397) |
| ID | Control | Control | Control | Control | Control |
| Year | Control | Control | Control | Control | Control |
| adjR² | .095 | .086 | .273 | .250 | .366 |
| F | 23.513*** | 21.180*** | 81.258*** | 72.234*** | 124.478*** |
| max VIF | 3.363 | 3.363 | 3.363 | 3.363 | 3.362 |

Note: 1)Model: FutProf$_{it}$ / MV= $a_0+a_1AEM_{it}+a_rREM_{it}+a_3NDAC_{it}+a_4NMCFO_{it}+a_5Size_{it}+a_6Lev_{it}+\sum\lambda_jID_j+\sum kYear_k+\varepsilon_{it}$; 2) All variables are as defined in

Table 1; 3)***,** and * denote the significance level at 1%，5% and 10% respectively.

TABLE IV.    REGRESSION RESULT OF MODEL 2

|  | $OI_{t+1}$ | $NI_{t+1}$ | $ROA_{t+1}$ | $MV_{t+1}$ | $TQ_{t+1}$ |
|---|---|---|---|---|---|
| Intercept | 0.015 | 0.082* | -0.1*** | 14.29*** | 11.52*** |
|  | (0.349) | (1.825) | (-6.19) | (29.7) | (39.62) |
| DAC | 0.129*** | 0.132*** | 0.114*** | 1.227*** | 0.505*** |
|  | (4.663) | (4.641) | (10.73) | (4.037) | (2.755) |
| RE | -0.13*** | -0.13*** | -0.10*** | -1.23*** | -0.88*** |
|  | (-11.8) | (-11.7) | (-23.6) | (-10.3) | (-12.3) |
| NDAC | 0.290 | 0.271*** | 0.173*** | 1.33*** | 1.126*** |
|  | (8.305) | (7.533) | (12.88) | (3.468) | (4.866) |
| NMCFO | 0.386*** | 0.388*** | 0.265*** | 2.196*** | 1.185*** |
|  | (7.898) | (7.694) | (14.08) | (4.091) | (3.656) |
| Size | 0.002 | -0.000 | 0.007*** | -0.56*** | -0.44*** |
|  | (1.066) | (-0.44) | (9.063) | (-25.5) | (-33.2) |
| lev | -0.10*** | -0.08*** | -0.07*** | -0.69*** | -0.60*** |
|  | (-7.46) | (-6.20) | (-14.3) | (-4.830) | -6.88 |
| ID | Control | Control | Control | Control | Control |
| Year | Control | Control | Control | Control | Control |
| adj $R^2$ | 0.081 | 0.073 | 0.229 | 0.245 | 0.364 |
| F | 21.22*** | 19.04*** | 69.44*** | 75.7*** | 132.*** |
| Max VIF | 1.369 | 1.369 | 1.369 | 1.369 | 1.369 |

Note: 1)Model: $FutProf_{it}/MV=a_0+a_1AEM_{it}+a_rRE_{it}+a_2NDAC_{it}+a_3NMCFO_{it}+a_5Size_{it}+a_6Lev_{it}+\sum\lambda_jID_j+\sum kYear_k+\varepsilon_{it}$ ; 2) All variables are as defined in Table 1; 3)***,** and * denote the significance level at 1%，5% and 10% respectively.

## VI.    CONCLUSIONS

This paper examines that accrued earnings management(AEM) has positive and significant related to the firms future profitability and market value, on the contrast, mostly real earnings management proxies(abn CFO, abn PROD, RE) have negative and significant related to the firms future profitability and market value.

Those evidences indicate that different types of earnings management have different effect on the firms future profitability and market value, accrual earnings management is effective, real earnings management is aggressive in China.

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