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| Earnings Management and Accounting conservatism | 24 juli  2013 | |
| Conservatism is often seen as a necessary evil to reduce the ability of management to make the numbers look better than they are, and make sure all negative information is immediately communicated to shareholders. However, it appears that in the countries researched in this thesis management has in fact made earnings more conservative through the manipulation of accruals. These findings contradict the idea that management needs to be restricted for them to report conservatively. | | Conservatism in non-discretionary earnings |

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# Introduction

Conservatism is often seen as a necessary evil to reduce the ability of management to make accounting numbers look better than they are. Conservatism makes sure all negative information is immediately communicated to shareholders. However, this thesis provides evidence that German and French firms use accrual manipulation to make earnings more conservative. These findings contradict the idea that management needs to be restricted for them to report conservatively.

Generally accepted accounting principles usually allow management to choose from several alternative accounting methods in various parts of the accounting process. Understanding how management uses this discretion over financial reporting is crucial to understanding and interpreting them. The findings of this thesis are therefore of importance to all users of financial statements that cannot directly observe how management uses its discretion (including, but not limited to empirical archival accounting research). My findings are of importance to standard setters as well, since they seem to assume that management must be restricted from reporting good news too eagerly.

I briefly discuss available research in the area of earnings management and accounting conservatism. Both of these subjects are extensively discussed over several decades in numerous articles, hence I will not attempt to give a complete overview of the literature but rather I provide a theoretical basis for the topic at hand. Definitions of earnings management and accounting conservatism will be discussed later in this thesis, but for now I will point out the main area of focus; the overlap of accounting conservatism and earnings management. Situations where management manipulates their accruals (deviations between cash flows and earnings) in such a way that it influences the relation between stock returns and accounting earnings in good news and bad news periods differently. This brings me to the main question of this thesis:

How does the manipulation of accruals impact the conditional conservatism level of earnings?

By studying earnings management in the context of accounting conservatism, this paper adds value to both areas. Earnings management is normally not seen as a conservative practice, and as Watts (2003a) explains, conservatism is often seen as counter measure to the tendency of management to recognize good news on timelier basis than bad news. In this thesis I measure the level of earnings management and estimate what the earnings would be in a situation without earnings management. Since the earnings without earnings management are less conservative than the reported (and managed) earnings, I conclude that management is actively increasing accounting conservatism.

I start in chapter 2 with a discussion of earnings management. First I discuss the definition and framework of earnings management and accounts manipulation as provided by Stolowy and Breton (2004) and as provided by Healy and Wahlen (1999). Then I discuss earnings management measurement, with specific attention for the Jones and the modified Jones model as these are the most widely used in the discussed literature. I conclude this chapter with the discussion of some empirical evidence on earnings management.

In chapter 3 I discuss accounting conservatism and some available literature in this area. The overview provided by Watts (2003a) is an important guideline in this chapter. I go into the definition of accounting conservatism and several explanations provided by Watts (2003a) for the existence of accounting conservatism. Again, I conclude with the way it is measured and the available empirical evidence that has been accumulated over the last few years.

The most important empirical evidence supporting chapter 4 is provided by García Lara et al. (2005) and Pae (2007). These two papers will form the basis of chapter 4 where I will discuss the link between accounting conservatism and earnings management. In chapter 5 I present the hypotheses which are tested in this thesis. In chapter 6 I go into my research design. A detailed explanation of the models that are used in my research can be found here, as can the sample and the data that is needed for my research. In chapter 7 I discuss my results, leading up to chapter 8 and 9, where I present the analysis of the results and the conclusion of this thesis.

# Earnings management

## 2.1 Introduction

I start off with providing two alternative definitions of earnings management. By doing so I hope to establish a clear understanding of what I refer to when talking about earnings management. In the rest of this thesis I will indicate when the difference between the two perspectives discussed below is of importance to the argument at hand. I then continue to discuss literature on the motives for earnings management. These motives are important because in chapter 4 I link them to the explanations for accounting conservatism. This chapter is concluded with the discussion of existing research models used for measuring earnings management and the empirical evidence that has been accumulated using them.

## 2.2 Definition

There is a vast amount of research on the existence and effects of earnings management. This research varies in shape and form, and different definitions of earnings management are used. Stolowy and Breton (2004) have made an attempt to create some structure in this area. They have formulated a broad definition and framework that can be used to examine different types of earnings management or ‘accounts manipulation’ as they call it. Their definition is as follows:

*“accounts manipulation is defined as the use of management’s discretion to make accounting choices or to design transactions so as to affect the possibilities of wealth transfer between the company and society (political costs), funds providers (cost of capital) or managers (compensation plans). ”*

It is important to realize that the parties who benefit from earnings management are entirely different for the different types of earnings management that are described by Stolowy and Breton (2004). In cases where earnings management is meant to influence the wealth distribution between management and the company, it is not in the interest of the company. However, when management tries to influence the distribution of wealth between the company and funds providers or society, they are in fact acting in the best interest of the company and its shareholders. This is import to notice since earnings management is often seen as a negative and solely selfish act of management.

This definition of earnings management does not say anything about how users of the financial statements perceive it. It is more or less implied but not stated that it is the intention of management to *mislead* users of financial statements. However, Healy and Wahlen (1999) provide a different definition that does incorporate the concept of deception:

*“Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers.”*

This definition is not meant to form the basis of a holistic framework that looks at accounts manipulation in the broadest sense, as was the goal of Stolowy and Breton (2004). It will however be useful in analyzing the link between accounting conservatism and earnings management. This will be discussed more extensively in chapter 3.

The main difference between the definitions is thus that the one offered by Healy and Wahlen (1999) is narrower. Both definitions require the exercise of management discretion over financial reporting with some other end goal than providing a true and fair view to the user of the statements. The difference lies in what ‘some other goal’ might be. Healy and Wahlen (1999) give two explicit reasons: 1) misleading users, or 2) influencing contractual outcomes. Stolowy and Breton (2004) are far less specific, saying only that the motive must be to influence wealth distribution between management and the company, the shareholders or society.

Both definitions state that there is something to gain with earnings management (it impacts wealth distributions), they state what instruments are used (structuring transactions and making accounting choices) but they say nothing about how the instruments can influence wealth distributions.

Walker (2013) provides a theoretical basis for this process. He explains that the connection between wealth distributions on the one hand and the communication of information on the other hand is based on the agency theory. This theory assumes that there is an information asymmetry between management and stakeholders (such as shareholders or debt providers). Management has information that other parties do not necessarily have access to, such as managements’ performance, the value of certain assets or information about future cash flows. Whenever there is too little information for stakeholders to monitor the actions and decisions of management, management may start to make opportunistic decisions. This is referred to as the moral hazard problem.

If the information asymmetry is not mitigated, the moral hazard problem stays. It is not rational for debt providers to provide capital, as they would not know whether a company is able to pay it back. Likewise, investors cannot make rational investments if they cannot assess the value of a company’s assets or make predictions about future cash flows. It is therefore in best interest of both management and shareholders to reduce this information asymmetry. Financial reporting aims to just that. It provides useful and reliable information on a company, which stakeholders use to base decisions on.

It now becomes clear that if management can influence what information is communicated, they can impact the decisions made by stakeholders and consequently impact wealth distributions. Healy and Wahlen (1999) state the possible goals of earnings management: misleading users of financial statements, or impact contractual outcomes. The expression ‘misleading users’ implies that there is an information asymmetry between management and the users of financial statements, of which the latter are unaware. This is a departure from the basic assumptions of the agency theory, since it dictates that all parties involved must be rational and aware of any existing information asymmetries.

The other goal of earnings management as defined by Wahlen and Healy (1999) is influencing contractual outcomes. As Walker (2013) explains, this behavior can be consistent with Agency theory. There can be costs associated with communicating private information (reducing the information asymmetry) between management and other contracting parties, which might be higher than the costs of the information asymmetry itself. This means that the existing level of earnings management is an optimal situation for all parties, and all parties have taken this into account at the time they signed the contract.

Assume that the role of financial reporting is to reduce the information asymmetry between stakeholders and management by providing a reliable, true and fair view of the company. As discussed above, providing such information is likely to impact wealth distributions between the company and fund providers. Being well informed by a company will reduce risk for the fund provider, and therefore reduce the cost of capital for the company. This means, following the definition of Stolowy and Breton (2004), that using management discretion over financial reporting to be as informative as possible could classify as earnings management.

This too is mentioned by Walker (2013) and he points out that agency theory says that in some scenarios all parties benefit from reducing the information asymmetry. It can therefore be efficient to provide management with some discretion over financial reporting, which they can then use to communicate some of the private information to users of financial statements. Note that in these cases discretionary accruals actually provide additional information on the company, rather than distorting the information.

## 2.3 Motives

The research on motives or incentives for earnings management revolves around a central question. What are situations where management profits or suffers directly from publishing one set of financial statements versus another (manipulated) set of financial statements? These are the cases that put some degree of pressure on management to manage financial reports in way favorable to them. According to Walker (2013) three categories exist:

**Contracting incentives**

Contracts that are based on information from financial reports can create incentives for management to manipulate accounting information. Management may want to influence the outcome of such contracts by influencing the financial reports in such a way that contractual agreements are met, when they would not be met without earnings management. Examples of such contracts are:

- Management remuneration contracts in which the remuneration is dependent on accounting measures or share prices.

- Contracts that protect debt providers as opposed to equity provider using restrictions on debt to equity or interest coverage ratios.

Walker (2013) points out that although extensive literature is available on this topic, it is often hard to prove that it are really the contracts or debt covenants that lead to earnings management when numbers are down. Also, it appears that often debt covenants prohibit management from freely changing accounting practices that influence the outcome of the contract.

**Capital market incentives**

One of the important functions of financial reporting is to communicate information about a company to the capital markets. Shareholders and other parties are likely to base their decisions partly on the information communicated in financial reports. Earnings management may therefore be used as an instrument to influence the decisions made by investors. All incentives management has to manage earnings that stem from decisions made on capital markets are part of this category. Examples of situations that are typically thought to put extra stress on management to manipulate earnings are:

- Equity offerings or IPO’s. Whenever a company issues new shares, management will want to drive up prices in order to maximize the capital inflow. Walker (2013) points out that there is contradicting evidence surrounding this issue.

- Public forecasts of earnings. There is a vast amount of literature investigating managers under pressure to meet or beat targets. Targets can be last years’ earnings, positive earnings (meeting zero) or analysts forecast. Graham et al. (2005) surveyed executives in the US and found that they consider targets to be very important. Various empirical studies have found evidence that companies that just made their targets have engaged in earnings management.

**Regulatory incentives**

The regulatory incentives are closely related to the contracting incentives as they refer to situations where the numbers in the financial statements do not meet certain requirements. As opposed to the contracting incentives, for regulatory incentives the requirements are issued by some regulatory body instead of a contract. Examples of these are:

- regulations for the banking sector;

- regulations that say whether a company is eligible for subsidies.

## 2. 4 Research Models

Now that we know what earnings management is, and for what purposes it is used, we want to know a) how we can measure it and b) when earnings management is applied. Only then we can see the exact implications of earnings management in practice. The basis for measuring earnings management is the research done by Healy (1985) which suggests that earnings management can be detected by investigating the accrual component of earnings. The accruals are easily found but it is hard to separate the managed (discretionary) from the unmanaged (non-discretionary) accruals. In order to do so, we need a model that will predict the level of accruals in a situation without earnings management, so we can see in what way the reported accruals differ from that level.

Peasnell et al. (2000) have evaluated three models which do exactly that. The Jones model, modified Jones model and the margin model. I will discuss these models briefly and refer to chapter 5 of this paper for formulas and additional information.

The Jones model uses historical data to regress total accruals on the gross level of property, plant and equipment and on the difference in revenues. The parameters that result from this regression are then used to predict non-discretionary accruals by combining them with current year difference in revenues and gross property plant and equipment.

Peasnell et al. (2000) discuss the Jones model and point out that its weakness is that it does not detect sales manipulation. This is because the Jones model does not correct revenues for the difference in accounts receivable as a predictor for total accruals. In other words, all differences in accounts receivable are considered to be ‘not manipulated’.

The standard Jones model has been modified by Dechow et al. (1995). Instead of the difference in revenue, they used the difference in revenue corrected for the difference in credit sales in their regression. This means that they consider all changes in credit sales to be a result of management discretion being exercised over revenues. Finally Peasnell et al. (2000) have considered the margin model. This model is similar to the Jones and modified Jones model but uses different variables for the regression. First of all, they only look at the working capital accruals, as these are most likely to be subject to earnings management. In order to predict the unmanaged level of working capital accruals they use stocks, debt and creditors. Other smaller and less important components of working capitals accruals are not labeled separately. The main difference between the margin model and the Jones model is thus that the margin model focuses solely on the parts of accruals that are likely to be used for earnings management.

Peasnell et al. (2000) have concluded that although all three models seem to be able to predict accruals with some level of precision, it depends on the situation which model can be used best. It appeared that the margin model is best at predicting non bad-debt expense manipulation and is more powerful when cash flows are extreme. The Jones and modified Jones model have proven to be stronger when measuring revenue and bad debt manipulation. It appeared that when over 5% of total of lagged assets is manipulated, the models approach a detection rate of 100%. We can therefore conclude that these cross-sectional models to estimate normal accruals are able to provide reliable results when earnings are managed considerably.

However, Bartov et al. (2001) state there is still a lot of work needed on improving models that measure normal accruals. This refers particularly to time-series models. In time-series research the data of one timeframe is used to make predictions about another timeframe. This requires different timeframes to be comparable up to a certain extent, which is not the case for accruals. In a cross-sectional model relations between variables are stated based on the dataset of that same timeframe, which are then used to identify cases that behave unexpectedly in the same timeframe. Bartov et al. (2001) state that while the cross-sectional Jones model and cross-sectional modified Jones model seem to be more able to precisely predict actual accruals than time-series models, some caution remains necessary. For example, like Peasnell et al. (2000) they conclude that the models are able to identify companies with extreme earnings management, but warn not to generalize these findings to more subtle cases of earnings management. Finally Dechow et al. (1995) have pointed out the limitations of models that predict accruals using time series. However, since cross-sectional models have become more widely used, this finding has become more or less outdated.

Ronen and Yaari (2008) have given a recent overview of available models for earnings management. Apart from the Jones model and the modified Jones model they discuss the following newer models.

**The Forward Looking Model**

The forward looking model is based on the modified Jones model but has a few additional modifications. The first difference is that while the modified Jones model treats the entire growth in accounts receivables as discretionary accruals, the forward looking model splits the additional accounts receivables into discretionary and non-discretionary. The basis for estimating the non-discretionary additional accounts receivables is the difference in sales. Furthermore the model includes lagged accruals as a predictor for this year’s discretionary accruals. Finally the model includes a growth variable by looking at the sales in the following period. This makes sure that non-discretionary accruals caused by anticipating sales growth in following periods are not measured as discretionary accruals.

**The Cash-Flows Jones Model**

The Cash-Flows Jones Model is also based on the modified Jones Model. The addition to this model is that it uses cash flows of the years t-1, t and t+1 (where t is the year for which discretionary accruals are predicted) as predictors for discretionary accruals. The logic behind this is that accruals reflect cash flows that are recognized in one year, but are received in another.

**The Performance-Matching Model**

Kothari et al. (2005) also made an adjustment to the Jones model, resulting in the Kothari Model. They argued that there are non-linearities in the relation between accounting values like revenues and total accruals. Therefore they have offered two alternative ways of estimating normal accruals. They proposed finding very similar firms in a sample and comparing them to each other to find irregularities. This solves the problem of the non-linear relationship by abandoning the ordinary least square regression method. Also they offered a new model which includes an intercept (not lagged by assets) and a performance measure (return on assets). The performance measure is included to mitigate the non-linearity in the model.

**The Business Model**

The business Model attempts to combine various components of models built based on the Jones Model. Like the Jones Model it uses a cross-sectional regression to estimate the non-discretionary accruals. Predictors that this model includes are:

- the standard Jones model;

- the performance control of the Kothari model;

- abnormal lagged accruals deflated by sales;

- working capital intensity;

- depreciation rate;

- historical depreciation for current assets.

By combining these different predictors, the Business model is able to take business-specific characteristics into account, without having to use a time-series model. This is important because as stated above, time-series models have not been able to predict non-discretionary accruals as well as cross-sectional models but it allows for firm-specific characteristics which Kothari et al. (2005) have proven to be important.

**Roychowdhury (2006)**

Graham (2005) suggested that ‘real’ economic transactions and decision making may play an important role in earnings management. Management may not only use their discretion over financial transactions to influence financial reports, they may also make decisions about actual firm performance in order to influence financial reports. In the definition of Healy and Wahlen (1999) this is referred to as structuring transactions. Roychowdhury(2006) argues that when a company is about to (just) miss an earnings target, it is likely to employ such real earnings management.

The model he proposes to measure real earnings management assumes that management will try to increase earnings in two main ways:

1. Overproduce inventory so that fixed costs can be divided over more (unsold) products and the cost of goods sold will decrease.
2. Cut spending on discretionary costs such as depreciation, sales, advertisement, administration and general expenses.

Much like the Jones model, he uses independent variables (one or more of sales, lagged sales and change in sales) to predict the ‘normal’ level of both production costs and discretionary spending. The level of real earnings management can then be found by aggregating the difference between actual and normal amounts for both items.

## 2.5 Empirical evidence

There is a vast amount of empirical research that tries to measure earnings management. Usually these studies try to link high levels of earnings management to any one of the motives for earnings management mentioned earlier in this chapter. Below I provide an example of research that is performed in this area.[[1]](#footnote-1)

Marquardt and Wiedman (2004) have studied the effects of firm-specific characteristics on the measured levels of earnings management. They took three categories of reasons for earnings management: equity offerings, management buyouts and avoiding earnings decreases. They concluded that firms that are issuing new equity are managing their earnings upward in such a manner that they show a persistent increase. Firms seeking management buyouts show the exact opposite effect and appear to decrease earnings. Finally Marquardt and Wiedman (2004) concluded that companies trying to avoid earnings decreases are managing earnings in a more obvious and transparent manner. They argue that simply the fact that they do not have to report an earnings decrease seems sufficient as they are probably not misleading any users of the statements. They argue that these ‘obvious’ ways of earnings management are too transparent to go unnoticed.

Earnings management resulting from capital market incentives (such as the above) is generally considered inefficient for society at large, because the reasons for managing the earnings are to mislead stakeholders at crucial times such as equity offerings, management buyouts and times of earnings decreases. Chen et al. (2007) refer to it as “rational yet dysfunctional unobservable earnings manipulation”. However, there are also studies that indicate earnings are managed so they become more conservative.

Pae (2007) and Garcia Lara et al. (2005) have pointed out that accounting conservatism in European continental countries is mainly a result of management discretion exercised over financial reporting. Their findings that earnings management increases conservatism in reporting is interesting because it means that management is disproportionally managing the earnings downwards in bad news periods, which tells us something about what motivates managers when managing earnings. I will elaborate more on this topic in chapter 4.

The above examples illustrate that there are instances of both upward and downward earnings management. There are indications that corporate governance could play an important role in how earnings management is applied. Peasnell et al. (2005) investigate the relationship between the composition of the board of directors of UK companies and the degree of upward earnings management. They find that companies with more outside (non-executive) directors tend to display less upward earnings management, but no or little downward earnings management. This finding may be in line with the findings of Garcia Lara et al. (2005) since German and French firms tend to have outside directors.

Zang (2012) argues that when management faces incentives to manage earnings upwards, they can choose between real earnings management and accrual earnings management. She argues that managers are most likely to choose the easiest or least costly way to manage earnings. Using the Jones model to measure accrual management and the model by Roychowdhury (2006) to measure real earnings management, she finds that indeed a tradeoff between the two exists. Furthermore she concludes that the extent to which companies manage accruals is influenced by the cost of doing so.

## 2.6 Summary

We saw that earnings management can be described as the management of a firm trying to achieve a goal (misleading users, influencing contractual outcomes or influencing wealth distributions in general) by altering the financial statements. The way information provided by management, such as financial reports, and the way wealth distributions are related is explained by the agency theory. Some interpretations of earnings management can be fully explained using classic agency theory (influencing contracting outcomes) whereas others require some of the assumptions to be loosened (misleading users of financial statements).

Practical motives for earnings management include contracting incentives (e.g. danger of breaching debt covenants), capital market incentives (e.g. maximizing cash inflow during equity offerings) or regulatory incentives (e.g. minimal debt to equity ratios).

Accrual earnings management is often measured using cross-sectional regression models derived from the Jones model. Complexity has been added over the years to improve the models ability to measure discretionary accruals (e.g. performance matching). Much empirical research using these models has been published over the past decades, and evidence has been found that managers engage in earnings management. Whether earnings management is completely understood and seen through by investors, or whether users of financial statements of are actually misled remains uncertain. This thesis aims to add to the existing evidence, and further explain how discretionary accruals are influencing the earnings number.

# Accounting conservatism

## 3.1 Introduction

In this chapter I discuss accounting conservatism. I start off with the definition and the difference between conditional and unconditional conservatism. After that I go into the explanations for accounting conservatism, which will eventually be linked to motives for earnings management in chapter 4. I conclude this chapter with a discussion of research models for accounting conservatism and the empirical evidence these models generated.

## 3.2 Definition

Accounting conservatism has been discussed a lot the past few decades. Basu (1997) said to interpret conservatism as resulting in earnings reflecting 'bad news' more quickly than 'good news’. He also presented several alternative interpretations, one of which is:

“accountants' tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses.”

In current research accounting conservatism is often divided into two categories. Conditional and unconditional conservatism. The terms have been discussed by Beaver and Ryan (2005) and they define them as follows:

“Under unconditional conservatism, the book value of net assets is understated due to predetermined aspects of the accounting process. Under conditional conservatism, book value is written down under sufficiently adverse circumstances, but not up under favorable circumstances.”

That means that unconditional conservatism is independent from ‘news’, and is embedded in the applied accounting practices. It is not the result of choices made by management. Conditional conservatism, which is ‘news dependent’ is possibly the result of choices made by management, and includes the conservatism as defined by Basu (1997). When I speak of conservatism as a result of management exercising its discretion over financial statements, I am referring to conditional conservatism.

## 3.3 Explanations

So why are the financial statements conservative? Watts (2003a) has made an overview of explanations for accounting conservatism and states that all of them are built on the idea that conservatism benefits the users of financial statements. It addresses the fundamental moral hazard issue (discussed in the previous chapter) that exists when management has incentives to overstate earnings and assets. He distinguishes between four types of explanations for accounting conservatism:

contracting explanation;

litigation explanation;

income tax explanation;

regulatory Explanation.

**Contracting explanation**

The contracting explanation for accounting conservatism explores the function of conservatism in a situation where there are contracts between a company (or its management) and third parties. An example could be a debt covenant which specifies minimum values for assets. When such minimum requirements are almost breached, management has a strong incentive to overstate assets in order to avoid any consequences that follow a breach of the covenant. Conservatism introduces a counter effect since it avoids overstatement of assets. DeFond and Jiambalvo (1992) have studied the abnormal accruals of companies the year prior to a debt covenant violation. They found substantial evidence that the companies investigated have managed earnings to avoid violating their debt covenant. Management thus used its discretion over financial reporting to protect the company’s interests at the cost of the contractual party. Conservatism aims to limit the discretion management has, thereby reducing its ability to manage earnings.

Compensation covenants which allow payments to managers based on financial reporting impose similar incentives as debt covenants. Conservatism is again an effective way of countering the pressure on management to overstate assets and earnings.

**Litigation explanation**

Another explanation for conservatism that is offered by Watts (2003a) is the risk of litigation. Whenever a company overstates earnings or assets it faces the serious risk of litigation by shareholders or other parties. For this reason it may be in the best interest for the company and management itself to present conservative financial statements, avoiding any chance of being accused of overstating financial measures for personal gain. Blunck (2009) investigated whether companies that show a high degree of accounting conservatism do indeed have lower litigation costs. The results of this research are formulated as follows:

“I provide some evidence that accounting conservatism is associated with lower incidences of securities litigation, higher dismissal rates, and less negative stock returns around litigation filings. I do not find that greater accounting conservatism is associated with lower settlement values.”

The threat of litigation thus seems to be a legitimate explanation for accounting conservatism.

**Income tax explanation**

The income tax explanation is fairly straightforward. It assumes that there is a direct or indirect link between taxable income and income in financial reporting. Fiscally speaking any company would like taxable income to be as low as possible. If taxable income can be lowered by reducing the earnings in financial reporting, management thus has an incentive to reduce the earnings. Income tax could therefore also explain conservatism in financial reporting.

**Regulatory explanation**

Although the more recent regulations provided by standard setters seem in favor of equal treatment of gains and losses, good and bad news, there still exist many accounting regulations that have conservative aspects. For example, Hellman (2008) distinguishes three areas in the IFRS Framework where conservative principles are incorporated into the framework. These are loss carry-forwards, capitalization and impairment of development costs and the recognition methods for work in progress.

Watts (2003a) goes on to explain that the reason for standard-setters to create conservative accounting regulations might not always be to achieve the highest quality set of accounting rules. Much like companies trying to avoid litigation costs by reporting conservatively, standard-setters may create conservative standards to avoid criticism and other political costs. The idea behind this is that standard-setters rather have companies understating, than overstating their earnings. The last thing they want is that companies are able to overstate earnings for their self-interest while still applying the accounting standard.

In the previous chapter we saw that earnings management occurs to influence the wealth distribution between any two of the following:

* management itself (compensation plans);
* funds providers (contractual outcomes);
* society (political costs).

We can easily see how these relate to the explanations for accounting conservatism as provided by Watts (2003a). We see that the contracting explanation describes earnings management that aims to influence the wealth distribution between management or third parties (depending on the type of contract) and the company itself. Both the litigation explanation and income tax explanation describe earnings management that aims to influence the wealth distribution between the company and society. Finally we have the regulatory explanation which is indirectly related to all of the above, and thus is not simply attributable to a certain type of earnings management.

Now that we have discussed both explanations for accounting conservatism and motivations for earnings management, we can already begin to see how they are in many ways two sides of the same coin. This will be discussed more extensively in the next chapter, but first I will go into the empirical evidence for accounting conservatism.

## 3.4 Empirical evidence

As was discussed in the introduction of this chapter, accounting conservatism is defined by Basu (1997) as incorporating bad news into financial reporting immediately while delaying the incorporation of good news. He suggested that conservatism can therefore be measured due to its effect on the timeliness and persistence of earnings in good news and bad news periods.

He suggests that:

1. Earnings respond more timely to bad news than good news.
2. The concurrent earnings-return association is relatively stronger than the cash flow-return association for bad news periods.
3. Good news is more persistent than bad news.
4. Abnormal returns per dollar of unexpected earnings is smaller for bad news than for good news.

I will now briefly explain why Basu (1997) expected to measure these anomalies before I continue to explain exactly how he measured them.

### What to expect in case of accounting conservatism

**Timelines of earnings with respect to bad and good news**

Once we know that good news requires a higher degree of verification than bad news to be incorporated into financial reporting, we can think of many scenarios where bad news would also be incorporated into earnings timelier. The main idea here is that the information that supports the verification of news, becomes available gradually over time.

**The concurrent earnings-returns association versus the cash flow-returns association**

The idea behind his second prediction is that when news refers to an increased or decreased valuation of assets it has little or no impact on cash flows, but does have an impact on the valuation of the company and consequently on the returns of the company. In a scenario of accounting conservatism bad news will also impact the earnings (as bad news is incorporated into the financial statements immediately), whereas good news will have no impact on the earnings.

Conservative accounting will therefore cause bad news to impact both returns and earnings, but good news will only impact returns. This means that in case of good news the earnings-returns association as well as the cash flows-returns association will decrease. In case of bad news only the cash flow-returns association will decrease.

**Good news is more persistent than bad news**

Basu (1997) expects good news to be more persistent than bad news because bad news, once available is immediately ‘totally’ incorporated into current earnings. Good news, on the other hand, will only gradually be incorporated into earnings. This means that current earnings only reflect a part of the entire good news, whereas current earnings reflect the entirety of the bad news. The earnings in future years will therefore keep reflecting parts of the good news, but not the bad news.

**Abnormal returns per dollar of unexpected earnings is smaller for bad news than for good news**

Whenever there is good or bad news we expect to see some unexpected returns. This is a consequence of the news being incorporated in the valuation of the company. If the news is also incorporated in the earnings (as is the case with bad news), we would see unexpected earnings as well, meaning that the abnormal returns per dollar of unexpected earnings would be small. However, if the news is not incorporated into the earnings (as is the case with good news) we would see little or no unexpected earnings and therefore high abnormal returns per dollar of unexpected earnings. In chapter 6 I will explain how I measure accounting conservatism in my empirical research.

### Research and literature

Now that I have specified what measures we can use to detect accounting conservatism, I will discuss some empirical research into accounting conservatism. Over the past few decades a lot of research has supported the existence of accounting conservatism. Numerous examples of these are summarized by Pae (2007). Watts (2003b) argues that the empirical evidence for the liability and asymmetric information or contracting explanation is strongest. He writes as follows:

*“This evidence leads me to conclude that by the end of the millennium, U.S. firms' accounting earnings are not timely at all in reflecting good news but are timely in reflecting bad news. Because the significant increase in conservatism occurs under the FASB management of standards, it could be at least partially due to standard setting.”*

Hanna (2002) proposed that conservatism is a result of earnings management. Watts (2003b) argues against this because of the nature of earnings management. He says that earnings management implies that investors are being misled by management. The investors would therefore be unaware of the news, and unaware that earnings are not objective with respect to good news and bad news. As a result, good and bad news would also be asymmetrically represented in returns.

Note that most ways of measuring accounting conservatism assume that stock returns are not conservative, and use them as a predictor of good and bad news. These models are unable to detect conservatism if it is present in both earnings and returns. Watts (2003b) thus uses a very narrow explanation of earnings management, in which it is explained as an attempt to mislead users of financial statements, rendering them unable to detect good and bad news independent of financial reporting.

More recent research by García Lara et al. (2005) and Pae (2007) do indicate that there is a connection between conservatism and ‘exercised management discretion over financial reporting’. [[2]](#footnote-2)The research of García Lara et al. (2005) followed García Lara and Mora (2004). In their 2004 research they pointed out that the expected effect of differences in accounting regulations of common- and code-law countries on accounting conservatism has not been found in various comparative studies. Common law countries (UK) have more conservative regulations as is pointed out by Ball et al. (2000).

One would expect that the financial reporting in code law countries (France and Germany) would therefore be less conservative than in its common law counterparts. However, based on empirical research, García Lara et al. (2005) concluded that financial reporting is not significantly more conservative in the UK than it is in Germany and France.

The research of García Lara et al. (2005) provides an explanation for the same level of conservatism in both types of countries. They argue that the absence of a clear difference between common and code law countries is a result of earnings management in code law countries. In countries with less conservative regulations, management is using its discretion over financial reporting to make earnings more conservative. This is supported by an analysis of the reported earnings corrected for discretionary accruals as performed by García Lara et al. (2005). It turned out that after correcting for discretionary accruals the earnings of code law countries was significantly less conservative. It appears that management of companies in European code law countries has an incentive to report more conservatively.

As mentioned earlier, earnings management is measured by calculating the expected levels of accruals, and comparing them to reported accruals. Any unexpected reported accruals are considered to be a result of earnings management. Pae (2007) has found that conditional accounting conservatism is mainly a result of unexpected accruals instead of expected accruals. This means that the accounting conservatism is a result of the way management has used its discretion over financial reporting. This is consistent with the findings of García Lara et al. (2005) that is discussed above.

## 3.5 Summary

We saw that accounting conservatism can be divided into conditional (news dependent) and unconditional (news independent) conservatism. In the context of accrual earnings management, conditional conservatism is of interest to us. We see that there are several explanations for accounting conservatism. The main idea here is that forcing management to use conservative accounting practices will reduce the information asymmetry between them and the users of financial statements (including debt contracts that contain stipulations about accounting measures).

Furthermore I discussed how the asymmetric timeliness of earnings can be defined and measured by using stock returns as a proxy for good and bad news periods. A lot of empirical evidence supports the claim that accounting earnings are conservative. Also, there is evidence that the conservativeness of earnings is caused by discretionary accruals. In the next chapter I elaborate on the link between accrual earnings management and accounting conservatism.

# Earnings management & accounting conservatism

## 4.1 Introduction

In this chapter I discuss the link between earnings management and accounting conservatism. First I discuss research into this topic by García Lara et al. (2005) and Pae (2007). After that I explain how discretionary accruals seem to play an important role in both earnings management and accounting conservatism. Finally I argue that some precaution should be taken when talking about management discretion, since it can be ‘transferred’ to third parties such as debt providers.

## 4.2 Discretionary accruals

For both earnings management and accounting conservatism, the discretion management has over financial accounting plays an important role.

In the context of earnings management ‘discretion over financial reporting’ is the room management has to influence financial statements whilst still following the accounting standards and contracts. The use of this discretion classifies as earnings management when management tries to influence wealth distributions or deceive users of the statements, depending on which definition of earnings management is used. For accounting conservatism the importance of management discretion measured as discretionary accruals has only played a role since the research by Pae (2007) and García Lara et al. (2005).

García Lara et al. (2005) examined the relation between earnings management and conditional accounting conservatism in Germany, France and the UK in the period from 1990 to 2000. They state that accounting regulations in common law countries (UK) are generally more conservative than regulations in code law countries (Germany, France). However, various studies comparing code and common law countries did not find the difference in accounting conservatism that one would expect.

García Lara et al. (2005) argue that the relatively high level of conservatism in code law countries may be explained by earnings management. That is, it might be that managers in code law countries use their discretion over financial reporting to increase the level of conditional conservatism in earnings. To test this, they started off by measuring the level of discretionary accruals using the Jones model. After that, they calculated the level of non-discretionary earnings by deducting the discretionary accruals from earnings. Finally for both reported and non-discretionary earnings the level of conservatism was measured using the Basu measure.

García Lara et al. (2005) found that the non-discretionary accruals where in fact less conservative than reported earnings. They conclude that in Germany and France accounting conservatism is mainly a result of earnings management. This means that we see conservatism that is not imposed on management but it is self-imposed.

This research approach is followed by Pae (2007) as well. He uses a sample of approximately 62.000 firm-year observations (the level slightly differs among the various tests). He does not specify what countries the firms in the sample come from. He too determines the level of earnings management using discretionary accrual models (among others the Jones and Modified Jones Model), after which he compares the level of accounting conservatism calculated following Basu (1991). Like García Lara et al (2005), Pae (2007) finds that conservatism is mainly a result of discretionary accruals.

The contracting and regulatory explanations for accounting conservatism refer to the moral hazard problem of management managing earnings in order to impact wealth distributions between them and society, shareholders or contractual third parties. In these cases, external parties require management to report conservatively to limit their discretion over financial reporting and reduce the moral hazard problem. This form of accounting conservatism is imposed on management, and cannot be used to explain the findings of García Lara et al. (2005).

On the other hand we see the litigation and income tax explanations, in which management itself has an incentive to report conservatively, and by doing so try to impact the wealth distribution between the company and society. Notice that in these cases the discretion of management over financial reporting is not limited by accounting conservatism, but management uses its discretion to report conservatively. These explanations are compatible with the findings of García Lara et al. (2005).

## 4.3 Self-imposed and externally imposed conservatism

We thus see that on the one hand, there is externally imposed accounting conservatism which can be a counter measure for earnings management. It attempts to limit managements’ discretion over financial reporting, and thereby reducing the possibilities it has to use its discretion to impact wealth distributions. On the other hand we see self-imposed accounting conservatism, in which case management actively tries to impact wealth distributions (in their favor) by using its discretion over financial reporting to report more conservatively.

Although this separation of externally imposed versus self-imposed conservatism seems quite straightforward, the contracting explanation raises an important question. Is conservatism imposed on management by contracts truly externally imposed conservatism? In other words, if management chooses to enter into a contract that dictates how they should use their discretion over financial reporting, is it still *their* discretion?

**Interpretation 1**

If management’s discretion over financial reporting includes the (accounting) stipulations in contracts that management entered into, then the contracting explanation describes self-imposed conservatism resulting from earnings management as defined by Stolowy and Breton (2004).

**Interpretation 2**

However, if management’s discretion over financial reporting does not include contractual obligations to report conservatively, then the contracting explanation describes externally imposed conservatism that is not a result of earnings management as defined by Stolowy and Breton (2004).

It might not seem very important to make this distinction, but if the second interpretation is followed, then accounting conservatism resulting from earnings management, as found by Pae (2007) and García Lara et al. (2005) cannot be explained by the contracting explanation. It must then be explained by Watts’ (2003) litigation or tax explanation.

Another important question is whether the effect of the stipulations would show up as discretionary accruals in empirical research. That would depend on the model that is used to measure discretionary accruals, and whether the contract stipulations on accounting practices are consistent across firms and time. Generally speaking we can say that we expect contract stipulations to be consistent over time, which means that the effect of such contracts would not show up as discretionary accruals when a time-series model is used. If, however, a cross-sectional model is used (which is more likely) then the effect of contracts could show up as discretionary accruals when they are not consistent across firms. Alternatively, it could be that Pae (2007) and García Lara (2005) measured how contract stipulations, rather than earnings management, impact the level of conservatism in earnings. It is beyond the scope of this thesis to go into the details of individual firms contracts, but it is important to keep this in mind when looking at discretionary accruals and motives for earnings management.

## 4.4 IFRS, Management discretion and accounting conservatism

Since the research by García Lara et al. (2005) IFRS has been introduced. Because the introduction of IFRS happens during the period researched in this thesis, it is important to note how this may impact the level of conservatism. Hellman (2008) looked at the way conservatism is conceptually treated under IFRS, and how the implementation can work out in practice. He states that the IASB does not recognize accounting conservatism and prudence as desirable qualities of financial reports.

Hellman (2008) analyses the standards issued by the IASB on loss carryforwards, development costs and construction contracts (IAS 12, IAS 38 and IAS 11). He finds that the IASB assumes that companies can report their predictions about the future in a neutral way (not being overly optimistic or pessimistic). Based on this assumption, IFRSs leave room for companies to use their own judgment, increasing the discretion management has over financial reporting.

Hellman (2008) states that companies are likely to use this freedom to create the level of conservatism they prefer, rather than report their predictions in a neutral way. This is consistent with prior earnings management literature, which says that management will engage in various forms of earnings management, whether or not they are able to (or aim to) influence the decisions of financial statement users. Of course, this prediction is also consistent with the findings of García Lara et al. (2005).

Given that accounting conservatism is a result of discretionary accruals and that IFRSs give management considerable discretion over earnings management, it is to be expected that the conservatism level will not change as a result of the introduction of IFRS.

## 4.5 Summary

We saw that there is evidence that management uses discretionary accruals to create conditional conservatism. This means that the observed conservatism of earnings is a result of earnings management. This observation is consistent with self-imposed conservatism, which can be explained by the litigation and income tax explanations. I argue that whether contracting can explain the results of cross-sectional discretionary accrual models, depends on whether the contract stipulations are consistent across firms.

Furthermore we saw that because IFRS provides managers with additional discretion over financial reporting, is not likely to prevent accounting conservatism as a result of discretionary accruals.

In the following chapters I will discuss my empirical research into the relation between the earnings management measured by the Kothari et al. (2005) model and the conservatism level in earnings. Especially if we can still conclude that the earnings management measured is causing conservatism, the questions above are worth answering.

# Hypothesis and expectations

I suggest that by examining the way earnings management affects accounting conservatism we can learn more about the causes of both phenomena. As discussed in the previous chapter, García Lara et al. (2005) and Pae (2007) concluded that conditional accounting conservatism appears to be connected to the way a firm’s management uses its discretion over financial reporting. García Lara et al. (2005) found that for German and French firms between 1990 and 2000 the level of conservatism in non-discretionary earnings is considerably lower than the conservatism level in reported earnings.

In this thesis I examine German and French firms in the period 2000-2004 (before IFRS) and in the period 2005-2009 (after the introduction of IFRS). I test whether conditional accounting conservatism is introduced in reported earnings through the use of management discretion over financial reporting. Although these countries have been researched before, I add to the existing literature by using an improved model for earnings management measurement, a more recent sample period and under a new set of GAAP (IFRS) in both countries. To do so I formulate the following two hypotheses:

## 5.1 Hypothesis 1

García Lara et al. (2005) and Pae (2007) both found that management used its discretion over financial reporting to form discretionary (unexpected) accruals. By doing so management changed the earnings-returns relationship. Based on these findings I formulate my first hypothesis:

H1: The earnings returns relation of non-discretionary earnings differs from the earnings-returns relation of reported earnings.

The first hypothesis states that there will be measureable earnings management in the examined period. Measureable earnings management is a prerequisite for hypothesis 2 which evaluates the way the earnings management influences conservatism in earnings.

## 5.2 Hypothesis 2

Both García Lara et al (2005) and Pae (2007) found that conditional accounting conservatism was mainly due to discretionary accruals. Put differently, the level of accounting conservatism in reported earnings was significantly higher than it was for non-discretionary earnings. Based on these findings I formulate my second hypothesis:

H2: The conservatism level of non-discretionary earnings is lower than the conservatism level of reported earnings.

Hypothesis two says that accounting conservatism measured using the Basu measure is lower for the earnings calculated using the Jones model with Kothari’s (2005) return on assets variable, than it is for the reported earnings.

## 5.3 Expectations

I expect that there will be discretionary accruals which influence the earnings characteristics. Prior research shows that management will use accrual manipulation to manage earnings in various circumstances.

García Lara et al. (2005) provide evidence that German and French firms use accrual earnings management to make their earnings more conservative. I expect that the introduction of IFRS has not changed this behavior.

In the next chapter I will discuss the exact research design I use to test these hypotheses.

# Research design

The research design is derived from the research by Garcia Lara et al. (2005). The main objective of this research will be to compare the level of conservatism in the reported earnings and in the non-discretionary earnings. Compared to García Lara et al. (2005) I will use a more recent sample, and an improved model for finding discretionary accruals. Garcia Lara et al. (2005) used a sample of German and French firms from the observation years from 1990 to 2000. I will use a sample from the same countries from the observation years from 2000 to 2009. Instead of the standard Jones Model I add lagged return on assets to the regression to cope with the effect of performance on accruals, as was suggested by Kothari et al. (2005). The model used to measure accounting conservatism is the model proposed by Basu (1991).

## 6.1 Measuring discretionary accruals

Recall that the Jones Model tries to identify discretionary accruals by regressing total accruals on a number of independent variables. Using the beta’s resulting from this regression, the expected accruals can be found for each firm-year observation. Kothari et al. (2005) point out that the power and specification of the Jones Model can be increased by grouping similar firms, which mitigates non-linearity in the relation between the accruals and the independent variables in the regression.

However, they state that by matching firms with similar performance, the danger exists that the cross-sectional regression model is used on a small group of firms with very similar incentives for managing accruals. If the group of firms does indeed manage accruals in a similar way, then earnings management would be hard if not impossible to detect due to the nature of the cross sectional model. Kothari et al. (2005) go on to explain that this should not be a problem for most research, because typically a researcher analyses earnings management of a specific firm in situations where it has *individual* incentives for managing accruals that are unique to that firms situation, such as an equity offering. For my research, this is not the case, as I pay no special attention to individual firms nor do I exclusively try to identify earnings management that stems from firm-specific incentives. I have therefore included only the return on assets as a measure for performance, but did not match firms based on performance. Kothari et al. (2005) say that misspecification issues are thereby “attenuated, but not eliminated”.

I will now discuss the process of estimating non-discretionary accruals and, more importantly, earnings without discretionary accruals.

**Step 1) Calculating reported accruals.**

For each firm-year observation the total reported accruals are calculated using the following formula provided by Kothari et al. (2005):

Where:

= Total Accruals

= Change in current assets

= Change in current liabilities

= Cash flow from operations

= Change in debt included in current liabilities during period

= Depreciation and Amortization.

= Total assets at year-end in the previous period

**Step 2) Regression analysis (Accruals)**

Using the linear regression from the Jones Model (1991) and the added returns on assets, suggested by Kothari et al. (2005) we come to the regression below. It is used to find the relationship between total accruals and the respective independent variables. As Jones (1991) stated a positive relation between change in revenue and total accruals is to be expected because revenues drive operating accruals such as inventories and bad debt expense. Property plant and equipment is expected to correlate negatively with accruals as it is a proxy for depreciation expenses. Return on assets will mitigate any impact that performance has on the above mentioned relationships. The regression is performed for each year and per country.

Where

= Total Accruals

= Total Assets for the previous period  
 = change in total revenue  
 = Gross property plant and equipment  
 = Discretionary accruals  
= Return on assets for the previous period

**Step 3) Calculate estimated earnings**

After obtaining the betas from the regression above, I use them to calculate the estimated non-discretionary earnings. To do this, I start with calculating the level of *discretionary accruals* using the following formulas, provided by Garcia Lara et al. (2005):

Where:

= non-discretionary accruals;

= total Assets in the previous period;

= change in total revenue;

= discretionary accruals;

β’1, β’2, β’3 = industry parameters estimated using regression;

= property plant and Equipment;

When we know the level of discretionary *accruals*, we need to calculate the level of non-discretionary *earnings*, which we need for the Basu model (see 6.2). This is done using the following formula:

Where:

= earnings before extraordinary items;

= earnings before extraordinary items per share;

= discretionary accruals per share multiplied by lagged total assets;

= stock price at year-end for the previous period

## 6.2 Measuring conservatism

Now that I know the reported earnings and the non-discretionary earnings, I can compare the level of conservatism in the two earnings measures. As stated in the introduction of this chapter I will use the Basu measure to compare the conservatism level of the two earnings metrics.

In 2005 IFRS was introduced. Because this may have an effect on the results, I perform the regressions used for measuring conservatism per country and separately for the firm-year observations in the period from 2000 to 2004 and in the period from 2005 to 2009.

Recall the definition of conditional accounting conservatism: a situation where good news requires a higher degree of verification before it is incorporated in the financial statements than bad news. As Basu (1991) pointed out, we would therefore expect that the reaction of earnings to bad news is stronger than the reaction of earnings to good news. If we define good and bad news periods as periods with positive and negative returns respectively, we can test the assumption using the following regression.

Where:

Xt: Earnings per share before extraordinary items deflated by shareprice.  
Rt: Rate of return calculated as  
Dt: This dummy variable is 0 when Rt > 0, else it is 1

Note that the regression formula can thus take two forms:

Good news periods:

Bad news periods:

This means that using this single regression formula, both good news and bad news periods have their own slope and intercept.

|  |  |  |
| --- | --- | --- |
|  | Intercept | Slope |
| Good news |  |  |
| Bad news |  |  |

When the Basu regression has been performed on both non-discretionary and reported earnings, I test whether the differences between the regression coefficients is significant. To test this I follow García Lara et al. (2005) and use the following formula to calculate the Z-score of the differences.

Where:

= resulting from the regression on reported earnings;

= resulting from the regression on non-discretionary earnings;

= standard error of resulting from the regression on reported earnings;

= standard error of resulting from the regression on non-discretionary earnings;

The Basu measure is defined as the number of times earnings are more responsive to bad news than to good news. It can thus be calculated as:

As Garcia Lara et al. [2005] point out, this is a model that has been used in quite some studies and is widely considered as a sound measure for accounting conservatism.

## 6.3 Sample

I will use a sample of all available ‘industrial firms’ (general industry classification) in Germany and France in the observation years 2000 to 2009. I will exclude the following companies, using Garcia Lara (2005) as a basis for the sample:

* Companies with accounting periods with less than 350 or more than 380 days.
* I exclude the first and last percentile of all variables used in the regression.

The total sample contains 3.087 German and 3.131 French firm-year observations. Descriptive statistics per country per year can be found in Appendix 2.

All data needed for this research is available from the Thomson One Banker database. In case of missing data, I can exclude individual firm-year observations because I use a cross-sectional model rather than a time-series model.

For the interested reader, below is a table of the Thomson One Banker variables used.

|  |  |  |
| --- | --- | --- |
| **Description** | **Thomson One Banker Variable** |  |
| Current Assets | TF.TotalCurrentAssets |  |
| Current Liabilities | TF.TotalCurrentLiabilities |  |
| Cashflow from operating activities | TF.NetCashFlowOperatingCFStmt |  |
| Change in debt included in current liabilities during period | TF.STDebtAndCurPortLTDebt |  |
| Depreciation and amortization | TF.DepreciationDeplAmortExpense |  |
| Total Assets | TF.TotalAssets |  |
| Sales | TF.Sales |  |
| Total of Property Plant and Equipment (net) | TF.TotalPropPlantEquipNet |  |
| Return on Assets | TF.ReturnOnAssets |  |
| Earnings before interest and taxes | TF.EarningsBeforeInterestAndTaxes |  |
| Total investment return | TF.TotalInvestmentReturn |  |
| Year-end Market Capitalization | TF.YrEndMarketCap |  |

# Results

In this chapter I will discuss the results of the regressions I performed in order to test my hypothesis. The chapter is divided into two sections, the first one covers the results of the Jones model with Returns on Assets as suggested by Kothari et al. (2005), and the second one covers the results of the Basu model. I will elaborate on the significance of the tests performed, both of the regression and of the individual beta’s. Also for each test the descriptive statistics of the used data is provided. The analysis of the results will be discussed in the next chapter.

## 7.1 Results earnings management model

Below the results of the tests of the Jones Model with performance measure are presented.   
The 0-3 refer to the betas in the regression formula that is used to estimate the accruals:

As mentioned in chapter 6 this regression has been performed for each year and per country. Below I show the resulting betas. For ease of use I have highlighted the betas that were not significant on a 5% level using red text color. The descriptive statistics for each year and per country can be found in appendix 2. The total of sample contains 3.087 German 3.131 French firm-year observations.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Germany | |  |  |  |  | | 2000 | betas | -.662 | -.018 | -.413 | -.002 | |  | *Significance* | *.211* | *.463* | *.000* | *.372* | | 2001 | betas | -1.798 | -.166 | -.330 | .001 | |  | *Significance* | *.000* | *.000* | *.000* | *.279* | | 2002 | betas | -.864 | -.156 | -.434 | -.001 | |  | *Significance* | *.004* | *.000* | *.000* | *.396* | | 2003 | betas | -.037 | -.127 | -.373 | -.002 | |  | *Significance* | *.803* | *.001* | *.000* | *.009* | | 2004 | betas | -.394 | -.150 | -.325 | -.003 | |  | *Significance* | *.043* | *.000* | *.000* | *.040* | | 2005 | betas | -.473 | -.095 | -.294 | -.005 | |  | *Significance* | *.046* | *.005* | *.000* | *.001* | | 2006 | betas | -.559 | -.205 | -.196 | -.003 | |  | *Significance* | *.018* | *.000* | *.000* | *.008* | | 2007 | Beta | -.567 | -.017 | -.349 | -.003 | |  | *Significance* | *.046* | *.232* | *.000* | *.007* | | 2008 | betas | -.681 | -.215 | -.266 | -.004 | |  | *Significance* | *.000* | *.000* | *.000* | *.000* | | 2009 | betas | -.351 | -.094 | -.317 | -.004 | |  | *Significance* | .025 | .000 | .000 | .000 | |

Table 1. Betas resulting from discretionary accrual model in German sample.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| FRANCE |  |  |  |  |  |
| 2000 | betas | -2.383 | -.156 | -.287 | -.005 |
|  | *significance* | *.000* | *.000* | *.000* | *.045* |
| 2001 | betas | -.770 | -.122 | -.346 | -.005 |
|  | *significance* | *.083* | *.000* | *.000* | *.013* |
| 2002 | betas | -1.190 | -.170 | -.405 | -.003 |
|  | *significance* | *.000* | *.000* | *.000* | *.029* |
| 2003 | betas | -.890 | -.187 | -.346 | -.002 |
|  | *significance* | *.000* | *.000* | *.000* | *.173* |
| 2004 | betas | -.996 | -.199 | -.388 | .000 |
|  | *significance* | *.000* | *.000* | *.000* | *.762* |
| 2005 | betas | -.552 | -.162 | -.406 | -.003 |
|  | *significance* | *.000* | *.000* | *.000* | *.068* |
| 2006 | betas | -.797 | -.289 | -.201 | -.006 |
|  | *significance* | *.000* | *.000* | *.000* | *.000* |
| 2007 | betas | -.314 | -.223 | -.232 | -.006 |
|  | *significance* | *.039* | *.000* | *.000* | *.000* |
| 2008 | betas | -1.451 | -.300 | -.067 | -.007 |
|  | *significance* | *.000* | *.000* | *.000* | *.000* |
| 2009 | betas | -.829 | -.111 | -.240 | -.006 |
|  | *significance* | *.000* | *.006* | *.000* | *.000* |

Table 2. Betas resulting from discretionary accrual model in French sample.

**The relation between PPE and accruals ()**

(coefficient of PPE) seems to be consistently negative and significant. This is to be expected, because when a firm has a relatively high amount of property, plant and equipment then depreciation costs are probably high, which has a negative impact on accruals. This goes for both countries and for all 10 years.

**The relation between change in sales and accruals ()**

Beta (coefficient of Change in Sales) is also significant and negative for all years. Jones (1991) already pointed out that the sign of is more ambiguous than that of . Although she originally expected a positive coefficient, she explains that an increase in sales influences both accrual increasing accounts, and accrual decreasing accounts (for example accounts payable and receivable).

**The relation between the Return on Assets and accruals (**

In both France and Germany we see three out of ten years where is not significant on a 5% level. In all years where was significant, it has a negative sign. This means that for those years, high performance firms had relatively lower accruals.

## 7.2 Basu conservatism

The results of the Basu Model are presented below. For both Germany and France I present the descriptive statistics of the data for both the period 2000-2004 and 2005-2009. As I explained in chapter 6, the regression for the Basu model is performed for both countries and separately for the firm-year observations between 2000-2004 and 2005-2009. For each of these periods, the regression is done twice: once for the reported earnings (deflated by market capitalization) and once for the non-discretionary earnings (deflated by market capitalization).

Recall the regression formula to find conservatism:

(see chapter 6.2 for elaboration).

In the descriptive statistics below reported earnings are denoted by X\_reported, and the estimated earnings without discretionary accruals are denoted by X\_expected.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Germany 2000-2004** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| X\_expected | 1365 | -326.3557742 | 145.6438908 | 8.680160631 | 47.6265451992 |
| X\_reported | 1365 | -34.7746600 | 85.9238586 | 11.213358894 | 17.5268992761 |
| R | 1365 | -92.0376700 | 174.6603000 | 1.041712117 | 48.3843382628 |
| D | 1365 | .0000000 | 1.0000000 | .525274725 | .4995437963 |
| D\*R | 1365 | -92.0376700 | .0000000 | -17.775950842 | 25.1428521725 |
| Valid N (listwise) | 1365 |  |  |  |  |

Table 3. descriptive statistics for the sample of German firm-years between 2000 and 2004

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Germany 2005-2009** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| X\_expected | 1717 | -324.5258835 | 148.0605642 | 10.953055379 | 42.2359833644 |
| X\_reported | 1717 | -34.7119220 | 83.5162211 | 9.657559560 | 13.9939623121 |
| R | 1717 | -87.0229000 | 172.7272700 | 8.327385545 | 45.5520233788 |
| D | 1717 | .0000000 | 1.0000000 | .441467676 | .4967068131 |
| D\*R | 1717 | -87.0229000 | .0000000 | -13.235911182 | 20.7049043353 |
| Valid N (listwise) | 1717 |  |  |  |  |

Table 4. descriptive statistics for the sample of German firm-years between 2005 and 2009

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **France 2000-2004** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| X\_expected | 1361 | -95.9261709 | 216.1526546 | 18.505454595 | 38.4840553160 |
| X\_reported | 1361 | -45.9065672 | 82.3724783 | 11.839383454 | 16.0728066626 |
| R | 1361 | -86.7848100 | 473.8636400 | 9.977746672 | 56.5136056573 |
| D | 1361 | .0000000 | 1.0000000 | .458486407 | .4984567965 |
| D\*R | 1361 | -86.7848100 | .0000000 | -13.391363446 | 21.0985621825 |
| Valid N (listwise) | 1361 |  |  |  |  |
| Table 5. descriptive statistics for the sample of French firm-years between 2000 and 2004  **France 2005-2009** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| X\_expected | 1770 | -94.8622116 | 208.3874242 | 16.505697068 | 33.6284175574 |
| X\_reported | 1770 | -47.1090782 | 99.5755464 | 9.628156599 | 13.5623980040 |
| R | 1770 | -87.0967700 | 432.8719700 | 6.739153780 | 50.9848234934 |
| D | 1770 | .0000000 | 1.0000000 | .461016949 | .4986188780 |
| D\*R | 1770 | -87.0967700 | .0000000 | -14.994111367 | 22.0779919900 |
| Valid N (listwise) | 1770 |  |  |  |  |

Table 6. descriptive statistics for the sample of French firm-years between 2005 and 2009

We can see that for both countries and both periods the non-discretionary earnings have a lower minimum, a higher maximum and a higher standard deviation than reported earnings. This is in line with what we would expect to see in a situation of management trying to smooth earnings.

The regressions produced the following betas and their respective significance. The results for Germany are on the left side, and the results from France are on the right side. The results for the calculated non-discretionary earnings (reported earnings minus discretionary accruals) are labeled with ‘non-discr. earnings’ whereas the results for the reported earnings are labeled with ‘ reported earnings’. The betas that were not significant on a 5% level have been highlighted red for clarity.

**Germany France**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Germany reported earnings 2000-2004 | | | | | |  | | France reported earnings 2000-2004 | | | | |
|  |  | |  |  |  | |  |  |  |  |  |  |
| **betas** | 15.964 | | -1.504 | .041 | .225 | |  | **betas** | 16.225 | -2.684 | .021 | .251 |
| **significance** | .000 | | .256 | .015 | .000 | |  | **significance** | .000 | .021 | .026 | .000 |
| Germany non-discr. earnings 2000-2004 | | | | | | | | France non-discr. earnings 2000-2004 | | | | |
|  | |  |  |  |  | |  |  |  |  |  |  |
| **betas** | | 13.510 | -8.783 | .030 | .014 | |  | **betas** | 22.279 | -9.971 | .070 | -.008 |
| **significance** | | .000 | .028 | .553 | .870 | |  | **significance** | .000 | .001 | .005 | .916 |
| Germany reported earnings 2005-2009 | | | | | | |  | France reported earnings 2005-2009 | | | | |
|  | |  |  |  |  | |  |  |  |  |  |  |
| **Betas** | | 10.849 | -2.278 | .069 | .058 | |  | **betas** | 10.975 | -1.776 | .059 | .062 |
| **significance** | | .000 | .026 | .000 | .021 | |  | **significance** | .000 | .067 | .000 | .006 |
| Germany non-discr. earnings 2005-2009 | | | | | | | | France non-discr. earnings 2005-2009 | | | | |
|  | |  |  |  |  | |  |  |  |  |  |  |
| **Betas** | | 8.637 | -.779 | .160 | -.100 | |  | **betas** | 14.045 | -2.774 | .170 | -.173 |
| **significance** | | .000 | .812 | .000 | .210 | |  | **significance** | .000 | .268 | .000 | .003 |

Table 7. Beta’s resulting from the Basu model in Germany and France, for both periods and on both reported and non-discretionary earnings.

By looking only at , we can see that it has positive and significant values for all four tests on reported earnings. We can therefore conclude that there must be some level of conservatism, since the earnings correlate more strongly with returns in bad news periods.

When we compare the of the reported (discretionary) earnings to the of the non-discretionary earnings, we see that the latter is not significant on a 5% level in three out of four data sets. When we look at the of France in the period 2005-2009 we see it is significant, but it is almost equal to the with a negative sign. As explained in chapter 6, we can calculate the slope of the regression line for bad news periods by adding and . That leads us to conclude that for this timeframe and country there was no relation between non-discretionary earnings and negative returns.

When we look at we see that although it is significant for all reported (discretionary) earnings, the coefficient is quite small. To some extend this was to be expected because of the rather high standard deviation of returns compared to earnings (see table 3-6). When we look at the of the tests on non-discretionary earnings, we see that for German firms between 2000 and 2004 there is no significant relation between returns and earnings.

## 7.3 Hypotheses

The results discussed above lead to several conclusions about the hypotheses and the general topics addressed in this thesis. I will first explain how the results of the several tests relate to the hypotheses:

H1: The earnings-returns relation of non-discretionary earnings differs significantly from the earnings-returns relation of reported earnings.

H2: The conservatism level of non-discretionary earnings is lower than the conservatism level of reported earnings.

### Hypothesis 1

My first hypothesis states that the earnings-returns relation of reported earnings differs significantly from the earnings-return relation of non-discretionary earnings. Recall that I use the following formula to test this:

The results of the significance tests can be found in the table below. Z-scores that do not meet my significance level of 5% are highlighted red:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| France 2000-2004 | Reported earnings |  | Non-discretionary earnings | |  |
| beta | std error | beta | std error | Z-score |
|  | .021 | .010 | .070 | .025 | 1.805 |
|  | .251 | .027 | -.008 | .071 | 3.385 |
|  |  |  |  |  |  |
| France 2005-2009 | Reported earnings |  | Non-discretionary earnings | |  |
| beta | std error | beta | std error | Z-score |
|  | .059 | .009 | .170 | .024 | 4.303 |
|  | .062 | .022 | -.173 | .057 | 3.813 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Germany 2000-2004 | Reported earnings |  | Non-discretionary earnings | |  |
| beta | std error | beta | std error | Z-score |
|  | .041 | .017 | .030 | .050 | 0.203 |
|  | .225 | .028 | .014 | .085 | 2.351 |
|  |  |  |  |  |  |
| Germany 2005-2009 | Reported earnings |  | Non-discretionary earnings | |  |
| beta | std error | beta | std error | Z-score |
|  | .069 | .012 | .160 | .038 | 2.294 |
|  | .058 | .025 | -.100 | .080 | 1.885 |

Table 8. Basu coefficient difference significance.

We can see that all differences between the regression coefficients for reported earnings and the regression coefficients for non-discretionary earnings are significant, except for for Germany in the sample from 2000 to 2004. However, in this year the difference in the earnings-returns relations for negative news () is significant. This means that hypothesis is proven to be true.

### Hypothesis 2

I proved that the regression results of non-discretionary earnings differ significantly from those of reported earnings. Hypothesis two says that accounting conservatism measured using the Basu measure is lower for the non-discretionary earnings than it is for the reported earnings. To evaluate whether hypothesis two is true, I calculate the Basu measures for the various regressions.

Recall that the Basu regression has a separate slope for good and bad news periods:

Good news:

Bad news:

The Basu measure is defined as the number of times earnings is more responsive to bad news compared to good news. The formula for calculating this measure is thus as follows:

In the formulas below I have highlighted betas that were not significant on a 5% level using red text.

**Germany 2000-2004**

Reported earnings:

Non-discretionary earnings:

As we see in table 8, the difference in betas between non-discretionary earnings and the reported earnings is not significant for but it was significant for . For German firm-year observations in the period from 2000 to 2004, no significant relation between returns and non-discretionary earnings could be found. We can therefore say that the (increased) asymmetric sensitivity of reported earnings to returns is a result of discretionary accruals.

**Germany 2005-2009**

Reported earnings:

Non-discretionary earnings:

For non-discretionary earnings of German firms between 2005 and 2009 was not significant, but was significant and positive. Furthermore we see in table 8 that the differences between the coefficients of reported and non-discretionary earnings are significant. We can therefore conclude that discretionary accruals where responsible for reported earnings’ increased sensitivity to bad news compared good news.

**France 2000-2004**

Reported earnings

Non-discretionary earnings:

For non-discretionary earnings of French firms between 2000 and 2004 was not significant, but was significant and positive. Furthermore we see in table 8 that the differences between the coefficients of reported and non-discretionary earnings are significant. We can therefore conclude that discretionary accruals where responsible for earnings’ increased sensitivity to bad news compared good news.

**France 2005-2009**

Reported earnings:

Non-discretionary earnings:

For the period of 2005 to 2009 we saw a of .170 and a of -.173. This means that the non-discretionary-earnings were positively correlated with returns, but negative earnings show no clear relation (a slope of -.003) to returns. We can therefore conclude that the asymmetric sensitivity of reported earnings to returns is a result of discretionary accruals.

Summarizing the observations above, we see that for all 4 tests the reported earnings were conservative. For 2 out of 4 tests, accounting conservatism was not present in the non-discretionary earnings, while the positive correlation between earnings and returns remained intact. In one case the correlation between earnings and returns was not present in non-discretionary earnings, and in one case the relation between positive returns and earnings remained intact, whereas the relation between negative returns and earnings disappeared. In both periods for both countries conservatism was completely due to discretionary accruals, or was increased by discretionary accruals.

We also see that the level of conservatism in the period of 2000-2004 (6.5 and 13) is considerably higher than the levels in the period of 2005-2009 (2.1 and 1.8). This indicates that conservatism levels in Germany and France dropped after the introduction of IFRS. This is not consistent with the paper by Hellman (2008) who argued that under IFRS companies are unlikely to report less conservative than under previous (German and French) GAAP.

# Analysis

## 8.1 Introduction

In this chapter I will compare the results I found to prior research. First I will discuss the results of García Lara et al. (2005), whose research model is comparable to mine. After that I discuss the findings of Pae (2007), whose research differs from mine in a number of ways. After this I will summarize the important differences between my results and prior research, and discuss what might explain these differences.

## 8.2 Prior research

**Comparison to García Lara et al. (2005)**

In the introduction I explain that the tests performed in this thesis are inspired by research of Garcia Lara et al. (2005). Although there are some differences between their results and the ones found here, the general picture remains the same. A summary of their most important results can be found in the table below:

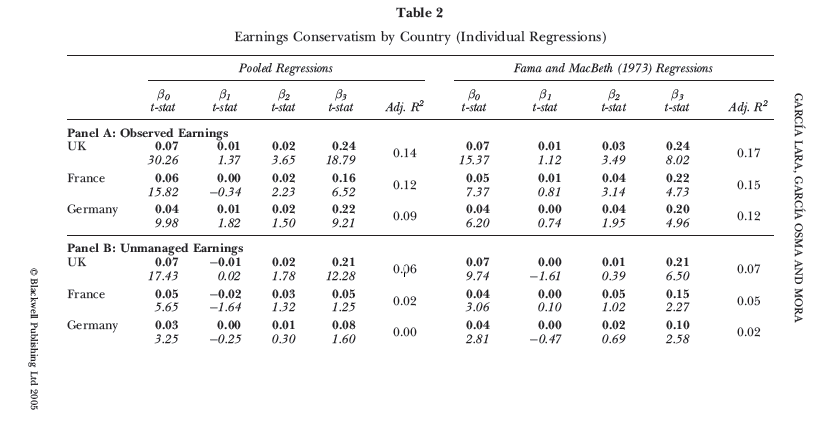


Table 8. Results Basu model from the study by García Lara et al. (2005).

The above table leads to the following Basu measures:

**France**

Reported earnings

Non-discretionary earnings

**Germany**

Reported earnings:

Non-discretionary earnings:

As discussed in the previous chapter, the conclusion that earnings conservatism is lower for non-discretionary earnings is supported by the tests performed in this thesis. The results of reported earnings as found by García Lara et al. (2005) are similar to my results in the period from 2000 to 2004. We see similar levels of conservatism in reported earnings, and the individual betas have the same sign and similar values. An important difference is that the conservatism level of the non-discretionary earnings in Germany is lower than that of reported earnings, but still quite high in results of García Lara et al. (2005). This means that either non-discretionary accruals or cash flows have a conservative relation to returns.

As stated in the previous chapter, we see a very different picture for the period of 2005-2009. After the introduction of IFRSs, the level of conservatism seems to have dropped considerably. It is to be expected that this observation is not visible in the results of García Lara et al. (2005) as they did not study a timeframe in which IFRSs were introduced.

**Comparison to Pae (2007)**

Although the research of Pae (2007) was into the same topic as this research, the methodological approach was slightly different. Like García Lara et al. (2005), I compare the level of conservatism in reported earnings and the level of conservatism in non-discretionary earnings. Instead, Pae (2007) looks at whether the discretionary accruals (amongst other earnings components) correlate to returns in a conservative way. The following table shows his results:

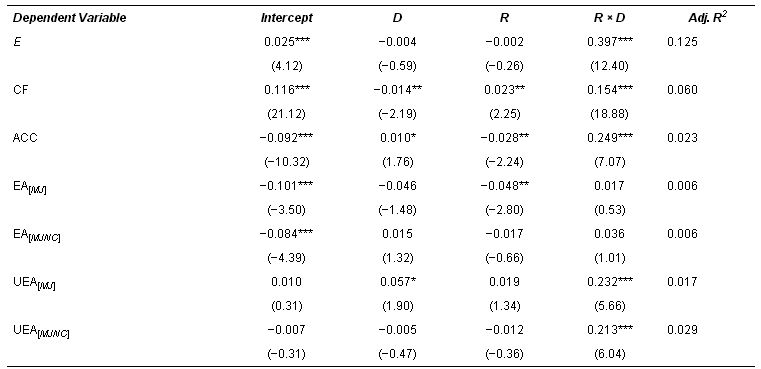


Table 10. Results of Basu model from the study by Pae (2007).

The and for reported earnings can be found in the top row of the table under ‘R’ and ‘R\*D’ respectively. We see that these findings are similar to those of García Lara et al. (2005) and mine in that earnings show very low and not-significant correlation to returns in positive news periods and a relatively strong and significant correlation to returns in bad news periods.

As explained before, Pae (2007) did not use non-discretionary earnings, but discretionary accruals as the dependent variable in the Basu regression. In order to compare his research to mine, I estimate the regression coefficients that Pae (2007) would have found, had he used non-discretionary earnings as the dependent variable. Considering that non-discretionary earnings are defined as the difference between reported earnings and discretionary accruals, I use the following formula to estimate the coefficients:

Where:

= resulting from Basu regression with non-discretionary earnings as the dependent variable.

= resulting from Basu regression with reported earnings as the dependent variable.

= resulting from Basu regression with discretionary accruals as the dependent variable.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Dependent Variable** | **Intercept** | **D** | **R** | **R \* D** |
| Reported Earnings | -.025 | -.004 | -.002 | .397 |
| Discretionary Accruals | .010 | .057 | .019 | .232 |
| Non-discretionary earnings | -.035 | -.061 | -.021 | .165 |
| \* These coefficients are approximations, not exact calculations, of what they would have been if Pae had followed the same methodology as García Lara et al. (2005) and I. | | | | |

Table 11. Estimation of non-discretionary earnings coefficients of the research by Pae (2007).

As we can see in table 10, the coefficients are not significant for earnings or discretionary accruals. I will therefore not use these beta’s to estimate the Basu measure, but rather follow Pae’s (2007) interpretation of his results. He concludes that the asymmetric timeliness of accruals response to returns is mainly due to unexpected accruals.

Furthermore, the estimated coefficients in table 11 show that of non-discretionary earnings is significant and positive. This means that although discretionary accruals are responsible for most of the asymmetric timeliness in *accruals,* the non-discretionary earnings are conservative as well. Recall that non-discretionary earnings can be decomposed into cash flows and non-discretionary accruals. Keeping this in mind, we can see in Table 10 most of the conservatism in non-discretionary earnings comes from its cash flow component. Furthermore we see that of the regression on cash flows is significant, but the of the regression on non-discretionary accruals is not. We can therefore not say whether the sum of these two measures (non-discretionary earnings) would display a significant. This is important because as we see in table 11, I estimate that for non-discretionary earnings would be negative for the sample used by Pae (2007), which would be rather curious.

Compared to my results we see that Pae (2007) finds no significant relationship between earnings and returns in positive news periods. Furthermore the sign of these regression coefficients is negative. In the results of Gar*c*ía Lara et al. (2005) we saw the absence of the earnigns-returns relationship in good news periods as well.

## 8.2 differences and explanations

We saw that the overall results of this thesis are similar to the results found in prior research by García Lara et al. (2005) and Pae (2007). However, there are two important differences:

1. Prior research does not always find a significant positive relation between reported earnings and returns in good news periods. This was the case for the entire sample of Pae (2007) and for Germany in the results of García Lara et al. (2005).
2. The results I find after the introduction of IFRS differ significantly from the results of prior research.

The first difference might be explained by the corporate governance codes that arose during the late 90’s and during my sample period from 2000 to 2004. Early 2002 the German Corporate Governance Code (GCGC) has been adopted by the German government and in France three important corporate governance codes have been introduced in 1995, 1999 and 2002 (Viénot I, Viénot II and Bouton). An important focus of these corporate governance were independent (or outside) directors.[[3]](#footnote-3)

As was mentioned earlier in this thesis, Peasnell et al. (2005) showed that corporate governance seems to play a role in how management uses its discretion over financial reporting. As we saw in the results of this thesis, the way management uses its discretion over financial reporting influences the earnings-returns relation of reported earnings. It may thus very well be that the developments in corporate governance in the late 90’s and the period from 2000-2004 caused the earnings-returns relation of reported earnings in good news periods to change. However, since my sample period is not split up in periods reflecting certain corporate governance conditions, I cannot conclude whether this is in fact the case.

The second difference I found is that the results of the Basu model in the period under IFRS are not similar to prior research. Although the overall conclusions remain the same, the level of conservatism seems considerably lower. As was discussed in chapter 4, Hellman (2008) cannot explain this based on his theoretical examination of IFRSs. He argues that although IFRSs are more neutral with regard to bad and good news, they leave a management plenty discretion over financial reporting to create conservatism nonetheless. Additional research into the changed incentives of German and French firms is needed to point out why they do not use their discretion to report conservatively, as they did previously under their respective national GAAP.

# Summary and conclusion

## 9.1 Conclusion

I argue that the motives for earnings management and the explanations for accounting conservatism are closely related. There are explanations for accounting conservatism such as the litigation and tax explanations that allow for voluntary or ‘self-imposed’ conservatism. However, there is also a lot of literature suggesting that conservatism is imposed on management by regulators, debt providers or others to prevent management from making opportunistic choices in financial reporting. Likewise, earnings management literature often points out that management has some discretion over financial reporting, and that it is likely they use this discretion to mislead users of financial statements and/or to influence wealth distributions.

Evidence from García Lara et al. (2005) suggests that management uses its discretion over financial reporting to make earnings more conservative. In this thesis I test whether this is still true using an improved model to find discretionary accruals and a more recent timeframe. Another important difference is the introduction of IFRS during my sample period, which is why I study the pre and post IFRS periods separately.

From the tests performed in this thesis I conclude a number of things. The results from the Jones model (with the added independent variable Return on Assets) indicate that there is indeed earnings management. We saw that the earnings-returns relationship of non-discretionary earnings differs significantly from that of reported earnings.

For both periods in both countries there was significant conditional accounting conservatism in the reported earnings but no significant earnings conservatism in the non-discretionary earnings. This means that the asymmetric sensitivity of earnings to returns is created by earnings management through accruals. Explanations for accounting conservatism that rely on management being forced or restricted by conservatism, therefore lose credibility. Whether the contracting explanation for accounting conservatism can explain the results found in this thesis depends mainly on whether contract stipulations are consistent across firms.

## 9.2 Limitations

The Jones model has been widely used in earnings management research over the past two decades. However, an increasing amount of literature has appeared that questions the models ability to accurately predict discretionary accruals. The Performance Matching model has been an important improvement to the Jones Model, but due to the nature of this research, I could not use that specific model. This means that the specification issues of the Jones Model are still present, although to a lesser extent due to the introduction of Return on Assets as an independent variable.

Also I explain that discretionary accruals create accounting conservatism in reported earnings, but this research does not provide insight into *how* the discretionary come to be. More specifically, based on my research I cannot conclude whether the contracting stipulations used to explain accounting conservatism can be a probable explanation for these discretionary accruals.

## 9.3 Implications

The results of my research show that managers of listed firms in Germany and France have used their discretion over financial reporting to increase the level of conditional accounting conservatism in their financial reports. This is in line with the expectations discussed earlier in this thesis, but it is not in line with the regulatory explanation for accounting conservatism.

This means that the strategy followed by the IASB to reduce or remove conservatism from financial reporting is likely to be the driving factor behind reduced accounting conservatism. As discussed by Hellman (2008) the IASB dropped conservatism as a desirable quality of earnings, and provided management with discretion over financial reporting so they can provide a neutral view. However, this thesis provides evidence that managers actually use their discretion to report conservatively and In other words, conservatism is more likely a result of the discretion that regulation gives management, as opposed to conservative regulations themselves.

Finally the findings of this thesis are of importance to users of financial statements. For them it is important to realize that a) the discretion that management has over financial reporting allows them to impact the earnings characteristics significantly and b) they use this discretion to create conditional accounting conservatism.

## 9.4 Suggestions for further research

The contracting explanation is considered important in both earnings management and accounting conservatism literature. In the context of earnings management contracts can introduce incentives for management to manage earnings in such a way that they influence contractual outcomes. In the context of accounting conservatism, contracting parties may demand conservative accounting practices to avoid such behavior.

To see whether the contracting explanation can explain conservative accounting as a result from discretionary accruals, depends on how contracts differ amongst firms. If firms face similar contract stipulations, the effect of those stipulations would not be measured as discretionary accruals. More research into the nature of the discretionary accrual models and the way contracts differ amongst firms is needed to answer this question.

Furthermore I saw that the Basu measures for Germany and France between 2005 and 2010 were considerably lower than between 200 and 2004. As I explained, this is primarily due to an increased correlation between earnings and returns in years with positive stock returns. As mentioned above, it is not likely that this is purely due to the introduction of IFRSs, since they leave plenty of discetion for management to make earnings conservative. Further research is necessary to explain why this works out differently.

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# Appendixes

## Appendix 1: Important Empirical Research Summarized

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Author** | **Object of Study** | **Sample** | **Methodology** | **Outcome** |
| Note: Most parts of this table come directly from the paper they describe. | | | | |
| Healy (1985) | Examining the effect of bonus schemes on accounting decisions made by management | Bonus contracts for a sample of 94 companies. | Measure the effect of abnormal accruals and compare to standardized bonus schemes | The test results suggest that (1) accrual policies of managers are related to income reporting incentives of their bonus contracts; and (2) changes in accounting procedures by managers are associated with adoption or modification of their bonus plan. |
| Paesnell et al. (2000) | This paper examines specification and power issues in relation to three models used to estimate abnormal accruals | 4,352 firm-year observations, comprising 873 individual firms. | They evaluate mdoel specification by examining the extent to which each of the three cross0sectional models incorrectly rejects the null hypothesis of no earnings management. Secondly they assess the power of alternative cross-sectional accrual models by examining their ability to detect earnings management activity when it is known to exist, in the sense that it is artificially introduced into the sample. | Results indicate that all three cross-sectional mdoels appear well specified when applied to a random sample of firm-years. |
| Dechow et al. (1995) | Evaluate cross-sectional accrual models The evaluation compares the specification and power of commonly used test statistics across the measures of discretionary accruals. | Dechow et al. (1995) used three samples of 1000 firms each, and a sample of 32 firms that are subject SEC enforcement actions for allegedly overstating annual earnings in 56 firm-years. | They evaluate model specification by examining the extent to which each of the different cross-sectional models incorrectly rejects the null hypothesis of no earnings management. Also they assess the power of alternative cross-sectional accrual models by examining their ability to detect earnings management. | First, all of the models appear well specified when applied to a random sample of firm-years. Second, all models generate tests of low power for earnings management of economically plausible magnitudes (1-5% of total assets). Third, all models reject the null hypothesis of no earnings management at rates exceeding the specified test-levels when applied to samples of firms with extreme financial performance. |
| Bartov et al. (2001) | They investigate which variable, earnings or cash flows, provides greater information | 2046 firm-year observations from 352 firms in 5 countries | They regress returns on earnings and cash flow metrics | They generally find earnings developed in three Anglo-Saxon countries to have greater explanatory power for stock returns than cash flow metrics. Conversely, in two non-Anglo-Saxon countries earnings are generally not superior to cash flows for equity valuation, except in Japan. |
| Marquard and Wiedman (2004) | They have studied the effects of firm specific characteristics on the measured earnings management | 14,256 firm-year observations | For all special accrual items they develop measures for the portion that is unexpected. These measures are intuitive and draw from the financial statement analysis literature. Also, like the Jones model they use revenue and property plant and equipment as the main drivers for expected accruals. | Consistent with the predictions, they find that firms issuing equity appear to prefer managing earnings upward by accelerating revenue recognition. Specifically, they find that accounts receivable for these firms are unexpectedly high. Conversely, in a management buyout context, they predict and find that unexpected receivables are negative. |
| García Lara et al. (2005) | Find evidence that earnings management is driving the measures of accounting conservatism | 14743 Firm-year observations across France, Germany and the UK | They Measure the effect of abnormal accruals as defined by the Jones Model and Modified Jones Model. Accounting conservatism is measured using the Basu Model. | Earnings management significantly drives the measures of earnings conservatism. |
| Pae et al. (2007) | This paper examines the impact of management discretion over accruals on conditional accounting conservatism | 63,041 firm-year observations over the period 1988 to 2003. Presumably from the US | Several models for estimating abnormal accruals, among others are the Jones- and modified Jones model. The accounting conservatism is measured using the Basu model | Empirical results suggest that conditional accounting conservatism is primarily attributable to unexpected accruals rather than expected accruals. |
| García Lara and Mora (2004) | Examining the level of accounting conservatism across eight European countries | 20,583 firm-year observations for the period 1987-2000 | Aggregating the market value of all firms in the sample (per year, at the balance sheet date) and the book value of shareholders’ equity at year end (per year), obtaining then the value of the market-to-book ratio of the country for each year. | Results only indicate that the more pronounced earnings conservatism of the UK is statistically significant with respect to Germany, but not to the other countries in the sample. |

## Appendix 2: Descriptive statistics Discretionary Accrual model

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Kothari Model, France 2000** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 234 | -1.263 | 0.317 | -0.204 | 0.271 |
| Lagged Assets | 234 | 0.000 | 0.207 | 0.019 | 0.029 |
| Change in Sales | 234 | -0.488 | 5.115 | 0.270 | 0.468 |
| PPE | 234 | 0.004 | 0.757 | 0.221 | 0.159 |
| Lagged Return on Assets | 234 | -22.481 | 28.073 | 5.127 | 7.058 |
| Valid N (listwise) | 234 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, France 2001** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 273 | -1.168 | 0.336 | -0.172 | 0.217 |
| Lagged Assets | 273 | 0.000 | 0.193 | 0.019 | 0.030 |
| Change in Sales | 273 | -1.494 | 4.171 | 0.186 | 0.447 |
| PPE | 273 | 0.003 | 0.891 | 0.203 | 0.168 |
| Lagged Return on Assets | 273 | -23.562 | 25.890 | 5.344 | 6.551 |
| Valid N (listwise) | 273 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, France 2002** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 299 | -1.110 | 0.289 | -0.175 | 0.184 |
| Lagged Assets | 299 | 0.000 | 0.400 | 0.022 | 0.042 |
| Change in Sales | 299 | -0.984 | 1.201 | 0.064 | 0.259 |
| PPE | 299 | 0.002 | 0.948 | 0.198 | 0.175 |
| Lagged Return on Assets | 299 | -21.709 | 28.129 | 4.253 | 7.003 |
| Valid N (listwise) | 299 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, France 2003** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 313 | -1.054 | 0.345 | -0.138 | 0.165 |
| Lagged Assets | 313 | 0.000 | 0.520 | 0.023 | 0.044 |
| Change in Sales | 313 | -1.238 | 1.140 | 0.016 | 0.198 |
| PPE | 313 | 0.001 | 0.900 | 0.181 | 0.161 |
| Lagged Return on Assets | 313 | -23.005 | 24.920 | 3.593 | 6.546 |
| Valid N (listwise) | 313 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari model, France 2004** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 326 | -0.886 | 0.342 | -0.149 | 0.166 |
| Lagged Assets | 326 | 0.000 | 0.816 | 0.027 | 0.063 |
| Change in Sales | 326 | -0.971 | 1.630 | 0.087 | 0.244 |
| PPE | 326 | 0.001 | 0.932 | 0.177 | 0.168 |
| Lagged Return on Assets | 326 | -23.817 | 25.617 | 2.401 | 7.641 |
| Valid N (listwise) | 326 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, France 2005** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 345 | -1.303 | .337 | -.176 | .194 |
| Lagged Assets | 345 | .000 | .986 | .028 | .073 |
| Change in Sales | 345 | -1.970 | 3.152 | .086 | .370 |
| PPE | 345 | .000 | 1.026 | .201 | .185 |
| Lagged Return on Assets | 345 | -23.248 | 24.122 | 3.373 | 7.069 |
| Valid N (listwise) | 345 |  |  |  |  |
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| --- | --- | --- | --- | --- | --- |
| **Kothari Model, France 2006** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 352 | -1.273 | .356 | -.164 | .207 |
| Lagged Assets | 352 | .000 | .937 | .025 | .065 |
| Change in Sales | 352 | -.955 | 2.329 | .138 | .269 |
| PPE | 352 | .001 | 2.290 | .198 | .217 |
| Lagged Return on Assets | 352 | -22.240 | 23.538 | 4.554 | 6.483 |
| Valid N (listwise) | 352 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, France 2007** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 372 | -1.261 | .332 | -.137 | .179 |
| Lagged Assets | 372 | .000 | .973 | .023 | .058 |
| Change in Sales | 372 | -.747 | 2.560 | .134 | .265 |
| PPE | 372 | .000 | 1.014 | .193 | .190 |
| Lagged Return on Assets | 372 | -19.584 | 27.839 | 5.777 | 6.439 |
| Valid N (listwise) | 372 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, France 2008** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 405 | -1.189 | .335 | -.150 | .194 |
| Lagged Assets | 405 | .000 | .506 | .022 | .041 |
| Change in Sales | 405 | -.856 | 1.415 | .071 | .214 |
| PPE | 405 | .000 | 17.739 | .219 | .891 |
| Lagged Return on Assets | 405 | -23.503 | 26.370 | 5.127 | 7.009 |
| Valid N (listwise) | 405 |  |  |  |  |
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| --- | --- | --- | --- | --- | --- |
| **Kothari Model, France 2009** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 391 | -.922 | .354 | -.109 | .159 |
| Lagged Assets | 391 | .000 | .594 | .021 | .044 |
| Change in Sales | 391 | -1.002 | 1.290 | -.044 | .209 |
| PPE | 391 | .000 | 1.051 | .174 | .183 |
| Lagged Return on Assets | 391 | -22.493 | 25.492 | 3.549 | 7.186 |
| Valid N (listwise) | 391 |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **Kothari Model, Germany 2000** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 271 | -1.947 | 1.392 | -0.167 | 0.286 |
| Lagged Assets | 271 | 0.000 | 0.202 | 0.020 | 0.031 |
| Change in Sales | 271 | -1.039 | 8.693 | 0.291 | 0.713 |
| PPE | 271 | 0.000 | 0.996 | 0.294 | 0.205 |
| Lagged Return on Assets | 271 | -67.174 | 23.205 | 3.137 | 8.775 |
| Valid N (listwise) | 271 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, Germany 2001** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 303 | -1.266 | 0.926 | -0.206 | 0.236 |
| Lagged Assets | 303 | 0.000 | 0.187 | 0.018 | 0.027 |
| Change in Sales | 303 | -0.925 | 4.397 | 0.126 | 0.435 |
| PPE | 303 | 0.000 | 2.636 | 0.274 | 0.250 |
| Lagged Return on Assets | 303 | -59.978 | 22.972 | 1.328 | 12.435 |
| Valid N (listwise) | 303 |  |  |  |  |
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| --- | --- | --- | --- | --- | --- |
| **Kothari Model, Germany 2002** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 354 | -1.687 | 0.788 | -0.162 | 0.228 |
| Lagged Assets | 354 | 0.000 | 0.421 | 0.023 | 0.040 |
| Change in Sales | 354 | -1.557 | 2.072 | -0.019 | 0.328 |
| PPE | 354 | 0.002 | 1.054 | 0.243 | 0.204 |
| Lagged Return on Assets | 354 | -66.825 | 22.531 | -2.884 | 16.254 |
| Valid N (listwise) | 354 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, Germany 2003** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 360 | -1.324 | 0.919 | -0.105 | 0.241 |
| Lagged Assets | 360 | 0.000 | 1.294 | 0.031 | 0.082 |
| Change in Sales | 360 | -1.429 | 1.632 | -0.023 | 0.319 |
| PPE | 360 | 0.000 | 0.976 | 0.243 | 0.201 |
| Lagged Return on Assets | 360 | -67.208 | 22.487 | -4.307 | 15.951 |
| Valid N (listwise) | 360 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, Germany 2004** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 351 | -1.561 | 1.225 | -0.131 | 0.267 |
| Lagged Assets | 351 | 0.000 | 0.915 | 0.031 | 0.073 |
| Change in Sales | 351 | -2.538 | 1.893 | 0.044 | 0.344 |
| PPE | 351 | 0.000 | 1.204 | 0.243 | 0.197 |
| Lagged Return on Assets | 351 | -58.766 | 22.804 | -0.838 | 11.869 |
| Valid N (listwise) | 351 |  |  |  |  |
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| --- | --- | --- | --- | --- | --- |
| **Kothari Model, Germany 2005** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 359 | -1.406 | 1.189 | -0.146 | 0.298 |
| Lagged Assets | 359 | 0.000 | 0.766 | 0.030 | 0.063 |
| Change in Sales | 359 | -1.729 | 7.433 | 0.057 | 0.501 |
| PPE | 359 | 0.000 | 3.743 | 0.279 | 0.294 |
| Lagged Return on Assets | 359 | -66.606 | 22.327 | 1.338 | 10.635 |
| Valid N (listwise) | 359 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, Germany 2006** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 371 | -1.201 | 1.098 | -0.129 | 0.246 |
| Lagged Assets | 371 | 0.000 | 0.464 | 0.027 | 0.051 |
| Change in Sales | 371 | -1.491 | 2.424 | 0.119 | 0.344 |
| PPE | 371 | 0.000 | 1.340 | 0.247 | 0.217 |
| Lagged Return on Assets | 371 | -67.542 | 21.742 | 2.307 | 10.651 |
| Valid N (listwise) | 371 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, Germany 2007** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 374 | -1.761 | 0.755 | -0.138 | 0.255 |
| Lagged Assets | 374 | 0.000 | 0.378 | 0.025 | 0.045 |
| Change in Sales | 374 | -16.646 | 5.295 | 0.090 | 0.955 |
| PPE | 374 | 0.001 | 1.053 | 0.230 | 0.210 |
| Lagged Return on Assets | 374 | -62.517 | 23.081 | 2.690 | 12.253 |
| Valid N (listwise) | 374 |  |  |  |  |
|  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **Kothari Model, Germany 2008** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 390 | -1.165 | 0.703 | -0.136 | 0.216 |
| Lagged Assets | 390 | 0.000 | 0.499 | 0.028 | 0.058 |
| Change in Sales | 390 | -1.845 | 1.915 | 0.077 | 0.306 |
| PPE | 390 | 0.000 | 0.995 | 0.226 | 0.210 |
| Lagged Return on Assets | 390 | -55.319 | 22.267 | 3.599 | 11.499 |
| Valid N (listwise) | 390 |  |  |  |  |
|  |  |  |  |  |  |
| **Kothari Model, Germany 2009** | | | | | |
|  | N | Minimum | Maximum | Mean | Std. Deviation |
| Total Accruals | 392 | -1.462 | 0.894 | -0.105 | 0.203 |
| Lagged Assets | 392 | 0.000 | 0.568 | 0.030 | 0.061 |
| Change in Sales | 392 | -3.956 | 3.247 | -0.107 | 0.395 |
| PPE | 392 | 0.000 | 0.944 | 0.211 | 0.199 |
| Lagged Return on Assets | 392 | -63.489 | 22.932 | 1.969 | 12.374 |
| Valid N (listwise) | 392 |  |  |  |  |

1. See appendix 1 for some information on methodology, results and samples of these empirical studies. [↑](#footnote-ref-1)
2. See appendix 1 for some information on methodology, results and samples of these empirical studies. [↑](#footnote-ref-2)
3. Mallin, C. A. (2011). Handbook on International corporate governance, Country Analyses. pages 51, 105 [↑](#footnote-ref-3)