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## **VOLUNTARY DISCLOSURE, CONSERVATIVE ACCOUNTING, LIFE CYCLE STAGES, AND FIRM VALUATION**

**Dr. Lodovicus Lasdi  
Unika Widya Mandala**

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The results of this study give evidence that accounting conservatism, voluntary disclosure and life cycle stage affects the value relevance of accounting or non accounting information. The study also give evidence that market differently evaluate accounting information for firms in different life cycle stages and conservatism accounting affect the relationship between life cycle stage and company valuation. The study was driven from the equity valuation implications of the relationship between accounting conservatism and the operating assets and the relationship between operating assets and operating accruals in the Feltham & Ohlson model (1995).

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## **A. Introduction**

A primary objective of financial reporting is to provide relevant and reliable information to interested third parties (Financial Accounting Standards Board, 1978). Financial reports are a means that manager use to communicate operating results and financial conditions of the firm to interested parties external to the firm. Users can then utilize this information to evaluate the performance and financial condition of the firm for investment decisions, fiduciary purposes, or other uses. There are factors are likely involved that leads market to value company's financial performance. Earlier studies suggested that accounting conservatism, life cycle stages, and voluntary disclosure play significant role in company valuations that use financial accounting figures (Anthony and Ramesh, 1992; Healy et al., 1995; and Ahmed et al., 1999).

Accounting conservatism represents a fundamental concept serving as a basis for accounting measurement and disclosure principle that limit excessive optimism in company performance reporting [Sterling, 1967; Statement of Financial Accounting Concepts No. 2 (SFAC 2), 1980; and Staubus, 1985]. Feltham and Ohlson (1995) (subsequently abbreviated as FO) proposed a theoretical valuation model suggesting that accounting conservatism played important role in company valuations.

Informativeness of accounting earning has been the popular issue in research study since Ball and Brown (1968). The shift from industrial to the advanced technology era and to service-oriented economy has made the traditional analysis based on accounting earnings less relevant to measure the value of corporate equity (Collins et al., 1997). New assessment approach is needed to incorporate other accounting and non-accounting information beside accounting earnings to measure corporate value. FO assessment model, which include not only information of earnings but also of book value and voluntary disclosures, appears to be a promising alternative approach to corporate equity valuation.

The current research was conducted to investigate how accounting conservatism affects the value relevance of accounting and non-accounting information according to the divergent economic attributes (firm life cycle stages) using Feltham and Ohlson's (1995) valuation model. This research is motivated by the phenomenon of earlier studies which concluded that voluntary disclosure provides relevant valuable information not contained in the financial figures of the report, but in the assumption that the credibility of voluntary disclosure is the

same for all firms. They concluded also that the value of information is related directly to the accuracy or credibility of the source.

Conservative accounting procedures might increase the credibility of the accounting reports because investors tend to think that by being conservative in choosing accounting methods would reduce the tendency of management to be too optimistic in preparing the financial statements (Devine, 1963). Unlike the figures of financial statements, voluntary disclosures are not being audited and have no setting mechanism. The only balancer expected by investors that can reduce the tendency of managers' optimistic attitude in presenting the voluntary disclosure is the perception that the companies are conservative in their reporting practices. Testing the impact of conservatism on the value relevance of voluntary disclosure may provide evidence of whether investors will give more credibility to the voluntary disclosures of companies applying conservative accounting procedures compared to those that are less conservative.

Previous studies suggested also that the relevance of accounting and non-accounting information is influenced by the underlying economic attributes (enterprise life cycle stages). Black (1998) states that the different stages of the life cycle of the company led to differences in the characteristics it possesses, so that in calculating the corporate value the different stages of the life cycle must be accounted for. Value of the company consists of two components, namely assets in use and growth opportunities. The proportion of these two components may vary, depending on the company's life cycle. Furthermore, Jorion and Talmor (2002) states that life cycle stage is an important variable in the study of the relationship between accounting information and company value. In addition, the FO model illustrated that the growth expectation in net operating assets for companies that use conservative accounting would affect the company's market value. Therefore, further research on the impact of conservatism on the relevance of accounting and non-accounting information according to stages of the life cycle of different companies is needed.

## **B. Theoretical Review and Hypothesis Development**

### **Value Relevance of Accounting/Non-Accounting Information**

Since Ball and Brown (1968), many studies have examined the information content of accounting earnings by examining the relationship between reaction to earnings and market value as the change and variability in stock prices and trading volume. Most research stated

that accounting earning figures are relevant to the valuation of the company. However, the currently developed research literature, as a whole, stated that the relationship between market value and profits is weakening over time (Burgstahler and Dichev, 1997).

After reviewing the literature returns/earnings, Lev (1989) found that accounting earnings account for, on average, only about 5% of the variability of cross-sectional or time-series stock prices, and the parameters of returns/earnings relationship are not stable throughout the different period of testing. Collins et al. (1997) found that, when the relevance of incremental value of earnings has decreased, the earning information is replaced by the increasing relevance of book value. Burgstahler and Dichev (1997) also found that stock price is a function of earnings and book value, and expressed the importance of combining the size of earnings and book value in company valuation. Their empirical results are consistent with the prediction of FO theoretical model.

These empirical results emphasize that when the accounting earnings play an important role in the assessment of the company, it is important to examine the accounting and other non-accounting information. They also provide empirical evidence for FO theoretical model, which states that the determinant of the company value includes accounting earnings, book value, and non-accounting information (e.g. choice of accounting methods and economic attributes of the company). This study uses FO model to investigate the relevance of accounting information value with different non-economic attributes of the company (life cycle stages). FO Model is used since it includes not only elements of profit in company valuation approach, but also the net book value and voluntary disclosure.

### **Accounting Conservatism**

Although many studies have tested the effect of accruals on the profit valuation of and relative information content of accruals on cash flow (Wilson, 1987; Bernard and Stober, 1989; Dechow, 1994; Warfield et al., 1995; Ryan, 1995; and Subramanyam, 1996), only a few examined the factors that motivate and influence the company valuation. Some accounting researchers have asked a question whether accounting conservatism is a useful convention in the objective perspective of financial reporting (Devine, 1963 and Sterling, 1967). Empirical evidences are needed before one can determine the effect of accounting conservatism on corporate valuation and whether or not investors appreciate the accounting practices.



Conservative accounting practices tend to create hidden reserves and, consequently, generate expectations of higher future firm value in the long run. Therefore, companies that use conservative accounting practices are expected to be valued higher by investors compared to those with less conservative accounting practices. However, accounting conservatism is also considered as being in conflict with the principle of representational faithfulness. FASB put it simply in the Statement of Financial Accounting Concepts No. 2:

The board emphasized that any attempt to understate results is likely to raise questions about the reliability and integrity of information about those results and will probably be self-defeating in the long run.

Conflict in the official announcement on the acceptance of conservative accounting practices has caused contention that accountants should not emphasize accounting conservatism on representational faithfulness because doing so may cause a biased accounting information and make these accounting figures less reliable for the user (Ahmed et al., 1999). The study attempts to show that accounting conservatism is important and feasible to ensure the relevance of accounting information value, especially operating assets, in the firm value creation.

### **Voluntary Disclosure**

Study of voluntary disclosure is important because the accounting data disclosed in financial statements are outdated and frequently covers only the minimum level of disclosure required by the compiler and regulators of accounting standards. Voluntary disclosure can be effective only if the disclosure is reliable. While there are many studies that examined the information content of voluntary disclosures, few have examined the reliability of voluntary disclosure (King et al., 1990). Dechow et al. (1996) found that following the disclosure of earning manipulation, the company suffered from lack of analyst follower and the stock prices are declining. Similarly, Williams (1996) found that the sensitivity of the analyst forecast revision of the management forecast depends on the accuracy of management forecasting.

Accounting conservatism tends to improve the quality of accounting information provided by the company; therefore it tends to also increase the reliability of voluntary disclosure provided that there are no other indicators for the truth of voluntary disclosure. For that



reason, this study expects that companies that follow accounting conservatism will increase their reliability of voluntary disclosure, and, as a result, they have higher share price than those that do not adopt conservative accounting practices.

### **Company Life Cycle Stages**

Companies in different life cycle stages have different economic characteristics, their life cycle stages have been used by financial analysts and academic researchers to describe the economic attributes of the company. Literatures on corporate life cycle stages suggested that (1) company life cycle stage might explain the differences in economic conditions of the relevant attributes such as production function and the investment opportunity set, (2) to be successful, firms in different life cycle stages need to manage their business differently, and (3) awareness of companies about their specific life cycle stages can provide insight into where they has been and where they will be in the future. This insight, in turn, can help investors to obtain a better evaluation of the company (Lee and Nakicemovic, 1998; Anthony and Ramesh, 1992; and Black, 1998).

Previous studies provide empirical evidence that accounting measures informativeness is different in different life cycle stages of companies. Several analytical and empirical studies have examined the relationship between economic attributes and the choice of accounting procedures. Watts and Zimmerman (1986, 1990) focused on earnings management and stated that the company's debt level affects the choice of accounting procedures. Skinner (1993) offered evidence on the relationship between the firm's investment opportunities and choices of accounting procedures. However, these studies found only limited evidence of a direct relationship between economic attributes of firms and their choice of accounting procedures because they claimed that the latter related directly to the level of debt and/or compensation contracts and that corporate economic attributes influence the choice accounting procedure only indirectly through the level of debt and /or contractual compensation.

This study attempts to provide empirical evidence that the economic attributes of the company (life cycle stages) and the choice of accounting procedure related not only to the level of debt and/or compensation contract alone. This is done by examining the role of operating income, net operating assets, and other information on FO Model-based equity valuation and by investigating the implications of the life cycle stages in the company's market valuation. In addition, if investors considered a possible high uncertainty about future

cash flow of the company in the early stages of growth or decline in the final stages, the conservative accounting practices, assumed to reduce the subjective intervention of the managers to measure the accounting figures, will increase the reliability of accounting data to investors.

### **Feltham-Ohlson Model**

FO model is interesting from an empirical standpoint because it gives a linear expression of parsimony that relates the company's market value to the observed accounting and non-accounting information. Specifically, FO model has the interesting idea to use in empirical testing (Park, 2006). First, it provides a theoretical framework for the relationship between firm equity value, abnormal earnings and book value. This allows the current research to rely on theoretical models that have been built properly to avoid the use of ad hoc empirical models in the prediction from the direction in which the explanatory variables affect the value of the company. Second, FO model states that the book value of financial assets coincided with market value and value creation beyond the company's book value, which is largely generated from operating activities. It enabled the current research to eliminate the possibility that the aggregation of financial activities and operations weaken the influence of value-relevant information on the value of the company. Third, these models allow the voluntary disclosure of information other than the accounting information that is necessary to be explicitly added to the model through by the term "other information." FO Model supports theoretically one of the issues in this study, namely that market expectations of firm value depends not only on the required accounting information but also on voluntary disclosure. Fourth, the model explicitly incorporates conservative accounting, and enables the current study to measure the degree of accounting conservatism. Fifth, the model also relates the growth expectation with the company's market value. The model shows how the growth served as explanatory variable in relation to basic accounting figures according to conservative accounting. Unlike the Ohlson model in which growth expectations are not specified, the FO model provide significant relationship between corporate valuation and a set of investment opportunities which highlighted the creation of wealth.

In comparison with the various *ad hoc* models used in the past three decades, FO models provide internally consistent assessment that allows the derivation of specific predictions

about the impact not only of the accounting information /non-accounting rules of measurement but also of accounting/investment opportunity set on the firm value.

### **Effect of Accounting Conservatism and the Voluntary Disclosure on Firm Valuation**

Verrecchia (1983) states that managers, whose goal is to maximize the company's market value, would voluntarily distribute private information to investors when the market underrated the company. Healy et al. (1995) found that increases in voluntary disclosure are effective to lessen the underrating. However, by assuming that all voluntary disclosures are reliable, they do not answer the question whether the market responds differently to voluntary disclosures of companies with different reliability. The factors affecting the reliability of the company include corporate accounting policies and economic attributes.

According to the FO model, companies that use conservative accounting tend to be systematically expressing lower current operating assets. In addition, accounting conservatism can be seen as a way for managers to assure investors about the quality of accounting figures reported (Ahmed et al., 1999).

If accounting conservatism decrease the uncertainty about the distortions in the accounting information reported to investors, the value relevance of accounting information increase. If investors consider accounting conservatism as a counterweight to optimistic tendency of the manager in preparing not only the financial figures but also the voluntary disclosure, the accounting conservatism will increase the market reaction to the latter. Testing the influence of conservatism on the market response to non-accounting information can provide evidence on whether or not the investors expand the reliability resulting from accounting conservatism to the corporate voluntary disclosure in communicating its value to external parties.

Hypothesis 1: Market valuation to voluntary disclosures for firms that follow conservative accounting practices will be higher than those that follow the less conservative ones.

### **Effect of Company's Life Cycle Stages on Firm Valuation**

Companies in different life cycle stages are generally have different economic characteristics and the companies in the same life cycle stages share similar economic characteristics (Anthony and Ramesh, 1992; and Black, 1998). Both the company's business activity and economic characteristics, as represented by life cycle stage, is an important explanatory

variable in operating results reflected in the financial statements, and the flow of future abnormal operating earnings which determine the firm value.

Based on the assessment of companies that associate with the life cycle stages, this research hypothesized that the operating profit and net operating assets will have multiples higher pricing for the companies at the stage of growth than those in other life cycle stages. Based on the FO model, this study tested the following hypothesis:

Hypothesis 2: Investors will place a higher multiplication on abnormal operating earnings and operating assets for companies at growth stage than those in the mature and declining stage.

### **The Effect of Accounting Conservatism and Life Cycle Stages on Firm Valuation**

Within the framework of FO assessment, growth in investment is irrelevant if and only if accounting is not biased. Therefore, based on conservative accounting policies applied consistently over time, the market value of company equity increases the expected growth in investment in conjunction with other value-relevant components. Conservative accounting implies that the company has hidden reserves for future earnings and therefore they tend to have high growth in net operating assets.

Penman and Zhang (1999) shows the interaction between conservative accounting and investment growth. In summary, conservative accounting practices are applied consistently over time will reduce current profits for the company with the increase in investment. However, markets tend to ask for a high weighting because of income reduction due to increase in hidden reserves having the potential for higher future earnings than the reserve. On the other hand, companies that follow conservative accounting can create current profits by reducing investment (or growth rate in investment), which makes current profit a weak indicator for future earnings. To what extent is the combined effect of accounting policies and investment activities in hidden reserves or profits are interpreted correctly by the investors in the company equity pricing, expected growth in operating assets together with accounting conservatism provide relevant information about the company's future value expectations. With plenty of information in hand, including that of accounting and non-accounting, investors have the resource to evaluate the effect of accounting conservatism on net operating assets, to estimate the expected growth in investment, and to measure the

combined effect of accounting conservatism and growth of abnormal operating earnings expectations for the company. Thus, this condition leads to the following hypotheses:

Hypothesis 3a: Companies in the growth stage that follow conservative accounting practices have higher multiplication on operating income and/or abnormal operating assets than those in the same stage that followed the aggressive accounting practices.

Hypothesis 3b: Companies at the declining stage that follow conservative accounting practices have lower multiplication operating income and/or abnormal operating assets than those at the same stage that follow the aggressive accounting.

## **C. Method**

### **Sample**

Samples are publicly listed companies in Indonesia Stock Exchange (IDX) during the period 2000 to 2007. Year 2000 was chosen as the baseline year because: first, from 1995 IDX has used automation systems of JATS (Jakarta Automatic Statistics). The companies are of manufacturing type. To avoid sample selection bias, this study used all categories of company size, from small to large scaled companies. On the other hand, to avoid survivorship bias, a bias due to the use of companies that are only consistent registered in the period of investigation, we use a sample of companies registered during the period of eight years or less.

### **Data Collection**

The current study uses secondary data. Data of annual reports was obtained from the sample companies, the library of Jakarta Stock Exchange, and the library of Indonesian Listed Companies Association. Data of financial statements and stock market were obtained from Jakarta Stock Exchange: Public Companies Financial Statement at the Master Program of Science and Doctor of the Faculty of Economics and Business, Gadjah Mada University, the available JSE database on Accountancy Development Center, UGM, and at [www.jsx.co.id](http://www.jsx.co.id).

## Model Assessment of Feltham and Ohlson (1995) to Test the Effect of Conservatism and Life Cycle Stages on Company Equity Assessment

This study uses FO model to test the hypotheses related to the effect of conservatism and life cycle stages on the company equity assessment:

$$LOA_{it}^a = \omega_0 + \omega_1 LOA_{it-1}^a + \omega_2 AO_{it-1} + \varepsilon_{it+1} \quad (\text{Linear Information Model}) \quad (1)$$

$$G_{it} = \alpha_0 + \alpha_1 LOA_{it}^a + \alpha_2 AO_{it} + \varepsilon_{it} \quad (\text{Linear Valuation Model}) \quad (2)$$

## Testing the Effect of Accounting Conservatism and the Voluntary Disclosure on Corporate Valuation

To test the effect of accounting conservatism and voluntary disclosure on corporate valuation (hypothesis H1), the research operationalize the following FO model:

$$G_{it} = \alpha_{0kp} + \alpha_{1kp} LOA_{it}^a + \alpha_{2kp} AO_{it} + \varepsilon_{it} \quad (3)$$

where  $k = c$  for conservative companies, and  $a$  for aggressive companies

$p = d$  for expanded companies,  $t$  for unexpanded companies

Pooled cross-sectional and time-series regression model is formulated as above for the intercept and coefficient to be varied for the whole range of different periods before and after the change in voluntary disclosure. In equation (5),  $\alpha_{0kp}$ ,  $\alpha_{1kp}$ , and  $\alpha_{2kp}$  indicated the intercept, persistency coefficient, and conservatism coefficient, respectively.

## Testing the Effect of Life Cycle Stages on Company Valuation

Based on indicators of life cycle stages used in Anthony and Ramesh (1992), and Black (1998), this study classifies the sample companies into the life cycle of growth, mature, and decline. The fourth hypothesis testing is done using pooled cross-sectional and time-series regressions with intercept and slope of the categorical variables for different life cycle stages with the following regression equation:

$$G_{it} = \alpha_{0l} + \alpha_{1l} LOA_{it}^a + \alpha_{2l} AO_{it} + \varepsilon_{it} \quad (4)$$

where  $l = u$  for the growth companies,  $w$  for those in mature companies, and  $t$  for those in decline companies.

### Testing the Effect of Accounting Conservatism and Life Cycle Stages on Company Valuation

To test the effect of conservatism and life cycles stages on market reaction to valuation multiple, all the companies' years in respective life cycle stages divided into "conservative" and "aggressive" Strata by calculating the estimated the specific average conservatism of companies from the equation (1). To test the effect of accounting conservatism and life cycle stages on company valuation (hypotheses H5a, H5b, and H5c), this study tested the following regression equation for each life cycle stage groups:

$$G_{it} = \alpha_{0kl} + \alpha_{1kl} LOA_{it}^a + \alpha_{2kl} AO_{it} + \varepsilon_{it} \quad (5)$$

where  $l = u$  for the growth companies,  $w$  for those in mature companies, and  $t$  for those in decline companies.

$k = c$  for conservative and  $a$  for aggressive companies.

Pooled cross-sectional and time-series regression model is formulated as above for the intercept and coefficient to be varied for the whole level of accounting conservatism. In equation (6),  $\alpha_{0l}$ ,  $\alpha_{1l}$ , and  $\alpha_{2l}$  (where  $l = u$  for the growth companies,  $w$  for the mature companies, and  $t$  for the decline companies) indicate the intercept, persistence coefficient, and conservatism coefficient, for conservative companies.

### Measuring the Conservatism

This study tested the relative conservatism to the industrial median conservatism taken by investors when they make investment decisions. The estimated average firm-specific conservatism is compared to the median estimate of industry, calculated from equation (1) by using all sample firms. If the coefficient of firm-specific conservatism coefficient is greater than the industry median, then the sample of companies was categorized as "conservative".

### Voluntary Disclosure Classification



To investigate the effect of accounting conservatism on the association between firms' equity and their voluntary disclosures, this study developed a list of voluntary disclosure items of Khomsiyah (2005) as a comprehensive measure of voluntary disclosure informativeness. Development of voluntary disclosure item list was made since the new regulations of the Indonesia Capital Market Regulatory Body (BAPEPAM & LK) which led to information that used to include components of voluntary disclosure has now become a component of mandatory disclosure.

From the Khomsiyah's (2005) list of voluntary disclosure items, the author conducted a voluntary disclosure rating of each company in an industry. The rating is then used to calculate Relative Industry Ranking (RIR) for each firm in the test period as that employed by Healy et al. (1995), and Lang and Lundholm (1993). RIR for company  $i$  in year  $t$  is defined as follows:

$$RIR_{it} = \frac{N_{it} - R_{it}}{N_{it} - 1} * 100 \quad (RIR)$$

where  $N_{it}$  is the total company in the industry of company  $i$  in year  $t$ , and  $R_{it}$  is the score rank of company  $i$  disclosure in year  $t$ .

Because the rating is calculated from a list of items representing Indonesia Financial Accounting Standards Board and auditors perceptions to the extent to which firms voluntarily disseminate information through various channels of communication rather than direct measures of actual disclosure, this study investigates the effect of different levels of voluntary disclosures during the period of testing by categorizing sample companies into two groups according to changes in the level of voluntary disclosure: (1) companies that significantly indicating a large and sustained increase, (2) companies indicating a decrease in the level of voluntary disclosure. To identify companies with a large, sustained increase, or decrease in the RIR, this study used the Changes in Relative Ranking (CRR) during the test period, as used by Park (2002). CRR is calculated with an average change rather than absolute changes to reduce measurement error:

$$CRR_{it} = \frac{1}{3} \sum_{r=t}^{t+2} RIR_{ir} - \frac{1}{2} \sum_{r=t-1}^{t-2} RIR_{ir} \quad (CRR)$$

In this case  $t$  is the year events when the company increase the voluntary disclosure. A company is classified as expanded when it has sustained a large sustained increase in its RIR (e.g .high CRR), or as unexpanded when it has sustained decline or unchanged in its RIR.

### Classification of Companies' Life Cycle Stages

To classify the sample companies into life cycle stages, the studi employed four classification variabels frequently used in the previous researches on life cycles (Anthony and Ramesh, 1992; and Black, 1998): firm age (FA), percentage sales growth (PSG), capital expenditures divided by the total value of the company (CE), and annual dividend payments divided by net income (PD). FA Variables were obtained from the annual report as the difference between current year and the early years of establishment for each company year.

$$PSG_t = \frac{SALES_t - SALES_{t-1}}{SALES_{t-1}} \times 100 \quad (PP)$$

$$CE_t = \frac{CAPEX_t}{VALUE_t} \times 100 \quad (PM)$$

$$DP_t = \frac{DIV_t}{IBED_t} \times 100 \quad (PD)$$

where

$SALES$  = net sales,

$CAPEX$  = capital expenditure,

$VALUE$  = value of equity market,

$DIV$  = common stock dividend, and

$IBED$  = income before extraordinary items and discontinued operations.

### D. Data Description

Samples are non-financial companies publicly listed in Indonesia Stock Exchange (IDX) during 2000 to 2007. There are as many as 177 sample firms used in testing hypothesis 2 and 3. Different amounts to test hypothesis 1, that is 74 sample firms. This is based on the fact that very few public companies that publish annual reports consistently in the years of observation of this study. To test the hypothesis (H1 and H3), the appropriate sample data qualifiers were divided into strata of Conservative and Aggressive by comparing the estimated average specific conservatism with the estimated industry average of equation (1). If the average coefficient of conservatism specific larger (smaller) than the industry average coefficient, the sample of firms categorized as conservative (aggressive). Description of samples categorized in groups of Conservative and Aggressive can be seen in table 4.1.

**Tabel 4.1. Classification Sample into Conservative and Aggressive**

<b>Hypothesis</b>	<b>Classification</b>		<b>Total</b>
	<b>Conservative</b>	<b>Aggressive</b>	
Hypothesis 1	40	34	74
Hypothesis 3	96	81	177

In Table 4.2 can be seen the result of calcification sample of firms into groups Expanded disclosure (Conservative and Aggressive) and Unexpanded (Conservative and Aggressive).

**Tabel 4.2. Classification Sample into Expanded and Unexpanded (Conservative and Aggressive)**

<b>Disclosure</b>	<b>Method</b>	<b>Classification</b>		
		<b>Conservative</b>	<b>Aggressive</b>	<b>Total</b>
<b>Expanded</b>		19	16	35
<b>Unexpanded</b>		21	18	39
<b>Total</b>		40	34	74

From Table 4.3 shows that the sample is the largest company in the category of decline, that is 80 companies (46 companies as Conservative, and Aggressive as 34 companies). Companies in the growth stage of 60 companies, with a composition of 28 companies and 32

companies Aggressive Conservative. Mature company as many as 37 companies with a composition of 22 companies and 15 companies Aggressive Conservative.

### E. Descriptive Statistics

Table 4.5 presents descriptive statistics of study variables for firms with disclosure expanded and unexpanded using accounting methods Conservative or Aggressive. Descriptive statistical results showed that both companies Konseratif Extended or Not Expanded shows the average value of equity (G) are great. This means that investors may perceive the quality of accounting numbers differently based on other information related to accounting procedures (such as conservatism). Average Abnormal Operating profit for the company's Conservatives, whether the disclosure of Extended or Expanded also greater than the aggressive company.

**Table 4.3. Descriptive Statistics for expanded and unexpanded Company with Conservative or Aggressive accounting method**

Variabel	N	Minimum	Maximum	Mean	Deviasi Standar
Panel A: Sampel Total					
G	74	1	4.787,60	1.129,23	3.447,89
LO	74	(18,18)	8.339,38	453,93	1.060,37
AO	74	1,35	18.046,14	368,58	1.292,71
Panel B: Expanded Conservative					
G	19	(11.840)	4.787,60	1.250,84	6.092,91
LO	19	2,2	8.339,38	509,92	1.123,33
AO	19	45,27	18.046,14	827,98	2.397,39
Panel C: Expanded Aggressive					
G	16	(1.632)	6.319,00	425,25	1.244,13
LO	16	(1,42)	3.418,32	191,92	472,51
AO	16	11,01	371,26	46,66	41,28
Panel D: Unexpanded Conservative					
G	21	(7.689)	27.028,00	509,97	3.131,49
LO	21	(18,18)	7.746,38	924,57	1.502,74
AO	21	52,8	4.729,31	474,19	585,32
Panel E: Unexpanded Aggressive					
G	18	(460)	1.835,00	191,53	464,67
LO	18	1,81	600,97	78,63	110,05
AO	18	1,35	188,83	46,61	34,37

Table 4.4 presents descriptive statistics of study variables for firms with growth life cycle stage, Adult, and decline. Each life cycle stage is divided into the strata of Conservative and Aggressive. Companies on the stage of growth showed higher operating assets of all life cycle stages. This confirms the findings of Pashley and Philippatos (1990) that firms in the early stages of the life cycle, on average, investing large amounts of money in plant and equipment.

**Table 4.4. Descriptive statistics based company's life cycle with the Conservative or Aggressive accounting method**

Variable	N	Minimum	Maximum	Mean	Standard deviation
Panel A: Sampel Total					
G	177	(11.839,71)	47.876,38	293,47	2.788,60
LO	177	(18,18)	10.047,89	478,83	1.116,01
AO	177	1,29	18.0461,4	3.254,03	10.534,21
Panel B: Growth					
G	60	(4.121,25)	8.536,26	58,82	1.138,62
LO	60	5,78	8.372,01	636,94	999,67
AO	60	31,54	15.304,67	962,7735	1.591,624
Panel C: Growth Conservative					
G	28	(4.121,25)	8.536,26	(5,41)	1.602,76
LO	28	(18,18)	8.372,01	799,73	1.374,07
AO	28	251,14	60.479,74	3.960,75	7.101,17
Panel D: Growth Aggressive					
G	32	(1.454,89)	2.158,28	115,01	426,66
LO	32	(4,89)	3.045,87	179,86	371,19
AO	32	1,29	2.050,72	327,28	273,11
Panel E: Mature					
G	37	(4.488,97)	25.421,42	301,28	2.046,39
LO	37	(10,5)	7.746,38	449,30	1.016,61
AO	37	4,1	47.293,06	1.880,67	3.724,33
Panel F: Mature conservative					
G	22	(4.488,97)	9.096,09	208,42	1.553,31
LO	22	(10,5)	7.746,38	581,78	1.229,72
AO	22	93,52	47.293,06	2.894,39	4.556,65
Panel G: Mature Aggressive					
G	15	(3.391,02)	25.421,42	451,40	2.614,55
LO	15	(1,19)	3.102,34	237,17	487,88
AO	15	4,1	1.797,85	391,89	320,38
Panel H: Decline					
G	80	(11.839,71)	47.876,38	466,13	3.775,39
LO	80	(4,7)	10.047,89	499,80	1.222,55
AO	80	13,5	18.0461,4	4.815,00	14.661,01

Panel I: Decline Conservative

G	46	(11.839,71)	47.876,38	682,13	4.914,05
LO	46	(4,7)	10.047,89	777,703	1.513,71
AO	46	54,68	18.0461,4	8.048,35	18.678,48

Panel J: Decline Aggressive

G	34	(1.632,16)	5.335,73	172,81	841,21
LO	34	(1,42)	4.796,3	122,43	411,171
AO	34	13,5	1.888,25	424,34	288,29

## F. Classic Assumption Test

Research using the least square method approach (Ordinary Least Squares) must comply with the principles of classical assumptions. All the models that used in this research have complied the principles of classical assumptions.

## G. Analysis and Discussion

### Testing Effect of Accounting Conservatism and the Voluntary Disclosure On Company Valuation

Hypothesis 1 predicts that the market reaction to voluntary disclosures for firms that follow conservative accounting practices will be higher than those observing less conservative accounting practices. To test the hypothesis (H1), the samples were classified first into the expanded and unexpanded with conservative or aggressive accounting method. Equation (3) is subsequently tested using expanded and unchanged companies that are conservative or aggressive

The results in table 4.5 show that the influence of abnormal operating earnings (LOA) and operating assets (AO) on the equity value of firms is significantly positive for companies with conservative, expanded voluntary disclosure. Statistically significant effects were also shown in companies with unchanged voluntary disclosure adopting conservative accounting. These confirm the findings by Stober (1996) and Ahmed et al. (1999). Overall, the results confirm the findings of Burgstahler and Dichev (1997) that the stock price is a function of earnings and book value, and expressed the importance of combining the size of earnings and book value in firm valuation. This can be seen from F-statistics of all testing models that are statistically significant ( $\alpha = 0.05$ ). The results provide also empirical evidence for theoretical models of FO, stating that the determinant of company value includes accounting earnings,

book value, and non-accounting information (abnormal operating earnings and operating assets).

**Table 4.5. Results Testing Effect of accounting conservatism and the Voluntary Disclosure On Valuation**

$$G_{it} = \alpha_{0kp} + \alpha_{1kp} LOA_{it}^a + \alpha_{2kp} AO_{it} + \varepsilon_{it}$$

Variabel	Coeff.	Std. Error	t-stat	Prob.	Adj. R <sup>2</sup>	F-stat. (Prob.)
Panel A: Conservative Expanded						
LOA	2,005	1,198	1,673	0,047	0,769	12,4865
AO	0,005	0,002	2,578	0,011		(0,000)
Panel B: Conservative Unexpanded						
LOA	0,318	0,613	0,518	0,005	0,848	5,078
AO	-0,257	0,218	-1,181	0,040		(0,000)
Panel C: Aggressive Expanded						
LOA	0,505	0,371	1,363	0,176	0,531	9,462
AO	-0,598	1,101	-0,543	0,589		(0,000)
Panel D: Aggressive Unexpanded						
LOA	0,688	0,499	1,378	0,171	0,629	4,216
AO	-4,044	1,483	-2,728	0,007		(0,000)

To see the difference in market valuation between companies with Expanded voluntary disclosure between Conservative and Aggressive, we used Chow test of coefficient differences. The test results are shown in table 4.4. Chow statistics value in table 4.6., panel A (FStat = 17.31) greater than Ftable = 3.44, the null hypothesis is rejected and concluded that the regression coefficients on the company with expanded disclosure (Conservative and Aggressive) is different. Similarly, the coefficient difference Chow test results for companies with disclosure unexpanded (Conservative & Aggressive) indicates the null hypothesis is rejected. This means that there are different market valuation of companies unexpanded Conservative and Aggressive. Chow Test Value Table 4.10 panel B (FStat = 17.31) greater than Ftable = 3.44.



**Table 4.6. Chow Test Results Difference Coefficient**

**PANEL A: The company for Expanded, Conservative and Aggressive**

<b>CHOW TEST FOR EXPANDED</b>		
RSSr	=	2,540,000,000
RSSur	=	1,199,833,206
$n1+n2-2k$	=	31
k	=	2
RSSr-RSSur	=	1,340,166,794
$(RSSr-RSSur)/k:A$	=	670,083,397
$RSSur/(n1+n2-2k):B$	=	38,704,297
A/B	=	17.31
F tabel	=	3.44
numerator	=	31
denominator	=	2

**PANEL B: The Company for Unexpanded Conservative and Aggressive**

<b>CHOW TEST FOR UNEXPANDED</b>		
RSSr	=	1,480,000,000
RSSur	=	943,758,198
$n1+n2-2k$	=	35
k	=	2
RSSr-RSSur	=	536,241,802
$(RSSr-RSSur)/k:A$	=	268,120,901
$RSSur/(n1+n2-2k):B$	=	26,964,520
A/B	=	9.94
F tabel	=	3.45
numerator	=	35
denominator	=	2

Table 4.6 implies that when investors perceive the company as conservative, they give greater credibility to the conservative company's accounting information than that of

aggressive. Investors revise previous conviction of the accounting information from conservative companies to a higher level than their aggressive counterparts. The results suggest that even if the aggressive companies expand their voluntary disclosure, they can not revise the confidence of investors because of the low credibility of the information. Fanani et al. (2009) found similar results as those in this research. They provide evidence that higher quality financial reporting will further increase investor confidence. One of the five variables that significantly affect the quality of financial reporting is accounting conservatism. These results support the hypothesis (H1).

### The Tests Results of Accounting Conservatism and Life Cycle Stages on Company Valuation

To test the joint effect of conservatism and life-cycle stages on the market reaction, the sample of firms in each cycle is divided into conservative and aggressive strata. Subsequently, equation (5) is tested for all stages of life cycle. The objective is to test whether accounting conservatism affects the association between life cycle stages and companies valuation. The test results are shown in table 4.7.

**Table 4.7. Results from Testing Effect of accounting conservatism and the of Life Cycle Stages to the Company Valuation**

$$G_{it} = \alpha_{0kl} + \alpha_{1kl} LO_{it}^a + \alpha_{2kl} AO_{it} + \varepsilon_{it}$$

Variable	Coeff.	Std. Error	t-stat	Prob.	Adj. R <sup>2</sup>	F-stat. (Prob.)
Panel A: Conservative Mature						
LO	-0,247	0,106	-2,327	0,021	0,464	305,065
AO	0,008	0,001	9,196	0,000		(0,000)
Panel B: Aggressive Mature						
LO	2,573	2,425	1,061	0,292	0,293	3,687
AO	-1,267	0,644	-1,967	0,041		(0,000)
Panel C: Conservative Growth						
LO	0,192	0,073	2,645	0,009	0,546	33,861
AO	0,049	0,013	-3,870	0,000		(0,000)
Panel D: Aggressive Growth						
LO	-0,064	0,054	-1,192	0,235	0,458	7,534
AO	-0,205	0,104	-1,965	0,510		(0,000)
Panel E: Conservative Decline						
LO	-0,201	0,009	-21,477	0,000	0,465	34,508
AO	0,001	0,000	76,304	0,000		(0,000)

Panel F: Aggressive Decline

LO	0,081	0,009	9,429	0,000	0,631	28,839
AO	-0,262	0,005	-49,635	0,000		(0,000)

Table 4.7 shows that investors give a higher multiple on earnings abnormal and/or assets of the company's operations are perceived as conservative rather than aggressive company. All variables are abnormal operating earnings (LOA) and assets of operations (AO) from mature cycle stage, growth and decline for the conservatives strata statistically significant ( $\alpha < 0$ ).

Chow test results for different coefficients on stage companies Adults can be seen in table B. The table B panel 4.8 Value Chow statistics for the company in growth (FStat = 8.23) greater than Ftable = 3.44, the null hypothesis is rejected and concluded that the regression coefficients in the mature company of the Conservative and Aggressive is different.

**Table 4.8. Chow Test Results Difference Coefficient**

**PANEL A: Companies in the Conservative and Aggressive Growth**

CHOW TEST for GROWTH STAGES		
RSSr	=	558,000,000
RSSur	=	233,895,655
$n1+n2-2k$	=	56
k	=	2
RSSr-RSSur	=	324,104,345
$(RSSr-RSSur)/k:A$	=	162,052,173
$RSSur/(n1+n2-2k):B$	=	4,176,708
A/B	=	38.80
F tabel	=	3.45
numerator	=	56
denominator	=	2

**PANEL B: Companies in the Conservative and Aggressive Mature Stages**

CHOW TEST TAHAPAN DEWASA		
RSSr	=	1,010,000,000
RSSur	=	674,000,000

$n_1+n_2-2k$	=	33
$k$	=	2
$RSS_r-RSS_{sur}$	=	336,000,000
$(RSS_r-RSS_{sur})/k:A$	=	168,000,000
$RSS_{sur}/(n_1+n_2-2k):B$	=	20,424,242
$A/B$	=	8.23
F tabel	=	3.44
numerator	=	33
denominator	=	2

In the table 4.8 shown panels C different coefficients Chow test results for companies in the decline stage. Value Chow statistics for the company in growth phase in table 4.8 panel B ( $F_{stat} = 11.44$ ) greater than  $F_{table} = 3.46$ , the null hypothesis is rejected and concluded that the regression coefficients in the mature company between Conservative and Aggressive is different. The results support the hypothesis 5a and 5b.

The results show that investors give a higher multiple on abnormal earnings and/or operating assets to the companies perceived as conservative compared to those as aggressive. All variables of abnormal operating earnings (LOA) and operating assets (AO) of the mature, growth, and decline cycle stages for conservative stratum are statistically significant ( $\alpha < 0$ ).  $R^2$  for mature, growth cycle stages in conservative stratum, is greater than that of sample companies in aggressive stratum. Exceptions to the company at the decline cycle stage having  $R^2$  conservative are smaller than that of aggressive. The results support the hypotheses 5a and 5b.

### **E. Conclusion, Implication, Limitation, and Suggestion**

In general, it can be concluded that accounting conservatism, voluntary disclosure and life cycle stage affect the value relevance and differences in value relevance of accounting/non-accounting information. When the manager of a company undervalued by investors expand its voluntary disclosures to correct a low market valuation (Healy et al., 1995), the market reaction to voluntary disclosure is greater for companies perceived as observing the conservative accounting practices than their aggressive counterparts. The current study found also that market differently evaluate accounting information for firms in different life cycle

stages and that accounting conservatism affect the relationship between life cycle stages and company valuation.

Investors gave higher (or lower) appreciation for the growth (or decline) companies that use conservative accounting practices than their less conservative counterparts. For the growth companies, although conservative accounting practices reduce the current earnings, the increase in hidden reserves resulting from accounting conservatism made the accounting information more informative. The results demonstrated that investor gave high multiple for earning decrease. For mature companies, accounting conservatism tend to not affecting the investors' valuation in the form, of abnormal operating profit. On the other hand, the decline companies, by observing conservative accounting practices which increase current earnings, might be perceived as weak indicator of future earnings. Evidence suggests that the market provides a low weight to companies that increase their earnings temporarily.

In addition, this study provides empirical evidence that accounting conservatism affects the value relevance of the difference between cash flow and operating accruals. The study was driven from the company equity valuation implications of the relationship between accounting conservatism and the operating assets and the relationship between operating assets and operating accruals in the FO model (1995). As more and more companies adopt conservative accounting practices, the market should respond more to operating accrual than to cash flow.

Given the limited number samples, especially for firms with voluntary disclosure, the current study can not further explore the types (other than annual reports) and the level of firm voluntary disclosure (extended, unchanged, and reduced). Low data variability influences the voluntary disclosure, and accounting conservatism became weaker in some testing.

Another factor is a proxy for the market reaction to the difference in value relevance of cash flow and operating accruals. In this study, market reaction is being substituted by the stock return in period of three months after the disclosure of annual reports. The many of inactively traded shares and the accuracy of the date of publication of annual reports resulted in difficulties in identifying promptly the market reaction to publication of the annual report.

Subsequent research on the topic of voluntary disclosures can be conducted better when the data variability of voluntary disclosures is more varied. Such study will be more robust if the type of voluntary disclosure is not merely based on annual reports, and the level of voluntary



disclosure is more diverse. Non-extended voluntary disclosures can be subdivided into unchanged and reduced disclosures.

This research is expected to accurately identify the publications of annual reports or other voluntary disclosures. Thus the research will be more robust because the stock return used shows the real market reaction to the publication of these voluntary disclosures.

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