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## THE IMPACT OF LOSSES AND CASH FLOWS ON DIVIDEND

## A BACHELOR DEGREE THESIS

## BY

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## PAGE OF DEDICATION

## Bukankafi Kami tefafi Capangkan dadamu wafiai Mufiamad. Dan kami tefafi memyingkirkan bebanmu, Bebar yarg memberatkar punggungmu, Calu Kami angkat martabatmu.

 Sunggufi Gersama kesukaran pasti ada kemudafian. Dan bersama kesukaran pasti ada kemudafian. Karena itu, Gila selesai suatu urusan, mulailaf tugas yang lain dengan sunggufi-sunggufi.Hanya kepada Tufianmu fiendaknya kau berfiarap
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Dedicated to my beloved family

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#### Abstract

Ristiono (2005), The Impact of Losses and Cash Flows on Dividend.Yogyakarta. Accounting Department. Economic Faculty. Islamic University of Indonesia.

The objective of the research is to examine the impact of cash flows, earnings, and losses in setting dividend policy. More specifically; i) earnings, cash flows, and annual losses are posited to be associated with dividend changes in firms with established earnings and dividend record and ii) dividend reductions, current operating earnings and cash flow have information in predicting future earnings.

As much as 60 manufacturing companies listed on Jakarta Stock Exchange within 1997-2002 of fiscal year were taken as a sample of the research. Data from audited financial statement were taken from Jakarta Stock Exchange. The statistical method used to test the hypothesis is a linear regression model. Twenty two models are considered in this research. The $1^{\text {st }}$ until $15^{\text {th }}$ models are used to examine the association of earnings, cash flows, and losses with dividend changes. The $16^{\text {th }}$ until $22^{\text {nd }}$ are used to examine that dividend reduction, current operating earnings, and cash flows have information in predicting future earnings.

The result of the research reveals that there is an association between earnings, cash flows, and losses with dividend changes. Result also indicates that dividend reductions, current operating earnings and cash flows have an information to predict future earnings.


## ABSTRAK

Ristiono (2005), The Impact of Losses and Cash Flows on Dividend.Yogyakarta. Jurusan Akuntansi. Fakultas Ekonomi. Universitas Islam Indonesia.

Tujuan dari penelitian ini adalah untuk meguji pengaruh dari cash flow, earnings dan losses dalam menetapkan kebijakan pada dividen. Lebih spesifik lagi; i) earnings, cash flows, and annual losses berhubungan secara positif dengan perubahan pada dividen,ii) perubahan pada dividen, current earning dari operasi dan cash flow mempunyai informasi untuk memprediksikan earnings di masa yang akan datang.

Sebanyak 60 perusahaan manufaktur yang terdaftar di Bursa Efek Jakarta (BEJ) dengan menggunakan 1997-2002 periode keuangan digunakan sebagai sample dalam penelitian. Data merupakan laporan keuangan yang sudah diaudit yang di ambil dari Bursa Efek Jakarta (BEJ). Metode statistik yang digunakan adalah model linear regresi. Sebanyak duapuluh dua model digunakan dalam oenelitian ini. Model 1 sampai 15 di gunakan untuk menguji asosiasi earnings, cash flows, dan losses dengan perubahan pada dividen. Model 16 sampai 22 digunakan untuk menguji perubahan pada dividen, current earnings dari operasi dan cash flow memiliki informasi dalam memprediksikan earnings di masa depan.

Hasil dari penelitian menunjukkan bahwa ada asosiasi antara earnings, cash flows, dan losses dengan perubahan pada dividen. Hasil penelitian juga menunjukkan bahwa perubahan pada dividen, current earnings dari operasi dan cash flow memiliki informasi untuk memprediksi earnings di masa depan.


## CHAPTER I

## INTRODUCTION

### 1.1 Study Background

A fundamental question in corporate finance is whether changes in dividend policy convey information about firm performance to capital markets. Not only are there well-documented price reactions to announcement of changes in dividend policy, but dividends have also been established as a mechanism whereby information related to the operations and future plans of a firm can be communicated (Benartzi et al., 1997; Michaely et al., 1995). As a result, the magnitude of information effects of dividends has increased the need for the prediction of dividend changes. Commencing with Lintner (1956), several other researchers examined the association between earnings and dividend changes.

More recent studies have focused on the impact losses on dividend changes (De Angelo and De Angelo et el., 1990; De Angelo et al., 1992), as well as on the effect of cash flow on dividend policy (Simons, 1994; Charitou and Vafeas, 1998). De Angelo and De Angelo documented a high incidence of dividend reduction by firm with persistent losses, but provided no similar evidence for firm with transitory losses. De Angelo et al. Concluded that an annual loss is necessary condition for dividend reductions in firm with established earnings and dividend record. So far as the impact of cash flow on dividend policy is concerned, no research to date has established an association between cash flows and dividend changes, given earning. Nevertheless, a positive association is
hypothesized for two reasons: i) cash flows are more direct liquidity measure than earnings (Charitou and Vafeas, 1998) and ii) managers may manipulate earnings to maximize bonuses or meet debt covenant. For these reasons, then cash flow is expected more reliable indicator of firm performance than earning (Healy, 1985).

Finally, the simultaneous effect on dividend policy of cash flows and losses has not yet been considered. And in this thesis, the researcher wishes to test whether or not there is an association of dividend changes with losses (that company reduce or omit dividend when they loss), earnings, and cash flows and the information content of dividend reductions, earnings, and cash flows as predictors of future earnings. The purpose of this research is to get empirical evidence about the association of dividend changes with losses, earnings, and cash flows and the information content of dividend reductions, earning, and cash flow as predictor of future earning. The researcher takes some companies listed in Jakarta Stock Exchange as research object. The research is entitled:
"The Impact of Losses and Cash Flows on Dividends"

### 1.2 Problem Identification

Dividend policy plays an important role in the value of a firm. Stockholders see dividends as signals of the firm's ability to generate future income, and hence, use it in the valuation of firms. Dividends can be used to measure the performance and the condition of the company; therefore, management should have a good knowledge about factors that affect dividend.

The researcher tries to conduct research which is focusing on the examination of the impact of cash flows, earnings, and losses in setting dividend policy.

### 1.3 Problem Formulation

Based on the explanation above, the main problem of this research are:

1. Whether there is any association between earnings measure (losses, level and changes in operating earnings) and dividend changes,
2. Whether there is any association between cash flow measure and dividend changes, given earnings,
3. Whether there is any association between dividend increases and future earnings, given current earnings and cash flow.

### 1.4 Limitation Of Research Area

The research is limited into the following areas:

1. The object of this research is sixty manufacturing company listed in Jakarta Stock Exchange (Bursa Efek Jakarta),
2. Availability of data to calculate the level and changes in operating earnings, the level and changes in operating cash flows, and the return on equity. All firms that met above criteria were included in the initial sample and subsequently categorized as loss firms and non-loss sample,
3. Availability of yearly dividends and dividends per share,
4. Availability of the market value of equity at fiscal year end,
5. Financial institutions and utilities were excluded from the sample.

### 1.5 Research Objective

The research is aimed :

1. To test whether there is any association between earnings measure (losses, level and changes in operating earnings) and dividend changes,
2. To test whether there is any association between cash flow measure and dividend changes, given earnings,
3. To test whether there is any association between dividend increases and future earnings, given current earnings and cash flow.

### 1.6 Research Benefit

This research hopefully will give some contribution to:

1. Offer insight and guidance regarding the usefulness of cash flow information in dividend policy,
2. Improve our understanding of the role of earnings, cash flows and annual losses in explaining dividend changes and future earnings,
3. As reference to next researcher (s).

### 1.7 Definition of Term

Definition of term is needed to make readers understand about the meaning of the main term in this thesis.

## 1. Earnings

Earnings are the change in equity (net asset) of an entity during given period that result from transaction and other events and circumstances from non owner sources except the effect of certain accounting adjustment of earlier periods that are recognized in the current period and certain other changes in net asset (Zahroh Naimah, 2000).

## 2. Cash Flows

It is defined as the amount of money, which move into and out of a business at a particular point of time (Tuck and Ashley, 1993: 78).
3. Losses

The name given to the difference between revenues and expenses when expenses exceed revenues.
4. Cash Dividend

Distribution of profit of the corporation to shareholder.
5. Capital Market

The institutions that provides a channel for the borrowing and landing of long-term periods (over one year).

## REVIEW OF RELATED LITERATURE

### 2.1. Review of Related Literature

2.1.1 Statement of Cash Flows

The evolution of the statement of cash flows provides an interesting example of how the needs of financial statement users eventually are meet. The statement was originated years ago in a simple analysis called the "Where-Got and Where-Gone Statement," which consisted of nothing more than a listing of the increases or decreases in the company's balance sheet items. After some years, the title of this statement was changed into "the fund statement." In 1961, the AICPA, recognizing the significance of this statement, sponsored research in this area that resulted in the publication of Accounting Research Study No 2, entitled "Cash Flow Analysis and the Funds Statement" (Perry Mason: New York: AICPA, 1961). This study recommended that the funds statement should be included in all annual reports to stockholders and that it should be covered by auditor's opinion

In 1963, $A P B$ Opinion No. 3 was issued to standardize the preparation and presentation of funds statement. The board recommended that the name should be changed to "Statement of Source and Application of Funds" and the statement should be presented as supplementary information in financial reports. The inclusion of such information was not mandatory, and its coverage by auditor's report was optional (New York: AICPA, 1963).

The business community, the stock exchange, and the SEC embraced APB Opinion No.3. As a result, the number of companies presenting funds statement increased sharply. In 1971, APB Opinion No. 19 made mandatory that a "statement of changes in financial position" should be presented as an integral part of the financial statements and that it should be covered by auditor's opinion. The Board concludes that
...information concerning the financing and investing activities of a business enterprise and the changes in its financial position for a period is essential for financial statement users, particularly owners and creditor, in making economic decision. When financial statements purporting to present both financial position (balance sheet) and results of operations (statement of income and retain earnings) are issued, a statement summarizing changes in financial position should also presented as a basic financial statement for each period for which an income statement is presented (New York: AICPA, 1971).

The Board recommended that the new title was "Statement of Changes in Financial Position." This title was used exclusively from 1972 through 1987.

Through the 1960s and 1970s, the statement presented the change in working capital as an adequate approximation for cash flow. In early1980s, however, the financial reporting environment changed dramatically as companies began taking on increasing amount of debt. In 1981, the Financial Executives Institute recommended that companies use a cash (or cash and cash equivalents) basis instead of a working capital basis in preparing this statement (Morrison, N . J., 1984). In addition, many practitioners and academicians argued for a stronger cash basis orientation to the statement of changes in financial position. In its Concepts Statement No. 5 (1984), the FASB strongly supported the inclusion in the primary financial statement of statement of cash flows that reflect an entity's
cash receipts classified by major sources and its cash payment classified by major uses. In November 1987, the FASB issued Standard No. 95, "Statement of Cash Flows," which became effective for annual financial statement for fiscal years ending after July $15,1998$.

### 2.1.2 Purpose of the Statement of Cash Flows

The primary purpose of the statement of cash flows is to provide information about an entity's cash receipts and cash payments during a period. A secondary objective is to provide information on a cash basis about its operating, investing, and financing activities. According to the FASB, the information provided in a statement of cash flows, if used with related disclosures and the other financial statement, should help investors, creditors, and others to:

1. Asses the enterprise's ability to generate positive future net cash flows,
2. Asses the enterprise's ability to meet its obligation, its ability to pay dividends, and its needs for external financing,
3. Asses the reasons for difference between net income and associated cash receipts and payments,
4. Asses the effect on enterprise's financial position of both its cash and non cash investing and financing transaction during a period.

The statement of cash flows report cash receipts, cash payments, and net change in cash resulting from operating, investing, and financing activities of an enterprise during a period, in a format that reconciles the beginning and ending cash balances.

The statement of cash flows provides information, which is not available in other financial statement. For example, it helps to indicate how it is possible for a company to report a net loss and still make large capital expenditure or pay dividends. It can tell whether the company issued or retired debt or common stock or both during a period.

Reporting the net increase or decrease in cash is considered useful because investors, creditors, and other interested parties want to know and can generally comprehend what is happening to a company's most liquid resource-its cash. A statement of cash flows is useful because it provides answer to the simple but important questions about the enterprise as follows:

1. Where did the cash come from during the period?
2. What was the cash use for during the period?
3. What was the change in the cash balance during the period?

### 2.1.3. Classification of Cash Flows

The statement of cash flows classifies cash receipts and cash payments in terms of operating, investing, and financing activities. Transactions and other events characteristic of each kind of activity are explained as follows:

1. Operating activities involve the cash effects of transaction that enter into the determination of net income, such as cash receipts from sales of goods and services and cash payments to suppliers and employees for acquisitions of inventory and expenses.
2. Investing activities generally involve long-term assets and include (a) making and collecting loans, and (b) acquiring and disposing of investments and productive long-live assets.
3. Financing activities involve liability and stockholders' equity items and include (a) obtaining cash from creditors and repaying the amounts borrowed and (b) obtaining capital from owners and providing them with a return on, and return of, their investment.

### 2.1.4. Dividends

The term dividend usually refers to a cash distribution of earnings. If a distribution is made from sources other than current or accumulated retained earnings, the term distribution rather than dividend is used. However, it is acceptable to refer to a distribution from earnings as a dividend and a distribution from capital as a liquidating dividend. More generally, any direct payment by the corporation to the shareholders may be considered part of dividend policy.

Forms of dividends:

- Regular cash dividend: Usually paid quarterly, these are direct payments of cash from the firm to the shareholder and are made in the regular course of business.
- Extra/Special dividend: These are in addition to the regular dividend. Typically these are unlikely to be repeated. For e.g., a firm which sells off a division and has no plans to invest the cash in other projects may decide to declare an extra/special dividend.
- Liquidating dividend: When the firm decides to wind up, it sells all its assets and declares the whole amount as liquidating dividend.

While liquidating dividends may reduce the paid-in capital, all other dividends reduce the firm's cash and retained earnings.

Two other special forms of dividend distribution are

- Stock dividends
- Share repurchases


## Stock dividends

A stock dividend is not a true dividend because it is not paid in cash. The firm increases the number of shares outstanding by allotting additional shares to each shareholder. A 5\% stock dividend means that each shareholder receives 5\% of shares currently owned as dividend i.e. if he/she owns 100 shares, in a $5 \%$ stock dividend, he/she will get 5 additional shares.

A stock split is essentially the same (there are differences in the method of accounting), except that the split is expressed as a ratio rather than as a percentage. A two-for-one stock split means that each old share is split into 2 new shares.

## Share Repurchases

Share repurchases are an alternate means by which firms distribute cash. The firm uses cash to buy back its own shares. This leads to a reduction in shares outstanding and also alters the firm's capital structure. Common in industries where cash resources exceed the amount of positive NPV investments. e.g., the
banking industry in the early '90s. Firms do not have to necessarily increase their dividends per share due to lesser number of shares outstanding.

There are three types of repurchases:

1. Open-market repurchases: The firm is just like any other investor - it purchases stock in the open market.
2. Tender repurchases: The firm makes an offer to either all or to a subset of shareholders (for e.g., those holding less than 500 shares) to buy a pre-specified number of shares. Usually the offer price is higher than the prevailing market price.
3. Target repurchases (green mail): The firm buys back shares from some block holders (one who holds a substantial stake in the firm). The block holder could be an unsuccessful bidder of a takeover attempt.

Dividend Payment: A chronology


June 19 July 2 July 6 July 20
Declaration Ex-dividend Record Payment
date date date date

1. Declaration Date: The board of directors declares a payment of dividends.
2. Record Date: The declared dividends are distributable to shareholders of record on a specific date.
3. Ex-dividends Date: a share of stock becomes ex-dividend on the date the seller is entitled to keep dividend.
4. Payment Date: The dividend checks are mailed to shareholders of record.

### 2.2. Previous Study

Lintner (1956) posits that the main determinants of dividend changes are current earnings and previous year dividends. Specifically, Lintner argued that management's decision to change dividend is based on current earning level, in conjunction with a target payout rate from current earnings. Importantly, adjustments towards the payout target each year are only partial. This result in management's reluctance to reduce dividends. This study has not been successful in linking dividend changes to cash flows empirically.

Using Lintner's autoregressive dividend policy model and alternative asset-flow proxies, Fama and Babiak (1968), Hagerman and Huefner (1980) conclude that historical cost income is better predictor of dividend changes than cash flows. Specifically, these studies show that earning and prior year dividends are useful in explaining dividend changes. Meanwhile, cash flows are found to be significant in predicting dividend changes.

These studies define cash flow as income plus depreciation. This measure was shown to be a profitability proxy and not a liquidity measure (Largay and Stickney; 1980; Gombola and Ketz, 1983; and Bowan etal, 1986) Hence, based on these finding, it is plausible to argue that the Fama and Bubiak (1986) and Hagerman and Huether (1980) studies do not conclusively preclude the ability of cash flows to incrementally predict dividend changes, given earnings.

### 2.3. Theoretical Framework and Hypothesis Formulation

## 1. The association of dividend changes with annual losses and earnings (levels and changes)

Dividend is policy considered one of the most crucial issues for management decision because it seems an important way for companies to communicate with market participants. Investor cannot always trust manager to provide unbiased information about their companies' prospects, but dividend signal are relatively reliable because they require cash payments and cash cannot be easily manipulated.

Other factors that may explain the investors' preference for dividends are as follows: i) Dividends represent present-value cash inflow to the investors that cannot be lost if the firm later experience difficulties. This fact makes dividends less risky than capital gains, ii) Dividends reveal liquidity, so that the payment of cash dividends carries information that the firm is strong and healthy, iii) Cash dividends provide current income to investors who require shares from their investments, iv) Dividends provide prediction to investors regarding future earnings and future cash flows of a company (Hampton, 1989).

Dividends changes showed that capital market react favorably to 'good news' announcements (dividend increases) and adversely to 'bad news' announcement (dividend decrease), which supports the opinion that dividend changes play significant rule in giving information.

Test of how dividend changes are significant showed that capital markets react favorably to 'good news' announcements (dividend increase) and adversely
to 'bad news' announcements (dividend decrease), supporting the view that dividend changes have an information that can affect capital market (Michaely et al. 1995).

The present study will analyze:
Hypothesis 1: There is an association between earnings measure (losses, level and changes in operating earnings) and dividend changes

Based on this hypothesis, the slope coefficient of earnings and losses is expected to be positive and statistically significant, signifying the incremental importance of earnings and losses in explaining dividend changes. In other words, it is expected that firms reporting losses would reduce dividends in the loss year.

There are two possible explanations for these dividend reductions in the year of initial losses. First, to avoid violation of debt covenants, and second, because an operating loss reveals deterioration in the firm's profitability, reduced dividends can provide the funds required for the firm's normal operations and to meet their legal obligations (De Angelo, 1990).
2. The association of dividend changes and cash flows, given annual losses and earnings

Although earnings are considered the dominant measure of performance in the market place, the existence of information asymmetries between management and the suppliers of capital has led to the demand for other measures of performance, especially cash flows. Earnings can be criticized because i) management has some discretion over the recognition of certain accruals, which
can be used to convey private information or manipulate earnings; and ii) earnings do not fully capture the firm's liquidity position.

These limitations make accrual earnings a less reliable determinant of dividend policy. Lawson $(1996,1997)$ contend that dividend policies based on accrual earnings are inconsistent with ex ante shareholder value creation (SVC) model, i.e., to maximize firm value, organization should invest in project with positive net present values while simultaneously considering firm liquidity (cash flow). Dividend policies based on accrual earnings can result in: i) deterioration of a firm's liquidity and solvency, ii) dividend payments that cannot be internally financed, iii) external borrowing to partially finance dividend, and iv) increased financing cost leading to a transfer of shareholder wealth to lender.

This occurs whenever funds must be raised through debt, and ultimately increases the firm's risk (Lawson and Stark, 1981, Whittington and Meeks, 1976). Proponents of cash flow reported also argue that cash flows are not affected by arbitrary allocation and cannot be easily manipulated by management (Lee 1978, 1981; Lawson, 1981). Since dividends must pay in cash, firm reporting insufficient cash may force to reduce dividends. Thus, it is expected that firms would reduce dividends in years of insufficient liquidity. Furthermore, research indicates that i) higher dividend payout ratio corresponds to a larger cash flows, and ii) firms that persistently generate more operating cash flow than earnings are likely to have higher dividend payout ratios (Ingram and Lee, 1997).

On the other hand, cash flows are an insufficient and noisy measure of performance in so far as they influenced by timing and matching problem
(Dechow, 1994). Thus, due to their inherent limitations, neither cash flow nor earnings can be used in isolation to explain dividend policy choices. Furthermore, there is evidence suggesting that dividend reduction is the result of deterioration in both the profitability and the liquidity of a firm (Jensen and Johnson, 1995). Thus the lack of any established association between cash flows and dividend policy, given earnings; the contradictory research on the usefulness of cash flows in setting dividend policy; the inherent limitation of earnings as a reliable determinant of dividend policy and the scant empirical evidence linking cash flows and annual losses with dividend changes using Indonesian data, point to:

Hypothesis 2: there is an association between cash flow measure and dividend changes, given earnings

According to this hypothesis, the slope coefficient of cash flow measures is expected to be positive and statistically significant, signifying the importance of cash flows in explaining dividend changes. Specifically, firms with cash flow deficiencies are more likely to reduce dividends because of the need to repay debt obligations to raise cash for the firm's normal operations.

## 3. The Information Content of Dividend Reduction, Earnings and Cash

 Flows as Predictors Of Future Earnings.Miller and Modigliani (1961) showed that management's superior assessment of the firm's prospect could be inferred from dividend changes, with dividend increases (decreases) predicting good (or bad) news about future earnings. DeAngelo et al. (1992) have also argued that dividend and current
earnings are likely substitutes for forecasting future earnings and that the information content of dividend will vary depending on the characteristic of current earnings.

Dividend are expected to have low (or high) explanatory power in random (nonrandom) samples because current earnings are expected to be more (less) reliable. Existing evidence on the information content of dividends is consistent with the above argument. Watts (1973) and Bernartzi et al. (1997) observed a weak association between unexpected earnings and dividend change for randomly selected firm. Using nonrandom samples, De Angelo et al. (1992), Healy, and Palepu (1998) indicate that dividend reductions have incremental information content in predicting future earnings, and given current earnings.

Cash flow are also expected to be statistically significant in forecasting future earnings in nonrandom samples because loss firms generally experience earnings reversion after the initial loss, suggesting current earnings will be less useful in future earnings than in normal circumstances where earnings follow a random walk (De Angelo et al. 1992). These contentions suggest:

Hypothesis 3: There is an association between dividend increases and future earnings, given current earnings and cash flow

According to this hypothesis, the slope coefficients of dividend changes, earnings and cash flow variables are expected to be positive and statistically significant. A positive sign for the dividend changes variable implies that the decreases or increases in current dividends will lead to decreases or increases in future earnings.

## CHAPTER III

## RESEARCH METHOD

### 3.1. Research Method

This thesis makes use of the quantitative analysis method. The Quantitative analysis is a characteristic of variables when the value is stated on numerical form. The characteristic of the measurement variables makes the value being place in interval.

### 3.2. Research Subject

The subject of this research is the companies listed on the Jakarta Stock Exchange from the period of 1997-2002 that has the following information: a) the level and changes in operating earnings, the level and changes in operating cash flows, and return on equity; b) yearly dividends and dividends per share; c) the market value of equity at fiscal year end.

### 3.3. Research Setting

This research was conducted in manufacturing companies listed on Jakarta Stock Exchange and was done between 1997-2002.

### 3.4. Research Instrument

Data collections were executed by seeking the secondary data that was available and quoting properly from data sources in the Faculty of Economic library of Universitas Islam Indonesia Yogyakarta and the JSX corner. Data collection and the sources of data are described as follows:
a) Manufacturing companies, which were listed on the Jakarta Stock Exchange,
b) The information of dividends per share,
c) The information of the level of and changes in operating earnings, the level and changes in operating cash flows, and the return on equity,
d) The information of the market value of equity at fiscal year end.

### 3.5. Research Variable

Variables used in this study were dividends, loss, earnings, and cash flows. Those variables were measured as follows:
a) Dividends was measured from distribution of profit of the corporation to shareholder,
b) Loss was measured as the difference between revenues and expenses when expenses exceed revenues,
c) Operating earnings was measured as the difference between income and expenses of the company that resulted from company's activities,
d) Operating cash flows was measured as the difference between cash inflow and cash outflow came from all company's activities.

### 3.6. Research Procedure

In order to answer the research problems, it is imperative to construct research procedures arranged as follows:

1) Formulating the research problems and determining the research objective

The first step, which is important in doing a research, is formulating the problem, because the research problem is a basis in formulating the conceptual framework. Moreover, the problem in detail is explained by formulating research objectives.
2) Determining the concept and Hypothesis of the thesis

A hypothesis is the nature of a tentative solution. It is the most reasonable explanation that can be found to account for the data that are previously stimulated to recognize the problem. Thus, the importance in setting the hypothesis is making ability to establish definite boundaries around the research effort.
3) Selection of Sample

The purpose of sampling is to provide sufficient information so that inferences are made based on the characteristic of the population, whereas the goals in sampling is to select a portion of the population, which is maximally representative of the characteristic of the population. If a judgment on a population from the sample results made, then the sample results must be representative to the population.

The following paragraph elaborates some of the major advantages of samplings:
a) Cost

Any data gathering effort will require money expenditure for such thing as mailing, interviewing, and tabulating of data. The more data to be handled, the higher the costs will if sampling is needed.
b) Time

It will require too much time if census is used rather than a sampling.
c) Accuracy of sample Result

Sample is the representative of the population characteristic so that the result of sample provide information that is almost accurate.

From the explanation above, it has been emphasized that a sample should be a representative of the population. The more representative a sample is, the more confident the estimation. Varieties of method exist because there is no best method. The nature of the population and the skill of the researcher determine an appropriate method for sample selection. Any sample based on someone's expertise about the population is known as a judgment or purposive sample. In the purposive sampling method, researcher decides which element are going to be the sample from whole population, how to draw the sample, and how the needed information will be calculated and used. In this method researcher made borders or restriction based on the characteristic of the subject that was to be a research sample.
4) Data collection

There are some steps that must be followed after the sample is selected, they are:
a) Checking all the information related to data collected which must be in concordance with the planning that was made,
b) Collecting the data, the data was gathered from library and other places, directly or indirectly.

## 5) Data Processing

The data processing is an important part of the research procedure, because it is useful for several reasons. First, it can lead to get information and a new insight. Then, it can help to avoid erroneous judgment and conclusions as well as to provide a background to help interpret and understand analysis conducted by others. Inappropriate data processing or analysis can suggest judgment and conclusions that are unclear, incomplete, and it can lead a wrong decision.

### 3.7. Technique of Data Analysis

### 3.7.1. Population and Sample

Populations of this study were the companies running in manufacturing industry and were already listed in Jakarta Stock Exchange. Meanwhile, the samples were taken using random and non-random sampling technique and must fulfill these conditions:
a) Being listed in Jakarta Stock Exchange,
b) Reported at least one annual loss during the period 1997-2002, reported positive dividends and positive operating earnings for all five years immediately prior to their first annual loss,
c) Reported only earnings (no losses) during the period 1997-2002, reported positive dividends and positive operating earnings for all five years immediately prior to their first earnings decline, and also reported a decline in operating earnings for at least one year during the period 19972002.

### 3.7.2. Analysis Method

The empirical model used to test the research hypotheses relate to a) the association of dividend changes with earnings, losses and cash flows, and b) dividend reduction as predictors of future earnings and cash flows.
a. The association of dividend changes with earnings, losses and cash flows The association of dividend changes ( $\triangle \mathrm{DIV}$ ) with loss dummy (loss dum), the level and changes of operating earnings $(\mathrm{E}, \Delta \mathrm{E})$ and the level and changes in operating cash flows (CFO, $\triangle \mathrm{CFO}$ ) were tested using empirical models:

Univariate analysis:

$$
\begin{align*}
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{2} \mathrm{E}  \tag{3.1}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{3} \Delta \mathrm{E}  \tag{3.2}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{4} \text { lossdum } \tag{3.3}
\end{align*}
$$

$$
\begin{align*}
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{4} \mathrm{CFO}  \tag{3.4}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{5} \Delta \mathrm{CFO} \tag{3.5}
\end{align*}
$$

## Multivariate Analysis

$$
\begin{align*}
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{2} \mathrm{E}  \tag{3.6}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{3} \Delta \mathrm{E}  \tag{3.7}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{4} \mathrm{CFO}  \tag{3.8}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{5} \Delta \mathrm{CFO}  \tag{3.9}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{2} \mathrm{E}+\mathrm{b}_{3} \Delta \mathrm{E}  \tag{3.10}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{2} \mathrm{E}+\mathrm{b}_{3} \Delta \mathrm{E}  \tag{3.11}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{4} \mathrm{CFO}+\mathrm{b}_{5} \Delta \mathrm{CFO}  \tag{3.12}\\
& \Delta \mathrm{DIV}=\mathrm{b}_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{4} \mathrm{CFO}+\mathrm{b}_{5} \Delta \mathrm{CFO}  \tag{3.13}\\
& \Delta \mathrm{DIV}=b_{0}+b_{2} \mathrm{E}+\mathrm{b}_{3} \mathrm{D} \Delta \mathrm{E}+\mathrm{b}_{4} \mathrm{CFO}+\mathrm{b}_{5} \Delta \mathrm{CFO}  \tag{3.14}\\
& \Delta \mathrm{DIV}=b_{0}+\mathrm{b}_{1} \text { lossdum }+\mathrm{b}_{2} \mathrm{E}+\mathrm{b}_{3} \Delta \mathrm{E}+\mathrm{b}_{4} \mathrm{CFO}+\mathrm{B}_{5} \Delta \mathrm{CFO} \tag{3.15}
\end{align*}
$$

Where:

| $\triangle \mathrm{DIV}$ | $=$ change in cash dividends |
| :--- | :--- |
| Lossdum | $=$ lossdummy |
| E | $=$ operating earnings |
| $\Delta \mathrm{E}$ | $=$ change in operating earnings |
| CFO | $=$ cash flows from operation |
| $\triangle \mathrm{CFO}$ | $=$ change in cash flows from operation |

In all models tested the earnings ( $\mathrm{E}, \triangle \mathrm{E}$ ) and cash flow ( CFO ,
$\triangle \mathrm{CFO}$ ) explanatory variables deflated by the market value of equity at the
beginning of the fiscal year. The coefficient of the earnings and cash flow variables are expected to be positive and statistically significant showing incremental importance of earnings, losses and cash flows in explaining dividend changes.
b. Dividend reduction as predictors of future earnings

The following models are used to test the effect of dividend reductions $\left(\Delta \mathrm{Div}_{\mathrm{t}}\right)$, current cash flows $\left(\mathrm{CFO}_{\mathrm{t}}\right)$ and current earnings $\left(\mathrm{E}_{\mathrm{t}}\right)$ as predictors of future earnings $\left(\mathrm{E}_{\uparrow+1}\right)$ :
$E_{t+1}=b_{0}+b_{1} E_{t}$
$\mathrm{E}_{\mathrm{t}+1}=\mathrm{b}_{0}+\mathrm{b}_{1} \mathrm{CFO}_{\mathrm{t}}$
$\mathrm{E}_{\mathrm{t}+1}=\mathrm{b}_{0}+\mathrm{b}_{2} \Delta \mathrm{Div}_{\mathrm{t}}$
$\mathrm{E}_{\mathrm{t}+1=}=\mathrm{b}_{0}+\mathrm{b}_{1} \mathrm{CFO}_{\mathrm{t}}+\mathrm{b}_{2} \mathrm{E}_{\mathrm{t}}$
$E_{t+1}=b_{0}+b_{1} E+b_{2} \Delta \operatorname{Div}_{t}$
$\mathrm{E}_{\mathrm{t}+1}=\mathrm{b}_{0}+\mathrm{b}_{1} \mathrm{CFO}_{\mathrm{t}}+\mathrm{b}_{2} \Delta \mathrm{Div}_{\mathrm{t}}$
$E_{t+1}=b_{0}+b_{1} C F O_{t}+b_{2} \Delta \mathrm{Div}_{t}+b_{1} E_{t}$

Where:
E = operating earnings
CFO = cash flow from operations
$\Delta \mathrm{DIV}=$ change in cash dividends (dummy)
t = year of first annual loss (event year)
Earnings (E) and cash flows (CFO) are deflated by the market value of equity at the beginning of the fiscal year.

The coefficient dividend reduction, current earnings and current cash flows variables with future earnings are expected to be positive and statistically significant showing the incremental importance of dividend reductions, current earnings, and current cash flows as predictors of future earnings.
c. Descriptive Statistic

Descriptive Statistic is also used to test the variable to find the correlation between variables.
d. Sensivity analysis

Additional statistical tests performed to ascertain the robustness of the result. First, a new non-loss sample of firms with increasing, positive earnings employed. Second, regression analysis was use to examined the linear relationship between dividend changes and earnings, losses and cash flows.
a. Sample of firms with increasing, positive earnings

Two sub-samples of firms were used in the regression: Loss sample of firms with losses in at least one year during the period 1997-2002, and a non-loss of firms with established earnings and dividend records and with declining earnings recorded in at least one year during the period 1997-2002.
b. Linear relationship between dividend changes and earnings losses, cash flows

To examine the robustness of the logistic regression results, the analysis repeated using a linear regression approach. The same sample of loss and non-loss firms are employed.


## CHAPTER IV

## RESEARCH FINDING, DISCUSSION, IMPLICATION

### 4.1 Research Description

In this research, data used by researcher is secondary data that is audited financial statement of data companies listed in Jakarta Stock Exchange (BEJ) and categorized as manufacturing companies. Financial statement data in this research was taken from Jakarta stock exchange file.

The sample used in this research is sixty manufacturing companies listed in Jakarta Stock Exchange (BEJ). Financial statement data used in this research is audited financial statement for the year 1997 until 2002. Data was analyzed to know the association between loss and cash flow with dividend and information content of dividend reduction, earnings and cash flow as predictor of future earnings.

Table 4.1
Descriptive Statistic

\left.| VARIABLE | mean | median | St.deviation | Minimum | Maximum |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CFO | 0.332300 | 0.211000 | 0.645600 | -1.590000 | 4.940000 |
| ChCFO | 0.181800 | - | 0.005700 | 1.956080 | -11.560000 |$\right] 17.410000 \quad$| ChE |
| :--- |
| E |

## Source appendix 2

Compared to earnings, mean and median of the level of cash flow is greater. This result is consistent what is expected.

There are three equation level models used in this research. Those are as follows :
a. To test first and second hypothesis, the researcher used first and second model of equation that are stated in chapter three from equation 3.1 until 3.15
b. To test the third hypothesis, the researcher used third model of equation stated in chapter three from equation 3.16 until 3.22.

### 4.2 Research Findings, Discussion and Implication

4.2.1 Test of Association of Dividend Changes with Losses, Earnings and Cash Flow

## A. Test of Hypothesis

The result of the hypothesis testing for hypothesis one and two was completed using linear regression model. This test is used to analyze the level of significance of the association of dividend changes with losses, earnings and cash flows. The result of the test for all sampling is described in table 4.2.

Table 4.2
Regression analysis Result

| MODEL | constant | E | ChE | Dloss | CFO | ChCFO | $\begin{aligned} & \hline \text { Adjusted } \\ & R^{2} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | -0.00184 | 0.0018580 |  |  |  |  | 0.01800 |
|  | 0.00400 | .043** |  |  |  |  |  |
| 2 | -0.00108 |  | 0.0011590 |  |  |  | 0.02000 |
|  | 0.06900 |  | .039** |  |  |  |  |
| 3 | -0.00180 |  |  | $0.00489$ |  |  | 0.01800 |
|  | 0.074* |  |  | .041** |  |  |  |
| 4 | -0.00080 |  |  |  | $0.00844$ |  | 0.12600 |
|  | 0.49800 | , |  |  | .000*** |  |  |
| 5 | -0.00094 |  |  |  |  | $0.00122$ | 0.02300 |
|  | $0.008^{* *}$ | $\pm$ |  |  |  | .033** |  |
| 6 | -0.00053 | $0.0032560$ |  | 0.00246 |  |  | 0.17200 |
|  | 0.21700 | .008* |  | .031** |  |  |  |
| 7 | -0.00021 |  | 0.0008151 | $0.00539$ |  |  | 0.24400 |
|  | 0.61000 | - | .001*** | . $000{ }^{* * *}$ |  |  |  |
| 8 | 0.00014 |  |  | $0.00580$ | $0.00145$ |  | 0.23200 |
|  | 0.75300 |  |  | . $000{ }^{* * *}$ | .041** |  |  |
| 9 | -0.00029 |  |  | $0.00586$ |  | 0.00086 | 0.22200 |
|  | 0.48500 |  |  | .000*** |  | .010** |  |
| 10 | -0.00117 | 0.0022140 | 0.0008281 |  |  |  | 0.19900 |
|  | $0.003^{* *}$ | . 0000 *** | .001*** |  | - |  |  |
| 11 | -0.00050 | 0.0013800 | 0.0006569 | $0.00392$ |  |  | 0.28900 |
|  | 0.20800 | .013** | .004** | .000*** |  |  |  |
| 12 | -0.00018 |  | 418 | - | $0.00291$ | $0.00146$ | 0.05800 |
|  | 0.69900 |  | - | - | .001*** | .021** |  |
| 13 | 0.00018 |  |  | $0.00431$ | $0.00184$ | $0.00118$ | 0.17100 |
|  | 0.68000 |  |  | . $000{ }^{\text {*** }}$ | .033** | .046** |  |
| 14 | -0.00045 | 0.0020330 | 0.0004811 |  | $0.00199$ | $0.00103$ | 0.16000 |
|  | 0.31100 | . $0000{ }^{* * *}$ | .097* |  | .019** | .097* |  |
| 15 | -0.00012 | 0.0011380 | 0.0002732 | $0.00293$ | $0.00155$ | $0.00106$ | 0.18600 |
|  | 0.78300 | .048** | 0.3380000 | .009* | .071* | 080* |  |

Coefficient, and p-value ; first and second line, respectively,*,**,***, significant at the $0.10,0.05,0.01$

Source appendix 2

Analysis result shows :
a. Univariate Analysis

Univariate analysis (1-5 table 4.2) result indicates that annual losses, earnings (level and changes) and cash flow level (CFO) are positively associated with dividend changes (all statistically significant). The coefficient of the earnings (level and changes), change in cash flow and lossdum is significant at $5 \% ~(a=$ $0.05)$ and for the cash flow variable is significant at $1 \%(a=0.01)$. The presence or obscene of cash flow has the highest explanatory power (adjusted $\mathrm{R}^{2}=12.6 \%$ ). b. Multivariate Analysis

There is an association between earnings measure (losses, level and changes in operating earnings) and dividend changes

Multivariate analysis result shows that annual losses (LossDum) and earnings ( E or Ch E or both) are statistically significant in explaining dividend changes (model 6,7,10,11 in table 4.2).Comparison of model 10 and 11 confirms that the explanatory power of annual losses beyond earnings (level and changes) is substantial (adjusted $\mathrm{R}^{2}=0.199$ and 0.289 , respectively). These results substantiate earlier US and Japan evidence (Charitou, 1999) indicating the importance of annual losses in explaining dividend reduction. Multivariate model result support hypothesis one, i.e., a positive and statistically significant association exist between dividend changes and earnings (losses, level and changes).

There is an association between cash flow measure and dividend changes, given earnings

Model 8,9,12-15 (table 4.2) illustrates multivariate analysis result of the association between dividend changes and cash flows (level and changes), given earnings and losses. Model $8,9,13$ (table 4.2) indicate that cash flow (level) are associated with dividend changes, given earnings and losses. As hypothesized, the coefficient of cash flow is positive and significant at $5 \%(a=0.05)$, the coefficient of cash flow change is marginally significant $(a=0.10)$. The result also indicates that annual losses and earnings are positively associated with dividend changes. This multivariate model result support hypothesis two, i.e., there is a positive and statistically significant association between dividend changes and cash flow, given earnings and losses.

### 4.2.2 Test of Information Content of Dividend Reduction, Earnings and Cash Flows as Predictor of Future Earnings

## A. Test of Hypothesis

The test for the third hypothesis was done by identifying the significant coefficient level of an information content of dividend reduction, earnings and cash flows as a predictor of future earnings. The result is displayed in table 4.3.
Source appendix 2

The Analysis result shows :
Univariate analysis result (model 17 table 4.3) shows that cash flow has positive and significant association with future earnings (see model 17 table 4.3, adjusted $\mathrm{R}^{2}=$ $1.2 \%$ ) and significant level at $\mathrm{a}=0.01$. Multivariate regression analysis result (model 19,21,22 table 4.3) indicates an association between current cash flows and future earnings, given earnings and losses (adjusted $\mathrm{R}^{2}=7.8 \%, 5 \%$, and $7 \%$, respectively) with significant level at $a=0.01$. The dividend reduction variable remains significant and positively related to future earnings at $\mathrm{a}=0.01$ (see model 22 , table 4.3), irrespective of the presence of earnings and /or current cash flows in the model. The same conclusion can be drawn for the cash flows variable, i.e, positively associated with future earnings given current earnings and dividend changes. This result supports hypothesis three that stating there is an association between dividend increases and future earnings, given current earnings and cash flow. This result is consistent with prior study done in US and Japan (Charitou, 1999).

## CHAPTER V

## CONCLUSION AND RECOMMENDATION

### 5.1 CONCLUSION

Based on the analysis result and the test of hypothesis, the researcher concludes that :

1. Earnings measure (losses, level and changes in operating earnings) has a positive and significant association with dividend changes. It means earnings measure (losses, level and changes in operating earnings) has information in explaining changes in dividend.
2. Cash flows, given annual losses and earnings has positive and significant relationship with dividend changes. It means cash flows has information in explaining dividend changes.
3. There is an association between dividend increases and future earnings, given current earnings and cash flows. The result of analysis indicates a positive and significant association between dividend increases with future earnings, given current earnings and cash flow. This leads to conclusion that the information contain of dividend changes, earnings and cash flows as a predictor of future earnings.

As a whole, the result of this research is consistent to prior research in U.S and Japan (Charitou, 1999).

### 5.2 RECOMMENDATION

The result of this research hopefully will give some potential contribution. First, the result of this research may offer insight and guidance regarding the use of cash flow information in setting dividend policy. Second, this study encourages further research that may improve understanding of the role of earnings, cash flows and annual losses in explaining dividend changes and future earnings.

Since no other work has examined the combined effect of cash flows and annual losses to explain dividend changes, the result encourages further research in this area to strengthen confidence in the evidence. The present result may also be useful in evaluating empirical model on the association of dividend changes with earnings, cash flows and losses.

However, this research has some limitations. First, the sample used is just taken from manufacturing companies so the result can not be generalized. Second, this research is limited to sixty manufacturing companies listed on Jakarta Stock Exchange (BEJ) and 1997-2002 of fiscal year. Therefore, the next researcher is highly suggested to add the number of sample and the period of the fiscal year. The earnings and cash flow variables used can only partially explain dividend changes primarily because there also are other financial and macroeconomic factors that can possibly explain dividend changes.

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| COMPANY | 1997 CASH DIVIDEND |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 AALI, Astra Argo lestari | 1997 | 1998 | 1999 | 2000 | 2001 |  |
| 2 ADES. Ades alfindo | 18,998,000,000 | 122,026,000,000 | 31,450,000,000 | 67,932,000,000 | 10,567,000,000 | ${ }^{2} 2002$ |
| AKRA, Aneka Kimia Raya Tbk | 10,400,000,000 | 0 | 0 | 760,000,000 | 70,567,000,000 | 15,268,000,000 |
| AMFG, Asahimas Flat Glass | 8,680,000,000 | 0 | 0 | 0 | 760,000,000 |  |
| ANTM, Aneka Tambang (Persero) Tbk | 16,987,039,000 | 27,806,760,000 0 | 3,472,000,000 | 6,944,000,000 | 0 |  |
| AQUA, Aqua Golden Mississipi | 16,970,500,000 | 27,806,760,000 0 | 127,839,471,000 | 90,075,227,000 | 191,577,481,000 |  |
| AUTO, Astra Otoparts Tbk | 8,436,628,500 | 0 | 3,948,741,900 | 5,264,989,200 | 6,581.236,500 | $\frac{179,077,671,000}{8,226,545,635}$ |
| BATA, Sepatu bata | 0.4 $6.62,500$ | 0 | 0 | 0 | 0 | 8,226,545,635 |
| BATI, BAT Indonesia | 264,000,000 | 150,000,000 | 16,900,000,000 | 43,550,000,000 | $46.150,000,000$ | 48,745,000,000 |
| 10 BAYU, Bayu Buana Travel | 3,927,273,000 |  | 0 | 16,500,000,000 | 102,300,000,000 | 405,600,000,000 |
| 11 BLTA, Berlian Laju Tanker | 3,586,400,000 | 6,879,600,000 | 0 | 0 | 0 | 105,600,000,000 |
| 12 BNBR. Bakrie and Brother | 67,813, 200,000 | 6,879,600,000 0 | 0 | 4,586,463,800 | 7,689,067,950 | 23,206,505,850 |
| 13 BRAM, Branta Mulia tbk | 36,450,000,000 | 0 | 0 | 0 | 0 | 23,200,505,050 |
| 14 BRNA, Berlina Tbk | 86,405,000,000 | 805,000,000 | 138000 | 0 | 0 | 0 |
| 15 BRPT, Barilo Pasific Timber | 77,000,000,000 |  | 1,380,000,000 | 6,900,000,000 | 20,700,000,000 | 0 |
| 16 BUDI, Budi Acid Jaya | 10,000,000,000 | 0 | 0 | 0 | 0 |  |
| 17 CEKA, Cahaya Kalbar Tbk | 5,355,000,000 | 0 | 0 | 21,500,000,000 | 0 |  |
| 18 CTBN, Citra Tubindo | 4,500,000,000 | 18,367,350,000 | 0 | 0 | 0 |  |
| 19 DAVO, Davomas Abadi | 11,074,742,250 | 10,367,350,000 0 | 90,000,000,000 | 40,000,000,000 | 0 | 20,000,000,000 |
| 20 DLTA, Delta Djakarta | 7,005,767,000 | 0 | 0 | 851,903,250 | 0 | , 0 |
| 21 DNKS, Dankos Laboratories | 3,930,250,000 | 0 | 0 | 5,604,613,000 | 4,803,954,000 | 6,405,272,000,000 |
| 22 DPNS, Duta Pertiwi Nusantara Tbk | 5,190,075,000 | 1,903,027,500 | 00 | 638,875,000 | 17,860,500,000 | 17,860,500,000 |
| 23 DSUC, Daya Sakti Unggul Corp. Tbk |  | 1,903,027,500 | 8,073,450,000 | 5,247,742,500 | 6,297,291,000 | 3,148,645,500 |
| 24 DUTI, Duta Pertiwi | 27,750,000,000 | 11,100,000,000 | 9,000,000,000 | 12,500,000,000 | 0 | 3,140,645,500 0 |
| 25 DVLA, Darya-Varia Laboratoria Tbk | 8,400,000,000 | 11.100,000,000 | 0 | 0 | 0 | 0 |
| 26 DYNA, Dynaplast Tbk | 6,515,640,000 |  | 147.000,000 | -1, 0 | 0 |  |
| 27. EKAD, Ekadharma Tape Industries | 670,824,000 |  | 147,000,000 | 13,487,422,000 | 0 | 15,129,722,000 |
| 28 ERTX, Eratex Djaja Lid. Tbk | 982,360,000 | 0 | 3,913,140,000 | 4,472,160,000 | 3,354,120,000 | 4,024,944,000 |
| 29 ESTI, Ever Shine Textile Industry | 14,927,472,000 |  | 4,911,800,000 | 4,420,620,000 | 2,455.900,000 | 1,473,540,000 |
| 30 ETWA, Eterindo Wahanatama Tbk |  | 0 | 0 | 14,927,472,000 | 0 | 0 |
| 31 GGRM, Gudang Garam | 288,613,200,000 | 230,890,560,000 | 500,263,000,000 | 0 | 0 | 0 |
| 32 HDTX, Panasia Indosyntec | 7,980,000,000 | 230,690,560,000 | 500,263,000,000 | 1,924,088,000,000 | 0 | 577,227,000,000 |
| 33 HMSP, HM Sampoerna | 135,000,000,000 | 0 | 0 | 0 | 0 | 0 |
| 34 INDF, Indofood Sukses Makmur Tbk | 71,722,000,000 | 0 | 0 | 464,000,000,000 | 315,000,000,000 | 112,074,000,000 |
| 5 INTD. Inter Delta |  | 0 | 0 | $\square 0$ | 164,808,000,000 | 222,937,950,000 |
| 6 INTP, Indocement Tunggal Prakarsa Tbk | 169,011,732,400 | 0 | 0 | 0 | $\square$ | 0 |
| 37 LMSH, Lion Mesh Prima | -240,000,000 | 96,000,000 | 0 | 0 | 0 | 0 |
| 38 LTLS, Lautan Luas Tbk | 8,450,000,000 | 18,750,000,000 | 12,870,000,000 | 0 | 0 | 0 |
| 39 MDRN, Modern Photo Film Co. Tbk | 13,338,495,000 | -70,00,000 |  | 14,040,000,000 | 5,460,000,000 | 12,090,000,000 |
| 40. MEDC, Medco Energi Corporation Tbk | 10,342,800,000 | 0 | 0 | 2,667,699,000 | 0 | 0 |
| 41 MERK, Merck Indonesia | 8,680,000,000 | 280,000,000 | 4,480,000,000 | 39,959,417,000 | 285,547,890,000 | 364,276,000,000 |
| 42 MLBI, Multi Bintang Indonesia | 25,810,750,000 | 0 | 4,480,000,000 | 25,760,000,000 | 25,760,000,000 | 15,680,000,000 |
| 43 MLIA, Mulia Industrindo | 33,075,000,000 | 2,646,000,000 | 0 | 126,335,720,000 | 37,019,990,000 | 94,035,410,000 |
| 44 MYRX, Hanson Industri Ulama Tbk | 308,000,000 | 2, 0 | 0 | 0 | 0 | 0 |
| 45 PBRX, Pan Btother Tex Tbk | 9,004,491 | 768,000,000 | 3,840,000,000 | 2688,000,000 | 20, 0 | -1, 0 |
|  |  |  | 3,840,000,000 | 2.688,000,000 | 2,688,000,000 | 3,840,000.000 |


| 10,752,000,000 | 21,504000 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: |
| 10,752,000,000 0 | 21,504,000,000 | 9,071,930,000 | 4,535,965,000 | 0 |
| 4,061,171,000 | 15,837,380,000 | 3,456,000,000 | 0 | 0 |
| 0 | 15,037,360,000 0 | 15,715,554,000 | 30,456.500,000 | 30,456,500,000 |
| 0 | 0 | 0 | 0 | 0 |
| 1,836,000,000 | 0 | 0 | 16,446,672,000 | 6,167,502,000 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 5,040,000,000 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 93,018,097,000 | 80,111,109,000 | 96,232,980,000 | 137,101,152,000 | 0 |
| 10,035,168,000 | 25,973,376,000 | 8,051,746,560 | 14,804,824,320 | 158,733,407,000 |
| 0 | 0 | 28,900,000 | 0 | 23,376,038,400 |
| 5,229,418,750 | 3,346,828,000 | 4,183,535,000 | 0 | 2.510 .121000 |
| 5,7,00,000,000 | 8,075,000,000 | 10,450,000,000 | 0 | 2,510,121,000 0 |
| 3,900,000,000 | 11,700,000,000 | 31,200,000,000 | 23,400,000,000 | 19,500,000,000 |
| 0 | 28,830,000,000 | 4,650,000,000 | 23,400,00,000 | 19,500,000,000 0 |
| 61,232,850,000 | 6,747,550,000 | 17,495,100,000 | 74,354,175,000 | 8,747,550,000 |
| 71,089,000,000 | 205,889,000,000 | 124,501,000,000 | 119,715,000,000 | 12.500,000,000 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 11,250,000,000 | 22.500,000,000 | 112.500,000,000 | 135,000,000,000 |
| 0 | 0 | 429,345,000 | 0 | 11,405,448,000 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |






| COMPANY |  | STOCK PRICE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| 1 | AALI, Astra Argo lestari | 3,850 | 2,425 | 1,950 | 975 | 925 | 1,550 |
| 2 | ADES, Ades alfindo | 650 | 400 | 1,025 | 2,300 | 1,125 | 800 |
| 3 | AKRA, Áneka Kimia Raya Tbk | 1,200 | 200 | 550 | 260 | 625 | 600 |
| 4 | AMFG, Asahimas Flat Glass | 325 | 525 | 1.150 | 700 | 1,250 | 1,325 |
| 5 | ANTM, Aneka Tambang (Persero) Tbk | 1,325 | 1,625 | 1,400 | 900 | 800 | 600 |
| 6 | AQUA, Aqua Golden Mississipi | 3,225 | 2,700 | 8,000 | 14,000 | 35,000 | 37,500 |
| 7 | AUTO, Astra Otoparts Tbk |  | 375 | 2,150 | 1,825 | 1,225 | 1,400 |
| 8 | BATA, Sepatu bata | 1,100 | 1,300 | 13,550 | 12,200 | 14,000 | 15,000 |
| 9 | BATI, BAT Indonesia | 26,000 | 15,000 | 57,000 | 12,100 | 6,300 | 8,950 |
| 10 | BAYU, Bayu Buana Travel | 150 | 75 | 500 | 230 | 160 | 60 |
| 11 | BLTA, Berlian Laju Tanker | 1,700 | 1,250 | 1,125 | 1,075 | 1,775 | 485 |
| 12 | BNBR. Bakrie and Brother | 425 | 225 | 300 | 60 | 50 | 15 |
| 13 | BRAM, Branta Mulia tbk | 700 | 200 | 1,500 | 650 | 525 | 450 |
| 14 | BRNA, Berlina Tbk | 875 | 300 | 1,350 | 1,025 | 975 | 1,375 |
| 15 | BRPT, Barito Pasific Timber | 1,575 | 350 | 625 | 130 | 50 | 90 |
| 16 | BUDI, Budi Acid Jaya | 850 | 1,700 | 675 | 400 | 110 | 105 |
| 17 | CEKA, Cahaya Kalbar Tbk | 1,500 | 1,950 | 1,075 | 270 | 160 | 235 |
| 18 | CTBN, Citra Tubindo | 5,500 | 21,500 | 14,200 | 9,600 | 7,900 | 8,000 |
| 19 | DAVO, Davomas Abadi | 1,000 | 400 | 675 | 285 | 525 | 90 |
| 20 | DLTA, Delta Djakarta | 10,000 | 2,000 | 9,900 | 7,400 | 7,600 | 8,200 |
| 21 | DNKS, Dankos Laboratories | 1,250 | 250 | 1,300 | 550 | 460 | 400 |
| 22 | DPNS, Duta Pertiwi Nusantara Tbk | 200 | 175 | 1,400 | 575 | 400 | 220 |
| 23 | DSUC, Daya Sakti Unggul Corp. Tbk | 475 | 675 | 625 | 250 | 125 | 120 |
| 24 | DUTI, Duta Pertiwi | 200 | 475 | 1,400 | 550 | 255 | 325 |
| 25 | DVLA, Darya-Varia Laboratoria Tbk | 450 | 275 | 1,825 | 525 | 435 | 460 |
| 26 | DYNA, Dynaplast Tbk | 450 | 525 | 1,450 | 750 | 490 | 850 |
| 27 | EKAD, Ekadharma Tape Industries | 1,825 | 1,250 | 1,125 | 700 | 450 | 500 |
| 28 | ERTX, Eratex Djaja Ltd. Tbk | 150 | 400 | 850 | 425 | 420 | 200 |
| 29 | ESTI, Ever Shine Textile Industry | 450 | 300 | 1.000 | 250 | 320 | 300 |
| 30 | ETWA, Eterindo Wahanatama Tbk | 875 | 425 | 825 | 460 | 80 | 75 |
| 31 | GGRM, Gudang Garam | 8,375 | 11,650 | 16,725 | 13,000 | 8,650 | 8,300 |
| 32 | HDTX, Panasia Indosyntec | 250 | 175 | 675 | 825 | 205 | 200 |
| 33 | HMSP, HM Sampoerna | 4,150 | 5,275 | 17,775 | 14,900 | 3,200 | 3,700 |
| 34 | INDF, Indofood Sukses Makmur Tbk | 1,800 | 4,050 | 8,750 | 775 | 625 | 600 |
| 35 | INTD, Inter Delta | 350 | 325 | 725 | 220 | 260 | 210 |
| 36 | INTP, Indocement Tunggal Prakarsa Tbk | 1,800 | 3,175 | 3,100 | 1,600 | 700 | 675 |
| 37 | LMSH, Lion Mesh Prima | 1.675 | 900 | 1,100 | 575 | 850 | 350 |
| 38 | LTLS, Lautan Luas Tbk | 900 | 2,000 | 825 | 405 | 240 | 180 |
| 39 | MDRN, Modern Photo Film Company Tbk | 1,600 | 500 | 2,745 | 975 | 475 | 405 |
| 40 | MEDC, Medco Energi Corporation Tbk | 6,725 | 1.475 | 4,700 | 1,000 | 1,500 | 1,350 |
| 41 | MERK, Merck Indonesia | 9,000 | 19,000 | 7.725 | 7,450 | 10,500 | 10,000 |
| 42 | MLEBI, Multi Bintang Indonesia | 34,500 | 40,000 | 40,000 | 34,000 | 21,000 | 27,500 |
| 43 | MLIA, Mulia Industrindo | 625 | 375 | 575 | 355 | 135 | 125 |
| 44 | MYRX, Hanson Industri Utama Tbk | 4,350 | 50 | 275 | 90 | 30 | 50 |
| 45 | PBRX, Pan Btother Tex Tbk | 175 | 375 | 975 | 1,300 | 950 | 2,000 |
| 46 | PSDN, Prashida Aneka Niaga | 500 | 175 | 475 | 160 | 95 | 125 |
| 47 | RDTX, Roda Vivatex | 550 | 950 | 1,425 | 1,050 | 1,175 | 1,000 |
| 48 | RICY, Ricky Putra Globalindo Tbk |  | 225 | 500 | 340 | 170 | 40 |
| 49 | RIGS, Rig Tenders Indonesia | 850 | 1,350 | 3,200 | 2,800 | 3,025 | 3,500 |
| 50 | SAIP. Surabaya Agung Industry Pulp | 300 | 325 | 625 | 135 | 80 | 65 |
| 51 | SCCO, Supreme Cable Manufacturing Co, | 275 | 225 | 700 | 1,000 | 1,000 | 1,025 |
| 52 | SCPI, Schering- Plough Indonesia | 5,250 | 10,500 | 9,000 | 12,000 | 25,000 | 8,000 |
| 53 | SKLT, Sekar Laut | 200 | 125 | 550 | 550 | 400 | 400 |


| 54 | SMAR, Smart Corporation Tbk | 475 | 1,825 | 3,950 | 2,800 | 800 | 700 |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 55 | SMCB, Semen Cibinong | 250 | 300 | 500 | 435 | 385 | 145 |
| 56 | SMGR, Semen Gresik (Persero) Tbk | 3,225 | 8,300 | 11,075 | 5,800 | 5,500 | 8,150 |
| 57 | SMSM, Selamat Sempurna Tbk | 700 | 800 | 1,125 | 2,000 | 1,800 | 1,450 |
| 58 | SRSN, Sarasa Nugraha | 150 | 250 | 600 | 925 | 60 | 45 |
| 59 | SSTM, Sunson Textile Manufacturer Tbk | 300 | 350 | 600 | 465 | 340 | 90 |
| 60 | STIP, Siantar TOP Tbk | 975 | 2,025 | 3,950 | 1,450 | 270 | 260 |
| 61 | TCID, Tancho Indonesia | 1,475 | 1,500 | 5,000 | 2,900 | 2,100 | 1,500 |
| 62 | TFCO, Tifico (Teijin Indonesia Fiber Corp. | 1,500 | 875 | 925 | 525 | 250 | 240 |
| 63 | TGKA, Tigaraksa Satria | 3,400 | 1,100 | 3,500 | 3,000 | 4,000 | 2,900 |
| 64 | TINS, Tambang Timah Tbk | 5,900 | 5,375 | 4,875 | 1,375 | 430 | 340 |
| 65 | TIRA, Tira Austenite Tbk | 2,150 | 2,250 | 1,800 | 1,700 | 1,800 | 2,000 |
| 66 | TSPC, Tempo Scan Pasific | 425 | 425 | 5,900 | 3,075 | 3,250 | 4,125 |
| 67 | UNIC, Unggul Indah Cahaya Tbk | 1,325 | 950 | 3,500 | 1,200 | 1,400 | 1,350 |
| 68 | UNTR, United Tractors | 650 | 500 | 6,900 | 425 | 360 | 305 |
| 69 | VOKS, Voksel Elektrik Tbk | 275 | 200 | 550 | 290 | 200 | 130 |


| COMPANY |  | AMOUNT OF SHARE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
| 1 | AALI, Astra Argo lestari | 1,258,000,000 | 1,258,000,000 | 1,509,000,000 | 1,521,605,000 | 1,527,470,000 | 1,527,002,000 |
| 2 | ADES, Ades alfindo | 76,000,000 | 76,000,000 | 76,000,000 | 76,000,000 | 76,000,000 | 76,000,000 |
| 3 | AKRA, Aneka Kimia Raya Tbk | 208,000,000 | 208,000,000 | 208,000,000 | 208,000,000 | 208,000,000 | 208,000,000 |
| 5 | AMFG, Asahimas Flat Glass | 287,000,000. | 287,000,000 | 287,000,000 | 434,000,000 | 434,000,000 | 434,000,000 |
| 5 | ANTM, Aneka Tambang (Persero) Tbk | 1,230,769,000 | 1,230,769,000 | 1,230,769,000 | 1,230,769,000 | 1,230,769,000 | 1,907,691,950 |
| 6 | AQUA, Aqua Golden Mississipi | 13,162,473 | 13,162,473 | 13,162,473 | 13,162,473 | 13,162,473 | 13.162.473 |
| 7 | AUTO, Astra Otoparts Tbk | 0 | 749,930,280 | 749,930,280 | 749,930,280 | 749,930,280 | 749,930,280 |
| 8 | BATA, Sepatu bata | 4.550,000 | 4,550,000 | 4,550,000 | 13,000,000 | 13,000,000 | 14,9,900, ${ }^{\text {a }}$ |
| 9 | BATI, BAT Indonesia | 6,600,000 | 6,600,000 | 6,600,000 | 66,000,000 | 66,000,000 | 66,000,000 |
| 10 | BAYU, Bayu Buana Travel | 299,220,780 | 299,220,780 | 299,220,780 | 299,220,780 | 299,220,780 | 353,220,780 |
| 11 | BLTA, Berlian Laju Tanker | 152,880,000 | 458,640,000 | 458,646,260 | 458,646,260 | 512,791,292 | 2,061,560,468 |
| 12 | BNBR. Bakrie and Brother | 1,937,520,000 | 1,937,520,000 | 1,937,520,000 | 1,937,520,000 | 3,875,040,000 | 38,750,400,000 |
| 13 | BRAM, Branta Mulia tbk | 450,000,000 | 450,000,000 | 450,000,000 | 450,000,000 | 450,000,000 | 450,000,000 |
| 14 | BRNA, Berlina Tbk | 23,000,000 | 69,000,000 | 69,000,000 | 69,000,000 | 69,000,000 | 69,000,000 |
| 15 | BRPT, Barito Pasific Timber | 1,400,000,000 | 1,400,000,000 | 1,400,000,000 | 1,400,000,000 | 1,400,000,000 | 1,400,000,000 |
| 16 | BUDI, Budi Acld Jaya | 250,000,000 | 250,000,000 | 1,050,000,000 | 1,050,000,000 | 1,050,000,000 | 1,050,000,000 |
| 17 | CEKA, Cahaya Kalbar Tbk | 119,000,000 | 297,500,000 | 297,500,000 | 297,500,000 | 1,297,500,000 | 297,500,000 |
| 18 | CTBN, Citra Tubindo | 45,000,000 | 45,000,000 | 80,000,000 | 80,000,000 | 80,000,000 | 80,000,000 |
| 19 | DAVO, Davomas Abadi | 170,380,650 | 170,380,650 | 170,380,650 | 170,380,650 | 454,348,400 | 1,240,371,132 |
| 20 | DLTA, Delta Djakarta | 2,940,819 | 2,940,819 | 3,361,166 | 16,013,181 | 16,013,181 | 16,031,181 |
| 21 | DNKS, Dankos Laboratories | 127,575,000 | 127,575,000 | 637,785,000 | 893,025,000 | 893,025,000 | 893,025,000 |
| 22 | DPNS. Duta Pertiwi Nusantara Tbk | 34,600,500 | 80,734,500 | 104,954,850 | 125,945,820 | 125,945,820 | 125,945,820 |
| 23 | DSUC, Daya Sakti Unggul Corp. Tbk | 200,000,000 | 200,000,000 | 500,000,000 | 500,000,000 | 500,000,000 | 500,090,000 |
| 24 | DUTI, Duta Pertiwi | 1,387,500,000 | 1,387,500,000 | 1,387,500,000 | 1,387,500,000 | 1,387,500,000 | 1,387,500,000 |
| 25 | DVLA, Darya-Varia Laboratoria Tbk | 140,000,000 | 560,000,000 | 560,000,000 | 560,000,000 | 1,560,000,000 | 560,000,000 |
| 26 | DYNA, Dynaplast Tbk | 299,719,440 | 299,719,440 | 299,719,440 | 299,719,440 | 299,719,440 | 302,594,440 |
| 27 | EKAD, Ekadharma Tape Industries | 11,180,000 | 11,180,000 | 44,721,600 | 44,721,600 | 44,721,600 | 44,721,600 |
| 28. | ERTX, Eratex Diaja Ltd. Tbk | 49,118,000 | 49,118,000 | 49,118,000 | 98,236,000 | 98,236,000 | 48,23,000 |
| 29 | ESTI, Ever Shine Textile industry | 298,549,440 | 298,549,440 | 298,549,440 | 2,015,208,720 | 2,015,208,720 | 2,015,208,720 |
| 30 | ETWA, Eterindo Wahanatama Tbk | 688,927,000 | 688,927,000 | 968,297,000 | 968,297,000 | 968,297,000 | 968,297,000 |
| 31 | GGRM, Gudang Garam | 1,924,088,000 | 1,924,088,000 | 1,924,088.000 | 1,924,088,000 | 1,924,088,000 | 1,924,088,000 |
| 32 | HDTX, Panasia Indosyntec | 532,000,000 | 532,000,000 | 532,000,000 | 532,000,000 | 532,000,000 | 532,000,000 |
| 33 | HMSP. HM Sampoema | 900,000,000 | 900,000,000 | 928,000,000 | 928,000,000 | 4,500,000,000 | 4,500,000,000 |
| 34 | INDF, Indofood Sukses Makmur Tbk | 1,831,200,000 | 1,831,200,000 | 1,831,200,000 | 9,156,000,000 | 9,156,000,000 | 9,384,900,000 |
| 35 | INTD, Inter Delta. | 30,177,600 | 30,177,600 | 30,177,600 | 30,177,600 | 30,177,600 | 30,177,600 |
| 36 | INTP, Indocement Tunggal Prakarsa Tbk | 2,414,453,320 | 2,414,453,320 | 2,414,453,320 | 2,414,453,320 | 3,681,223,519 | 3,681,223,519 |
| 37 | LMSH, Lion Mesh Prima | 9,600,000 | 9,600,000 | 9,600,000 | 9,600,000 | 9,600,000 | 9,600,000 |
| 38 | LTLS, Lautan Luas Tbk | 150,000,000 | 150,000,000 | 780,000,000 | 780,000,000 | 780,000,000 | 780,000,000 |
| 39 | MDRN, Modern Photo Film Company Tbk | 266,769,900 | 266,769,900 | 266,769,900 | 266,769,900 | 266,769,900 | 266,769,900 |
| 40 | MEDC, Medco Energi Corporation Tbk | 172,380,000 | 344,760,000 | 666,490,290 | 3,332,450,450 | 3,3,32,450,450 | 3,332,450,451 |
| 41 | MERK, Merck Indonesia | 1,680,000 | 1,680,000 | 18,480,000 | 22,400,000 | 22,400,000 | 22,400,000 |
| 42 | MLBI, Multi Bintang Indonesia | 3,520,012 | 3,520,012 | 3,520,012 | 3,520,012 | 21,070,000 | 21,070,000 |
| 43 | MLIA, Mulia Industrindo | 1,323,000,000 | 1,323,000,000 | 1,323,000,000 | 1,323,000,000 | 1,323,000,000 | 1,323,000,000 |
| 44 | MYRX, Hanson Industri Utama Tbk | 107,800,000 | 215,600,000 | 700,700,000 | 700,700,000 | 700,700,000 | 700,700,000 |
| 45 | PBRX, Pan Blother Tex Tbk | 76,800,000 | 76,800,000 | 78,800,000 | 76,800,000 | 76,800,000 | 384,000,000 |
| 46 | PSDN, Prashida Aneka Niaga | 360,000,000 | 360,000,000 | 360,000,000. | 360,000,000 | 360,000,000 | 360,000,000 |






## Descriptive

## Statistics

|  |  | DDIV | DCFO | DE | LOSSDUM | E | CFO |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| N | Valid | 182 | 182 | 182 | 182 | 182 | 182 |
|  | Missing | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean |  | .2317 | .1818 | -.2900 | .1758 | .0321 | .3323 |
| Median | -.0112 | -.0057 | -.0127 | .0000 | .1091 | .2110 |  |
| Std. Deviation | 3.61467 | 1.95608 | 2.10299 | .38172 | .89827 | .64560 |  |
| Minimum | -.97 | -11.56 | -16.81 | .00 | -5.40 | -1.59 |  |
| Maximum |  | 48.69 | 17.41 | 7.09 | 1.00 | 3.32 | 4.94 |

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | $\mathrm{E}^{\mathrm{a}}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | :---: | :---: | :---: |
| 1 | $.155^{\text {a }}$ | .024 | .018 | .08370 |

a. Predictors: (Constant), E
b. Dependent Variable: DDIV

## ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | :---: |
| 1 | Regression | .029 | 1 | .029 | 4.176 | $.043^{\mathrm{a}}$ |
|  | Residual | 1.191 | 170 | .007 |  |  |
|  | Total | 1.220 | 171 |  |  |  |

a. Predictors: (Constant), E
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: | :---: |
| Model |  | B | Std. Error | Beta | $\mathbf{t}$ | Sig. |
| 1 | (Constant) | $-1.842 \mathrm{E}-02$ | .006 |  | -2.882 | .004 |
|  | E | $1.858 \mathrm{E}-02$ | .009 |  | .155 | 2.044 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :--- | :--- |
| 1 | DE $^{\mathrm{a}}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.160^{\mathrm{a}}$ | .026 | .020 | .07453 |

a. Predictors: (Constant), DE
b. Dependent Variable: DDIV

ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .024 | 1 | .024 | 4.319 | $.039^{\mathrm{a}}$ |
|  | Residual | .917 | 165 | .006 |  |  |
|  | Total | .941 | 166 |  |  |  |

a. Predictors: (Constant), DE
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: | :---: |
|  | B | Std. Error | Beta | t | Sig. |  |
|  | (Constant) | $-1.076 \mathrm{E}-02$ | .006 |  |  | .069 |
|  | DE | $1.159 \mathrm{E}-02$ | .006 |  | .160 | 2.078 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | LQSSDU <br> M |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

| Model Summary |  |  |  |  |
| :--- | :---: | ---: | ---: | ---: |
| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| 1 | $.153^{\text {a }}$ | .023 | .018 | .12171 |

a. Predictors: (Constant), LOSSDUM
b. Dependent Variable: DDIV

ANOVA ${ }^{b}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .063 | 1 | .063 | 4.247 | $.041^{\mathrm{a}}$ |
|  | Residual | 2.622 | 177 | .015 |  |  |
|  | Total | 2.685 | 178 |  |  |  |

a. Predictors: (Constant), LOSSDUM
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients Beta | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error |  |  |  |
| 1 | (Constant) | -1.803E-02 | . 010 |  | -1.796 | . 074 |
|  | LOSSDUM | -4.893E-02 | . 024 | -. 153 | -2.061 | . 041 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| l | CFO $^{\text {a }}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | :---: | :---: | :---: |
| 1 | $.362^{\mathrm{a}}$ | .131 | .126 | .14111 |

a. Predictors: (Constant), CFO
b. Dependent Variable: DDIV

a. Predictors: (Constant), CFO
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error | Beta |  |  |
| 1 | (Constant) | -8.010E-03 | . 012 |  | -. 679 | . 498 |
|  | CFO | -8.440E-02 | . 016 | -. 362 | -5.195 | . 000 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :--- |
| 1 | DCFO $^{\mathbf{a}}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.172^{\mathrm{a}}$ | .030 | .023 | .04348 |

a. Predictors: (Constant), DCFO
b. Dependent Variable: DDIV

## ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .009 | 1 | .009 | 4.654 | $.033^{a}$ |
|  | Residual | .287 | 152 | .002 |  |  |
|  | Total | .296 | 153 |  |  |  |

a. Predictors: (Constant), DCFO
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {® }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | :--- | :--- | ---: | :---: | :---: |
| Model | B | Std. Error | Beta | $\mathbf{t}$ | Sig. |  |
| 1 | (Constant) | $-9.447 \mathrm{E}-03$ | .004 |  |  | .008 |
|  | DCFO | $-1.211 \mathrm{E}-02$ | .006 | -.172 | -2.157 | .033 |

a. Dependent Variable: DDIV

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | E, <br> LOSSDU <br> M |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

## Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.427^{\mathrm{a}}$ | .182 | .172 | .04284 |

a. Predictors: (Constant), E, LOSSDUM
b. Dependent Variable: DDIV

## ANOVA ${ }^{b}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .063 | 2 | .032 | 17.176 | $.000^{\mathrm{a}}$ |
|  | Residual | .283 | 154 | .002 |  |  |
|  | Total | .346 | 156 |  |  |  |

a. Predictors: (Constant), E, LOSSDUM
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients Beta | $t$ | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error |  |  |  |
| 1 | (Constant) | -5.338E-03 | . 004 |  | -1.239 | . 217 |
|  | LOSSDUM | -3.256E-02 | . 012 | -. 258 | -2.669 | . 008 |
|  | E | $2.460 \mathrm{E}-02$ | . 011 | . 211 | 2.181 | . 031 |

a. Dependent Variable: DDIV

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | DE, <br> LOSSDU <br> $M^{2}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.503^{\mathrm{a}}$ | .253 | .244 | .04667 |

a. Predictors: (Constant), DE, LOSSDUM
b. Dependent Variable: DDIV

## ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .117 | 2 | .059 | 26.914 | $.000^{\mathrm{a}}$ |
|  | Residual | .346 | 159 | .002 |  |  |
|  | Total | .464 | 161 |  |  |  |

a. Predictors: (Constant), DE, LOSSDUM
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br>  <br>  |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  | B |  | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | $-2.067 \mathrm{E}-03$ | .004 |  | -.511 |  |
|  | LOSSDUM | $-5.392 \mathrm{E}-02$ | .010 | -.386 | -5.467 | .000 |
|  | DE | $8.151 \mathrm{E}-03$ | .002 | .241 | 3.408 | .001 |

a. Dependent Variable: DDIV

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| $l$ | CFO, <br> LOSSDU <br> M |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | :---: | ---: | ---: |
| 1 | $.491^{\mathrm{a}}$ | .242 | .232 | .04484 |

a. Predictors: (Constant), CFO, LOSSDUM

## ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .101 | 2 | .050 | 24.994 | $.000^{2}$ |
|  | Residual | .316 | 157 | .002 |  |  |
|  | Total | .416 | 159 |  |  |  |

a. Predictors: (Constant), CFO, LOSSDUM
b. Dependent Variable: DDIV

## Coefficients ${ }^{3}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | B |  | Std. Error | Beta | t |

a. Dependent Variable: DDIV

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | DCFO, <br> LQSSDU <br> M |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

## Model Summary

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.481^{\mathrm{a}}$ | .231 | .222 | .04735 |

a. Predictors: (Constant), DCFO, LOSSDUM

ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | :---: | :---: |
| 1 | Regression | .107 | 2 | .054 | 23.905 | $.000^{\mathrm{a}}$ |
|  | Residual | .356 | 159 | .002 |  |  |
|  | Total | .464 | 161 |  |  |  |

a. Predictors: (Constant), DCFO, LOSSDUM
b. Dependent Variable: DDIV

Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | $-2.876 \mathrm{E}-03$ | .004 |  | -.700 | .485 |
|  | LOSSDUM | $-5.861 \mathrm{E}-02$ | .010 | -.420 | -5.982 | .000 |
|  | DCFO | $8.564 \mathrm{E}-03$ | .003 | .183 | 2.606 | .010 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | ${\mathrm{DE}, \mathrm{E}^{\mathrm{A}}}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.457^{\mathrm{a}}$ | .208 | .199 | .04804 |

a. Predictors: (Constant), DE, E

## ANOVA ${ }^{b}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | :---: | :---: |
| 1 | Regression | .097 | 2 | .048 | 20.938 | $.000^{\mathrm{a}}$ |
|  | Residual | .367 | 159 | .002 |  |  |
|  | Total | .464 | 161 |  |  |  |

a. Predictors: (Constant), DE, E
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: | :---: |
| Model | B | Std. Error | Beta | t | Sig. |  |
| 1 | (Constant) | $-1.171 \mathrm{E}-02$ | .004 |  | -3.067 | .003 |
|  | E | $2.214 \mathrm{E}-02$ | .005 | .323 | 4.391 | .000 |
|  | DE | $8.281 \mathrm{E}-03$ | .002 | .245 | 3.330 | .001 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | DE, <br> LOSSSDU <br> M, E |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.550^{\mathrm{a}}$ | .302 | .289 | .04315 |

a. Predictors: (Constant), DE, LOSSDUM, E
b. Dependent Variable: DDIV

## ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .126 | 3 | .042 | 22.498 | $.000^{\mathrm{a}}$ |
|  | Residual | .290 | 156 | .002 |  |  |
|  | Total | .416 | 159 |  |  |  |

a. Predictors: (Constant), DE, LOSSDUM, E
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error | Beta |  |  |
| 1 | (Constant) | -4.985E-03 | . 004 | O | -1.263 | . 208 |
|  | LOSSDUM | -3.920E-02 | . 011 | -. 296 | -3.569 | . 000 |
|  | E | $1.380 \mathrm{E}-02$ | . 006 | . 211 | 2.510 | . 013 |
|  | DE | $6.569 \mathrm{E}-03$ | . 002 | . 205 | 2.913 | . 004 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed ${ }^{\text {² }}$

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | DCFO, <br> CFO |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.265^{2}$ | .070 | .058 | .04529 |

a. Predictors: (Constant), DCFO, CFO
b. Dependent Variable: DDIV

$$
\text { ANOVA }{ }^{\text {b }}
$$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .024 | 2 | .012 | 5.874 | $.003^{\mathrm{a}}$ |
|  | Residual | .318 | 155 | .002 |  |  |
|  | Total | .342 | 157 |  |  |  |

a. Predictors: (Constant), DCFO, CFO
b. Dependent Variable: DDIV

Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model | B | Std. Error | Beta | t | Sig. |  |
| 1 | (Constant) | $-1.766 \mathrm{E}-03$ | .005 |  | -.388 | .699 |
|  | CFO | $-2.910 \mathrm{E}-02$ | .009 | -.320 | -3.394 | .001 |
|  | DCFO | $-1.460 \mathrm{E}-02$ | .006 | -.220 | -2.332 | .021 |

a. Dependent Variable: DDIV

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :--- |
| 1 | DCFO, <br> LOSSDU <br> M, CFO |  | Enter |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.433^{\mathrm{a}}$ | .187 | .171 | .04097 |

a. Predictors: (Constant), DCFO, LOSSDUM, CFO
b. Dependent Variable: DDIV

## ANOVA ${ }^{b}$

| Model |  | Sum of Squares | df | Mean Square | $F$ | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .058 | 3 | .019 | 11.520 | $.000^{\mathrm{a}}$ |
|  | Residual | .252 | 150 | .002 |  |  |
|  | Total | .310 | 153 |  |  |  |

a. Predictors: (Constant), DCFO, LOSSDUM, CFO
b. Dependent Variable: DDIV

Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | $1.772 \mathrm{E}-03$ | .004 |  | .413 | .680 |
|  | LOSSDUM | $-4.306 \mathrm{E}-02$ | .009 | -.354 | -4.685 | .000 |
|  | CFO | $-1.835 \mathrm{E}-02$ | .009 | -.185 | -2.154 | .033 |
|  | DCFO | $-1.179 \mathrm{E}-02$ | .006 | -.170 | -2.015 | .046 |

a. Dependent Variable: DDIV

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | DCFO, E |  |  |
|  | DE, CFO |  |  |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary

| Mode! | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.425^{\mathrm{a}}$ | .181 | .160 | .04279 |

a. Predictors: (Constant), DCFO, E, DE, CFO

ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .062 | 4 | .015 | 8.456 | $.000^{\mathrm{a}}$ |
|  | Residual | .280 | 153 | .002 |  |  |
|  | Total | .342 | 157 |  |  |  |

a. Predictors: (Constant), DCFO, E, DE, CFO
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | B | Std. Error | Beta | $\mathbf{t}$ | Sig. |
| 1 | (Constant) | $-4.455 \mathrm{E}-03$ | .004 |  | -1.017 | .311 |
|  | E | $2.033 \mathrm{E}-02$ | .005 | .313 | 4.109 | .000 |
|  | DE | $4.811 \mathrm{E}-03$ | .003 | .128 | 1.668 | .097 |
|  | CFO | $-1.989 \mathrm{E}-02$ | .008 | -.219 | -2.377 | .019 |
|  | DCFO | $-1.025 \mathrm{E}-02$ | .006 | -.154 | -1.670 | .097 |

[^0]
## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | DCFO, <br>  <br>  <br> LOSSDU <br>  <br>  <br>  <br> M, DE, <br> CFO, |  |  |

a. All requested variables entered.
b. Dependent Variable: DDIV

Model Summary

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.461^{\mathrm{a}}$ | .213 | .186 | .04059 |

a. Predictors: (Constant), DCFO, LOSSDUM, DE, CFO, E

ANOVA ${ }^{b}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | :---: |
| 1 | Regression | .066 | 5 | .013 | 8.004 | $.000^{\mathrm{a}}$ |
|  | Residual | .244 | 148 | .002 |  |  |
|  | Total | .310 | 153 |  |  |  |

a. Predictors: (Constant), DCFO, LOSSDUM, DE, CFO, E
b. Dependent Variable: DDIV

## Coefficients ${ }^{\text {a }}$

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error | Beta |  |  |
| 1 | (Constant) | -1.246E-03 | . 005 |  | -. 276 | . 783 |
|  | LOSSDUM | -2.929E-02 | . 011 | -. 241 | -2.630 | . 009 |
|  | E | 1.138E-02 | . 006 | . 183 | 1.998 | . 048 |
|  | DE | $2.732 \mathrm{E}-03$ | . 003 | . 075 | . 962 | . 338 |
|  | CFO | -1.554E-02 | . 009 | -. 156 | -1.817 | . 071 |
|  | DCFO | -1.061E-02 | . 006 | -. 154 | -1.761 | . 080 |

a. Dependent Variable: DDIV

## Regression

## Variables Entered/Removed

| Mode! | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | $E^{\mathrm{a}}$ |  | . |

a. All requested variables entered.
b. Dependent Variable: E $t+1$

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | :---: | :---: | :---: |
| 1 | $.224^{\mathrm{a}}$ | .050 | .047 | 3.05333 |

a. Predictors: (Constant), Et
b. Dependent Variable: Et+1

| ANOVA $^{\text {b }}$ |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 134.561 | 1 | 134.561 | 14.433 | $.000^{\mathrm{a}}$ |
|  | Residual | 2554.462 | 274 | 9.323 |  |  |
|  | Total | 2689.023 | 275 |  |  |  |

a. Predictors: (Constant), Et
b. Dependent Variable: $\mathrm{E}+1$

Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | :---: | :---: |
| Model |  | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | -.329 | .187 |  | -1.761 | .079 |
|  | Et | .186 | .049 |  | .224 | 3.799 |

a. Dependent Variable: $\mathrm{Et}+1$

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | CFOt $^{2}$ |  | . |

a. All requested variables entered.
b. Dependent Variable: Et+1

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :--- | ---: | ---: | ---: |
| 1 | $.127^{\mathrm{a}}$ | .016 | .012 | .37905 |

a. Predictors: (Constant), CFOt
b. Dependent Variable: Et+1

ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .567 | 1 | .567 | 3.943 | $.048^{\mathrm{a}}$ |
|  | Residual | 34.483 | 240 | .144 |  |  |
|  | Total | 35.049 | 241 |  |  |  |

a. Predictors: (Constant), CFOt
b. Dependent Variable: Et+1

## Coefficients*

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients | $t$ | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error | Beta |  |  |
| 1 | (Constant) | $8.524 \mathrm{E}-02$ | . 027 |  | 3.136 | . 002 |
|  | CFOt | $5.480 \mathrm{E}-02$ | . 028 | . 127 | 1.986 | . 048 |

a. Dependent Variable: $\mathrm{Et}+1$

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | DDIVt $^{\text {a }}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: Et

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.133^{\mathrm{a}}$ | .018 | .014 | 1.23788 |

a. Predictors: (Constant), DDIVt
b. Dependent Variable: Et

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 6.933 | 1 | 6.933 | 4.524 | $.034^{\mathrm{a}}$ |
|  | Residual | 387.682 | 253 | 1.532 |  |  |
|  | Total | 394.615 | 254 |  |  |  |

a. Predictors: (Constant), DDIVt
b. Dependent Variable: Et

Coefficients ${ }^{\text {a }}$

| Model | Unstandardized Coefficients |  | Standardized Coefficients | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | Std. Error | Beta |  |  |
| 1 (Constant) | -. 143 | . 078 |  | -1.849 | . 066 |
| DDIVt | 1.256 | . 591 | . 133 | 2.127 | . 034 |

a. Dependent Variable: Et

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | Et, CFOl $^{\text {a }}$ |  | Enter |

a. All requested variables entered.
b. Dependent Variable: Et+1

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :--- | ---: | ---: | ---: |
| 1 | $.293^{\mathrm{a}}$ | .086 | .078 | .26536 |

a. Predictors: (Constant), Et, CFOt
b. Dependent Variable: Et+1

## ANOVA ${ }^{b}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | :--- | :--- |
| 1 | Regression | 1.549 | 2 | .774 | 10.996 | $.000^{\mathrm{a}}$ |
|  | Residual | 16.477 | 234 | .070 |  |  |
|  | Total | 18.026 | 236 |  |  |  |

a. Predictors: (Constant), Et, CFOt
b. Dependent Variable: Et+1

Coefficients ${ }^{\text {n }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: | :---: |
| Model |  | B | Std. Error | Beta | $\mathbf{t}$ |  |
| 1 | (Constant) | $8.957 \mathrm{E}-02$ | .019 |  | 4.629 | .000 |
|  | CFOt | $7.154 \mathrm{E}-02$ | .020 | .231 | 3.643 | .000 |
|  | Et | $-2.201 \mathrm{E}-02$ | .006 | -.222 | -3.499 | .001 |

a. Dependent Variable: $\mathrm{Et}+1$

## Regression

Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | DDIVt, Et $^{\text {a }}$ |  | . |

a. All requested variables entered.
b. Dependent Variable: Et+1

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.343^{\text {a }}$ | .117 | .109 | .16993 |

a. Predictors: (Constant), DDIVt, Et
b. Dependent Variable: $\mathrm{E}+1$

| ANOVA $^{\text {b }}$ |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Model |  | Sum of Squares | df | Mean Square | F |  |
| 1 | Regression | .818 | 2 | .409 | 14.159 |  |
|  | Residual | 6.151 | 213 | .029 |  |  |
|  | Total | 6.968 | 215 |  | $.000^{2}$ |  |
|  |  |  |  |  |  |  |

a. Predictors: (Constant), DDIVt, Et
b. Dependent Variable: $\mathrm{Et}+1$

## Coefficients ${ }^{2}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | .124 | .012 |  | 10.644 |  |
|  | Et | $4.270 \mathrm{E}-02$ | .008 | .336 | 5.208 | .000 |
|  | DDIVt | $6.163 \mathrm{E}-02$ | .076 | .052 | .806 | .421 |

a. Dependent Variable: $\mathrm{Et}+1$

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :--- | :--- | :--- |
| 1 | DDIVt, <br> CFOt |  | Enter |

a. All requested variables entered.
b. Dependent Variable: Et+1

Model Summary

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :---: | ---: | ---: | ---: |
| 1 | $.245^{\mathrm{a}}$ | .060 | .051 | .18336 |

a. Predictors: (Constant), DDIVt, CFOt

## ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | :---: | :---: |
| 1 | Regression | .466 | 2 | .233 | 6.932 | $.001^{\mathrm{a}}$ |
|  | Residual | 7.329 | 218 | .034 |  |  |
|  | Total | 7.795 | 220 |  |  |  |

a. Predictors: (Constant), DDIVt, CFOt
b. Dependent Variable: Et+1

Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: | :---: |
| Model |  | B | Std. Error | Beta | t |  |
| 1 | (Constant) | .117 | .014 |  | 8.541 | .000 |
|  | CFOt | $4.844 \mathrm{E}-02$ | .014 | .234 | 3.562 | .000 |
|  | DDIVt | .109 | .082 | .087 | 1.323 | .187 |

a. Dependent Variable: $\mathrm{Et}+1$

## Regression

## Variables Entered/Removed

| Model | Variables <br> Entered | Variables <br> Removed | Method |
| :--- | :---: | :---: | :---: |
| 1 | Et, DPIVt, <br> CFOt |  | Enter |

a. All requested variables entered.
b. Dependent Variable: Et+1

Model Summary ${ }^{\text {b }}$

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | ---: | ---: | ---: | ---: |
| 1 | $.288^{\mathrm{a}}$ | .083 | .070 | .17896 |

a. Predictors: (Constant), Et, DDIVt, CFOt
b. Dependent Variable: $\mathrm{Et}+1$

ANOVA ${ }^{\text {b }}$

| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | .624 | 3 | .208 | 6.495 | $.000^{\mathrm{a}}$ |
|  | Residual | 6.917 | 216 | .032 |  |  |
|  | Total | 7.542 | 219 |  |  |  |

a. Predictors: (Constant), Et, DDIVt, CFOt
b. Dependent Variable: Et+1

## Coefficients ${ }^{\text {a }}$

|  |  | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Model |  | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | .117 | .013 |  | 8.725 | .000 |
|  | CFOt | $4.228 \mathrm{E}-02$ | .013 | .208 | 3.132 | .002 |
|  | DDIVt | $9.776 \mathrm{E}-02$ | .081 | .079 | 1.212 | .227 |
|  | Et | $1.474 \mathrm{E}-02$ | .006 | .151 | 2.281 | .024 |

a. Dependent Variable: Et+1


[^0]:    a. Dependent Variable: DDIV

