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## Earnings Quality of Malaysian IPO firms: The Effect of Share Moratorium Provision and Institutional Ownership

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### Abstract

The paper focuses on earnings quality (EQ) of Malaysian Initial Public Offering (IPO) firms and examines the effect of share moratorium regulation and institutional ownership on IPO firms' EQ behavior. Analyzing both real and accrual earnings management (EM) to measure EQ of 220 sample IPO firms over the period from 2002 to 2009, the results indicate that Malaysian IPO firms engage in both real and accrual discretionary EM. Both EQ measures are also observed to be similar between firms with and without share moratorium provision, evidencing the support towards Malaysia's public policy guideline of subjecting all IPO firms to share moratorium regulations as a commitment device to reduce information asymmetry and adverse selection problem between the strategic owners and new investors. The multivariate results further indicate the effective monitoring of institutional shareholders over investee firms' EQ. The overall results collectively suggest the need for investors to examine investee firms' real activity discretionary behavior in their investment decisions while regulators should device means of constraining it.

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## 1. Introduction and Research Issues

The paper investigates the impact of two unique features of Malaysian Initial Public Offering (IPO) event on real (REM) and accrual earnings management (AEM) discretionary behavior which represent the measured firm's earnings quality (EQ). First is the share moratorium or share lockup regulation and secondly is the preponderance of institutional ownerships. The former refers to the covenant by major shareholders or strategic owners of IPO firms of not selling part of their stock holdings during the lockup period immediately after the IPO corporate event. Described as a signal for IPO firms' ante uncertainty (Wan-Hussin, 2005), lockups appeared as a voluntary contract in some countries (e.g., US and UK) but is compulsory in others (e.g., France, Germany, Italy, Taiwan and Malaysia) with standardized or specified expiration periods (Goergen et al., 2006; Huang & Lin, 2007). Prior studies have shown that IPOs around the world are priced at a discount (Wan-Hussin, 2006) with underpricing ranging from 5% in Denmark to 257% in China lending support to the conclusion that IPO investors on the average earn positive initial returns (Ritter, 2002). The moratorium provision is intended to enhance major shareholders' commitment in effectively managing the company. It is a bonding signal to the market assuring investors that strategic shareholders will not abandon them in the event of bad news (Field & Hanka, 2001). Allowing major shareholders to dispose their ownership immediately after IPO may obscure the firm's true market value as sharp rise in the share price in the aftermarket provides more incentives for share disposal in quest of capital gains.

Under the share moratorium rules in Malaysia, major shareholders of all Second Board firms and certain Main Board firms with core businesses in construction or property development are not allowed to sell, transfer or assign 45% of the firm's issued share capital within one year after listing (Securities Commission's Policies and Guideline, 2003). Thereafter, in every subsequent year, they are only permitted to dispose one third of the shares under moratorium. This moratorium rules serve as a commitment device to ensure firm's survival and value creation. However as a latent consequence, the expiration of the share moratorium period presents the opportunity to the strategic shareholders and other investors to cash out their holdings. Accordingly, moratorium period therefore provides an incentive for income increasing discretionary behavior and the hoarding of strategic information for personal wealth maximization and protection. This is counter to the intended capital market regulator's objective of reducing information asymmetry, moral hazard problems and serving as a commitment device. Empirically, limited studies have examined the impact of share moratorium on EQ around expirations with most studies centered on underpricing (e.g., Yong et al., 1999; Wan-Hussin, 2002; Paudyal et al., 1998; Jelic et al., 2001; Ritter, 2002). The only relevant prior research to present study is by Huang & Lin (2007) using Taiwanese context whereby it specifically studied AEM during the period of issue and subsequent sales of restricted shares.

Another unique feature of Malaysian IPO is the preponderance of institutional ownerships (IO), which benefits lie on its capability, knowledge and resource base to discipline managers (Kim et al., 2003). Prior studies have shown that IO may constrain and monitor investee firm's EQ behavior (e.g. Koh, 2003; Kim et al., 2003; Mashayekhi & Bazaz, 2008). A contrary view sees institutions as having dynamic role whereby the direction of investee firm's EQ behavior is contingent on institution's investment strategy. Short term institutional investors favoring immediate capital gains are known not to monitor investee firm's EQ and prefer to exit when problems occurred whilst the long term investors would do the reverse (Koh, 2003). Prior studies on IO's role towards firm's EQ mostly utilize AEM as the only EQ proxy in the non-IPO context (e.g., Abdul-Jalil & Abdul-Rahman, 2010; Hsu & Koh, 2005; Velury & Jenkins, 2006). The use of single EQ proxy effectively provide incomplete picture of firms' EM discretionary behavior (Fields et al., 2001).

Both unique corporate features among IPO firms in Malaysia outlined above systematically create empirical questions on IPO firms' EQ. This paper therefore investigates first, the behavior of Malaysian IPO firms specifically the choice between AEM and REM. Second, it aims at finding whether there is any significant difference in EQ between share moratorium and non-share moratorium firms. Finally, present study further investigates the influence of different institutional investors' types towards IPO firms' EQ. The results indicate that Malaysian IPO firms engage in both AEM and REM with lower EQ for share moratorium firms albeit the mean differences are statistically insignificant. Results on institutional investors' monitoring role are consistent with international evidence (e.g., Roychowdhury, 2006; Bushee, 1998) whereby IPO firms' EQ is negatively associated with both groups of neutral pressure and conservative. Evidence presented in this research points to the importance of capital market investors examining investee firm's real activity discretionary behaviors in making their investment strategies and for regulatory

authorities to introduce and enforce additional measures constraining earnings manipulations by young public firms. The paper proceeds as follows. Next section reviews relevant literature in developing the hypotheses followed by the research method. Subsequent sections present the empirical findings, discussions and conclusions.

## 2. Literature Review and Hypothesis Development

### 2.1 Share moratorium or lockup

Extant literature reveals that lockup contracts assure the market that pre-IPO shareholders will not cash out immediately post IPO and will therefore align their interests with those of outside investors (Chen et al., 2011). Two common reasons for the existence of lockup periods are offered in the literature. First, as a signal device of firm quality to either obtain a higher price at the IPO or a better price at subsequent seasoned equity offerings (Brav & Gompers 2003). Second, as a commitment solution to moral hazard problems by allowing privately available information to become publically known thereby alleviating information asymmetry around IPOs and protecting potential investors from being misled by insiders' actions (Espenlaub et al., 2001; Goergen et al., 2006). Majority of prior studies provide evidence on the latter hypothesis (e.g. Chen et al., 2011; Espenlaub et al., 2001) whilst evidence supporting the former is however mixed (e.g. Brav & Gompers 2003; Brau et al., 2005; Chen et al., 2011).

Prior research on share lockups have examined the effect of insider trading on market liquidity around lockup expirations (e.g., Cao et al., 2004; Krishnamurti & Thong, 2008) whereby insiders are noted to sell their shares as soon as a lockup period expires (Brau et al., 2005). Arguably, IPO issuers are expected to inflate earnings during the first expiration period using either AEM or REM with the aim of increasing the share price and hence, allowing them to maximize their capital gains on the restricted shares. Given the increasing interest in EM practices, recent empirical evidence shows that stronger regulation has a direct impact on managers' tendency to choose between AEM and REM with recent evidence suggest that the level of REM increases after accounting standards were strengthened (Cohen & Zarowin, 2008). This suggests that more stringent regulation mitigates AEM and systematically leading to greater use of REM. Examining this issue in the context of Malaysian IPOs and considering the unique feature of share moratorium, it is therefore hypothesized that:

*H1<sub>a</sub>: Malaysian IPO firms exhibit both real and accrual earnings management discretionary behaviour*

*H1<sub>b</sub>: Malaysian IPO firms with share moratorium exhibit lower EQ in the share moratorium period than non-share moratorium firms.*

### 2.2 Institutional ownership

Evidence from past studies (e.g., Ball et al., 2000, Claessens et al., 2000) have indicated the prevalence of concentrated ownership either by institutions, family founder or controlling owners in most East Asian countries, more often than not leading to the expropriation of minority shareholders wealth. The most common expropriation strategy whilst preventing external monitoring as well as covering-up their control benefits is EM practices (Francis et al., 2005; Haw et al., 2004; Kim & Yi, 2006; Leuz et al., 2003). In the context of IO's relationship with EM, the literature provides three strands of empirical findings. The first strand upholds IO's role in mitigating EM (e.g., DeFond & Jambalvo, 1994; Cheng & Reitenga, 2009) whereby studies report negative association between EM and IO. The second strand supports the contingency hypothesis (e.g., Bushee, 2001) and suggests IO's impact on EM contingent upon their investment nature. The nature includes (i) short term investment with diversified shareholding and turnover; (ii) the "quasi-indexers" representing long term investors characterized by buy and hold and low turnover; and (iii) long term and dedicated investment with low turnover and large portfolio investments. The final strand of literature relates to the behavioral or relationship hypothesis which is an extension of the contingency hypothesis (e.g., Cornett et al., 2007; Hartzell & Starks, 2003; Almazan et al., 2005). These studies assert that institutions operate under different circumstances in terms of legal environment, investment strategies and conflict of interest between fiduciary responsibility for investment protection and business relationships. Therefore institution shaving strategic interest in

investee firms may not constrain EM in order not to injure business relationship especially where it is costly to do so. These type of institutions are classified as pressure sensitive investors and include banks and insurance companies. The other institutional groups have no specific business interest and their main preoccupation is the fiduciary protection of clients' funds. These include pension, mutual and unit trust funds and are classified as pressure insensitive (Almazan et al., 2005).

The Malaysian major institutional shareholders include (i) Employee Provident Fund (EPF); (ii) Armed Forces Superannuation Fund (LTAT); (iii) Pilgrims Fund (LTH); (iv) Permodalan Nasional Berhad (PNB)—a diversified portfolio firm with investment in unit trusts, assets and property management; and (v) Social Security Organization (SOCO). These institutions in pursuance of the recommendation of the Finance Committee on Corporate Governance (FCCG) in 2000 became known as the Minority Shareholders Watchdog Group (MSWG). This constitutes a pressure group expected to monitor and protect minority shareholders' interests. Previous studies based on AEM (e.g., Abdul-Jalil & Abdul-Rahman, 2010; Cheng & Reitenga, 2009; Cornett et al., 2007) have classified IO into pressure sensitive (banks and insurance companies) and pressure insensitive (unit trusts, state corporations and pension funds). In previous Malaysian study, Abdul-Jalil & Abdul-Rahman (2010) added MSWG as another pressure group. As confirmed by past studies (e.g., Cheng & Reitenga, 2009) however, banks and insurance companies who are short term horizon investors may not constrain EM due to their interest de clientele. Financial intuitions generally operate in a myriad of relationships that make them impotent in constraining corporate misconduct in addition to statutory restrictions on their level of investments.

In this study, institutions are grouped into two namely (i) Conservative Group (CG) representing the cumulative ownership percentage of MSWG members; and (ii) Neutral Pressure Group (NPG) representing the cumulative ownership percentage of banks, insurance companies, unit trusts and pension funds. The former is expected to limit EM practices due to their long term investment horizon. The latter's impact on EM is the reverse due to interest "de clientele" and myriad of business relationships such that they are unlikely to control or be hostile to their investee firms. The above classification departs from the common IO groupings in prior research in view of the concentrated nature of Malaysian corporate structure, the existence of pyramidal structures coupled with a cobweb of inter business relationships, family affiliations and socio-political connections (Hairul-Suhaimi et al., 2012). The hypotheses are set in a non-directional form whereby the direction and significance become the empirical questions in this research.

*H2: The NPG and CG are systematically related to EM practices in Malaysian IPO firms*

### 3. Research Methodology

#### 3.1 Sample Selection

The population consists of 476 Malaysian IPO firms during the period 2002 to 2013 but the sample period can only covers 2002 to 2009 due to EM proxy measurement requirements. This period is devoid of any cofounding effects of the 1997/98 Asian financial crisis but within the deregulation and liberalisation of Malaysian stock exchange period. IPO firms are selected based on the conditions of (i) public offer of ordinary shares only; (ii) not listings through introduction; (iii) subsequently listed on the Main, Second or MESDAQ markets of Bursa Malaysia; and (iv) availability of financial and ownership data. These conditions significantly reduced the sample firms to 220 IPO firms covering the period from 2002 to 2009 out of which 141 firms (64%) are subject to share moratorium provision and the remaining 79 firms (36%) are not. Table 1 below shows the details breakdown.

Lockup	2002	2003	2004	2005	2006	2007	2008	2009	Total
0 <sup>A</sup>	5	8	27	25	10	4	0	0	79
%	6.33	10.13	34.18	31.65	12.66	5.06	0	0	100
1 <sup>B</sup>	30	36	10	17	15	7	11	15	141
%	21.28	25.53	7.09	12.06	10.64	4.96	7.80	10.64	100
Total	35	44	37	42	25	11	11	15	220
%	15.91	20	16.82	19.09	11.36	5	5	6.82	100

A = Non-share moratorium; B= Share moratorium IPO firms

### 3.2 Earnings Management Measurement

Both earnings management proxies of AEM and REM are measured using the established models available in the EM literature (e.g., DuCharme et al., 2001;Roosenboom et al., 2003;Roychowdhury, 2006; Teoh et al., 1998a&b; Ahmed-Zaluki et al., 2011). The AEM is measured using Dechow et al. (1995) model which is the modified version of Jones (1991) cross-sectional EM model. The first stage regression was estimated using cross-sectional regression according to each financial year and industry portfolio, the purpose of which is to allow variation of parameters over time and industries. Consistent with prior research, variables and intercepts are deflated using lagged total assets in order to control or avoid *heteroscedasticity* and misspecification in the AEM and REM models (see Caylor, 2010; Kothari et al., 2005, Gunny, 2010;Zang, 2012;Roychowdhury, 2006). Additional variable of return on assets (ROA) is also added, aims at controlling for high or abnormal operating performance (Kothari et al., 2005). The estimated coefficients are then fitted to facilitate the estimation of discretionary earnings management proxies of IPO firms. The abnormal discretionary accruals are arrived at by subtracting the sample firm's calculated total accruals from the non-discretionary accruals. The problem of selection bias by using non-IPO firms as matching companies following Kothari (2005) is that their accrual generating process is likely to be different from IPO firms, causing the estimates of abnormal accruals to be biased. In this study therefore, the first stage regressions are calculated based on the pre-IPO data. Instead of the matching procedure based on ROA, it was then added as a regressor (Butler et al., 2004; Kothari et al., 2005).

The REM is measured using models introduced in previous REM studies (e.g., Dechow et al., 1995; Cohen & Zarowin, 2010;Roychowdhury, 2006) which proxies include (i) cash flow from operations (CFO); (ii) discretionary expenses and its component individual accounting items namely (1) abnormal selling, general and administrative expenses;(2) research and development; and (3) advertising, (iii) production cost and its components of (a) abnormal cost of goods sold; and (b) abnormal change in inventory (see Roychowdhury(2006) for an excellent explanation). Previous studies (Zang, 2012; Gunny, 2010) provide evidence supporting the construct validity of these models and their proxies.

### 3.3 Models Specification and Variables Definition

Consistent with the established research objectives, the following models are specified. To confirm the impact of moratorium regulation, a standard error regression using the following equation is introduced:

$$EM_{it} = \alpha_0 + \alpha_1 SMRTRM + \alpha_2 AUD_{it} + \alpha_3 AGE_{it} + \alpha_4 LEV_{it} + \alpha_5 SIZE_{it} + \alpha_6 CAPGWT_{it} + \epsilon_{it} \quad (1)$$

The following general regression equation is used to determine the association between IO and EM:

$$EM_{it} = \alpha_0 + \alpha_1 NPG_{it} + \alpha_2 AUD_{it} + \alpha_3 AGE_{it} + \alpha_4 LEV_{it} + \alpha_5 SIZE_{it} + \alpha_6 CAPGWT_{it} + \alpha_7 CG_{it} + \epsilon_{it} \quad (2)$$

Variables AUD, AGE, LEV, SIZE and CAPGWT represent firm specific characteristics found to be associated with REM and AEM in previous studies. All variables are defined in table 2 below.

Table 2: Variables Definition and Measurement

Variable	Measurement	Sign Predicted
EM	Earnings management value calculated from AEM and REM models	-
AUD	A dummy variable equals to "1" if the IPO firm is audited by big 4 audit firms (PwC, E&Y, Deloitte & Touche & KPMG) and "0" otherwise.	negative
AGE	The firm age calculated from the date of incorporation to the issuing year.	negative
LEV	Leverage ratio is measured as the percentage of total debt to total assets	negative
SIZE	Log of total asset	negative
CAPGWT	Incurred capital expenditure during the IPO year minus the capital expenditure in the previous year scaled by total assets in the year prior to the IPO year	negative
SMRTRM	A dummy variable that equals "1" if the IPO firm is under share moratorium and "0" otherwise.	Positive
CG	Percentage of ordinary shares owned by MSWG members (EPF, SOCSO, PNB, LTAT&TH)	+/-
NPG	The percentage of ordinary shares owned by insurance companies, banks, pension funds, investment trusts and financial institutions.	+/-

## 4. Results and Discussions

### 4.1 Share Moratorium and Earnings Management

Table 3 presents the descriptive statistics of EM proxies and share moratorium for the whole sample. All EM proxies are positive and significant except abnormal cash flow from operations which is negative. The calculated AEM stood at 1.1% of lagged total assets which is lower than 3.24%–0.56% range reported in previous Malaysian study (e.g., Ahmed-Zaluki et al., 2011) which is understandable in view of tightening financial reporting regulations in Malaysia.

Table 3: Share Moratorium and Earnings Management Discretionary Proxies

Variable	Mean/Freq.	t-test	p-value	Std.Dev.	Med	Min	Max
SMRTM	0.64	NA	NA	NA	NA	NA	NA
AUD	0.42	NA	NA	NA	NA	NA	NA
AGE	11.05	NA	NA	8.41	8.50	1	38
CAPGWTB	3.96	NA	NA	20.42-	0.00	-0.96	264
LEV	0.58	NA	NA	2.24	0.31	-0.21	26.40
SIZE	307	NA	NA	1442	90.1	0.00	17798
DA	0.011**	2.157	0.016	0.75	-0.01	-2.91	3.45
DCFO	-0.03	0.689	0.755	0.55	0.02	-2.96	2.88
DSGA	0.05**	1.722	0.043	0.40	0.05	-2.20	1.48
DCOGS	0.02**	1.794	0.037	0.15	0.00	-1.08	1.90
DISCEXP	0.04***	7.678	0.000	0.73	0.02	0.01	0.57
DINVT	0.02***	2.495	0.007	0.11	0.00	-0.34	0.65
DPROD	0.03***	2.528	0.006	0.19	0.01	0.05	0.63
REM	0.016***	6.716	0.000	3.54	0.042	-3.21	3.01
CG	0.07	NA	NA	0.20	0.00	0.00	1.00
NPG	0.23	NA	NA	2.16	0.01	0.00	32.02

Notes: All discretionary EM proxies are winsorized at 1% and 99% to avoid the influence of outliers. DA=Abnormal discretionary accruals, DCFO= Abnormal cash flow from operations, DSGA= Abnormal selling, general administrative expenses, DCOGS= Abnormal cost of goods sold, DINVT= Abnormal change in inventory, DPROD= Abnormal production cost, DISCEXP=Abnormal discretionary expenses, REM= Aggregate REM.

About 64% of the IPO firms were under moratorium and 42% engaged the services of reputable auditors while average age of IPO firms is 11 years which is similar with previous Malaysian based IPO research (e.g., Ahmed-Zaluki et al., 2011). However, this is slightly lower than the 9 years reported in the US IPO pioneer studies by Teoh et al., 1998a&b). To further investigate the IPO firms' EM behaviour, the sample was decomposed into share moratorium and non-share moratorium firms which statistics are presented in table 4 below.

Table 4: Descriptive Statistics of EM Proxies for Moratorium and Non-Moratorium Firms

	Non Share Moratorium Firms (NSMRATM) (n = 79)		Share Moratorium firms (SMRTRM) (n = 141)	
	Mean	Median	Mean	Median
DA	0.059***	0.025	0.016**	0.01
DCFO	-0.002	0.02	-0.013	0.01
DSGA	0.013**	0.05	0.026***	0.04
DCOGS	0.007*	0.003	0.025***	0.004
DINVT	0.044**	0.01	0.008*	0.01
DPROD	0.013**	0.007	0.042***	0.006
DISCEXP	0.025***	0.015	0.043***	0.014
REM	0.016***	0.037	0.0164***	0.04

Note: NSMRTRM= Non-share moratorium firms, SMRTRM= Share moratorium firms

The results indicate that IPO firms exhibit positive and significant EM proxies except abnormal cash flow from operations (DCFO) which is negative and insignificant in both share moratorium firms and non-share moratorium firms. This is not surprising because real activity in sales like channel stuffing and lenient credit terms have negative impact on cash flow from operations in terms of sales (Cohen & Zarowin, 2010). In addition over-production to lower COGS ultimately leads to low DCFO. Furthermore, managers believe that outsiders and investors value earnings over cash flow during IPO (Graham et al., 2005) and this supports the negative cash flow from operations during the IPO corporate event.



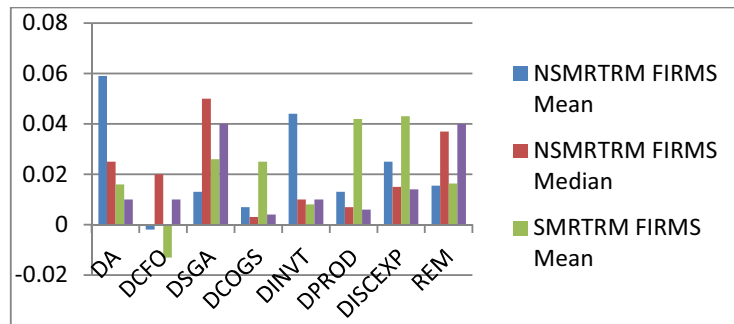


Figure 1: Comparative EM proxies between share moratorium and non-share moratorium firms

Figure 1 above is a graphical depiction of EM proxies described earlier. A casual glance indicates on average that mean EM proxies are higher in share moratorium firms than non-share moratorium firms. It is also interesting to note that AEM is positive in both firms providing evidence of both REM and AEM. In addition, there is also evidence of pervasive REM across the IPO firms confirming earlier intuition in hypothesis H1<sub>a</sub>. To test hypothesis H1<sub>b</sub>, a two samples Wilcoxon rank-sum (Mann-Whitney U) test was carried out and t-test was used as a robust check. The results for the whole sample in table 5 below indicate AEM (DA) and REM (CFO, DCOGS, DPROD, aggregate REM) did not significantly differ between share moratorium and non-share moratorium firms ( $P > 0.05$ ). However there is a significant difference in DSGA and DINVT for non-share moratorium firms ( $U=4775$ ,  $Z=-1.894$ ,  $P < 0.05$  Median=0.50,  $d=.12$ ) and DINVT ( $U=4609$ ,  $Z=-2.270$ ,  $P < 0.05$  Median=0.01,  $d=0.20$ ) respectively. A similar result is obtained using the parametric T-test as a robust test. The result generally appears not to support the view that share moratorium firms exhibit higher EM than non-share moratorium firms.

Table 5: Share moratorium and non-share moratorium mean difference

EM Proxies	SMRTM	N	Mean	t	p-value	Mean-Rank	Zscore	p-value
DA	1 <sup>a</sup>	141	.1659	0.245	0.807	107.95	-.941	.347
	0 <sup>b</sup>	79	.0585			116.38		
DCFO	1	141	-.1132	-0.902	0.368	108.99	-.621	.535
	0	80	-.0024			114.54		
DSGA	1	141	.0261	-2.028	0.044	104.87	-1.894	.048
	0	80	.1344*			121.81*		
DCOGS	1	141	.0250	-0.826	0.410	113.54	-.938	.349
	0	80	.0070			105.19		
DINVT	1	141	.0078	-1.938	0.054	103.67	-2.270	.023
	0	80	.0435*			123.93*		
DPROD	1	141	.0250	-1.131	0.260	107.38	-.963	.335
	0	80	.0430			115.97		
DISCEXP	1	141	.4325*	1.549	0.123	113.14	.660	.509
	0	80	.2551			107.23		
REM	1	141	.0160	-0.168	0.867	110.20	-.247	.805
	0	80	.0150			112.41		

Notes: 1<sup>a</sup> = IPO share moratorium firms, 0<sup>b</sup> = IPO non-share moratorium firms; \* = adjusted because variances were not equal

In order to have further insight into the impact of share moratorium regulation, table 6 presents result of standard error regression after taking care of outliers. The result indicates a significant negative association between share moratorium firms and abnormal behaviour in DSGA, DINVT and DPROD. Others (DA, DCFA, DISCEXP) although negatively associated are however insignificant. This is an indication that share moratorium firms do not engage in higher EM contrary to the wealth protection argument.

Table 6: Robust standard error regression between SMRTRM and EM proxies: (Outlier consistent)

Variables	DA	DCFO	DSGA	DCOGS	DINVT	DPROD	DISCEXP	REM
Lockup	-0.0448 (-0.051)	-0.0041 (-0.0294)	-0.0525** (-0.0244)	0.0003 (-0.0016)	-0.0224*** (-0.0063)	-0.0024* (-0.0012)	-0.0106 (-0.0203)	0.0298 (-0.045)
AGE	0.0017 (-0.003)	0.0032* (-0.0017)	-0.0006 (-0.0014)	-3.48E-06 (-9.30E-0)	0.0008** (-0.0004)	-1.43E-05 (-7.03E-05)	0.0003 (-0.0012)	-0.0019 (-0.0026)

Variables	DA	DCFO	DSGA	DCOGS	DINVT	DPROD	DISCEXP	REM
AUD	-0.0463 (-0.049)	=0.0268 (-0.0287)	0.0204 (-0.0239)	-0.0027* (-0.0016)	-0.0109* (-0.0062)	0.0013 (-0.0012)	-0.0129 (-0.0199)	-0.0443 (-0.0442)
CAPGWTH	-0.0004 (-0.001)	8.98E-05 (-0.0007)	-0.0006 (-0.0006)	-3.33E-05 (-3.81E-5)	-0.0001 (-0.0003)	1.08E-05 (-2.88E-05)	-0.0004 (-0.0005)	0.0003 (-0.0011)
LEV	-0.0011 (-0.011)	0.0009 (-0.0062)	-0.0043 (-0.0052)	0.0004 (-0.0003)	-0.0013 (-0.0013)	0.0003 (-0.0003)	0.0007 (-0.0043)	-0.0022 (-0.0095)
SIZE	-5.58E-0 (-1.69E-)	3.32e-*** (-9.74E-06)	-0.0002*** (-1.42E-05)	-1.46E-07 (-5.37E-07)	5.60E-07 (-2.09E-06)	-4.77E-07 (-4.06E-07)	0.0002*** (-1.18E-05)	-0.0003*** (-2.62E-05)
Constant	-0.0051 (-0.055)	-0.0235 (-0.0317)	0.103*** (-0.0263)	0.0017 (-0.0018)	0.0037 (-0.0069)	0.0075*** (-0.0013)	0.148*** (-0.0219)	-0.114** (-0.0486)
Obs.	220	220	220	220	220	220	220	220
R-Squared	0.011	0.079	0.467	0.026	0.101	0.032	0.489	0.454

Each column is the result of regression of the following equation for EM proxy named in the relative column.

All other variables are as previously defined

#### 4.2 Institutional Ownership and Earnings Management

The average ownership by NPG is about 23% which is similar with past Malaysian study by Abdul-Jalil & Abdul-Rahman (2010). The large percentage shareholding (Max=32%) of this group in Malaysian stock market seem to suggest monitoring may be an issue. The EM proxies are positive and significant. Table 7 summarizes the results based on multivariate standard error robust regressions on EM proxies, IO and control variables. The firm specific intercept or constant in the regression is to capture the unmeasurable or the unobserved firm characteristics. The robust standard error regression (*Heterokedestic* Consistent) was used to control for unobserved heterogeneity which might have influence on the firm's EM.

Table 7: Robust Standard Error Regression for Institutional Ownership and Earnings Management Proxies

VAR.	DA	DCFO	DSGA	DCOGS	DINVT	DPROD	DISCEXP	REM
NPG	-0.011 {-0.016}	-0.008** {-0.004}	-0.017*** {-0.002}	0.055 {-0.035}	-0.004*** {-0.001}	-0.012 {-0.028}	0.017** {-0.008}	-0.014 {-0.025}
CG	-0.113 {-0.384}	0.019 {-0.185}	-0.023 {-0.082}	-0.211 {-2.109}	-0.039 {-0.034}	-2.172** {-0.9}	-0.231* {-0.121}	-1.699** {-0.843}
AUD	0.052 {-0.395}	0.242** {-0.104}	-0.007 {-0.052}	0.287 {-1.066}	-0.001 {-0.019}	0.495 {-0.771}	0.105 {-0.125}	0.279 {-0.656}
AGE	0.008 {-0.024}	0.012* {-0.007}	-0.004 {-0.003}	0.032 {-0.063}	0.004*** {-0.001}	0.022 {-0.038}	-0.003 {-0.006}	0.012 {-0.031}
CAPGWTH	-0.002 {-0.034}	0.002* {-0.011}	0.003 {-0.008}	-0.011 {-0.009}	-0.002 {-0.002}	-0.011 {-0.007}	-0.001 {-0.001}	-0.010 {-0.007}
LEV	-0.001 {-0.021}	0.020** {-0.009}	0.001 {-0.009}	-0.031 {-0.048}	-0.033 {-0.004}	-0.049 {-0.035}	-0.006 {-0.006}	-0.051 {-0.035}
SIZE	-0.013 {-0.035}	0.0165 {-0.026}	-0.043 {-0.031}	0.001 {-0.001}	-0.021 {-0.058}	0.003 {0.003}	0.088 {-0.081}	0.002 {-0.003}
CONSTANT	0.022 {-0.519}	-0.330** {-0.156}	0.090* {-0.051}	1.913*** {-0.719}	-0.012 {-0.015}	1.750*** {-0.575}	0.357*** {-0.072}	1.458*** {-0.541}
R-squared	0.001	0.039	0.037	0.016	0.065	0.019	0.034	0.014

Notes: Standard Errors in Parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 and all other variables are as previously defined.

The result shows that there is an insignificant negative relationship between AEM and both NPG and CG but a significant negative relationship between NPG and REM (DSGA and DCOGS). However it is quite revealing that there is a significant positive relationship with REM (DISCEXP). This suggests that NPG is unable to constrain EM committed through abnormal discretionary expenses. One possible explanation is that they are hardly represented in



investee firms' board, thereby limiting their monitoring ability towards firm's discretionary expenses behavior. On the other hand, most importantly there is a significant negative association between CG representing the MSWG members and REM (DPROD, DISCEXP and aggregate REM), thereby confirming hypothesis H2. The result is expected because as shareholder activists whose mandate include questioning unethical and questionable management practices in public companies are expected to monitor their investee firms and constrain EM practices. The results are consistent with previous studies (e.g., Park et al., 2008 Abdul-Jalil & Abdul-Rahman, 2010).

## 5. Conclusion

The paper examined both AEM and REM of Malaysian IPO firms from the perspectives of share moratorium regulation and IO. The research issue is premised on these perspectives constituting unique corporate features in Malaysia. The results indicate that Malaysian IPO firms engaged in both AEM and REM with both are also observed to be similar between firms with and without share moratorium provision, evidencing the support towards Malaysia's public policy guideline of subjecting all IPO firms to share moratorium regulations as a commitment device to reduce information asymmetry and adverse selection problem between the strategic owners and new investors. The multivariate results further indicate the effective monitoring of institutions over investee firms' EM practices. This study primarily suffers from several limitations. First, it lacks sufficient IPO samples for the component members of MSWG causing further analysis into which members are more effective in curbing EM to become impossible. Second, this study inherits all limitations of the models used and acknowledges the need to use several models for results robustness thereby limiting its generalizability to the issue of EQ. However, these limitations are considered as meaningful areas for future research. Overall, this study contributes to IPO, IO and EM literature in the context of emerging economy by providing fresh evidence on IPO firms' EM behavior on the face of capital market rules of share moratorium and in the presence of institutional owners.

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