# EARNINGS AND CASH FLOWS BEHAVIOUR IN INDONESIAN INITIAL PUBLIC OFFERINGS

M. Adi Irawan

adi\_only\_one@yahoo.com

PT Bank BNI, Tbk RBC Balikpapan Tatang Ary Gumanti

tatangag@yahoo.com

Fakultas Ekonomi Universitas Jember Ester Manik

estermanik13@gmail.com

STIE Pasundan Bandung

#### **ABSTRAK**

Penawaran saham perdana (Initial public offering = IPO) menjadi topik penelitian yang menarik untuk dikaji mengingat isu ketimpangan informasi atau asimetri informasi di antara pihak-pihak yang terlibat di dalamnya. Salah satu fenomena yang menarik untuk dikaji dan melekat dengan penawaran saham perdana adalah adanya dugaan praktik manajemen laba (Teoh et al., 1998). Dalam hal ini, ada dorongan yang kuat bagi pemilik lama perusahaan untuk membuat kinerja keuangan perusahaan lebih baik pada periode sebelum panawaran. Penelitian ini mencoba untuk menguji apakah ada kenaikan laba yang signifikan pada periode sebelum penawaran yang dapat diinterpretasikan sebagai adanya manajemen laba. Perilaku aliran kas dari aktivitas operasi juga diteliti. Sampel penelitian mencakup 35 perusahaan yang melakukan penawaran saham perdana di Bursa Efek Indonesia tahun 2002-2005. Uji-t untuk perbedaan nilai diterapkan untuk menguji apakah laba antar periode berbeda. Hasil penelitian menunjukkan bahwa besaran laba cenderung meningkat pada tahun mendekati saat penawaran saham, tetapi menurun pada periode dua tahun setelah penawaran saham perdana. Perilaku aliran kas dari aktivitas operasi relatif sama dengan perilaku laba. Namun demikian, penelitian ini tidak sampai pada kesimpulan bahwa manajemen laba terbukti dengan nyata dilakukan pada perusahaan yang melakukan IPO di Indonesia tahun 2002-2005.

Kata kunci: IPOs, prospektus, laba, aliran kas dari aktivitas operasi

## **ABSTRACT**

Initial public offerings (IPOs) offer a fruitful area to be explored given the existence of asymmetric information among various parties interested in the IPO. One of the issues pertaining in the IPO setting is the presumed existence of earnings management practice (Teoh *et al.*, 1998). In this case, there seems to be strong incentives of the owners of the firm to make financial performance of the firm look better in the periods before the offering. This study attempts to examine whether there is significant increase in earnings level prior to the offering to be interpreted as the existence of earnings management. The behaviour of cash flow from operation is also examined. A sample of 35 Indonesian IPOs that made public during 2002-2005 periods was examined. The t-test for mean difference was performed to test whether earnings is different. The findings show that earnings level tends to increase in the year closes to the IPO date, but decrease in the next two years after that. The behaviour of cash flows from operating activities is almost similar. However, this study is unable to state that earnings management is strongly evidenced in Indonesian IPO settings.

Keywords: IPOs, prospectus, earnings, cash flows from operations

### **INTRODUCTION**

Going public through selling equity securities to the public for the first time, known as an initial public offering (IPO), is considered an important method for private companies to raise capital. One aspect of IPOs that is of interest is that the offering prices have to be set without the benefit of an observable market price. In this case, the issuers and underwriters must set the offering price using non-price information since there are no adequate and reliable market price determinants for IPOs until trading of the securities begins. This makes the setting of the offering price difficult and critical because it will affect either the response of the market or the issuers' wealth (Ibbotson et al., 1988, 1994). Thus, uncertainty concerning the true value of IPO stocks is greater than that pertaining to already traded ones and prospective investors should seek for various measures in valuing the IPO before making any investment decision on the offered stocks.

One potential source of information relevant to pricing an IPO is accounting information. Some scholars believe that accounting information plays an important role in determining the price of an IPO given only limited, if any, information available about the issuing firm prior to the listing date.

It is not uncommon that prior to the offering a company, as a privately held corporation, has less or even no obligation to reveal its information to the public. The literature has also recommended the incorporation of accounting numbers in determining at what price the stock of an IPO should be sold (Perez, 1984; Bloch, 1986; Sutton and Benedetto, 1988; Buck, 1990). In addition, accounting numbers have been used as a standard practice in many IPO valuation case studies (Varaiya et al., 1997).

Rosenberg and Marathe (1979), cited in Downes and Heinkel (1982), suggest that the characteristics of a firm's risk and return are affected by its attributes, which could be in term of indices (e.g., firm's industry

group and size) or signals (e.g., the level of share ownership and the auditing firms). These attributes can be used to predict the risk and value of a firm's equity. As accounting information represents one of the attributes, it can also be of potential use as a predictor of risk and value and serve to reduce the uncertainty of a firm's security.

Numerous papers have provided analytical and empirical evidence of the association between accounting numbers and the value of IPOs (Downes and Heinkel, 1982; Hughes, 1986; Titman and Trueman, 1986; Krinsky and Rotenberg, 1989a, 1989b; Kim et al., 1993, 1994, 1995 and Klein, 1996). In particular, Kim et al. (1995) and Klein (1996) show that information in the prospectus is value relevant concerning the IPO. In other words, the value of IPOs is also related to the signals taken by the entrepreneurs, such as the level of ownership retention or the quality of underwriters and auditors. These suggest that, apart from the uncertainty surrounding the IPO, the value of an IPO is somewhat predictable.

The literature, theoretical and empirical evidence, has indicated that certain accounting measures can be used as proxies for total firm risk, that is, they could determine the riskiness of a corporation (Lev, 1974; Bowman, 1979; DeAngelo, 1990). The accounting and financial textbooks also suggest that accounting information is relevant in determining the value and thus the riskiness of a corporation through the use of accounting analysis (Brealy and Myers, 1996; Benninga and Sarig, 1997; White *et al.*, 1998).

One may argue that since most of the information available in the prospectus is accounting information, it is arguable that this information represents a potential source for assessing the issuing firm. Some scholars have also advocated the possibility of using accounting information in assessing the value of firm making an IPO (Beaver *et al.*, 1970; Foster, 1986; Lev, 1989; Berstein and Wild, 2000; Noland and Pelvik, 1998). In addtion, Ryan (1997), based on his survey

relating accounting numbers and company risk, notes the possibility of incorporating accounting information for measuring the risk of a firm making an IPO in the absence of ex-post risk measures prior to the offering.

Boulton *et al.* (2011) assert that a number of researchers have studied the link between accounting information disclosed in the IPO prospectus and the market value of going-public firms. Principally, this strain of the literature asks whether the IPO firms manipulating their financial statements to obtain a higher share price so as to improve the initial owners' private wealth. Using a sample of 10,783 IPOs from 37 countries, Boulton *et al.* found that IPOs were underpriced less in countries where public firms produced higher quality earnings information. This finding suggests that earnings quality will affect the riskiness of an IPO.

To summarize, the literature and empirical evidence have suggested that accounting information is very useful for predicting the value of an IPO. Not surprisingly that may studies are directed to examine whether issuers of IPO deliberately use accounting discretion to affect accounting number in order to be successfully selling the stocks. This motivation has led to what so called earnings management practices in IPO setting.

This study examines earnings management of Indonesian IPOs. Companies offering shares publicly for listing in the capital market are required by the securities law to meet certain financial and operating criterias. Because of the major impact of the offering prices on their private wealth and the explicit use of accounting numbers, particularly accounting earnings, the managers and the major stockholders of IPO firms, called the issuers, have incentives to manage earnings numbers as an effort to maximize their private wealth through the offering price.

Scott (2003) defines earnings management as the choices by a manager of accounting policies to achieve some specific

objectives. Scott pointed out that manager can choose accounting policies from a set of policies (GAAP). Accordingly, it is natural to expect that they will choose policies so as to maximize their own utility and/or the market value of the firm. While this definetion is much broader than the one used by the SEC, it is useful for us to recognize that it is managers acting in their own selfinterest that explains their behaviour. Put it simple, Scott (2003) expresses earnings management as any action performed by management to select accounting policy to affect reported accounting profits with the purpose of obtaining higher wealth and/or market value of the firm.

In similar spirit, Healy and Wahlen (1999:368) suggest that 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".

We interpret this broad definition as including earnings management in IPO. Dechow and Skinner (2000) also mentions that IPO setting provides incentive for manager to manage reported earnings. Levitt (1998), former chairman of United States' capital market regulator, has asserted that aggressive earnings management has been of concern to regulators for several years and that concern has only intensified following evidences of improper accounting practices by Enron, World Com, and some other major corporations.

A number of studies using Indonesian IPOs have been conducted, but the results are still mixed. For example, Gumanti (1996) does not find evidence of earnings management in IPO for firms that went public between July 1991 and December 1994. Gumanti (2003) also does not find evidence that manufacturing firm making IPO manage earnings prior to the IPO date. Warganegara and Indriastari (2009) do not

find evidence of income increasing for firm making IPO from 2005 to 2006. However, Gumanti (2001) also finds support that issuers of IPO manage accrual in the period prior to go public for a sample of 39 IPOs between 1995 and 1997. These studies use accruals base model to predict whether earnings before IPO date are managed.

Gumanti and Swastika (2005) examine the behaviour of IPO's performance in the periods before and after the offering. They compare a number of key operating performance measures of the firm and find a tendency that the operating performance IPO firms tends to decrease after the IPO year indicating an effort to boost reported earnings prior to the offering. Hastoro and Yuliana (2010) examine 32 firms making IPO at the Indonesian Stock Exchange between 2000 and 2008 and showed that discretionary accruals one year prior to IPO date are positive but it becomes negative after the IPO. This indicates that prior to IPO date, issuers have strong intention to boost earnings but they are unable to maintain the level of earnings after the IPO date. One may argue that earnings tend to be managed upward in the period prior to offering and managed downward in the period after the offering.

It can be seen that issuers of IPO firms in Indonesia Stock Exchange have strong intention of managing earnings performance. Earnings are tending to increase in the periods prior to the offering and conversely earnings are tending to decrease in the periods after the offering. This evidence suggests that earnings management is common practice in Indonesia IPO setting. The question is that whether this incidence is continuing? One may argue that such efforts may occur in certain situation but not in other situation. In particular, issuers' incentive to increase earnings performance is driven by their expectation to generate more cash from the issue. Nagata and Hachiya (2003) find offer price reflects earnings management to some extent. More specifically, firms with conservative earnings management tend to have higher offer prices and firms managing earnings aggressively tend to be discounted when they fail to exhibit smooth earnings growth.

Unlike already listed firms, there are fairly limited sources of information on firms before going public. This has made interested parties in IPO setting, such as outsiders including underwriters and investors have to rely on financial statement information until the trading of shares in the capital market starts. Some scholars have suggested the use of accounting information in conjunction with comparable firm multiples in valuing IPOs (Titman and Trueman, 1986; DeAngelo, 1986; Kim and Ritter, 1999). Evidence has clearly indicated that underwriters use accounting variables to set an offer price with few other sources of information creates a strong incentive for IPO issuers to boost reported earnings through discretionary accounting choices. Thus, earnings management seems to be a common practice in an IPO setting.

It has been widely believed that before the year of IPO, a great proportion of companies demonstrate a bright performance but declined substantially right after the stock offerings, suggesting the existence of earnings management by the IPO firms. The phenomenon is particularly severe for accounting earnings. As a result, accusation that IPO firms manage earnings to inflate offering prices arises and results in widespread public outcry and demands for stock market governing body actions. In light with this accusation, this study investigates whether IPO firms manage earnings in an attempt to improve the success of offering.

Employing 35 firms making IPO at the Indonesia Stock Exchange from 2002 to 2005, this study is unable to conclude that earnings management is evidence for periods before the offering. The remainder of this paper is organized as follows. Section two presents review of related literature. Section three describes sample selection and variable measurement. This is followed by findings and discussion. Final section

summarises and provides genesis for future study.

#### THEORETICAL REVIEW

There are various definitions of earnings management exhibited in the accountting literature. Rosner (2003) defines earnings management as techniques that managers deliberately employ to achieve a desired level of reported earnings. In particular, Rosner advocates between earnings management and fraudulent financial reporting or fraud by the kinds of techniques used to manipulate earnings, or the intensity with which they are employed. Dechow and Skinner (2000) also differentiates between earnings management and accounting fraud. Fraudulent accounting does involve violation of Generally Accepted Accounting Principles (GAAP) while earnings management does not. On the other hand, Giroux (2004) defines earnings management as the whole spectrum of conservative accounting, moderate accounting, aggressive accounting and fraud.

Studying IPO is interesting because there so many aspects that we can explore. For example, the IPO structure is unique for studying environments that may be inclined to incentives to manage earnings. It has been argued that companies going public have an acute need to meet quarterly earnings forecasts. This condition may increase pressures to take questionable actions. That is, these actions may become more and more aggressive and lean toward fraud. In addition, these pressures to manage earnings may also be motivated by compensation packages that involve stock options, which typically increase in value as indicated by positive financial and operational results. In other words, earnings management could easily be found in an IPO setting that will lead to fraud if the action is considered to be deliberate.

In line with the case of earnings management in IPO setting, Shawver and Shawver (2009) document very surprising evidence that more people with an account-

ting, auditing or finance background are added to the board of directors, there is an increased likelihood of fraud. This is indicated by the fact of positive relationship between board directors with accounting background and the level of fraud. They interpret this finding as consistent with the belief that management's actions may become more aggressive and lean toward fraud as those working on an IPO respond to internal pressure, external pressure and the incentives of earnings management. This finding may also be assumed that the financial experts for IPO companies may have bowed to pressures of rising stock prices, thus leading them to make up the accounting performance of the firm.

Issuers or initial owners of the firm have incentives to make choices that maximize their offering price in the case where firm is being sold, private as well as public targets (targeted interested participants). Thus, firms could manage earnings upwards if management expects price to be a positive function of earnings, the case which is suitable in IPO setting. Consequently, we might argue that reported earnings are likely to be a noisier and more positively biased measure of permanent earnings. This situation will make lower earnings quality prior to the sale transaction.

Hoping that earnings could be the target for manipulative action in the case of large equity transaction, some researchers have examined this possibility. However, the findings are mixed. Managers do not manage earnings downward in the case of management buyouts (DeAngelo, 1986). On the other hand, earnings manipulation is evident in the year preceding a management buyout announcement, in which managers reduce rather than inflate earnings prior to the transaction (Perry and Williams, 1994).

However, for equity offerings, i.e., IPO, the results from various empirical studies are also inconsistent. For example, Teoh *et al.* (1998) report strong evidence for incomeincreasing management in IPO firms. Yet,

Ball and Shivakumar (2008) do not find evidence of earnings management around IPOs. These two studies examine IPO firms in the United States. Ball and Shivakumar argue that their findings are due to the higher quality reporting demanded of public firms by financial statement users and consequentially higher monitoring by auditors, boards, analysts, rating agencies, press, and litigants, and to greater regulatory scrutiny. Similar to Ball and Shivakumar, Roosenboom *et al.* (2003) find that earnings management is not evident among IPO firms at the Netherlands.

The question now is that, how could prospective investor intelligently justify the IPO? What information do they need? The prospectus of the offering firm may provide the answer of these questions.

Prior to be able to make IPO, a proposing firm is required to provide prospectus. Prospectus contains various information, in particular accounting information, that include a brief history of the firm's business, information related to past financial performance, ownership details, and the risks associated with the investment. The literature suggests that most prospective and regular investors recognize that prospectus provides the most detailed and precise information about the issuing firm.

Despite the belief that prospectus as the most reliable source of information, the prospectus is a legal document that protects the issuer and the underwriter because it is written proof that the investor was provided with all the material facts related to the offering. Given most of issuing firma are known as private firms, very little is known about how useful prospectus information is to prospective investors in their decision to invest in an issuing firm.

As a result of lack of history of past revenues or earnings on the issuing firm, investors are likely to be quite sceptical about the value of information available in the prospectus. This situation provides incentives for issuers to mislead accounting information for their benefits. Previous study shows that earnings management prior to going public is related to long-run underperformance which could further erode the investor's confidence in the value of the information contained in the prospectus, because it shows that firms could resort to window dressing prior to going public (Teoh *et al.*, 1998). Yet, we might agree to contend that information contained in a prospectus is often the first window to a potential investor about the firm's past and its projected future performance. Teoh *et al.* (1998:1936) assert by stating that:

"Issuers can report unusually high earnings by adopting discretionary accounting accrual adjustments that raise reported earnings relative to actual cash flows. If buyers are guided by earnings but unaware that earnings are inflated by generous use of accruals, they could pay too high a price".

We might agree to state that the valuation of IPO and the setting of IPO offer prices represent a challenging crossroads between valuation theory and practice. Theory dictates the use of discounted cash flow as the conceptual foundation of valuation. Unluckily, estimates of future cash flows and discount rates for IPOs are difficult and tend to be imprecise. Kim and Ritter (1999) provide evidence in this respect. This happens because there is limited if not very rare information about the offering firm prior to the publication of the prospectus, a document mandated to be part of the IPO process. Consequently, prospective investors must use any available information to judge whether it is worth to buy the new shares of the issuing firm or select other alternatives for investment. Investors with good information collection effort may have better information than others making her better informed and the judgment to buy the shares is well prepared.

Prospectus of the issuing firm is believed to be the most reliable information about the firm. It contains information about the firm but mostly the information

related with financial performance, such as summary of firm financial performance and financial reports of at least three years prior to the offering date. Prospectus becomes prominent source of information so investors would carefully examine it to finally judge whether the firm is a good investment or not.

In addition, it seems that stereotypical industry practice emphasizes the use of accounting numbers as cash flow surrogates and comparable firm multiples such as P/E ratios as proxies for discount factors. In other words, apart from examining the issuing firm's prospectus, including the portrait of financial performance over the most recent years, investor must also look at other firm in the same industry to make comparison. This comparison would give him better outlook about the performance of the issuing firm and its competitors.

Anecdotal evidence seems to suggest that accounting performances, in particular accounting numbers, are used by underwriters and market participants in determining the offering price, meaning that they are incorporated as additional information into the valuation equation (Bloch, 1986; Buck, 1990). This is reasonable to argue that underwriter would use accounting multiple to gain quick picture of the benchmark of firm performance prior to determining the offering price. Thus, the question raised within the IPO literature is how much variation in IPO prices remains to be explained by factors other than accounting numbers and comparable firm multiples. Empirical evidence seems to conflict this assertion. Kim and Ritter (1999) suggest that IPO pricing is largely unrelated to historical accounting information. One possible interpretttation of Kim and Ritter's finding is that underwriters and investors build their cash flow and discount rate estimates with vastly different information.

Theoretically and as has been widely accepted, cash flows are impossible to manipulate through accounting choices. Given that earnings management can be achieved

through accrual items, the difference between earnings and cash flows can be used as the basis of inference for the behaviour of earnings. In other words, we may have been able to detect earnings management possibility by combining the examination of earnings and cash flows from operation behaviour.

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 motive and incentive for earnings management among preparers of financial reports are different. Dechow and Skinner (2000) assert that share offerings in an IPO provide direct incentive for managing earnings. In the same spirit, Healy and Wahlen (1999) 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 the periods prior to equity offers.

As we believe that information contained in a prospectus is valuable in assessing the risk of the offering, there are few studies have been directed to explore the usefulness of the information contained in the prospectus including in relation to the subsequent performance of the issuer. Hensler et al. (1997) and Jain and Kini (2000) examine the survival of IPOs in the aftermarket using some information from the offering prospectus. Hensler et al. (1997) report some variables, namely the issuer's size, age at the time of the IPO, level of underpricing, insider ownership, industry membership, and the level of IPO activity in the market are significantly positively related to the probability of survival whereas the number of risk factors listed in the offering prospectus is significantly negatively related to the likelihood of survival. In similar spirit, Jain and Kini (2000) demonstrate that venture capitalist backed IPOs are more likely to survive compared to others because they attract prestigious investment bankers, influence managers in strategic resource allocation decisions, influence institutional investors, and help attract analyst following of the firm sooner.

Another study by Platt (1995) also uses prospectus data to predict the survival of an IPO firm beyond the first three years of its public life and finds that predicting bankruptcies is difficult at best. Platt finds that only 31% of bankrupt IPOs are correctly classified, whereas the corresponding rate for surviving IPOs is more than 90%. Nevertheless, one may contend about the robustness of Platt's study as it is based on a small sample of 32 bankrupt and 76 surviving IPOs. These studies provide the first evidence that information contained in the prospectus can be gainfully employed to assess the risk of an individual IPO.

Another study shows relationship between earnings management and the offering price of the IPO. Nagata and Hachiya (2007) study a sample of 581 IPO firms listed at Japanese Association of Securities Dealers Automated Quotation (JASDAQ) between April 1989 and March 2000. They find that firms with conservative earnings management tend to have higher offer prices, and firms managing earnings aggressively tend to be discounted when they fail to exhibit smooth earnings growth. This evidence indicate that firms making IPO has strong tendency of successfully selling it shares and thus it has to demonstrate that the firm's financial performance is good and attractive.

Another interesting issue in the literature is the examination of the long-run underperformance of IPOs. In the long run, IPO firms tend to underperform compared to their counterparts. Researchers try to examine whether there is relationship between poor long run return and other internal factors of the firm. Two notable studies, Ritter (1991) and Loughran and Ritter (1995), show that IPOs significantly underperform their matched-firm benchmarks in the five years after their offering. This typical issue has been examined in various capital markets, such as in Latin America

(Aggarwal et al., 1993), the United Kingdom (Espenlaub et al., 2000), Germany (Stehle et al., 2000), South Africa (Page and Reyneke, 1997), Japan (Hwang and Jayaraman, 1995), Singapore (Lee et al., 1996), Korea (Kim et al., 1994), China (Mok and Hui, 1998), and Malaysia (Paudyal et al., 1998).

Some studies have also examined the affecting long-run underperformance of IPOs that Brav and Gompers (1997) shown that underperformance is concentrated in small non-venture capitalbacked IPOs, and Teoh et al. (1998) attribute the long-run underperformance to earnings management prior to the IPO. Houge et al. (2001) find that IPOs with greater uncertainty exhibit poor stock return performance in the long run. Klein (1996) reports earnings management through accruals in the periods before the offering on United States IPOs. That is, IPO firms tend to use income increasing discretionary accruals in the periods prior to the offering.

Nevertheless, evidence in other countries seems to be conflicting. For example, Farooq and Benali (2012) report strong evidence of earnings management on the year of IPO in Casablanca Stock Exchange of Morocco during 2001-2007. However, Kamel (2012) in his study of 59 IPOs in Egypt does not find that firm tend to overstate their earnings before the IPO date. Similar to Kamel (2012), Roosenboom et al. (2003) do not report that earnings management is evident among IPO firms at the Netherlands. Thus, evidence of earnings management in IPO setting is still inconclusive making it worth to re-examine the phenomenon using other IPO setting.

Gumanti (2003) examine the incidence of earnings management of IPO firms in manufacturing industry that went public over the period of 1991-1994 at the Jakarta Stock exchange. Using the total accrual approach that is similar to the one developed by Friedland (1994), Gumanti 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. However, Rahman and Hutagaol (2007) find evidence that manager manage earnings through accruals in the periods before the offering on a sample of 149 IPOs that went public during 1994-2003. This conflicting result demands further examination whether earnings management in Indonesia IPO setting is per vasive.

Previous studies largely use accruals approach in testing earnings management in IPO setting either using a simple accruals developed by Healy DeAngelo (1986), Friedland (1994) and Jones (1991) in modified Jones model including the industrial adjusted model. In this study a difference approach is used, that is an earnings benchmark model. The spirit in doing this study comes from Holland and Ramsay (2003) who examine whether Australian firms manage earnings to meet earnings benchmark. They assert that Australian companies manage earnings to ensure reporting of positive profits and to sustain the previous year's profit performance.

Based on the aforementioned review, we assert that issuers of IPO have strong incentive to inflate reported earnings in the periods before the offering. In particular, the intention is getting higher in the year approaching the offering. We cannot predict precisely the behaviour of earnings in the periods after the offerings, but given that earnings cannot be managed continuously, we argue that earnings level tend to be easing following the offering. This argument brings us to hypothesize that:

H<sub>1</sub>: Earnings level tend to increase in the periods before the offering of new stocks.

#### RESEARCH METHOD

The sample in this study includes 35 firms making IPO at the Indonesian Stock Exchange during 2001-2005 periods. All the firms have December 31 as their fiscal year end. Financial statement data for these firms include three years before and two years after the IPO year. Note that the complete financial report in terms of the latest year available in the prospectus is treated as the year zero and consequently be used as the benchmark.

This study examines the behaviour of two mostly target variables in assessing the performance of IPO, namely the level of earnings and cash flow from operating activities. These two variables and their derivative have been used and extensively examined in previous studies examining earnings management of earnings manipulation of the firms, in various economic setting not limited to IPO per se. Holland and Ramsay (2003) use the level and change of earnings and cash flow from operation to detect whether firms manage earnings to meet simple earnings benchmark.

In line with Holland and Ramsay (2003), this study also examines the behaviour of earnings and cash flow from operation in the periods before and after the IPO year. The comparison of the level of earnings and cash flow follows Jain and Kini (1994) who use the latest year of IPO complete financial year as the benchmark in examining the performance of IPO firms.

# ANALYSIS AND DISCUSSION

A sample of 35 IPO firms meets the selection criterias. Of the 35 sample firms, 14 firms went public in 2002, three were in 2003, ten firms went public in 2004, and eight firms made an IPO in 2005. Two firms are from agriculture sector, four are from basic industry and chemical, 13 are from finance sector, six firms are from trade and services sector, followed by utility which is represented by four firms. Three firms are from miscellaneous industry, two are from

mining sector and only one is from real estate.

Table 1 presents the descriptive statistics for net income after tax scaled by total assets of the same period.

Table 1
Descriptive Statistics for Net Income after Tax

	NIST+2	NIST+1	NIST-0	NIST-1	NIST-2
Mean	0.0487	0.0521	0.0553	0.0365	0.0288
Median	0.0439	0.0410	0.0508	0.0377	0.0216
Standard Deviation	0.0734	0.0458	0.0699	0.0613	0.0834
Sample Variance	0.0054	0.0021	0.0049	0.0037	0.0069
Minimum	-0.1528	-0.0239	-0.1683	-0.1842	-0.2839
Maximum	0.2918	0.1888	0.1948	0.1502	0.1744

**Source: Authors calculations** 

Mean while, NIST stands for net income after tax scaled by total assets of the corresponding period. NIST+2 means that earnings after tax in the year two after the issue. The average net incomes tend to increase in the year just before the offering and decrease in the following two years after the issue. The figures are almost similar with the median. The findings shown here seem to indicate that earnings tend to increase and then decrease. The behaviour of net income after tax prior and after the IPO is different compared to cash flow from operating activities (See Table 2).

As shown in Table 2, cash flow from operating activities scaled by total assets in the corresponding period show an increase only in the first two years before the issue,

but decline in the following two years. This is similar to previous evidence as Hastoro and Yuliana (2010) find positive discretionary accruals in the year before the offering and negative discretionary accruals in the year after the offering. Interestingly, the figures are negative indicating that after the issue and on the last year prior to the issue, management of IPO on average are unable to maintain their ability to generate income from operating activities. It should be noted here that over the five year period, there was always firms recording negative cash flow from operating activities. As a question to rise as that whether firms manage earnings that lead to negative effect on cash flow.

Table 2
Descriptive Statistics for Cash Flow from Operating Activities

	CFT-0	CFT-1	CFT-2	CFT-3	CFT-4
Mean	-0.0163	-0.0631	-0.0031	0.0428	0.0257
Median	0.0176	-0.0205	0.0204	0.0681	0.0476
Standard Deviation	0.2701	0.2131	0.1489	0.2379	0.2132
Sample Variance	0.0729	0.0454	0.0222	0.0566	0.0454
Minimum	-1.3544	-0.7729	-0.4278	-0.7023	-0.8137
Maximum	0.3218	0.1959	0.2445	0.4689	0.3518

Source: Authors calculations

Theoretically, cash flows are impossible to manipulate through accounting choices. Given that earnings management can be achieved through accrual items, the difference between earnings and cash flows

can be an inference basis for the behaviour of earnings management.

However, earnings are about ten times cash flows just before IPO and the difference between the two widen after IPO. This pattern of the difference suggests two types of earnings management "real earnings management" and pure accounting manipulations. Following Schipper (1985), real earnings management means that firms improve earnings performance by operating activities not by accounting manipulations. The time-series pattern of the difference reveals some implications for earnings management. Firstly, firms engage in real earnings management before IPO evidenced by the time-series pattern of cash flows. Secondly, the evidence that earnings are much higher than cash flows for the pre-IPO period suggests that the IPO firms also engage in accounting type of earnings management. Lastly, the convergence of earnings to cash flows after IPO suggests that companies refrain from earnings management after IPO either because of the lack of incentive for accounting type of earnings management after IPO or the exhaustion of discretionary accruals. We may all agree that due to accounting equation, an incomeincreasing earnings management will lead to an income-decreasing accrual in the future.

This is consistent with the general perception that managers tend to manage earnings to maintain a "honey moon period" for the stock price after IPO. Using United States's IPO setting, Teoh et al. (1998) argue that the incentives to manage earnings are likely to persist in the months immediately after the offering. In this case, managers usually cannot dispose of their personal holdings until several months after the IPO. Besides, firms face unusual legal and possible reputational scrutiny in the IPO. Immediate accounting reversals may render earnings management activities transparent enough to trigger law suits against the firms and its managers. In short, the pattern of average earnings and cash flows provides affirmative evidence for the existence of earnings management including real earnings management and the pure accounting manipulations.

Next tests were conducted to examine whether differences in the level of earnings and cash flow from operating activities are large enough to conclude that earnings management has occurred. The t-test for mean difference was performed. The year of the latest full financial year data available in the issue prospectus, assigned as year zero (T<sub>0</sub>) is used as the benchmark. Thus, all data in the corresponding periods are compared against data of year zero. The results are shown in Table 3 which depicts the test for earnings management using the latest year financial report as the benchmark period.

Table 3 Results of Test for Earnings Level and Cash Flow Differences

Periods	$T_0 - T_{-2}$		T <sub>0</sub> - T <sub>-1</sub>		T <sub>0</sub> - T <sub>+1</sub>		$T_0 - T_{+2}$	
Mean Earnings Level	0.0553	0.0288	0.0553	0.0365	0.0553	0.0520	0.0553	0.0487
t-stat (two tails)	1.572		2.279*		0.321		0.614	
Mean Cash Flow Level	-0.0031	-0.0163	-0.0031	-0.0630	-0.0031	0.0428	-0.0031	0.0257
t-stat (two tails)	-0.8	399	1.825**		<i>-</i> 1.135		0.311	

<sup>\*, \*\*</sup> denote significant at 5% and 10% level, respectively. All tests are based on test for mean difference. Source: Authors calculations

Results shown in Table 3 do not strongly support the notion that earnings management has occurred surrounding IPO

years. Earnings level in the year just before the offering is significantly larger than the level in the first year after the issue. This evidence might be interpreted that management exercises more accounting discretion in the period of the most recent from the IPO date. This feature is supported by the behaviour of cash flow, although the level of significance is slightly lower.

As can be seen in Table 3, mean earnings change is higher in the last year (year  $T_0$ ) prior to offering date compared to year minus 2 ( $T_{-2}$ ) and year minus 1 ( $T_{-1}$ ). Year minus 2 ( $T_{-2}$ ). This evidence could be interpreted that earnings levels tend to increase when the firm is approaching IPO date. In other words, earnings levels are increasing from year to year implying that there is a tendency to inflate reported earnings so to make earnings are more attractive to prospective investors. The change is significant only between year zero ( $T_0$ ) and year minus 2 ( $T_{-2}$ ).

The trend of earnings level during the pre-IPO periods is in contrast to the post-IPO periods. In these periods, earnings level tends to decrease slightly compared to the last year prior to the IPO date. That is, earnings level during year plus 1 (T+1) is lower than year zero (T0) and year plus 2 (T+2) is even lower than year plus 1 (T+1). Argument to be proposed in response to this behaviour is that the firms are no longer able to improve their earnings performance after the IPO.

To summarize, earnings level tends to increase approaching the issue year, but it will decrease after the issue. This indicates that issuers have been indicated to bring earnings up prior to the issue. Unfortunately, they are unable to maintain the increase in earnings, leading to steady decrease after the issue year.

The behaviour of cash flows from operations is rather peculiar. They seem to be different and are not totally in opposite direction of the earnings level. Cash flows from operations tend to improving from year minus 2 ( $T_{-2}$ ) to year plus 1 ( $T_{+1}$ ), but it decreases in year T plus 2 ( $T_{+2}$ ). When earnings tend to be positive in the periods

before the offering, cash flows from operations tend to be negative, but they turn to positive in the years after the offering.

Combining the behaviour of earnings and cash flows from operations, we might suggest that there is intention of the issuers to manage earnings upward before the offering (the increase is significant at 5% level), but they could not manage to do so after that periods. Cash flows from operations follow similar pattern but not for the periods after the offering.

The findings reported in this study are similar to that of Gumanti (2001, 2003) who reported low earnings management in the period before the offering. Similar behaviour is evidenced in Gumanti and Swastika (2005) who examine the operating performance of IPO firms. However, it is in contrast to that of Rahman and Hutagaol (2007) who found strong evidence of earnings management. This conflicting results offer further exploration of the phenomenon. In other words, the phenomenon is still contentious. One might argue that the difference in finding is a result of period of analysis where the current study employs data between 2002 and 2005. On the other hand, Rahman and Hutagaol examine IPO setting in 1994-2003 which include a period where Indonesia stock exchange was hit by economic crisis of 1998-1999. In addition, the findings reported here are in support of the study by Warganegara and Indriastari (2009) which further confirm that Indonesian IPO firms do not manage earnings aggressively in the periods before the offering.

Cash flows from activities are moving in the opposite direction compared to earnings performance. This could be interpreted that the issuing firm is trying to cosmetically show that it has good earnings history and performance but it forget to show that the cash flows has performed poorly. The issuing firm has to be able to maintain the cash flows performance after the issue because basically it has received substantially large amount of funds from

going public. It seems that the issuing firm does not utilize the funds in a proper activity to generate more cash in the periods after the IPO.

Another possible explanation relating the findings reported in this study is the period of analysis. The periods covered in this study are from 2002 to 2005, i.e., four years of analysis. One may argue that after the economic crisis hit Indonesia in 1998, the economic as well as financial or accounting of many corporations are not recovering yet. In particular, year 2002 could be regarded as the year closely affected by the ongoing low performance of the corporations. In other words, there are many corporations that are not really recovering well from the crisis making them difficult to perform well. We might agree that prior to making the firm public, the owners of the firm have to plan the action long time ago as going public is regarded one of the most important strategic plan of the firm. The firm might not be able to fully recover from economic crisis so that managing the earnings performance would be difficult. As a result, earnings management practices are not evidenced during the periods of analysis.

# **CONCLUSION AND SUGGESTION**

Because the wealth of the managers is linked to the IPO prices, this situation provides incentives for the managers of an IPO firm to manage earnings in order to improve their proceeds from selling the shares. Using a sample of Indonesia 35 IPOs during the 2002-2005 periods, this study investigates whether managers of the IPO firms exercise income-increasing discretionary accruals before IPO by bringing up reported earnings and cash flows from operation to maximize the offering prices and private wealth. Evidence reported here suggests that companies use different discretionary components for earnings management in the most current year prior to the offering.

However, given that the difference in the level of earnings and cash flow is only significant in the year close to the offering year, it would be too soon to justify that earnings management hypothesis has been strongly evidenced. First, the time series of earnings and cash flows demonstrates an upward trend for the pre-IPO period and a downward trend for the post-IPO period in particular the earnings level. Although the observed trend in earnings is consistent with the earnings management hypothesis, the upward trend in cash flows suggests changes in economic situation for the IPO firms-the existence of real earnings management. Further analysis of the time series in the gap between these two variables suggests that IPO firms enhance earnings through both real earnings management and accounting choices.

Some implications of the findings merit further exploration. This study uses simple test to examine the possible for earnings management during the periods surrounding the IPO. It does not control for possible effect of accruals management as usually employed in previous studies. Secondly, the number of sample firms meeting the criteria to be analysed could also affect the robustness of the findings. However, limiting the period in year 2002 is expected to avoid for confounding effect of economic crisis which was severely hit Indonesian economy in year 1998 through early 2000 which could in many respects affect the real performance of the going public firms. Yet, the effect of economic crisis could still be inherent in the firm financial performance given the data analysed in the study include two years prior to the year of offering. Further study may compare the figures for IPO long before the economic crisis and those after the crisis, for instance five years after the crisis. In other words, next study shall avoid any possibility of confounding effects of the economic crisis. Future study may also extent this study by examining the behaviour of earnings when the firm is making seasoned equity offering where the period of the offering is not too far from the firm's initial public offer. The finding of this kind of study would bring us to understand whether earnings management prior to the initial offering cannot be maintained and thus the issuers would manage earnings upward when they want to reissue the stocks.

# **REFERENCES**

- Aggarwal, R., R. Leal, and L. Hernandez. 1993. The Aftermarket Performance of Initial Public Offerings in Latin America. *Financial Management* 22(1): 42-53.
- Ball, R. and L. Shivakumar. 2008. Earnings Quality at Initial Public Offerings. *Journal of Accounting and Economics* 45(2-3): 324-349.
- Beaver, W. H., P. Kettler, and M. Scholes. 1970. The Association between Market-Determined and Accounting Determined Risk Measures. *Accounting Review* 45(3): 654-682.
- Benninga, S. Z. and O. H. Sarig. 1997. *Corporate Finance: A Valuation Approach*. McGraw-Hill. New York.
- Berstein, L. A. and J. J. Wild. 2000. *Financial Statement Analysis: Theory, Application, and Interpretation,* 7<sup>th</sup> ed. McGraw Hill. Singapore.
- Bloch, E. 1986. *Inside Investment Banking*. Dow Jones-Irwin. Homewood Illinois.
- Boulton, T. J., A. B. Smart, and C. J. Zutter. 2011. Earnings Quality and International IPO Underpricing. *Accounting Review* 86(2): 483–505.
- Bowman, R. G. 1979. The Theoretical Relationship between Systematic Risk and Financial (Accounting) Variables. *Journal of Finance* 34(3): 617-630.
- Brav, A. and P. Gompers. 1997. Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure Capital-Backed Companies. Journal of Finance 52(5): 1791-1821.
- Brealy, R. A. and S. C. Myers. 1996. *Principles of Corporate Finance*. 5th ed. McGraw-Hill. New York.
- Buck, G. C. 1990. Pricing Initial Public Offerings: Capital Raising and Financial

- Structure. Richard D Irwin. Homewood Illinois.
- DeAngelo, L. E. 1986. Accounting Number as Valuation Substitutes: A Study of Management Buyouts of Public Stockholders. *The Accounting Review* 61(3): 400-420.
- DeAngelo, L. E. 1990. Equity Valuation and Corporate Control. *Accounting Review* 65(1): 93-112.
- Dechow, P. M, and D. J. Skinner. 2000. Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators. *Accounting Horizons* 14(2): 235-250.
- Downes, D. H. and R. Heinkel. 1982. Signaling and the Valuation of Unseasoned New Issues. *Journal of Finance* 37(1): 1-10
- Espenlaub, S., A. Gregory, and I. Tonks. 2000. Re-assessing the Long-Term Underperformance of UK Initial Public Offerings. *European Financial Management* 6(3): 319-342.
- Farooq, O. and M. Benali. 2012. Earnings Management Behavior of the Initial Public Offering (IPO) Firms during Pre-IPO, IPO and Post-IPO Years: Evidence from the Casablanca Stock Exchange. African Journal of Business Management 6(31): 9005-9014.
- Friedland, J. M. 1994. Accounting Choices of Issuers of Initial Publics Offerings. *Contemporary Accounting Research* 11: 1-31.
- Foster, G. 1998. *Financial Statement Analysis*. 2<sup>nd</sup> ed. Prentice-Hall Series. USA.
- Giroux, G. 2004. Detecting Earnings Management. John Wiley & Sons. USA.
- Gumanti, T. A. 2001. Earnings Management pada Penawaran Pasar Perdana di Bursa Efek Jakarta. *Jurnal Riset Akuntansi Indonesia* 4(2): 165-183.
- Gumanti, T. A. 2003. An Investigation of Earnings Management in Indonesian Manufacturing Initial Public Offerings. *Gadjah Mada International Journal of Business* 5(3): 345-362.

- Gumanti, T. A., dan D. L. T. Swastika. 2005. Kinerja Operasi Pasca Initial Public Offerings di Bursa Efek Jakarta. *Jurnal Akuntansi dan Bisnis Manajemen* 12(1): 1-13.
- Hanley, K. W., A. A. Kumar, and P. J. Seguin. 1993. Price Stabilization in the Market for New Issues. *Journal of Financial Economics* 34(2): 177-197.
- Hastoro, H. A., and A. Yuliana. 2010. Manajemen Laba di Sekitar Penawaran Harga Saham Perdana (Initial Public Offering/IPO) pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. Efektif Jurnal Bisnis dan Ekonomi 1(1): 67-80.
- Healy, P. 1985. The Effect of Bonus Schemes on Accounting Decisions. *Journal of Accounting and Economics* 7(1): 85-107.
- Healy, P. M. and J. M. Wahlen. 1999. A Review of Earning Management Literatures and Its Implication for Standard Setting. *Accounting Horizons* 13(4): 365-383.
- Hensler, D. A., R. C. Rutherford, and T. M. Springer. 1997. The Survival of Initial Public Offerings in the Aftermarket. *Journal of Financial Research* 20(1): 93-110.
- Holland, D., and A. Ramsay. 2003. Do Australian Companies Manage Earnings to Meet Simple Earnings Benchmarks? *Accounting and Finance* 43(1): 41-62.
- Houge, T., T. Loughran, G. Suchanek, and X. Yan. 2001. Divergence of Opinion, Uncertainty, and the Quality of Initial Public Offerings. *Financial Management* 30(1): 5-23.
- Hughes, J. S. 1986. Signaling by Direct Disclosures under Asymmetric Information. *Journal of Accounting and Economics* 5: 119-142.
- Hwang, C. Y. and N. Jayaraman. 1995. Long-term Performance of IPOs and Non-IPOs: Evidence from the Firms Listed on the Tokyo Stock Exchange. Advances in Pacific-Basin Finance Management 1: 317-337.

- Ibbotson, R., J. Sindelar., and J. R. Ritter. 1988. Initial public offerings. *Journal of Applied Corporate Finance*, 1: 37-45.
- Ibbotson, R., J. Sindelar., and J. R. Ritter. 1994. The Market Problems with the Pricing of Initial Public Offerings. Journal of Applied Corporate Finance 7: 66-74
- Jain, B. A. and O. Kini. 1994. The Post-Issue Operating Performance of IPO Firms. *Journal of Finance* 49(5): 1699-1726.
- Jain, B. A. and O. Kini. 2000. Does the Presence of Venture Capitalists Improve the Survival Profile of IPO Firms? *Journal of Business Finance and Accounting* 27(9-10): 1139-1176.
- Jones, J. J. 1991. Earnings Management during Import Relief Investigations. *Journal of Accounting Research* 29(2): 193-228.
- Kamel, H. 2012. Earnings Management and Initial Public Offerings: A New Perspective from Egypt. *Journal of Accounting in Emerging Economies* 2(2): 96-118.
- Kim, J., I. Krinsky, and J. Lee. 1993. Motives for Going Public and Underpricing: New Findings from Korea. *Journal of Business, Finance and Accounting* 20(2): 195-211.
- Kim, J., I. Krinsky, and J. Lee. 1994. The Valuation of Initial Public Offerings and Accounting Disclosures in Prospectuses: New Evidence from Korea. *The International Journal of Accounting* 29: 46-61.
- Kim, J., I. Krinsky, and J. Lee. 1995. The Role of Financial Variables in the Pricing of Korean Initial Public Offerings. *Pacific-Basin Finance Journal* 3: 449-464.
- Kim, M. and J. R. Ritter. 1999. Valuing IPOs. *Journal of Financial Economics* 53(3): 409-437.
- Klein, A. 1996. Can Investors Use the Prospectus to Price Initial Public Offerings? *Journal of Financial Statement Analysis* 2(1): 23-39.
- Krinsky, I. and W. Rotenberg. 1989a. The Valuation of Initial Public Offerings.

- Contemporary Accounting Research 5(2): 501-515.
- Krinsky, I. and W. Rotenberg. 1989b. Signaling and the Valuation of Unseasoned New Issues Revisited. *Journal of Financial and Quantitative Analysis* 24(2): 257-266.
- Lee, P. J., S. L. Taylor, and T. S. Walter. 1996. Expected and Realized Returns for Singaporean IPOs: Initial and Long-Run Analysis. *Pacific-Basin Finance Journal* 4(2): 153-180.
- Lev, B. 1989. On the Usefulness of Earnings and Earnings Research: Lessons and Directions from Two Decades of Empirical Research. *Journal of Accounting Research*: 153-192.
- Levitt, A. 1998. The Numbers Game. Remarks Delivered at the NYU Center for Law and Business New York. September 28.
- Loughran, T. and J. R. Ritter. 1995. The New Issues Puzzle. *Journal of Finance* 50(1): 23-51.
- Mak, Y. T. 1994. The Voluntary Review of Earnings Forecasts Disclosed in IPO Prospectuses. *Journal of Accounting and Public Policy* 13(2): 141-158.
- Mok, H. M. and Y. V. Hui. 1998. Underpricing and the Aftermarket Performance of IPOs in Shanghai China. *Pacific-Basin Finance Journal* 6(5): 453-474.
- Nagata, K. and T. Hachiya. 2007. Earnings Management and the Pricing of Initial Public Offerings. *Review of Pacific Basin Financial Markets and Policies* 10(4): 541– 559.
- Noland, T. R. and R. M. Pavlik. 1998. The Underpricing of Initial Public Offerings: Review, Critique, and Integration. Advances in Quantitative Analysis of Finance and Accounting 6: 73-102.
- Page, M. J. and I. Reyneke. 1997. The Timing and Subsequent Performance of Initial Public Offerings (IPOs) on the Johannesburg Stock Exchange. *Journal of Business Finance and Accounting* 24(9-10): 1401-1420.

- Paudyal, K., B. Saadouni, and R. J. Briston. 1998. Privatization Initial Public Offerings in Malaysia: Initial Premium and Long-Term Performance. *Pacific-Basin Finance Journal* 6(5): 427-451.
- Perez, R. C. 1984. *Inside Investment Banking*. Prager. New York.
- Perry, S. and T. Williams. 1994. Earnings Management Preceding Management Buyout Offers. *Journal of Accounting and Economics* 18(2): 157-179.
- Platt, H. D. 1995. A Note on Identifying Likely IPO Bankruptcies: A Symphonic Paradox. *Journal of Accounting, Auditing* and Finance 10(1): 71-79.
- Rahman, A., and Y. Hutagaol. 2007. Earnings Management Melalui Accruals dan Real Activities Manipulation pada Initial Public Offerings Dan Kinerja Jangka Panjang (Studi Empiris pada Bursa Efek Jakarta). Paper Presented at the First Accounting Conference Faculty of Economics University of Indonesia Depok.
- Ritter, J. R. 1991. The Long-Run Performance of Initial Public Offerings. *Journal of Finance* 46(1): 3-27.
- Rosenberg, B. and V. Marathe. 1979. Tests of Capital Asset Pricing Hypotheses. Research in Finance 1: 115-223.
- Roosenboom, P., T. Goot, and G. Mertens. 2003. Earnings Management and Initial Public Offerings: Evidence from the Netherlands. *The International Journal of Accounting* 38(2): 243-266.
- Rosner, R. L. 2003. Earnings Manipulation in Failing Firms. *Contemporary Accounting Research* 20(2): 361-408.
- Ryan, S. G. 1997. A Survey of Research Relating Accounting Numbers to Systematic Equity Risk with Implication for Risk Disclosure Policy and Future Research. *Accounting Horizons* 11(2): 82-95.
- Schipper, K. 1989. Commentary on Earnings Management. *Accounting Horizon* 3(4): 91-102.
- Scott, W. R. 2003. *Financial Accounting Theory*. Pearson Education. Toronto Canada.

- Shawver, T. A., and T. J. Shawver. 2009. Predicting Management Fraud in IPO Companies. *Management Accounting Quarterly* 11(1): 22-25.
- Stehle, R., O. Ehrhardt, and R. Przyborowsky. 2000. Long-run Stock Performance of German Initial Public Offerings and Seasoned Equity Issues. *European Financial Management* 6(2): 173-196.
- Sutton, D. P. and W. M. Benedetto. 1988. Initial Public Offerings: A Strategic Planner for Raising Equity Capital. Probus Publishing Company. Chicago.
- Teoh, S., I. Welch, and T. J. Wong. 1998. Earnings Management and the Long-Run Performance of Initial Public Offerings. *Journal of Finance* 53(6): 1935-1974.

- Titman, S. and B. Trueman. 1986. Information Quality and the Valuation of New Issues. *Journal of Accounting and Economics* 8(2): 159–172.
- Varaiya, N., B. Bergmark, and R. Taylor. 1997. F and C International: A case of an IPO valuation. *Journal of Financial Education* 23: 114-123.
- Warganegara, D. and I. Indriastari. 2009. Do Indonesian firms Inflate Their Reported Earnings Prior to IPOs. *Journal of Financial Reporting and Accounting* 7(2): 61-79.
- White, G. I., A. C. Sondhi, and D. Fried. 1998. *The Analysis and Use of Financial Statements*. 3<sup>th</sup> ed. John Wiley & Sons Publishing. USA.