
DO ACCOUNTING DISTORTIONS MEASURE EARNING QUALITY? THE REACTION OF DIVIDEND SIGNALLING

Abstract

The study examines if dividends relate with accounting distortions the same way as they relate with abnormal accruals. Furthermore we study how abnormal accrual and accounting distortions can be used in earnings manipulation and how they measure earnings quality. We find that those two measures have very much in common but they respond very different to dividends. Further analysis from 4 European equity markets shows that accounting distortions are very related to growth variable. Taken together our evidence suggests that large accounting distortion provide small earning quality but they are very commonly used as earnings management by growth companies.

Keywords: Dividends, Earnings management, accounting distortion, abnormal accruals

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1. INTRODUCTION

Earnings quality, in accounting, refers to the ability of reported earnings to predict a company's future earnings. Prior literature has developed a number of earnings measures, partially due to the fact that there are a variety of earnings management practices and that earnings management is difficult to detect. From Wen He, Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012) paper we found out how to measure earnings quality by using abnormal accruals. This paper examines how to measure earnings quality by using accounting distortions which are a tool that insiders and managers use opportunistically to distort reported earnings in various occasions. Accruals are negative related with future earnings performance due to accounting distortion associated with their higher subjectivity Georgios A. Papanastasopoulos, Emmanuel Tsiritakis (2014). In order to measure accounting distortions we follow the Richardson et al. 2006 model. Knowing about the relation of accounting distortions with accruals, we want to test if we will have the same results with the abnormal accruals. Another thing we want to test is the relation of accounting accruals with dividend signaling. We learnt from Wen He, Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012) that dividend payers have significantly smaller abnormal accruals, high accrual quality and provide information about the quality of earnings.

We conduct our analysis using a sample of 1755 observations from 4 European countries. Our results suggest that accounting distortions are not related with dividend signaling as abnormal accruals are. Furthermore we found out that big leveraged companies have a small magnitude of accounting distortions so their managers do not use earnings manipulation. On the other hand we found that growth companies tend to use earnings management due to their high accounting distortion. Which means that growth companies using accounting distortions have low earnings quality.

We believe that this is a very important study due to the fact that we try to combine accruals, distortions, dividends and earnings management. The next two chapters focus in understanding of those difficult definitions and as you will understand those variables are very connected. For example accounting distortions theory is very much alike with abnormal accruals theory. Having for the first time connected and compared those two variables together is what makes this study valuable.

2. FUNDAMENTALS

Definition of dividend signaling

A dividend is a distribution of a portion of a company's earnings, decided by the board of directors, to a class of its shareholders. Dividends can be issued as cash payments, as shares of stock, or other property. Dividend signaling is a theory in economics that a company's dividend announcements provide information about future earnings. Under this theory, if a company indicates that dividends will increase, this means it anticipates higher earnings in coming years. Researchers have extensively studied dividend announcements and financial records to determine whether this theory holds true in practice. The results of their research have been mixed, indicating that while dividend signaling can be a predictive tool in some cases, in others it may more accurately reflect past economic developments. Companies use dividends to share profits with stockholders. They can decide to issue a dividend when plowing profits back into the company for development and growth isn't necessary or practical. At the time officials make the decision to offer a dividend, they usually make an announcement, providing information about the amount and date so shareholders know what to expect. These announcements are closely anticipated and followed because investors believe they can provide information about the company's financial health. If a company is not offering dividends, this could indicate that it is investing heavily with the goal of growing, or that it is not doing well financially and cannot afford profit-sharing measures. Frequent high dividends can mean that a company is doing well, but could also be a warning sign that a company is not investing in new assets, maintenance, and growth activities. Proponents of dividend signaling argue that when a dividend announcement includes an increase, it means the

board of the company feels confident about future earnings. Support for this theory can be found in the argument that if a company expects to earn more, it may also expect to be able to pay out more in profit-sharing to shareholders. It could also use the dividend announcement as a tool to make a coded signal to investors with the goal of increasing confidence. By demonstrating a belief that it will do well in future years through dividend signaling, the company can make investors feel more comfortable, which may drive the value of stock up. Some research does indicate that dividend signaling may be accurate, and some companies do indeed issue announcements for larger dividends when they are predicting large profits. Other studies show that this is actually a reflection of past profits. A company increases the size of its dividends after doing well, when it feels comfortable distributing more profits to shareholders because it doesn't need to retain funds for emergencies or growth activities. Most theoretical models assume that information is freely available to all. It has been suggested that in reality access to information varies. Management may have access to inside information, causing an information asymmetry between management and stockholders. In economics and contract theory, information asymmetry deals with the study of decisions in transactions where one party has more or better information than the other. For instance, when managers lack confidence in the firm's ability to generate cash flows in the future they may keep dividends constant, or possibly even reduce the amount of dividends paid out. Investors will notice this and choose to sell their share of the firm, bidding the price up in the case of a positive dividend surprise, or selling it down when dividends do not meet expectations. Firms are aware of this signaling effect, so they will try not to send a negative signal that sends their stock price down. Because of the potential for false signals, more costly signaling is

considered more reliable. This implies that a dividend increase is a signal that the firm has reached a new level of profitability, and is a positive signal.

Definition of earnings management

The use of accounting techniques to produce financial reports that may paint an overly positive picture of a company's business activities and financial position. Earnings Management takes advantage of how accounting rules can be applied and are legitimately flexible when companies can incur expenses and recognize revenue. It can be difficult to differentiate these allowable practices from earnings fraud or manipulation. Earnings management theoretically represents this gray area, but it is often used as a synonym for earnings manipulation or earnings fraud. Companies use earnings management to smooth out fluctuations in earnings and to meet stock analysts earnings projections. Large fluctuations in income and expenses may be a normal part of a company's operations, but the changes may alarm investors who prefer to see stability and growth, tempting managers to take advantage of accounting policies. Management can feel pressure to manipulate the company's accounting practices and, consequently, its financial reports in order to meet these expectations and keep the company's stock price up or to obtain some private gain. Earnings management involves the alteration of financial reports to mislead stakeholders about the organization's underlying performance, or to "influence contractual outcomes that depend on reported accounting numbers. If earnings management is considered excessive, fines are used as a punishment, but it still can be difficult for investors to identify the companies misrepresentations. Also, a company's stock price will often rise or fall after an earnings announcement, depending on whether it meets, exceeds or falls short of expectations. Accrual accounting is the key tool used in the manipulation of reported earnings.

Definition of earnings quality

Earnings quality, in accounting, refers to the ability of reported earnings to predict a company's future earnings. It is an assessment criterion for how repeatable, controllable and bankable a firm's earnings are, amongst other factors, and has variously been defined as the degree to which earnings reflect underlying economic effects, are better estimates of cash flows, are conservative, or are predictable. Earnings quality has usually been associated with the use of conservative accounting policies. Firms using conservative accounting practices tend to penalize current earnings and are said to have high earnings quality. At least over the short run, the earnings reported by a firm are as much a function of its accounting methods as they are a measure of its business success. It has been noted that conservatism in the current financial periods may allow aggressiveness in future financial periods. For example, choosing an accelerated depreciation method, or one that allocates a large amount of depreciation expense at the beginning of an asset's useful life, allows the firm to present abnormally high expenses for a given financial period and abnormally low expenses for future financial periods: conservatism, followed by aggressiveness. In other words, conservative decisions by management in a single period should not be used as sole proof of earnings quality. In general, the earnings quality can be looked at as the quality of information. High quality information is precise, relevant, comparable, unbiased, and timely. The concept of the quality of information is especially applicable in the context of capital markets. For example, from the precision perspective, the quality of earnings is high when earnings precisely reflect the underlying operating risk and environment, business performance, and reporting quality of an entity. High quality information is important in making good judgments

and decisions. For instance, from the decision usefulness perspective, the quality of earnings is how precisely the earnings reflect the changes in the wealth of a company. From the financial analysis perspective, the earnings quality is how precisely the earnings measure the value of the company and how accurately they represent the firm's current and future performance. As mentioned earlier, there are multiple views used to measure the quality of earnings. Similarly, many attributes can be used to measure earnings quality and its outcomes. Both the determinants and consequences are proxies of the earnings quality. In other words, they can be used to estimate the quality of earnings. Earnings quality proxies have unique features: unique combination of quality determinants and consequences. According to the accounting research literature, earnings quality proxies might include the following. Investor responsiveness to earnings: accounting methods, auditor quality. Firm characteristics: performance, size, growth, investment, debt. Properties of earnings: earnings persistence and smoothness, timely loss recognition, accounting conservatism, magnitude of accruals, target beating. External factors: politics, tax regulation, capital requirements. Capital market incentives: earnings-based targets, raising capital, market valuation. In general, higher quality of earnings often helps companies to receive higher stock prices, higher credit limits, lower interest rates. Because there are so many dimensions of earnings quality, market participants use various factors to estimate this quality. For instance, analysts might consider the following factors when evaluating the quality of earnings: Earnings characteristics: earnings trend, major source of net income, conversion of sales into cash. Firm characteristics: market share, brand awareness and loyalty, labor relations. Financial ratios: debt-to-equity, total liabilities to total assets, rate of return on investment, earnings per share, price-

earnings ratio, dividend payout ratio, net profit as a percentage of sales, percentage of expenses to sales, sales growth rate.

Definition of accruals

Accounts on a balance sheet that represent liabilities and non-cash-based assets used in accrual-based accounting. These accounts include, among many others, accounts payable, accounts receivable, goodwill, future tax liability and future interest expense. The use of accrual accounts has greatly increased the amount of information on accounting statements. Before the use of accruals only cash transactions were recorded on these statements. But cash transactions don't give information about other important business activities, such as revenue based on credit and future liabilities. By using accruals, a company can measure what it owes looking forward and what cash revenue it expects to receive. It also allows a company to show assets that do not have a cash value, such as goodwill.

Accruals are adjustments for revenues that have been earned but are not yet recorded in the accounts, and expenses that have been incurred but are not yet recorded in the accounts. The accruals need to be added via adjusting entries so that the financial statements report these amounts. Most businesses typically use one of two basic accounting methods in their bookkeeping systems cash basis or accrual basis. While most businesses use the accrual basis, the most appropriate method for your company depends on your sales volume, whether or not you sell on credit and your business structure.

Accrual quality is desirable to investors. Accrual quality shows the extent to which earnings deviate from systematic association between firm performance and the agent's true contribution. High accrual quality indicates that earnings can represent the relationship between firm performance and the agent's true contribution. Firms

with high accrual quality should assign more weight to earnings than to stock returns in compensation contracts. High accrual quality means higher cash flow persistence. Given that accrual quality represents the ability to predict future cash flows. On the other hand low quality persistence in cash flow earnings are produced which are less noisy.

Definition of accrual anomaly

The accrual anomaly is related to the negative association between accounting accruals and future stock returns. The logic of this anomaly is based on the reasoning that it is important to measure if company's earnings as reported by company management are based on real cash inflow or based on revenue recognition from questionable accounting practices. Companies which have low levels of accruals have more certain real earnings and therefore should earn higher market returns. This anomaly could be exploited by acquiring a long position in low accruals companies and a short position in high accruals companies. An explanation that has been offered for the accrual anomaly, the earnings fixation hypothesis, holds that investors fixate upon earnings and fail to attend separately to the cash flow and accrual components of earnings. Since the cash flow component of earnings is a more positive forecaster of future earnings than the accrual component of earnings, investors who neglect this distinction become overly optimistic about the future prospects of firms with high accruals and overly pessimistic about the future prospect of firms with low accruals. As a result, high accrual firms become overvalued, and subsequently earn low abnormal returns. Similarly, low accrual firms become undervalued and are followed by high abnormal returns.

Accounting Distortions Definition

Accounting information is the financial condition and business performance of certain accounting entities revealed by those entities to investors and creditors. It is usually revealed in the form of financial statements, financial reports or footnotes. The authenticity of accounting information is an important standard in evaluating accounting system's working quality and credibility. Accounting distortion refers to the situation where the information input is not in accordance with the output and causes fake information. The term accounting distortions refers to any kind of deviation and divergence between information reported by financial statements and the reality of the business. It is the process of using accounting alternatives usually unintended alternatives within the accounting standard inconsistently to increase or decrease the flow of items through the income statement usually by affecting the timing of the flows in order to increase or decrease reported profit for a specific period. Accounting distortion also means the form and provision of accounting information go against the principle of objective authenticity. It fails to reflect the real financial condition and business performance of accounting entities. It can also be divided into two types intentional distortion and unintentional distortion. The distortion that is caused in a company's financial statements makes it difficult for investors to easily ascertain a company's true financial condition. Accounting distortion can make a company's financial reports look better or worse. Accounting distortion can be seen as either a consequence of necessary rules regarding generally accepted accounting principles or a result of management's attempts to change the numbers to present a better financial picture of the firm. Accounting standard define many rule that manager can decide to use rule sustained with them company. FIFO inventory rules can reflect number in balance sheet more than use LIFO inventory

rules, LIFO can reflect number of cost in income statement. Another cause of distortion is conservatism that is accountant will record number suddenly about bad news and not record suddenly about good news for company. Conversely, an underperforming company could engage in earnings manipulation, creating accounting noise to hide its poor performance. Fraud or cheating is shady, and cannot be exposed to the public. It needs to be accompanied by some form of camouflage and hide, through virtual columns to create fake information or conceal the reality. It is usually hard to be discovered. In accrual accounting basis, by nature of it can provide information with distortion. Accrual accounting basis have many benefit such as this method has relevance than cash accounting basis, provide number of account in timely. Many cause of distortion are accounting standard, estimate some number by manager or earning management. Because accrual accounting need to provide information in a timely manner so many transactions are made by estimate by manager. Estimate is allowance for bad debts. Other accounting standards causing distortions are political process which sometimes accommodates only some interests, accounting principles which have some constraints to cost and benefits like LIFO versus FIFO as we saw above. Finally conservatism could lead to biased financial statements due to distortions. On the other side accounting distortions are not necessarily a deliberate attempt by management to misrepresent the true operating picture of the company. They may occur because of the accounting process in which the true economic profit of a business is not visible. All firms need a good understanding of the deliberate and non-deliberate processes that lead to accounting distortions. Accounting distortions and earnings management can be measures of accounting risk. Accounting distortions can be defined as deviations of reported information in financial statements from the underlying business reality. These

deviations can be defined as accounting risks since they influence the quality of the accounting information as a resource of decision making. They arise from the accrual accounting or earnings management activity. The manipulation of accrual accounting can increase managers bonus and compensation, increase stock price, gain incentives from government, change accounting methods estimates and policies. Policies like increase or decrease current period income, reduce earnings volatility, inventory valuation and income smoothing.

Solutions to accounting distortion

Establishing Accounting Regulations. We should establish a set of accounting regulations according to accounting law and accounting standards. So as to set a unified standards for business dealing and accounting calculation, reducing the chances for internal supervisors and inner controllers to freely choose accounting policies with certain purposes. At the same time, we should also establish units of financial accounting system as well as the system of accounting method for files. When the newly established enterprises register put on record or the existing enterprises carry out annual inspection of the record, they should all go with the accounting law, industry accounting system and accounting standards, formulate the specific financial accounting system and accounting method. For registration and annual inspection, they should also hand in the relevant materials to the industrial and commercial corporate to manage. When there is change of the documents, the documents should be handed in again to the tax authorities for record. They should also complement and perfect the accounting laws and regulations, make sure the regulatory department and the enterprise as a legal person from the legal accountability, strengthen the power of regulation of accounting information, increase

penalties for fake accounting information provider, and further improve the accountants employed threshold. Perfecting the corporate governance structure to perfect the corporate governance structure, the company's internal supervision system should be improved by specific measures including: Setting up the audit committee, which consists of the non-executive director and the supervisors of the company, to be in charge of the audit supervision on the operation and financial activity of the company with the decision-making authority. Establishing the contract-based principal-agent relation between the managers and the board of directors. Establishing comprehensive shareholder representative action to protect the rights and interests of the minority-shareholders. Besides, in the process of the game theory between the operator and the owner, the owner can take the measure to make the operator's remuneration equal to the total sum of a fixed minimum salary, a portion of the extra profits and the certain shares of the company, in order to reach the Nash equilibrium. In order to reach the balance of the creditors and the owners in the game theory, the former can make a contract that conforms the interests of both sides to limit the target payout rate and limit the company's investment on the high risk projects. Make regulations on financing policy related to the company, borrowing of the payment with preferential terms should not be easily allowed to require the company to provide relevant information such as financial statements to the creditors on a regular basis to evaluate whether the company has a default. Establishing the external restraint mechanism and fully performing the functions of the intermediary institution The accounting supervision system of our country consists of the state supervision, social supervision and internal supervision of the companies. The intermediary institutions should fully perform their supervisory function, and make the accounting firm and tax accountant firm the leading force in the external supervision of the small and

medium-sized companies. Therefore, accounting firms in partnership should be greatly promoted. According to international practice, accounting firms as intermediary institutions, due to their low cost of running, and the considerable social essence of their the audit results, in order to effectively improve the cost-benefit principle, all international certified accounting firms assume unlimited liability for the use of the partnership. It is necessary for our country, in the relevant laws and regulations, to advocate and support the firms to take the form of partnership and to explicitly stipulate that only firms in partnership is qualified for the audit of listed companies, in order to enhance the crisis and risk consciousness of the accounting firms, make income of registered accountants corresponds to the risks. Government departments in the future can gradually get away from direct supervision on companies accounting information, through strengthening the management of the intermediary institutions, and then, in the way of purchasing service of entrusted supervision on the accounting information of companies. External supervision, of course, is also an important way and means to promote the authenticity and reliability of the accounting information of the small and medium-sized companies. At the same time, the institutional improvement of the companies also should not be neglected establishing a system of civil liabilities. Without a strict system of civil liabilities, the punishment on that illegal behavior will not be implemented.

Abnormal accruals

Abnormal accruals = (firm total accruals/assets)-firm normal accruals. Abnormal accruals measure of capturing discretionary accrual behavior or a measure of total accrual quality. We interpret a large abnormal accrual as a high deviation between cash flows and earnings of a firm that makes it harder for investors to discern the true

economic performance. When firms abnormal accruals are large it is a strong indication of low quality earnings due to estimation errors or manipulation. Large abnormal accruals are followed by low and decreasing stock returns those abnormal accruals are less sustainable than normal accruals and cash flows. If management manipulates results over time, reported earnings will steadily diverge from cash flows. The difference between accruals and cash flows known as abnormal accruals might be used as a measure of earnings quality. When abnormal accruals represent earnings management lower abnormal accruals may indicate high audit quality. If abnormal accruals are used for earnings management the abnormal accruals should not be relevant for predicting future cash flows, when accrual quality is high abnormal accruals are low. If abnormal accruals are relevant for prediction of future cash flow from operations this would suggest that abnormal accruals reflect managers' inside information. Managers use them to give better indications of firm performance. The relevance of abnormal accruals should not change with accrual quality since abnormal accruals are used by management to convey information to change business activity and effect future cash flows.

Difference between abnormal accrual and accounting distortion

Abnormal accruals are very similar to accounting distortions. Both of them are used on firms' earnings manipulation although abnormal accruals have some limitations. Abnormal accruals are limited to accrual management, income smoothing, tax management, related firm transactions, special purpose entities, off balance sheet disclosure, core earnings and non-recurring items. On the other hand accounting distortion can really misrepresent the whole true operating picture of the company. Example is a change in accounting method like inventory valuation which is not

affected by abnormal accruals. Another difference is that the accounting distortion is a measure of accounting risk and influence the quality of accounting information as a resource of decision making. On the other side abnormal accrual use accrual quality for decision making and risk finding. Lastly as we will understand later those two measures of earnings quality react very differently with variables like dividends and growth.

3.LITERATURE REVIEW

Extensive work has been made by Peasnell et al. who examined specification and power issues relating to the measurement of abnormal accruals using cross-sectional estimation procedures. Examination of the literature indicates that cross-sectional models are now more widely used in contemporary earnings management studies. Empirical evidence regarding both the relative and absolute performance of cross-sectional accrual models is therefore called for. In addition to evaluating the performance of cross-sectional versions of the models they also develop and tested an alternative procedure, labeled the margin model. The margin model differs from existing procedures in that the drivers of normal accruals are derived from a formal model linking sales, accruals and earnings. Results indicate that all three cross-sectional models appear well specified when applied to a random sample of firm-years. However, additional tests indicate that the margin model generates relatively better specified estimates of abnormal accruals when cash flow performance is extreme. Specifically, average abnormal accrual estimates produced by the margin model are significantly lower (higher) than those generated by either the standard-Jones or modified-Jones models when operating cash flows are unusually high (low). Further analysis designed to assess the models' ability to detect known cases of accruals management indicates that all three procedures appear capable of generating high power tests for earnings management upwards of five percent of lagged total assets: for earnings management exceeding five percent of lagged total assets, all three models yield detection rates close to 100%. The models examined in this paper are defined in terms of working capital accruals. This raises the possibility that the differences in rejection frequencies may be due to differences in the way accruals are

defined, rather than to the use of alternative estimation procedures. As such, an alternative interpretation of the high rejection rates documented for the models in this study is that a pure working capital accruals measure may be more powerful than an operating accruals measure when earnings are managed via working capital accounts. Future research aimed at formally comparing the power of alternative estimation procedures and alternative accrual definitions would therefore represent an interesting contribution to the literature. Regarding the relative power of the three models, findings suggest that the standard-Jones and modified-Jones models are substantially more powerful at detecting subtle revenue and bad debt manipulations (i.e., less than 10% of lagged total assets in magnitude). Thus, despite their ad hoc nature, these models still appear to represent relatively powerful solutions to the problem of detecting certain types of accrual management. The price for this improved detection power, however, is greater misspecification when cash flow performance is extreme, they failed to document any significant difference in the relative power of the Jones and modified-Jones models to detect revenue manipulations. We attribute this result to the relatively small coefficient estimates obtained from the first stage regressions of working capital accruals on the change in revenue. In contrast to the findings for revenue and bad debt manipulations, the margin model outperforms the standard and modified-Jones models at detecting non-bad debt expense manipulations ranging from 1.5% to 6.5% of lagged total assets. It is noted, however, that the improved power of the margin model over that of the s-J and m-J models in relation to non-bad debt manipulations is more than offset by its relative inability to detect revenue and bad debt manipulations. Finally, in terms of providing practical guidance on the question of which abnormal accruals model to use, the results imply that this decision is likely to be contingent on the form the earnings management is expected to take. If earnings

management via revenue or bad debt accounts is anticipated, then the standard-Jones and modified-Jones models appear to offer the greatest chance of detecting it. Alternatively, if expense manipulation (exclusive of bad debts) is anticipated, then the margin model may be more appropriate. In the absence of any strong priors regarding the specific type of manipulation used, our results suggest that using all three models in combination may afford the greatest chance of detecting earnings management. Irrespective of the specific approach used, however, accurate detection of small-scale accruals management (i.e., less than five percent of total assets in magnitude) remains fraught with difficulty.

He et al. examined whether dividends are informative about the quality of reported earnings. This study builds on the insight of Leuz, Nanda and Wysocki (2003) who argue that corporate insiders manipulate earnings to mask their consumption of private control benefits and expropriation activities. If insiders are willing to give up some of the private control benefits we would expect that they have less incentive to manage earnings since they have less to hide. Dividends represent a significant loss of private control benefits to insiders because, once paid out, dividends are not subject to expropriation by the insiders. Therefore, we hypothesize that dividends are a credible signal to outside investors about the quality of reported accounting earnings. Using a number of measures to capture accruals management, they document consistent evidence that dividend-paying firms have smaller abnormal accruals and higher accruals quality. The evidence suggests that earnings quality is higher for dividends payers than that for non- payers. Furthermore, they show that the association between dividends and earnings quality is stronger in countries with weak investor protection and poor information environment, implying that the signaling role of dividends is

stronger in these countries where expropriation by insiders are more prevalent and information asymmetry is greater. The evidence from analyst earnings forecasts and informed trading activities corroborates our main results. Now, the results contribute to the vast accounting and finance literature on dividend signaling by providing a new perspective on the signaling role of dividends. While most of prior studies focus on whether dividends signal future profitability, this study examined whether dividends signal earnings quality in an international setting. The results strongly support the view that dividend paying firms have better quality of reported earnings, and the information content of dividends is stronger in countries with weak investor protection and poor information environment. The evidence based on international sample also extends recent studies on dividends and earnings quality in the U.S. (e.g., Caskey and Hanlon 2011, and Skinner and Sloves 2011). The results also have implication for policy makers who consider improving the quality of financial reporting through mandatory dividend payments. These people argue that paying dividends forces firms to have cash in place and divergence between earnings and cash dividends alarms investors about the quality of reported earnings. The results are supportive of this view. More importantly the argument that mandatory dividend payment reduces insiders' incentives to manipulate earnings explains why dividends can be an effective signal of earnings quality. This argument provides substance to the policy makers' opinion.

However, it must be stressed to readers and policy makers that, although earnings quality is on average higher for dividend payers, paying dividends does not imply that the earnings are completely free from manipulation. In fact, WorldCom continued to pay dividends during the period that it was accused of accounting fraud. This anecdote suggests that although dividend payments reduce managerial incentives to

manipulate earnings, they do not remove all the incentives. Future research can examine when and how the other incentives such as executive compensation, capital issuance and pressures from stakeholders, affect the signaling role of dividends about quality of reported accounting information.

Grullon et. al conclude with results that indicate that models that include dividend changes systematically underperform models that exclude dividends. This suggests that, after accounting for the fact that investors can use only historical data to estimate the parameters of the earnings model, dividends changes are not reliable predictors of future earnings. One potential reason for this result is that the coefficients of dividend increases and decreases are unstable over time, to the extent that the inclusion of these variables in the earnings model generates only noise. Since the influential papers of Miller and Modigliani (1961) and Watts (1973), economists have been looking without success for evidence that changes in dividends contain information about future changes in earnings. Using various empirical methods, many researchers have been unable to find a reliable link between dividend changes and future changes in earnings or profitability. Using a linear model of earnings expectations, however, a paper by Nissim and Ziv (2001) finds that dividend changes are positively correlated with future earnings changes. The authors showed that dividend changes are uncorrelated with future earnings changes when one controls for the well-known nonlinearities in the earnings process. This result underscores the importance of controlling for nonlinearities in the earnings process when examining the performance of a firm following a corporate event. Thus, even when researchers find a weak link between dividend changes and future earnings changes (in only about 29% of the years), the association is not reliable, and can be attributed to incorrect modeling of the earnings process. They also found that, regardless of the model of earnings

expectations, models that include dividend changes do not outperform those that do not include dividend changes in out-of-sample tests. Some of the results even suggest that investors may be better off not using dividend changes when they forecast earnings changes. Given the evidence presented here and in the other papers we cite, it is sensible to conclude that changes in dividends are not useful in predicting future changes in earnings. It is possible to find a weak association between dividend changes and future earnings, but only with an incorrectly specified model. Using several different estimation methods and various measures of profitability, it is found that the association between dividend changes and future profitability is not consistent with the predictions of the signaling hypothesis. It cannot be ruled out that dividend increases signal something, but that something is neither abnormal increases in future earnings nor abnormal increases in future profitability. Perhaps, the motives for paying dividends, and the market reaction to it, lie elsewhere. For example, recent evidence suggests that dividend changes contain information about unexpected changes in systematic risk (Grullon et al. 2002).

Kane et al. examined the corroborative relationship between earnings and dividend announcements. They first demonstrated that our sample is similar to those of earlier researchers, who found that unexpected dividend and earnings announcements appear in and of themselves to be able to induce abnormal stock returns. However, once a more general specification that allowed for interaction effects between the two announcements was estimated, empirical results indicated that the announcements are indeed interpreted in relationship to each other. This interaction or corroborative effect was statistically significant.

Douglas et al. provides evidence on whether firms' payout policies (their managers' decisions about dividends and stock repurchases) provide information about the

quality of reported earnings. These questions are of interest given recent concerns about earnings quality, as well as wholesale changes in the nature of payout policy and in the cross-section of corporate earnings over the past 30 years. There is now agreement that the traditional view of signaling under which managers use dividends to signal future earnings prospects is not empirically descriptive (Allen and Michaely 2002; Brav et al. 2005; DeAngelo et al. 2008). The evidence against the traditional signaling story does not say, however, that dividends are not informative, especially if there are questions about the credibility of managers' financial reporting practices. They posit and test the idea that dividends in particular, and payout policy more generally, allow investors to assess the underlying sustainability of the firm's earnings stream and so its earnings quality. Consistent with the idea that dividends provide information about the quality of reported earnings, they found that the relation between current earnings and future earnings is stronger for firms that pay dividends than for those that do not. They also found that the magnitude of the dividend, measured in payout ratio terms, does not affect this relation. Given the emergence of stock repurchases as an alternative payout mechanism, we also assess whether stock repurchases affect the relation between payout policy and earnings quality. They found that firms that make stock repurchases, especially on a regular basis, have more persistent earnings than firms that make repurchases occasionally, or not at all, but that repurchases generally are a less credible signal about earnings quality than dividends. This is consistent with their expectations because dividends represent a commitment to pay out a defined amount of cash, while repurchases do not. They also examined how firms' payout policies relate to whether they report losses. Losses are an important determinant of payout policy: firms that pay dividends are much less likely to report losses than non payers. In addition, they found that an important

conditioning factor in this relation is the quality of reported losses. While dividend payers are, like firms in general, much more likely to report losses today than they were 30 years ago, this tendency is largely explained by a decline in the quality of reported losses, which are now more likely to be attributable to special items. Once this trend is accounted for, they found that dividend payers report losses only about 5% of the time and that this fraction remains largely constant over time. In addition, they found that firms that make stock repurchases are less likely to report losses and that, like dividend payers, the losses they do report are less likely to be attributable to special items. However, the relation between repurchases and losses is weaker than that for dividends. The fact that they found that it is dividends per se that matter for earnings quality, rather than the amount of those dividends, suggests that dividend payers are a relatively homogeneous group for which earnings are of materially higher quality than those of non payers, which enables dividend payers to sustain economically meaningful regular dividends. The evidence in Fama and French (2001), which shows that only around 20% of public industrial companies pay dividends, combined with the DeAngelo et al. (2004) evidence on the increased concentration of dividends payments, is broadly consistent with the conclusion (DeAngelo et al. 2004,2008) that public firms now display a two-tiered structure, with a relatively small, homogeneous group of dividend payers accounting for the lion's share of corporate payouts and earnings. Overall, the evidence shows that dividends are informative with respect to firms' earnings prospects, although not in the traditional sense of signaling future earnings changes. They also provide evidence that firms' repurchase decisions are informative with respect to earnings quality, although not to the same extent as dividends. While dividends are now paid by a much smaller percentage of firms, and while repurchase activity has increased dramatically, our

evidence suggests that repurchases are unlikely to completely supplant dividends given the strength of the relation between earnings quality and dividends.

Mikhail et al. contributed to the literature by examining the market's reaction and analysts' responses to dividend changes. They found that, controlling for the magnitude of a firm's dividend change, its information environment, its investment opportunity set, the effects of dividend clienteles, and the firm's operating risk, the market reacts less to dividend change announcements from firms with higher earnings quality. They also find that, controlling for the magnitude of the dividend change, the firm's information environment, and the release of other information between forecast revisions, analysts revise their earnings forecasts significantly less for firms with higher earnings quality. These results are consistent with their conjecture that dividend changes and earnings may function as substitutes in predicting future cash flows. They interpret their findings as suggesting that reactions to new information depend on the precision, or quality of previously released information, consistent with prior theoretical work (Holthausen and Verrecchia (1988); Kim and Verrecchia (1991)). Their results, however, are based on a sample of firms that currently pay dividends and may not generalize to other firms utilizing other information signals. Furthermore, their interpretation of our results relies on assuming that earnings quality is an exogenous, non-discretionary characteristic of the firm. If managers can manipulate earnings quality, in addition to setting the firm's dividends, our model may not appropriately capture the endogeneity inherent in making the two decisions.

Kathleen P. Fullera and Michael A. Goldsteinb found evidence that investors are concerned with firms' dividend policies. Our results indicate that dividend-paying

stocks outperform non-dividend-paying stocks by approximately 1% to 2% more in declining markets than in advancing markets. Further, these results hold when we control for risk, different definitions of advancing and declining markets, size, liquidity, industry groups, and for different sub-periods. They also found that these differences increase the more the market decreases. These results seem not to be a function of the quality of the firm, based on past profitability, future profitability, cash flow, or Tobin's Q. The tests indicate that the main results hold for both high and low cash flow and Tobin's Q firms, as well as high and low future profitability firms. Different tests provided only weak support for either the free cash flow hypothesis in one case and signaling in the other, suggesting that the main result is not primarily caused either by issues related to free cash flow, overinvestment, or signaling. They also show that investors respond asymmetrically to dividend increases, decreases, and no changes, based on the state of the market, and that dividend-paying firms outperform non-dividend-paying firms even in the months with no dividend payments. The differential results between advancing and declining markets also do not seem to be driven by either the free cash flow or signaling hypotheses, so, similar to many other papers, we cannot declare a firm winner. Results indicate a larger difference between the non-dividend-paying and low-dividend-yield portfolios than among the dividend-paying portfolios themselves. This finding suggests that our results are not due to reasons related to tax clienteles or dividend capture strategies.

Similar to Baker and Wurgler (2004), they conclude shareholders are not indifferent to dividend policy. Instead, they value dividends most highly in during declining markets. In this way, their results provide support for the point in DeAngelo and DeAngelo (2006) that dividends are not irrelevant, in that we have found conditions where they matter that is robust to a large variety of controls and checks. Overall,

shareholders in dividend-paying stocks do better than investors in non-dividend-paying stocks, particularly in market downturns.

Michelle Hanlon et al. (2007) investigated whether dividends are informative about future earnings; specifically, whether dividends affect the relation between current annual stock returns and future earnings. There is a long line of literature that investigates whether managers use dividends to signal the future prospects of their firm—known as the dividend information content hypothesis. Most interpret and test the information hypothesis by investigating whether changes in firms' dividends translate directly into changes in firms' future earnings; however, the empirical literature offers little support for the hypothesis that current dividend changes signal future earnings changes.

They re-examined the information hypothesis using the approach of Collins, Kothari, Shanken, and Sloan (1994), which employs a regression of current-year stock returns on lagged earnings, current earnings, future earnings, and future returns. We augment their model with an indicator variable for whether the firm is a dividend paying firm in the current year to investigate the difference, if any, in the relation between current stock returns and future earnings (the FERC) between dividend paying and non-dividend paying firms. The key concept underlying this approach is that the greater the association between current returns and future earnings, the more relevant the information about future earnings that is provided by, in our case, dividends, that is not reflected in current earnings.

Their evidence is consistent with dividend paying firms having significantly higher FERCs than non-dividend paying firms. This result is robust to the exclusion of loss firms, suggesting earnings samples. Somewhat surprisingly, firms with non-negative

earnings exhibit higher ERCs as a function of the standard deviation of earnings. We have no predictions for the effects of the control variables on the FERC and the interaction term is just included for completeness of the model.

The results of the effect of *Income Smoothing* on the current ERC are consistent with those reported by Tucker and Zarowin (2006). *Income Smoothing* increases the current ERC for the pooled sample (which includes loss firm-year observations) but has no significant effect when the sample is restricted to the non-negative earnings observations.

The results are also robust to the inclusion of other control variables identified in prior literature as affecting the current and/or future earnings response coefficients, suggesting that dividends contain additional information about future earnings beyond current earnings, persistence, predictability, and other factors in the information environment (at least as best we can measure these). They also test whether firms paying a large dividend have a higher FERC than firms paying a small dividend. The data are consistent with large dividend payers having a higher FERC than small dividend payers, suggesting that the magnitude of the dividend is important to the information revelation. They also perform an analysis of firms' FERCs prior to and after dividend initiations for the firms that initiate a dividend during our sample period. The data are consistent with firms' FERCs increasing following a dividend initiation suggesting that the dividend payment provides the market with additional information about future earnings. They view these additional results (inclusion of control variables, small versus large dividend payers, and tests of dividend initiations) as providing support for our main cross-sectional tests and that it is likely not just underlying differences between dividend payers and non-dividend payers that are driving our results.

Their paper is important because what dividends are informative about is elusive and an open-ended question. A greater understanding of the information contained in dividends is warranted due to the inconsistent results in prior literature regarding the dividend information content hypothesis. Because their evidence is consistent with dividend paying firms' future earnings response coefficient being higher than non-dividend paying firms', this provides support for dividends providing the market with information about future earnings beyond information captured in current earnings. However, while they include controls for the obvious differences between dividend and non-dividend paying firms, the exact economics or determinants of the higher FERC remain a puzzle which they leave for future research.

Panagiotis Asimakopoulos et. al. [2007] explored the effect of dividend announcements on stock market returns in the context of an event study. Their sample consists of firms paying the minimum required dividend and firms paying above the required minimum. In Greece, tax wise, dividends are treated equally with capital gains and corporate management is controlled by major shareholders to a large extent. Controlling for managerial moral hazard and the degree of back- and frontloading of the managerial compensation scheme, our theoretical model predicts that with known assets in place and asymmetric information on reinvestment prospects, unexpected dividend increases result in negative abnormal returns. Also, the higher the expectations of investors about reinvestment prospects, the lesser the impact on the stock price when firms announce the minimum required dividend. Their results imply that when Greek firms announce dividends higher than the mandatory and when considered unexpected increases then there is a negative price reaction. In other words, unexpected dividend increases convey negative information to the public. Announcements when minimum dividend is paid have no signaling effect,

even for unexpected increases, providing prima facie evidence that dividends contain new information not embedded in contemporaneous earnings announcements.

Vieira, E. & Raposo, C. did not find support to the dividend signalling content hypothesis, which is consistent with some recent studies, such as those of DeAngelo, DeAngelo and Skinner (1996), Benartzi, Michaely and Thaler (1997), Abeyratna and Power (2002) and Benartzi et al. (2005). The fragile support we find in some tests is associated with the UK market that leads us to believe that in countries with concentrated ownership (such as France and Portugal), firms do not need to use dividends as a signal, which is in accordance with Goergen, Renneboog and Silva (2005) conclusions.

Georgios A. Papanastasopoulos G. & Tsiritakis, E. (2014) examined the validity of the explanation associated with accounting distortions in an international setting. In doing so, they focused on European equity markets. They showed that accounting distortions constitutes a very compelling explanation for the negative relation between accruals and future earnings performance. Across the 15 equity markets they examined, accounting distortions constitute a contributing factor in 14 equity markets. Further, they showed that the negative relation between accruals and stock returns could be at least attributable to distortions arising from accrual accounting. Accounting distortions predict returns in 7 out of the 9 markets where the accrual anomaly occurs in Europe. Finally, they showed that the impact of accounting distortions on the pricing of the accrual component of earnings is stronger in markets with a higher level of trust and a lower level of secrecy.

A limitation of our study is that they do not focus on other explanations that have been proposed by the literature for the accrual anomaly. Importantly, driving factors under some of these explanations could be not mutually exclusive and coexist with

accounting distortions (Chan et al. 2006; Shi and Zhang, 2012). Indeed, Richardson et al. (2006) show that diminishing marginal returns from investment growth could have a supplementary contributing role on the lower persistence of accruals. They believe that the interplay between Richardson et al. (2006) and our study are highly suggestive of certain questions for future research. Does a growth-related factor contribute to the negative relation of accruals with future profitability outside of the U.S.? How investors price the implications of investment growth recorded in accounting accruals in international stock markets?

Sloan (1996) documents the negative relation of accruals with future earnings and future returns. Following Sloan (1996), an extensive body of research shows that this prominent empirical regularity is robust to various samples in the U.S. capital market and that it also exists in international equity markets. However, an active debated issue in the literature is what drives the accrual anomaly. A well-accepted explanation goes beyond the properties of accounting accruals. The negative relation between accruals and future earnings performance is attributable to distortions arising from accrual accounting, but investors ignore them in security valuation.

Grullon et. al. firmly reject the implications of the cash flow signaling models. Not only do profits not increase after a dividend increase, they, in fact, decrease. Similarly, profits of dividend-decreasing firms show a tendency to recover rather than decline further. For dividend-increasing firms, they found that their systematic risk significantly declines around the decision to increase dividends. This decline in risk results in an economically significant decline in their cost of capital. They show that this decline in the cost of capital can account for the positive price reaction to the dividend-increase announcement, even when the dividend change conveys information about a decline in the firm's growth prospects.

Their results indicate that dividend payout ratios of dividend-increasing firms do increase permanently, suggesting that these firms are able to maintain their higher dividends, consistent with Lintner's (1956) theory of dividend smoothing. According to Lintner, firms increase dividends only when they are sure they can sustain the higher dividends—that is, when they have long-run target payout ratios in mind. Since Lintner does not discuss systematic risk or the impact of dividend changes on prices, it is hard to explain this portion of the findings in the context of his model.

Jensen's (1986) free cash flow hypothesis also fares better. Evidence of declining ROA, cash levels, and stable or declining capital expenditures is consistent with the free cash flow hypothesis. However, the free cash flow hypothesis, too, has no clear predictions about changes in risk. Thus, the free cash flow hypothesis cannot also be a complete explanation of their findings. Therefore, they propose an alternate explanation for their findings. They refer to this as the maturity hypothesis. According to this explanation, dividend increases and other cash payouts are an integral feature of the process a firm undergoes as it moves from growth phase to a more mature phase. Typically, in a growth phase, a firm has many positive NPV projects available, it earns large economic profits, has high capital expenditures, low free cash flows, and experiences rapid growth in its earnings. As the firm continues to grow, competitors enter the industry, cannibalize the firm's market share, and reduce the firm's economic profits. In this transition phase, the firm's investment opportunity set starts shrinking, its growth begins to slow, capital expenditures decline, and the firm starts generating larger amounts of free cash flows. Ultimately, the firm enters a mature phase in which the return on investments is close to the cost of capital and free cash flows are high.

For simplicity of exposition, the market value of a firm can be broken down into the

value from assets in place and the value from future growth opportunities or growth options. As a growth firm becomes mature, it has fewer options to grow, and assets in place play a bigger role in determining its value, which leads to a decline in systematic risk. A decline in the number of growth options available to the firm also means a decline in the number of high-return investment opportunities available to the firm. Simply put, the firm does not have as many positive NPV projects as it used to have. Consequently, the firm's return on investment (return on equity or return on assets) declines and so do its economic profits. A decline in return on investment, all else equal, should reduce the earnings growth rate of the firm.

As the investment opportunities decline, the need for resources for new investments should also decline. This, in turn, would lead to a decline in the level or growth of capital expenditures and an increase in the firm's free cash.

Dasilasa, A. examined the stock market reaction as well as the trading volume reaction to dividend change announcements for a sample of firms listed on the Athens Stock Exchange. While not being the first study to analyze stock price reaction to dividend change announcements, our study is a first attempt to investigate both the share price and trading volume behavior in an institutional environment which is mainly characterized by the trimmed component of dividend news. In addition to the classical model, their study used a new approach, adjusted to the idiosyncrasies of the Greek corporate environment, to identify dividend change announcements. Their results indicate that there is a statistically significant market reaction on the dividend announcement day. In line with the tenor of the existing empirical literature, they found support for the dividend signaling hypothesis. Hence, dividend increases induce a significant positive stock price reaction, whereas dividend decreases bring about a significant negative stock price reaction. Constant dividends leave stock prices

unaltered. In addition, we observe that the market incorporates dividend news in an efficient manner.

On the other hand, the trading volume behavior displays positive reaction to dividend change announcements. Similar to stock prices, the trading volume moves into the same direction with the dividend change signals. They also performed a cross-sectional regression analysis for abnormal returns against a number of explanatory variables. The results corroborate the information content of dividends. Dividend yield and the percentage dividend change seem to be the most important factors that affect abnormal returns on dividend announcement dates.

Overall, their results are consistent with those found in the USA, the UK and other developed markets. Their results are interesting due to a number of idiosyncrasies in the research setting, most notably in the way that Greek firms distribute dividends to shareholders. Specifically, because of the requirements of the corporate laws 2190/1920 and 147/1967 which mandate a minimum amount for distribution, a significant portion of the dividend surprise vanishes. However, their results show that dividend change announcements still contain valuable information to shareholders.

Their empirical findings have practical implications for both investors and policy makers. In particular, potential investors can exploit significant abnormal returns trading around dividend announcement dates. In particular, the daily abnormal return on the announcement day is at least 0.324% and can exceed 1% in the case of dividend increase announcements. Moreover, the lure of the Greek stock market is also magnified by the absence of taxes on dividends and capital gains. Furthermore, in the last years the ASE has displayed a fast growing development offering considerable capital gains to investors and at the same time it has adopted an adequate regulatory framework that secures transparency and efficiency. Finally, the

relationship between ownership concentration and the market reaction to dividend change announcements along with the overinvestment hypothesis would be interestingly examined.

Debra C., & Shivakumar, L. (1999) examined the specification and statistical power of cross-sectional models of expected accruals by stating that earnings management studies depend critically on having unbiased and precise estimates of abnormal accruals . They also introduce and test a new model that controls for the level of cash flows. Cross-sectional models, though not true substitutes for time-series models, can be highly useful to researchers examining event-specific earnings management as they provide industry-relative measures of abnormal accruals. The paper examined the cross-sectional Jones model and evaluates the performance of this model relative to that of the CFO model, which is an extension of the Jones model.

Because their focus is on the methodology used in detecting event-specific earnings management, we do not test the performance of the models in detecting non-event-specific earnings management. For example, their CFO model would be appropriate to apply to studies investigating earnings management around import relief investigations or seasoned equity offerings, though not necessarily to studies investigating income smoothing or maximization of managers' compensation over time.

Using a simulation analysis technique similar to that performed by Brown and Warner (1985), they show that the cross-sectional Jones model and CFO model are well specified for randomly chosen firms. However, the Jones model yields systematically positive (negative) estimates of abnormal accruals for firms with cash flows below (above) their industry median. This finding demonstrates that the misspecification of the Jones model reported by Dechow, et al. (1995) is not limited to firms with extreme performances. In contrast to the Jones model, the CFO model is shown to be well specified for all cash flow

levels. Further, the CFO model has greater power in detecting earnings management, particularly at lower levels of earnings manipulation.

They also examine the impact of differences in managerial incentives and abilities across fiscal quarters on the power of accrual models in detecting earnings management. For a random sample of firms, we show that squared abnormal returns are greater in the fourth quarter than in interim quarters, consistent with an argument that managers exhibit the greatest evidence of earnings management in the last quarter of a fiscal year. This is the quarter in which managers have the greatest incentives to achieve specified target levels of earnings. The difference observed may also be argued to be consistent with a settling up of interim errors or misestimates. In either case, however, the greater level of noise or manipulation in fourth quarters for reasons unrelated to a firm specific event suggests that estimates of abnormal accruals based on annual or fourth quarter data are likely to be particularly troublesome for earnings-based event studies. This finding supports the use of interim data in examining earnings management issues whenever feasible.

4. DATA AND VARIABLE MEASUREMENT

Sample selection

Our sample consists of firm level and country level data that are obtained from Datastream International. The sample covers the following European countries: Greece Spain Finland Denmark. Two from the north Europe two from the south in order to have differentiation and a hole aspect of Europe .We choose firms from different sectors such as construction, food producers, chemicals, industrial engineering, transportation, pharmaceuticals, travel leisure, computer software, media, personal goods, healthcare, technology hardware, support services, forestry, household goods, general industry, electronic equipment, alternative energy, telecommunications, beverages, gas and mining. Nearly every sector of market except banks, financial and insurance services .The sample of panel data consists of 222 firms from 4 countries and the observations are 1755 from 2005-2013.

Measurement of firm level variables

1. Operating assets (OA) are equal to the difference between total assets (W02999 data item from datastream) and cash & cash equivalents (W02001).
2. Operating liabilities (OL) are equal to total assets minus minority interest(W03426) minus ordinary & preferred shares (W03995) minus total dept (W03255)
3. Net operating asset (NOA) are equal to the difference between operating asset and operating liabilities.
4. Accounting distortions (ΔAT) are equal to change in net operating asset turnover ratio deflated by current net operating turnover ratio $(SALESt/NOA)-(SALESt-1/NOAt-1)$. Net sales or revenues (WC01001).

$$\frac{\Delta A T_t}{A T_t} = \frac{\left(\frac{Sales_t}{NOA_t}\right) - \left(\frac{Sales_{t-1}}{NOA_{t-1}}\right)}{\left(\frac{Sales_t}{NOA_t}\right)}$$

5. Dividend yield, datatype (DY). For sectors, dividend yield is derived by calculating the total dividend amount for a sector and expressing it as a percentage of the total market value for the constituents of that sector. This provides an average of individual yields of the constituents weighted by market value. In our survey we will use this datatype divided by 100 because the numbers are percentages.

6. Firm size is the natural log of market capitalization datatype (WC08001).

7. Leverage, datatype (WC08236) total debt % total assets (short term debt& current portion of long term debt + long term debt /total assets) *100. In this case we divide this datatype with 100 because we don't want to have this observation in percentage.

8. Growth is calculated as the natural log of net sales or revenue (WC01001) turnover ratio LN (SALESt+1/SALESt).

9. Age is the firm age measured by the number of years that the company's stock price data are available in datastream.

5.METHODOLOGY

To begin with, we are going to take a look to our main article from Wen He, Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012). In this article the variable construction starts with measurement of earnings quality. Doing this they aimed in finding managements manipulation from accounting accruals. To capture accrual management they calculated abnormal accruals from the cross-sectional Jones model (1991). In Jones model (1991), total accruals include changes in working capital and depreciation expenses. Assuming that changes in working capital are a function of revenue growth, and depreciation accruals are proportional to long-term tangible assets, one can estimate abnormal accruals that cannot be explained by revenue growth and fixed assets. Empirically accruals from Jones model are residuals from the following regression model.

$$ACC_{i,t} = \alpha + \beta_1 \Delta REV_{i,t} + \beta_2 PPE_{i,t} + \varepsilon_{i,t}$$

To estimate the model they use cross-sectional data in a given year for each country, and obtain the residuals. Positive residuals indicate income-increasing manipulations, while negative residuals deflate reported earnings. We treat both income- increasing and income-decreasing manipulation as earnings management that reduces earnings quality, so they use the absolute value of the residuals, as the first measure of earnings quality. Another measure of earnings quality comes from Dechow and Dichev (2002) who relate accruals to cash flows because accruals anticipate future cash collection. According to this high quality accruals should be related to cash flows in years surrounding the recognition of accruals. Working capital accruals as a function of cash flows use standard deviation of residuals as a measure of accrual quality, with larger variation indicating poorer accrual quality. The accrual model is given as

follows.

$$WCA_{i,t} = \alpha + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \varepsilon_t$$

Francis (2005) extend Dechow and Dichev (2002) Model adding sales growth to reflect performance resulting. Those two equation estimate accruals using cross-sectional regressions for each country. After calculating standard deviation of residuals used as accruals quality measurement, they understand that larger variation in residuals indicates lower quality in accruals and more aggressive earnings manipulation.

$$ACC_{i,t} = \alpha + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \beta_4 \Delta REV_{i,t} + \beta_6 PPE_{i,t} + \varepsilon_t$$

Finally after the calculation of earning quality they move to the regression model to test if dividend payments are related with earnings quality. The multivariate regression model is

$$DEP = \alpha + \beta DD_t + \sum_{j=1}^J \gamma_j Control_j + FixedEffects + \varepsilon_t$$

DEP is the dependent variable in this case the abnormal accruals. DD is an dummy variable equal to 1 for dividend paying firms and 0 for dividend non-paying firms. This distinction comes from the dividend signaling effect which is very strong in this model. Control is a set of variables selected based on the study. Those are size, age, growth, leverage, long term tangible assets, profitability, auditor choice, accounting standards, cross-listing and ownership concentration. Research showed that abnormal accruals are smaller for large mature firms with limited growth opportunities, lower leverage and more

tangible assets. Size, growth, opportunities, profitability are closely related to the propensity of paying dividends. Accounting quality is higher in firms with internationally reputable auditor, adopting international accounting standards and less concentrated ownership and cross-listed shares. In this regression fixed effects are added to ensure results are not omitted in variable levels.

In our case, we adopt Wen He, Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012) methodology to achieve our goal. The previous method uses abnormal accruals as earnings quality measure. On our study we will use accounting distortions which are similar to abnormal accruals as earnings quality measure. To be more precise dividend payers report smaller abnormal accruals, earnings quality is higher for dividend payers and accruals are negatively related with earnings quality due to accounting distortions associated with their higher subjectivity Georgios A.

Papanastasopoulos, Emmanuel Tsiritakis (2014). That is why we want to test how will accounting distortions act with dividends which are related to earnings quality. As above we estimate the multivariate regression model.

$$DEP = \alpha + \beta DD_t + \sum_{j=1}^J \gamma_j Control_j + FixedEffects + \varepsilon_t$$

Where dependent variable is accounting distortions which is estimated from the type taken from Georgios A. Papanastasopoulos, Emmanuel Tsiritakis (2014). Our indicator variable is dividend yield 1 for years that signaling effect occur and 0 for the opposite. For control variables that effect the dependent variable and are correlated with the dividend yield, we take firm size as log of market capitalization, age as the number of years that the company's stock price data are available in datastream, growth as log of net sales revenues, leverage as total dept to total asset and one more dummy variable which is economic crisis. This

dummy variable equals to 0 from 2005-2007 years before crisis and 1 for 2008-2013 crisis period. In our regression we add fixed effects because we don't want our results to be omitted. We did correct correlation and heteroscedasticity as well as we mitigate the effect of outliers by winsorizing all the continuous variables at top and bottom by 1% level.

6. EMPIRICAL RESULTS

Beginning with the main article Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012) the results are the following. Firstly dividend payers have significantly smaller abnormal accruals and higher accruals quality than non-payers. This suggests that the average abnormal accruals of non-dividend payers are more than half larger than those of payers. Moreover the median of these accounting quality measures indicates significant difference between dividend payers and non-payers which suggests that the comparison is not affected by extreme values. This values the hypothesis that dividend payers have higher accounting quality. The firm characteristics which are less leveraged older profitable and have less growth opportunities are dividend payers. Dividend non payers smaller firms employ auditor choice and accounting standards as a low cost way to signal their type to outside investors. This suggests the prediction that earnings quality is higher for payers. Another result comes from Jones model regression. The status of paying dividends is significantly related to the magnitude of abnormal accruals. The negative and statistically significant result between abnormal accruals and dividends indicates that dividend payers report smaller abnormal accruals. On the other hand positive relation of abnormal accruals on reported earnings implicate that abnormal accruals inflate earnings. This manipulation results that dividend payers are associated with smaller positive abnormal accruals, suggesting dividend payers are less likely to use accruals to inflate earnings. Which results that the magnitude of negative abnormal accruals is smaller for dividend payers, suggesting that the dividend payers are less likely to deflate earnings as well. Reported earnings of dividends are less likely to be manipulated but more likely to reflect the true earnings. Control variables

indicate that abnormal accruals are smaller for mature firms, dividends have larger effect on earnings quality implying that dividends are a more effective signal of accounting quality. Finally abnormal accruals of dividend payers have much lower variation and can be mapped into cash flows. Which means that the dividend payers are less likely to engage in aggressive accrual manipulation and the accruals have higher quality. Supporting the hypothesis that dividend paying firms have better earnings quality smaller abnormal accruals and less variation in abnormal accruals.

We begin our empirical analysis by constructing a panel data of least squares with sample from 2006-2013 (1 year loss because of accounting distortion variable) and cross-section of 222 firms from 4 European countries and a total of 1755 observations. (table 1,2) After running the regression we get the following results. First control variable is age, the results are statistically insignificant. My hypothesis indicated that younger firms would have been related with accounting distortion but T-statistic is close to 0 which might mean that accounting distortions are not effected by firm age because manipulation or unintentional mistakes can happen anytime. Second variable was economic crisis again statistically insignificant T-statistic is 1 but still very low. This might be explained by searching the sample pool of my firm data. Most companies are large and old. Those companies as we will see below tend not to have large accounting distortion. Their size might mean that they were not affected by economic crisis. Combining those two hypothesis we come to the conclusion that crisis is statistically insignificant with the distortions. Talking about size, accounting distortions as abnormal accruals are negative and statistically significant. This result was expected because mature large firms with huge

capitalization dominate market. There is no need to manipulate earnings as long as they keep coming and as long as investors trust the firms name. Plus audit control would not allow unintentionally mistakes on financial statements . Moving to leverage, again as abnormal accruals negative and statistically significant variable with accounting distortion. This means that firms with high leverage meaning firms with various financial instruments or borrowed capital increase potential earnings of an investment. Plus when you are under creditor supervision you can not easily perform an aggressive accrual manipulation in order to have higher earnings. The most statistically significant variable is growth. Accounting distortions have huge positive relation with growth. That can be explained in two ways. Firstly accounting distortions are net operating assets turnover measured as the ratio of sales and growth is the natural log of sales so mathematically it can be explained. Secondly and most important reason for this relation are the growth companies. Those firms generates significant positive cash flows or earnings, which increase at significantly faster rates than the overall economy. A growth company tends to have very profitable reinvestment opportunities for its own retained earnings. Thus, it typically pays little to no dividends to stockholders, opting instead to plow most or all of its profits back into its expanding business. This contrasts with mature companies, such as diversified utility companies, which see very stable earnings with little to no growth. If large leveraged firms have a negative relation with accounting accruals, new growth companies do have a very positive relation with earnings management or even manipulation. Finally we wanted to test whether or not accounting distortions react the same way with dividends as abnormal accruals. The answer is no. Abnormal accruals have a negative statistically significance

with dividends. On the other hand accounting distortion are statistically insignificant with dividends. As we saw above growth companies want to expand not to pay dividends so manipulations and financial distortion may occur in a different way. Furthermore the positive relation of growth with accounting distortions was so big that might have led to a degrade and elimination of the relation of the dummy variable of dividend yield with the depended variable. Only one thing is for certain, the variance of R-squared used in this regression is 68% which means that our data points fell very near to the regression line consequently our study has good results supported by the right data.

7. CONCLUSION

Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012) document consistent evidence that dividend-paying firms have smaller abnormal accruals and higher accrual quality. The evidence suggests that earnings quality is higher for dividends payers than that for non-payers. The primary objective of our paper was to examine if accounting distortion respond the same way as abnormal accruals. From our empirical result we found out that accounting distortions are not related with dividends as abnormal accruals do. This results that accounting distortion is a completely different measure of earnings quality significantly related with growth. Our result contribute to accounting and finance literature on accruals by providing a new prospective on earning management. While Lilian Ng, Nataliya Zaiats and Bohui Zhang (2012) studies whether dividends signal future profitability, our study found that growth companies who do not tend to use dividend signaling manipulate earnings throw accounting distortions. This comes to a hypothesis that if growth companies sacrifice some cash flows for dividend payouts both accrual types can be used for earnings management/manipulation. A limitation to our study is that we did not test dividends as a control variable to see if the statistically insignificance would change with accounting distortions. But this could be a good idea for future studies. Another idea for future research is to study other accrual types like aggregate accruals which are the dominant component of a company's earnings, mean reversion tends to occur more quickly and so earnings with a high accrual component can be considered lower quality. Alongside with abnormal accruals and accounting distortion we have three measures of earnings quality. Are those accrual types different and do they connect in a way?

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TABLE 1

Relation between dividends and accounting distortion				
VARIABLES	COEFFICIENT	STD.ERROR	T-STATISTIC	PROB.
AGE	0,01146	0,00687	1,668094	0,0955
EC.CRISIS	0,230199	0,098575	2,335274	0,0196
DIVIDEND YIELD	-0,021158	0,093559	-0,22615	0,8211
GROWTH	1,412945	0,1622	8,711154	0
LEVERAGE	-3,199557	0,218006	-14,67648	0
SIZE	0,001317	0,045978	0,028637	0,9772
C	1,129991	0,264886	4,265957	0
FIXED EFFECT	NO			
R-squared	0,153034	Mean dependent var		0,591372
Adjusted R-squared	0,150127	S.D. dependent var		1,850014
S.E. of regression	1,705502	Akaike info criterion		3,909576
Sum squared resid	5084,471	Schwarz criterion		3,931395
Log likelihood	-3423,653	Hannan-Quinn criter.		3,917641
F-statistic	52,63946	Durbin-Watson stat		0,735343
Prob(F-statistic)	0			

This table reports results from regression of accounting accruals from sample of 1755 observation from 222 firms of 4 European countries (2006-2013). Dividend yield is a dummy variable equal to 1 for firms that pay dividends and 0 otherwise. Size is the natural log of market capitalization. Growth is the natural log of sales. Leverage is a measure of financial leverage and computed as debt to equity ratio. Age is the firm age, measured by the number of years that company stock price data are available in datastream. Economic crisis is a dummy variable equal to 0 from year 2006-7 and 1 from 2008-2013.

TABLE 2

Relation between dividends and accounting distortion				
VARIABLES	COEFFICIENT	STD.ERROR	T-STATISTIC	PROB.
AGE	-0,246110896	0,297809484	-0,826403824	0,408704159
EC.CRISIS	0,081007927	0,074741479	1,083841634	0,278606121
DIVIDEND YIELD	-0,070704837	0,087811286	-0,805190766	0,420834959
GROWTH	1,307217103	0,116396939	11,23068287	3,54E-28
LEVERAGE	-1,790894465	0,297021545	-6,029510302	2,06E-09
SIZE	-0,298963995	0,137456316	-2,174974589	0,029785041
C	7,881802106	6,323705614	1,246389789	0,212812497
FIXED EFFECT	YES			
R-squared	0,684577191	Mean dependent var		0,591371841
Adjusted R-squared	0,637687225	S.D. dependent var		1,850014136
S.E. of regression	1,113568329	Akaike info criterion		3,173681436
Sum squared resid	1893,532565	Schwarz criterion		3,884343033
Log likelihood	-2556,90546	Hannan-Quinn criter.		3,436349129
F-statistic	14,59965217	Durbin-Watson stat		1,962440623
Prob(F-statistic)	2,40E-257			

This table reports results from regression of accounting accruals from sample of 1755 observation from 222 firms of 4 European countries (2006-2013). Dividend yield is a dummy variable equal to 1 for firms that pay dividends and 0 otherwise. Size is the natural log of market capitalization. Growth is the natural log of sales. Leverage is a measure of financial leverage and computed as debt to equity ratio. Age is the firm age, measured by the number of years that company stock price data are available in datastream. Economic crisis is a dummy variable equal to 0 from year 2006-7 and 1 from 2008-2013.

