

AN INVESTIGATION OF EARNINGS MANAGEMENT IN INDONESIAN MANUFACTURING INITIAL PUBLIC OFFERINGS

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This paper examines whether the issuers of Indonesian manufacturing initial public offerings (IPOs) manage the firm's reported earnings by making income increasing discretionary accruals. The absence of market-determined prices for IPO shares prior to the offering has made issuers and underwriters to use nonprice information. The test was performed on a sample of 45 IPOs that went public during the period of July 1991 through December 1994. The model used in this study follows the one developed by Friedlan (1994).

The results show that there is no evidence that earnings management occurs among the sample firms. In other words, this study is unable to reject the null hypothesis that the issuers of Indonesian IPOs exercise accounting discretion that increases the reported earnings in the periods prior to the offering. In contrast, the study finds strong evidence of earnings management in the period after the offering, which could be interpreted as issuers trying to maintain the firm's performance after the offering by making income increasing discretionary accruals.

Keywords: earnings management; initial public offerings; total accruals and discretionary accruals

Introduction

Earnings management has attracted a significant interest among accounting researchers in the last two decades. Practitioners and regulators are interested in earnings management because it is not only pervasive but also problematic (Dechow and Skinner 2000). Recent evidence on earnings management practices, known as accounting scandals or accounting maneuvers, by some big companies in the US, such as Enron, Xerox or WorldCom has made it even more interesting. Although there have been mounting evidence of earnings management, there are, however, differences in the motives and incentives for earnings management found in the literature and empirical evidence (Healy and Wahlen 1999). That is, certain economic reasons motivate managers to manage earnings either upward or downward.

The existing empirical evidence seems to indicate that the evidence is identified in certain economic settings, but not in others, and even conflicting results occur in studies using similar context, which indicate that the motives and incentives for earnings management among preparers of financial reports are different. Dechow and Skinner (2000:246) assert that share offerings (IPO) provide direct incentive for managing earnings. Healy and Wahlen (1999) also contend that the capital market provides specific incentive for earnings management and in particular in the case of an IPO in which managers "overstate" reported earnings in periods prior to equity offers.

This paper attempts to examine the possibility of issuers of Indonesian initial public offerings (IPO) to opportunistically increase their reported earnings by mak-

ing income increasing discretionary accruals in the periods prior to the offering. The IPO setting provides certain motives and opportunities for the issuers to manage the firm's earnings performance in an attempt to affect the offering price. Previous studies have documented evidence that preparers of financial statements manage their statements to affect the effect of accounting based contracts on wealth distribution (Healy 1985; McNichols and Wilson 1988; DeAngelo 1988, for example).

The existence of information asymmetry between the issuers (insiders), who have better knowledge about the firm, and potential investors (outsiders), coupled with the lack of information about the firm prior to going public, could increase the issuers' incentive to credibly signal the true value of the firm via accounting performance (See Leland and Pyle 1977, for detail of the information asymmetry hypothesis). Anecdotal evidence appears to suggest the use of accounting information in the pricing of an IPO (Perez 1984; Bloch 1986; Sutton and Benedetto 1988; Klein 1996).

The absence of public accounting information also makes accounting numbers the prime target for evaluation of an IPO. Kim et al. (1995) and Klein (1996) provide strong support that accounting numbers are impounded into the pricing of an IPO. Hence, if accounting information is used as an input into pricing decisions in the new issues market the issuers may affect the offering price by managing accounting information. Thus, given these strong economic benefits rational issuers may behave opportunistically to select accounting methods that enhance reported earnings and thus the offering price, which in turn could increase their wealth.

It is interesting that three studies examining the possibility of earnings management in IPO setting provide mixed results. For example, a study by Aharony et al. (1993) does not find strong evidence that in the periods prior to the offering issuers of IPOs make income increasing discretionary accruals that increase their reported earnings. In contrast to Aharony et al., Friedlan (1994) finds strong evidence of earnings management in IPOs.¹ Magnan and Cormier (1997) and Teoh et al. (1998) also find evidence of accrual management in IPOs.¹

Using the total accrual approach that is similar to the one developed by Friedlan (1994), this study finds that the issuers of Indonesian IPOs do not make income increasing discretionary accruals in the periods prior to the offering. The positive changes in earnings in these periods do not contribute to positive discretionary accruals. The second test examining the behavior of discretionary accruals in the year after the offering, that is the first year as a public firm, shows evidence of earnings management.

The remainder of this paper is structured as follows. Section two reviews previous literature. Section three presents the hypotheses. Section four describes the research methodology followed by the empirical results. The final section presents the conclusions and directions for further study.

Review of Related Literature

Most of the existing empirical studies examining the possibility of earnings management use the accruals approach. The studies follow two main approaches: first, using a multivariate analysis, and second, using comparison of accruals in two or more periods. The use of accruals in detecting earnings management is not surprising since modifying a firm's accruals is a practical consequence in managing earnings. Schipper (1989:92) defines earnings management as "disclosure management in the sense of a purposeful intervention in the financial reporting process, with intent of obtaining some private gain." The implication of this definition is that accruals, defined as the difference between earnings and cash flows from operations, are good proxies to detect earnings management.

Studies examining the possibility of earnings management have used various economic settings. It is interesting that not all of the studies provide evidence that managers always manage accruals when there is a reason and opportunity to do so. For example, managers manage earnings when their bonus schemes are tied with earnings performance (Healy 1985; Holthausen et al. 1995; Gaver et al. 1995). Earnings management is evident during proxy contests (DeAngelo 1988), in the provision for bad debts (McNichols and Wilson 1988), during import relief invest-

¹ Magnan and Cormier (1997) and Teoh et al (1998) use different approach in testing earnings management in an IPO setting. They use a multivariate analysis taking the total accruals value as the dependent variable and regress over various firm characteristics. They find that forecaster IPOs that tend to have lower underlying activity after the IPO are more likely to increase reported earnings. Aharony et al. (1993) also use multivariate analysis as an additional test and suggest that earnings management is more pronounce among smaller firms and firms with large financial leverage.

tigations (Jones 1991), during anti-trust investigations (Cahan 1992; Na'im and Hartono 1996), in non-routine executive changes (Pourciau 1993), in management buyout offers (Perry and Williams 1994), and during bank health evaluation (Setiawati and Na'im 2001). However, earnings management does not occur in management buyout offers (DeAngelo 1986) and during labor union negotiation (Liberty and Zimmerman 1986).

IPOs of common stocks provide another opportunity for managing accounting information. When a firm is privately held it does not have an obligation to release its financial statements to the public, hence there is limited or even no public information about the firm. The absence of a market-mediated price for new issue shares may also make accounting numbers an important source of information in the new issue valuation. Schipper (1989, p. 101) notes that when a start-up firm intends to go public, the amount to be raised in the issue is affected by the history of reported earnings suggesting the important role of accounting information, particularly earnings performance in an IPO setting. This obviously could motivate the issuers to choose accounting methods that increase reported earnings.

In an IPO, the prospectus plays a crucial role for both the issuers and potential investors. It is not only the primary promotional media for the issuers, but also the main source of information for potential investors in valuing an IPO. As the main part of the prospectus is the financial statements, potential investors may rely heavily on the issue prospectus. Krinsky and Rotenberg (1989), Kim et al. (1994), and Klein (1996), among others, find that there is a relationship between the value of IPOs and the pre-IPO accounting measures. Clarkson et al. (1992) find evidence

that earnings signal, indicated by the earning forecast, is relevant information to value the IPOs. There is also a suggestion that underwriters use a careful 'spreadsheet' comparison to determine the price of an IPO (Sutton and Benedetto 1988). Such comparison may include the current price-earning ratios, some key financial ratios, dividend policy and yields, and other key qualities of comparable firms trading in the market. Thus, it appears that accounting performance is a crucial aspect for a firm making an IPO.

The importance of accounting information in the issue prospectus to outside investors and the existence of information asymmetry may provide incentives and opportunities for issuers to manage accounting information in an attempt to affect the value of the firm through the offering price. This could be performed through the use of certain accounting choices. Friedlan (1994) argues that adjusting and undoing the accounting choices made by preparers may be difficult and costly for the underwriters or potential investors and they may not be fully able to detect and adjust the extent and implications of such changes. Neill et al. (1995) show that the value of the IPO is related to the accounting procedures selected by the firm. Neill et al. go on to conclude, "offering proceeds are directly related to accounting earnings, which in turn are a function of method choices" (p. 76).

In short, because there is evidence that accounting information is potentially used as an input into the pricing of IPOs, it is appropriate to examine whether in the periods just before the offering issuers of IPOs manage accounting information in an attempt to affect the offering price. Aharony et al. (1993), Friedlan (1994), Magnan and Cormier (1997), and Teoh et al. (1998) examine the possibility of ac-

crual management in the IPO market, but these four studies find mixed results. These studies use similar methods in that they use total accruals as a proxy for discretionary accruals as initially developed by Healy (1985) and DeAngelo (1986, 1988). Aharony et al. and Friedlan modify the measure of discretionary accruals because IPO firms provide a significantly different institutional setting. IPO firms tend to experience larger growth, either in total assets, sales, or profits, that affects the amount of non-discretionary accruals. Thus, the modification is required to control for the effect of growth.

Aharony et al. (1993) examine a sample of 229 US industrial IPOs that went public between January 1984 and June 1987. Total accruals are defined as the difference between net income from continuing operations and cash flow from operations. Aharony et al. standardize total accruals in the test periods with the average of total assets before deducting the total accruals in a benchmark period standardized by the average of total assets.² To measure whether accruals' management occurs, the value of UAC must, on average, be greater than zero. The results show no evidence that issuers of IPOs select accounting methods to increase reported income.

Friedlan (1994) tests a sample of 279 US firm commitment contracts that went public among 1981-1984 excluding firms in the financial, insurance or real estate industry. In his model, Friedland assumes

that there are two components that compose the change in total accruals between two periods, namely (1) the change is due to firm growth, and (2) the change is due to issuers' incremental discretion. Thus, the amount of nondiscretionary accruals and the pool of available discretionary accruals will grow as the firm grows. Friedland asserts that "if growth is ignored, the increase in total accruals could not be attributed to discretion when in fact no discretion may have been exercised, because the increase in accruals is proportional to the increase in sales" (p. 5).

Friedlan's discretionary accruals model assumes that there is a constant proportionality between total accruals and sales in successive periods. This model is expressed as follows:

$$DA_t = (TA_t/S_t) - (TA_{t-1}/S_{t-1})$$

where

DA = discretionary accruals,

TA = total accruals,

S = sales,

t = test period, and

t-1 = benchmark period.

Following DeAngelo (1986), Friedland (1993) defines total accruals as the difference between net income before extraordinary items and operating cash flows. The results show that issuers exercise accounting discretion that enhances their firm's reported earnings. Further evidence indicates that issuers exercise accounting discretion in the most current

² This measure is described as follows:

$$UAC_t = \{AC_t / [(TA_t + TA_{t-1})/2]\} - \{AC_{t-1} / [(TA_{t-1} + TA_{t-2})/2]\}$$

where, UAC is the unexpected standardised accounting accruals in the test period, AC is the accounting accruals, TA is total assets, t is test period, and t-1 is benchmark period. The measure of unexpected standardised earnings and cash flow from operations is performed in similar fashion as measuring the UAC.

financial statements disclosed in the prospectus as indicated by significant finding in the interim statements.³

Magnan and Courmier (1997) and Teoh et al. (1998) use multivariate analysis in testing their prediction that issuers of IPOs opportunistically manage accounting numbers through accruals. These two studies find strong support for the contention that earnings have been managed prior to the offerings.

Hypothesis Development

Empirical evidence has supported the contention that information asymmetry exists in an IPO setting. Asymmetry of information occurs between issuers, who have access to the firm's information, and outside investors. It has been argued that issuers may have an opportunity to affect the initial offering price in effort to obtain larger proceeds by managing accounting performance through accounting discretion. Aharony et al. (1993) and Friedlan (1994) hypothesize that immediately prior to taking their firm public, issuers have an incentive and opportunity to manipulate earnings through the choice of accounting techniques. Aharony et al. point out that if issuers were able to manipulate the initial offering price, such manipulation would provide issuers with the opportunity to increase their wealth. In line with this view is Friedlan who argues that "the need to determine an offering price before trading begins in the after market and the apparent use of accounting earnings in determining the offering price establish incentives for issuers to exercise accounting discretion before going public" (p. 4).

However, different arguments may be proposed in relation to the incentives and opportunities for issuers of IPOs to exercise accounting discretion in other IPO settings, for example an emerging capital market. Differences in the market regulations, accounting regulations, country characteristics, and culture may lead to differences in the motive and incentive of exercising accounting discretion. The differences in institutional arrangements may also create different perceptions among market participants.

The Indonesian capital market, as an emerging market, has common features of an uncertain and unreliable flow of information (Freeman 1996). Even after the reactivation of the market in 1977, it was still not attractive as up to 1988 there were only 24 firms listed in the exchange market. However, since the government changed market regulations in late 1988, the capital market has experienced significant positive reaction from entrepreneurs desiring benefit from the market.

One possible incentive for issuers of IPOs in Indonesia to manage accounting information could be related to the Indonesian financial reporting requirements. According to the reports by Asian Development Bank (1995) and International Financial Corporation (1994) (as cited in Saudagaran and Diga 1997), the Indonesian accounting regulations are classified as poor. Briston (1990) also notes the limitations of the Indonesian accounting system and financial reporting requirements by stating that "without a reliable system of financial reporting, it easy for financial statement preparers to maintain secrecy regarding their own gains" (p.

³ Friedlan notes that the difference in his findings and Aharony et al. could be due to sample selection. Thus, Friedlan's finding of earnings management could be driven by the fact that his sample firms are, on average, smaller than Aharony et al.. This is in line with Aharony et al. additional test that suggests that earnings management is more pronounce among smaller firms.

206). This suggests that the lack of well established market regulations and financial reporting requirements may provide more opportunities for issuers of IPOs in Indonesian to manage the accounting information compared to the issuers in a developed capital market.

Although a firm wishing to go public must be audited by a public accountant registered at the Bapepam (Capital Market Supervisory Board) and receive an unqualified opinion for the most recent fiscal years, there were requests from investors to improve the listing procedures, securities laws, quality of information disclosed in the prospectus, accounting standards, financial disclosures requirements, and accounting practices (Sender, 1990; Shale, 1992). For example, one market player concerned about the quality of the listing procedures has been disappointed (Sender 1990). The others note that the financial system lacks the support of even reasonably developed legal or accountancy systems (Shale 1992). In response to these, Bapepam has been trying to improve many market regulations, such as tightening accounting practices, prospectus standards and listing procedures, and financial disclosure (Ford 1993; Chang 1994; Clark 1994). Yet, the regulations on the required prospectus information do not fully satisfy investors' demand as noted by Anna Tong of Actna Investment Management Hong Kong, who points out the poor quality of corporate disclosure of Indonesian listed companies (Anonymous 1995). She also asserts the need to look at cash flow performance instead of looking solely at earnings.

The above views have led to the following research question. Does the lack of market information, low market regulations and low quality of accounting systems in the Indonesian capital market es-

tablish incentives for issuers of IPOs to manage accounting numbers? This research question is formalized in the following hypothesis:

$H_0 =$ *The issuers of Indonesian industrial IPOs do not increase reported earnings by making income-increasing discretionary accruals in the periods prior to going public.*

To test this hypothesis the behavior of discretionary accruals between periods $t-1$ (the benchmark period) and t (the test period) is examined (See Friedlan 1994, for the determination of the period of analysis).

Discretionary accruals may decrease in year $t+1$ because many accruals are temporary and may reverse soon after they are exercised, for example, earlier recognition of revenues (i.e., sales). The increase in sales, which increase the profits, *ceteris paribus*, is due to the change in revenue recognition during year T . This may cause the decrease in sales for year $t+1$, which may also decrease profits. Hence, there will be a reduction in future earnings. Friedlan's (1994) results support the expectation that discretionary accruals reverse in the year following the IPO. What would happen if there is no evidence of accruals management in the years prior to offering? If this is the case then we have no exact expectation about the behavior of discretionary accruals in the year after the offering, i.e., there could be either accruals management or no accruals management. Thus, there is no expectation about the behavior of discretionary accruals in the periods after the offering, but for the purpose of completeness this paper will also examine accruals behavior in these periods, in particular in the year after the offering.

Along with the use of discretionary accrual measures, this study also incorpo-

rates other measures. These measures include the change in earnings and cash flow from operations. The behavior of earnings is tested because earnings are always associated with the success of the business. Thus, earnings are more likely to increase prior to the offering, even if the issuers do not make income increasing discretionary accruals. The behavior of cash flow from operations is examined because an increase in profit, and thus the operating activities is often associated with an increase in cash flow from operations.

Research Method

Estimation of Discretionary Accruals

It is assumed that a firm deciding to go public tends to grow as indicated by the need of capital to fund its growth. Total accruals and non-discretionary accruals should increase as the firm's operating activities grow. Such increases will also influence the amount of discretionary accruals. Following Friedlan (1994) it is assumed that there is a constant proportionality between sales and total accruals in successive periods. Total accruals equal to net income before extraordinary items less cash flow from operations. Since cash flow statements are mandatory for Indonesian financial reporting beginning in 1995 and only few companies voluntarily report cash flow statements in the issue prospectus, the measure of operating cash flows is drawn from data available in the balance sheets, income statements, and changes in financial positions.

Cash flow from operations is measured by adjusting working capital from

operations as measured in the statement of changes in financial position for changes in all current operating accounts. Cash flows from operations must be calculated manually as the financial reports of the issuing firms prior to 1995 use considerably different methods in presenting the cash flows statement. Many of the firms' prospectuses do not provide a cash flows statement.^{4, 5}

Working capital from operations (WCFO) is measured as follows:

$$\text{WCFO} = \text{net income} - \text{extraordinary items} + \text{depreciation, amortization, and depletion} \pm \text{other elements not affecting working capital.}$$

Included in the elements not affecting working capital are gains or losses on sale of assets or disposal of assets, non-current portion of deferred tax, and others. Thus, to calculate cash flow from operations (CFO) the following measure is employed:

$$\text{CFO} = \text{WCFO} + (-) \text{decrease (increase) in current assets other than cash or cash equivalent and short term investments} - (+) \text{increase (decrease) in current liabilities other than current maturities of long term liabilities.}$$

Included in the current assets other than cash and/or cash equivalents and short-term investments that provide the opportunity of accounting discretion are accounts receivable, inventory, prepaid expenses, current portion of deferred taxes, and other current operating assets. For the

⁴ The new accounting standard (*Pernyataan Standar Akuntansi Keuangan* = PSAK) was mandated in September 1994 and was effective as in 1st January 1995. The cash flows statement is stated in PSAK No. 2.

⁵ See discussion of the difficulties in calculating cash flow from operations in Drtina and Largay (1985).

current liabilities other than the current portion of long term liabilities that provide opportunities for manager to exercise accounting discretion are bank debt (short term loan), accounts payable, accrued liabilities, wage or salary payable related to accruals, income taxes payable, and other current operating liabilities.

The model used to measure discretionary accruals is based on the Friedlan model. From the model, a positive discretionary accrual can be interpreted as evidence of exercising accounting discretion that increases the reported earnings.

The change in variable measure is used to test the behavior of earnings, cash flows from operations, and total accruals. This measure is expressed as follows:

$$V = (V_{\text{test period}} - V_{\text{benchmark period}}) / S_{\text{test period}}$$

where

V = change in variable for which the variable represents the earnings, cash flow, and total accruals,

S = sales.⁶

Sample Selection

The sample used in this study is drawn from companies that went public from July 1991 to December 1994. July 1991 is selected as the start of the study because the latest regulation on the prospectus was effective beginning 19 April 1991 and because no companies made an IPO during April-June 1991. The sample is restricted to 1994 to account for the new financial reporting standard issued by the Indonesian Institute of Accountants, which was effective in 1995. The new Accounting Regulation (*Pernyataan Standar*

Akuntansi Keuangan or the Financial Accounting Standard Statement) obligates firm to provide cash flows statement in their financial report. In this study, the cash flows from operating activities are calculated using Friedland's model.

The sample firms must satisfy the following criteria:

1. firms are using commitment contracts. Under the commitment contracts, the issuers have no risk of unsold shares because it is the underwriters who are responsible for the unsold shares.
2. firms are in the industrial classification which comprises basic industry and chemical, miscellaneous industry, and consumer goods. This criterion is imposed to avoid differences in format and composition in their financial structure and its reporting, and
3. firms must have at least three years of financial statements disclosed in the issue prospectus because the analyses used in this study require at least three years of complete financial statements in order to make a proper adjustment in the growth of accruals.

There were 92 firms going public from July 1991-December 1994. Forty-eight firms are identified to be in the industrial classifications of which one firm has incomplete operating activities and two firms do not have financial statements in year $t-2$. Thus, the final sample comprises 45 firms. Of the 45 final sample, 17 firms are from basic industry and chemical, 16 from miscellaneous industry, and 12 from consumer goods. Four firms went public in 1991, seven firms in 1992, fifteen firms in 1993, and the remaining nineteen firms went public in 1994.

⁶ For comparative purposes, the Aharony et al.'s model, the models that standardize total accruals with the change in sales, and total assets are also used. The results using the alternative models produce qualitatively similar conclusions.

Empirical Results

Table 1 provides the descriptive statistics of the 45 sample firms investigated in this study. The descriptive statistics presented in Table 1 are for data in year t or a complete financial year in the year before the offering. It can be seen from Table 1 that there is high variance in terms of firm size (sales and total assets). For

example, the sales in year t vary from 10.5 billions to 1,131.6 billions. A close examination reveals that this high variance is mainly caused by two firms with ultimately high sales and also total assets (i.e., PT. Barito Pacific Timber and PT. Indofood Sukses Makmur). These two firms also contributed to the higher variance on the proceeds and the number of shares being sold. For example, by excluding these two

Table 1. Descriptive Statistics of Sample Firms (45 Firms)

Variables	Mean	Median	Std. Dev.	Minimum	Maximum
Sales (billions) _{$t-1$}	87.8	45.9	201.2	6.3	1,230.9
Sales (billions) _{t}	101.7	59.0	194.7	10.5	1,131.6
Sales (billions) _{$t+1$}	165.2	88.9	263.9	16.7	1,344.9
Tot. assets (billions) _{$t-1$}	111.9	45.8	254.4	7.6	1,657.0
Tot. assets (billions) _{t}	147.1	70.2	275.6	17.5	1,750.8
Tot. assets (billions) _{$t+1$}	255.1	126.2	445.9	25.8	2,750.8
Proceeds (billions)	70.8	47.5	99.5	4.8	612.0
Offering price	4,332	3,800	1,761	2,075	9,000
Shares sold (millions)	15.2	10.0	14.7	1.0	85.0

Note: Amounts are all in Indonesian Rupiahs, except for shares sold.

Table 2. The Growth of Sales and Total Assets (45 Firms)

Description	Mean	Median	Std. Dev.	Minimum	Maximum
<i>Period t-2 to t-1</i>					
Sales	1.622 **	1.344*	0.862	0.816	5.465
Total Assets	1.522 **	1.370 *	0.673	0.920	4.216
<i>Period t-1 to t</i>					
Sales	1.394 **	1.303 *	0.385	0.919	2.930
Total Assets	1.591 **	1.509 *	0.626	0.871	4.729
<i>Period t to t+1</i>					
Sales	1.945 **	1.565 *	1.574	0.917	10.678
Total Assets	1.883 **	1.731 *	0.564	1.051	3.297

Note: The increase in size is indicated by the value of growth that is greater than 1. The tests are conducted to examine whether the median growth in sales and total assets is greater than zero. The growth is defined as (variable _{t} / variable _{$t-1$}), where variable represents sales and total assets.

** The growths are all significant at $p < 0.000$ under the Wilcoxon and sign tests (one-tailed tests).

* The growths are significant at $P < 0.000$ under the t -test.

firms the minimum and maximum sales in year t are 10 billions and 215 billions, respectively, while for total assets the minimum and maximum in year t are 17 billions and 382 billions, respectively. However, an examination excluding these two firms does not produce qualitatively different conclusions.

Table 2 provides a measure of the growth of sales and total assets. The Wilcoxon and the sign tests provide evidence that the growth is significantly different from zero at the $p=0.000$ level (one-tailed) in all periods. Thus, the examination of the growth in sales and assets provides support on the behavior of accru-

als and justifies the standardized assumption used in this study.

Table 3 provides summary of tests of the changes for each of the variables examined in the study. The tests examine the changes in net income before extraordinary items (OPIN), net income after tax (NETIN), cash flow from operations, and total accruals. Panel A of Table 3 presents the results of tests on the possibility of earnings management for periods $t-1$ and t , that is, the periods prior to the offering.

Recall that issuers of IPOs are motivated to increase reported earnings in the years before the offering. The results in Panel A of Table 3 support the proposition

Table 3. Changes in Earnings, Total Accruals, and Cash Flows from Operations
Benchmark Period = $t-1$, Test Period = t (45 Firms)

Description	OPIN	NETIN	Cash Flows	Total Accruals
Panel A: Periods $t-1$ to t				
Mean	0.070	0.067	0.064	0.005
Median	0.068	0.047	0.103	-0.004
Percent Positive (Negative)	95.5(4.5)	91.1(8.9)	64.4(35.6)	46.7(53.3)
Wilcoxon test (p-value)	0.000	0.000	0.050	0.843
Sign test (p-value)	0.000	0.000	0.074	0.766
t-test (p-value)	0.000	0.000	0.362	0.794
Panel B: Periods t to $t+1$				
Mean	0.078	0.062	-0.051	0.130
Median	0.085	0.062	-0.067	0.147
Percent Positive (Negative)	93.3(6.7)	97.8(2.2)	31.1(68.9)	75.5(24.5)
Wilcoxon test (p-value)	0.000	0.000	0.110	0.002
Sign test (p-value)	0.000	0.000	0.017	0.001
t-test (p-value)	0.000	0.000	0.236	0.033

Note: * All tests are under the one-tailed except tests for cash flows which are two-tailed.

The mean and median reported in this table are the change in each variable measured as the difference between benchmark and test period standardized by sales in the test period ($=[\text{variable}_t - \text{variable}_{t-1}] / \text{sales}_t$). The variables are the operating income, net income, cash flow from operations, and total accruals.

that there is an increase in both net operating income and net income. Forty-three firms, or 95.55 percent, reported an increase in operating income and 41 firms, or 91.11 percent, reported an increase in net income. The mean and median increase of operating income and net income from years $t-1$ to t are significant at $p < 0.001$ using the one-tailed Wilcoxon and the sign tests. This suggests that firms going public tend to be profitable.

The analysis of the change in cash flow from operations, column 4 of Panel A, indicates that the increase in reported earnings is accompanied by an increase in cash flow from operations, the mean and median increase are 6.7 percent and 10.3 percent, respectively. Twenty-nine of 45 firms, or 64.44 percent, reported an increase in cash flow from operations, which is significant at $p < 0.10$ level using both the one-tailed Wilcoxon and the sign tests. Column 5 of Panel A, however, shows that the total accruals do not increase during periods $t-1$ to t . The mean (median) changes of total accruals show a positive (negative) value of 0.5 percent and -0.4 percent, respectively. Of the 45 sample firms, only 21, or 46.67 percent, recorded positive total accruals, which are insignificant under the Wilcoxon and sign tests. This indicates that there is no accrual management in the periods $t-1$ to t .

Based on the findings reported in Panel A of Table 3, it can be concluded that the increase in earnings does not lead to the increase in accruals. As only 21 firms or 46.67 percent of the sample firms reported positive changes in total accruals, it can be suggested that the management of accruals in Indonesian IPOs is not strongly evidenced. In other words, there is no evidence the issuers of Indonesian IPOs exercise accounting discretion to in-

crease reported earnings in the periods prior to the offering.

The results of tests on the behavior of the discretionary accruals shown on Table 4 support the findings reported in Panel A of Table 3. Panel A of Table 4 shows the mean and median of discretionary accruals are 0.017 and -0.012, respectively, indicating more IPO firms reported negative discretionary accruals. This is shown in Panel B of Table 4 that 24 or 53.33 percent of the sample firms experience negative discretionary accruals and only 21 firms or 46.67 percent of sample firms experience positive discretionary accruals.

To examine whether firms with negative and positive discretionary accruals come from different populations, the Chi-Square test is performed. The result of the Chi-Square test suggests that firms with negative and positive discretionary accruals come from different populations ($X^2 = 0.2010$, $p\text{-value} = 0.6547$). Hence, these findings confirm that in the periods prior to the offering, issuers of Indonesian IPOs do not exercise accounting discretion that enhances reported earnings.

The results of the study reveal that discretionary accruals are negative prior to the offering, which suggest that earnings management has not occurred. Accordingly, there are two possible movements, whether discretionary accruals remain negative or become positive in the periods after the offering. The results of analysis of changes in earnings, cash flows and total accruals for periods t to $t+1$, that is the periods after the IPO, are presented in Panel B of Table 3.

Columns 2 and 3 of Panel B of Table 3 show that after going public (year $t+1$) IPOs firms report an increase in earnings and this increase is statistically signifi-

Table 4. Results of Tests of Discretionary Accruals for periods $t-1$ to t and t to $t+1$ (45 firms)

Panel A: Descriptive Statistics					
	<u>Mean</u>	<u>Median</u>	<u>Std.Dev.</u>	<u>Minimum</u>	<u>Maximum</u>
Period $t-1$ to t	0.017	-0.012	0.391	-1.047	1.041
Period t to $t+1$	0.133	0.176	0.451	-1.685	1.508

Panel B: Percentage of the Discretionary Accruals record		
	<u>Percent Positive</u>	<u>Percent Negative</u>
Period $t-1$ to t	21 firms (46.67%)	24 firms (53.33%)
Period t to $t+1$	32 firms (73.33%)	14 firms (26.67%)

Panel C: Test on discretionary accruals periods $t-1$ and t, and periods t and $t+1$	
Wilcoxon test (p-value)	0.009
Sign test (p-value)	0.003

Note: $^a DA_{t,t} = (TA_t/S_t) - (TA_{t-1}/S_{t-1})$; $^b DA_{t,t+1} = (TA_{t+1}/S_{t+1}) - (TA_t/S_t)$.
 All tests are under two-tailed. The tests are provided to examine whether the value of discretionary accruals in the period before the offerings is smaller than the value after the offering.

cant, $p < 0.000$. The increase in income for years t to $t+1$ is followed by the increase in cash flow from operations and total accruals. The mean and median increases in cash flow from operations are significant at $p < .10$. Unlike in the previous periods, in this period total accruals show positive changes. The mean and median increase in total accruals are 13.0 percent and 14.7 percent, respectively, and are significant at $p < .001$ under the Wilcoxon and sign tests. There are 34 firms, or 75.55 percent, report an increase in total accruals.

The results reported in Table 3 Panel B suggest that in the periods after the offering, which is in the first year the firm as a public firm, the IPOs firms make income increasing discretionary accruals via the use of accounting methods that increase reported earnings. Panel B of Table 4 supports this conclusion where for years t to $t+1$, 32 of the 45 sample firms or 71.11 percent reported positive discretion-

ary accruals. There are two possible explanations upon the finding of earnings management in the period after the offering. *Firstly*, the IPO firms appear to systematically maintain their accounting performance to show its ability of achieving its operating performance absence of its poor performance. *Secondly*, they have experienced lower operating performance in their early year as public firm, so exercising accounting discretion is the only way to be able to maintain its accounting performance. The second possibility is probably in line with Jain and Kini (1994) who find that the post-IPO operating performance as measured by the operating return on assets and operating cash flows tend to decline systematically.

To examine the movement of the change from negative to positive discretionary accruals between the periods before and after the offering the Wilcoxon and sign tests are again employed. As can

be seen in Panel C of Table 4, the tests provide evidence that the change is statistically significant ($p < 0.000$). Thus, the findings reported in Table 4 clearly indicate, that in the period after the offering, the IPOs firms manage accruals, presumably through the choice of accounting methods that increase reported earnings.

Further test suggest that there is no evidence that the restriction on the Price-Earnings Ratio (P/E ratio) for firm making an IPO has an impact on the issuers' motivation to manage reported earnings through accounting discretion. Prior to 1994 there was no regulation that constrained the P/E ratio of IPO firms. The restriction that IPO's shares must not exceed a P/E of 15 is believed to have had an impact on the issuers' incentives to manage earnings. One may argue that such a restriction limits the opportunity for issuers to sell their shares at a price higher. For example, firms having equal earnings per share will generate more cash when it goes public before the restriction were imposed because they can sell the shares at a higher price in. Thus, such a restriction may have impact on issuers' incentives to exercise accounting discretion that affects reported earnings. To examine this, the sample is partitioned into two groups: the first group consists of firms that went public prior to 1994 (26 firms) and the second group consists of firms that went public in 1994 (19 firms).

Similar tests as in earlier sections are conducted. The results show that it appears there is no difference on the motivation of the issuers to manage accounting earnings prior to the offering on both samples. It is found that there is no evidence of earnings management in the period before or after the restriction of P/E ratio. Similar to earlier finding in previous section earnings management is evidenced

in the period after the offering for both samples. The finding shows, *ceteris paribus*, that the restriction on P/E multiple has no effects on the issuers' incentive to manage the accounting numbers in the period after the offering.

The other test is the examination on the behavior of discretionary accruals before and after the offering. It is revealed that most of the IPO firms that had negative discretionary accruals prior to the offering have recorded positive discretionary accruals in the year after the offering. From 24 firms that had negative discretionary accruals 19 of them recorded positive discretionary accruals in the year after the offering. Whilst, from 21 firms that had positive discretionary accruals in the period before the offering 13 remain recorded positive discretionary accruals in the period after the offering. Thus, this finding clearly indicates that the majority of firms that experience positive discretionary accruals in the period before the offering do not continue to manage the accruals in the year after the offering.

Conclusions and Direction for Further Studies

This study investigates the possible occurrence of earnings management in Indonesian IPOs. To do this, it examines the behavior of discretionary accruals in the periods prior to the offering. The findings reveal that in the periods before the offering, issuers of Indonesian IPOs do not exercise accounting discretion that increases reported earnings. However, it is found that earnings increase prior to the offering and the cash flows show positive values. This evidence appears to suggest that the success of IPOs is reflected by the increase in earnings, in the absence the accounting discretion. Other findings show

that the restriction on the price earnings multiple has no effects on issuers' opportunistic behavior to select accounting methods to increase the reported earnings.

It is suggested that future research may extend the sample to provide more robust findings. Future research may also examine the type of specific industries or introduce an industry variable to examine whether certain industries possess certain characteristics. Another possible study is to examine the possible differences on the incentives and motivations to exercise accounting discretion in the periods during the boom (up to 1990) and after the boom

(1991 onwards). Finally, since this study does not control for the effect of capital structure changes of firm before going public, such as acquisition or merger, the findings could be biased. It could be the case that some of the firms used in this study have been conducting acquisition or merger as indicated by a jump in either their sales or total assets. Accordingly, future study might control for such changes so any effects on company's financial structure that could bring them to a sharp increase in accounting performance could be eliminated.

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Exhibit: List of Firms Examined in this Study

Name	Name
1. PT. Semen Gresik, Tbk.	24. PT. Kedaung Indah Can, Tbk.
2. PT. Dynaplast, Tbk.	25. PT. Anwar Sierad, Tbk.
3. PT. Kalbe Farma, Tbk.	26. PT. Super Mitory Utama, Tbk.
4. PT. Suba Indah, Tbk.	27. PT. Textile Manufacturing Co., Tbk.
5. PT. Kabelindo Murni, Tbk.	28. PT. Sumalindo Lestari Jaya, Tbk.
6. PT. Kabel Metal Indonesia, Tbk.	29. PT. Super Indah Makmur, Tbk.
7. PT. Sorini Corporation, Tbk.	30. PT. Ugahari, Tbk.
8. PT. Evershine Textile Ind., Tbk.	31. PT. Ades Alfindo Putra Setia, Tbk.
9. PT. Jembo Cable Co., Tbk.	32. PT. Tempo Scan Pacific, Tbk.
10. PT. SMART Corporation, Tbk.	33. PT. Indofood Sukses Makmur, Tbk.
11. PT. Argha Karya Prima Ind., Tbk.	34. PT. Bintang Kharisma, Tbk.
12. PT. Sekar Bumi, Tbk.	35. PT. Langgeng Makmur Plastic, Tbk.
13. PT. Sarasa Nugraha, Tbk.	36. PT. Prasadha Aneka Niaga, Tbk.
14. PT. Texmaco Perkasa Eng., Tbk.	37. PT. Asiana Imi Industry, Tbk.
15. PT. Surabaya Agung Ind., Tbk.	38. PT. Darya Varia Laboratoria, Tbk.
16. PT. Lion Metal Work, Tbk.	39. PT. Suparma, Tbk.
17. PT. Ganda Wangsa Utama, Tbk.	40. PT. Keramika Indonesia Asosiasi, Tbk.
18. PT. Sekar Laut, Tbk.	41. PT. Indal Aluminium Industry, Tbk.
19. PT. Barito Pacific Timber, Tbk.	42. PT. Jeewon Jaya Indonesia, Tbk.
20. PT. Tancho Indonesia, Tbk.	43. PT. Karwell Indonesia, Tbk.
21. PT. Concord Benefit Ent., Tbk.	44. PT. Fajar Surya Wisesa, Tbk.
22. PT. Andayani Megah, Tbk.	45. PT. Davomas Abadi, Tbk.
23. PT. Indosepamas Anggun, Tbk.	
