

The Relation between Disclosure Quality, Income Smoothing and Earnings' Timeliness

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Abstract

High quality information is vital for a good communication between the corporation and the investing community. Companies can communicate their information by means of disclosure and recognition. Disclosure is the process of providing information in the financial statements through footnotes, management and discussion analysis, supplementary schedules, or other means. Recognition is the process of incorporating an item in the balance sheet or income statement (IAS Board Framework). Although investors as well as financial analysts could make better investment decisions when having more insights into this interaction, little research has been done about the interaction between disclosure quality and recognition practices. Therefore, this paper concentrates on the following research questions: do disclosure quality and recognition practices complement each other, and are high-quality disclosures an assurance for less earnings smoothing? More specifically, we examine whether the ratings of the Belgian Association of Financial Analysts (i.e. a proxy for disclosure quality of Belgian listed firms) are (1) related to the level of discretionary accruals, a measure of earnings smoothing, and (2) related to the earnings-return association, a measure of earnings timeliness.

1 Introduction

Disclosure is the process of providing information through the means of footnotes in financial statements, annual reports, management and discussion analysis, supplementary schedules etc. Recognition on the other hand is the formal process of incorporating an item in the balance sheet or income statement (IAS Board Framework). Disclosure and recognition together form the information available for shareholders of a firm, and is of great importance. Based on this information, analysts and investors make lots of decisions. Although this information is intensively used, little is known about its coherence. One of the questions that raises, is "Does a high disclosure quality also involve a high recognition quality?". With high quality recognition proper legal recognition practices are meant. In other words: "Is

there a correlation between high disclosure quality and the way recognition takes place?" "Does a high disclosure quality give a guarantee for a right process of recognition?" One may wonder why this process of recognition is so important. It is because recognition is frequently used as a tool of earnings management. The purpose of this paper is to link disclosure quality, earnings smoothing and earnings' timeliness for Belgian firms. The outlines of the paper are inspired by Shaw (2003) who did previous research on this topic on US-data.

This article contributes to the literature concerning earnings smoothing and timeliness in relation to disclosure quality. Evidence was found for a relation between disclosure quality and earnings management (higher disclosure quality, more earnings management). Including a news variable did however not reveal a relation between disclosure quality and income smoothing, although the signs of the coefficients and one significance in specific pointed in a direction of higher disclosure quality firms smoothing income more. For a relation between disclosure quality and earnings' timeliness on the other hand, evidence was found. Where a hypothesis of a negative relation between disclosure quality and asymmetric timeliness was formulated, proof of the opposite was found.

2 Descriptions of our Variables

2.1 Determinants of Disclosure Quality

To investigate the relationship between disclosure quality and income smoothing, it is important to make sure to include all variables that can influence the dependent variable. In this paper, disclosure quality will be taken as dependent variable in the disclosure quality - income smoothing relation. For the inclusion of control variables of disclosure quality, we used existing research in this field. Lang and Lundholm (1993) delivered some important contribution hereto. They found a significant relationship between disclosure quality and firm size, firm performance, the correlation between the previous two and the fact if there were issues in the near future. Healy et al. (1999) found the same conclusion concerning the positive relationship between disclosure quality and issuance.

2.2 Earnings Management Models

Measuring earnings management is a difficult task. Different models are presented in the literature, which mostly try to detect earnings management by means of accruals. The difficulty here is to separate the accruals into discretionary (i.e. managed) and non-discretionary (i.e. normal, unmanaged)

accruals. The cross-sectional version of the standard Jones model (Jones, 1991) and of the modified Jones model (Dechow et al., 1995) are most frequently used for this separation.

The standard Jones model was originally in a time-series version and in a cross-sectional version. Guay et al. (1996), Dechow et al. (1995) and Kang and Shivaramakrishnan (1995) deal with the evaluation of the time-series version. However, Subramanyam (1996) as well as Bartov et al. (2001) preferred the cross-sectional version, as they find it performs better in detecting earnings management than the time-series counterpart. Also other authors preferred the cross-sectional version: DeFond and Jiambalvo (1994), DeFond and Subramanyam (1997), Becker et al.(1998). Peasnell et al. (2000) did some evaluation research of this cross-sectional version.

Another point of differentiation, aside from the cross-sectional versus the time-series version, is the composition of the accruals. The original Jones model uses total accruals. Teoh et al. (1998) and DeFond and Jiambalvo (1994) focus on the working capital part of total accruals (called 'current accruals' by Teoh et al.(1998)). Beneish (1998) and Young (1999) consider these to be potentially better models. At last, Peasnell et al. (2000) introduced a new procedure of detecting earnings management: the margin model.

3 Hypothesis development

The main question of this paper is whether high disclosure quality means lower income smoothing. Income smoothing is a particular form of earnings management. We will first try to detect a relationship between earnings management and disclosure quality. Then in a next step we'll search for income smoothing.

One can think of the disclosure quality - earnings management relationship in different ways. One of them is to see firms with a high quality of disclosure as firms with nothing to hide, who lay their cards on the table, and therefore will probably not manage earnings. This will be the point of view in our first hypothesis. We predict high disclosure quality firms to manage earnings less than low quality firms. As a proxy for earnings management, discretionary accruals will be used.

Hypothesis 1: *Firms with a high disclosure quality will engage less discretionary accruals than low disclosure quality firms.*

In other words, we believe high disclosure quality firms to be more conservative. In the next step, we will take one particular form of earnings

management into consideration, namely income smoothing. DeFond and Park (1997) provided evidence that firms with good current performance and poor expected future performance use income-decreasing discretionary accruals, and income-increasing accruals if the situation is the other way around. By this means firms smooth their income. This finding will be the basis for testing the relationship between disclosure quality and income smoothing. Concretely, disclosure quality ratings will be tested on their relationship with discretionary accruals, with good or bad news taken into account. Again we will take the point of view where firms with a higher quality of disclosure engage less in income smoothing. This leads to:

Hypothesis 2: In good news years, there will be a positive relation between disclosure quality and discretionary accruals (the lower the quality, the more income-decreasing accruals). In bad news years, there will be a negative relation between disclosure quality and discretionary accruals (the lower the quality, the more income-increasing accruals)

Another topic that we investigate, is timeliness. The reasoning for this is to find in the relationship between timeliness and conservatism. Up till now we based our hypotheses on the assumption that high disclosure quality goes along with conservatism. Already in 1924 Bliss described conservatism as 'Anticipate no profit, but anticipate all losses'. Nowadays lots of definitions of conservatism have been written down, but in essence it all boils down to this one early description. Conservatism expresses itself in many ways, one of which is through asymmetric timeliness (Basu 1997). Basu found evidence that the timeliness of earnings recognition was much higher for bad news company-years than for good news company-years, where news is measured by stock returns. In following Shaw (2003) we investigate whether this asymmetry in timeliness between good and bad news years relates to disclosure quality in any way. Timeliness will be measured by the earnings-return relation, as did Beaver et al. (1980), Basu (1997) and Shaw (2003). Shaw (2003) found evidence that this asymmetry was only true for the low quality firms. Also Lang and Lundholm (1993) found a negative relation between disclosure quality and the earnings - return relation. To build up a logical set of hypotheses however, we continue to assume more conservatism, and hence more asymmetry, within the high disclosure quality group. We just keep in mind the opposite outcomes of other authors to compare with later on.

Hypothesis 3: There will be a greater difference in the earnings-return relation between good and bad news years with firms of a high disclosure quality than with firms of a low disclosure quality.

4 Research Design

4.1 Data Selection

First of all, we needed a proxy for disclosure quality. We used analysts' disclosure quality ratings for this. Each year the Belgian Association of Financial Analysts awards the best financial information disclosure out of a selected sample of Belgian listed firms. This sample is quite small, approximately 40 firms a year. While we needed a time series of firms, we selected eventually 38 firms with enough data available over 6 years (1997 through 2002). No financial banks were included. After checking for outliers, this became 37. This gives us a sample of 222 firm-years. Not all outliers resulted in dropping the entire case. Some other outliers were just dropped in that specific variable, creating a missing value. This was considered the best option in the light of the relative small sample size.

The Bel-first CD-rom will be the data source for this analysis, which provides data on Belgian and Luxembourg firms. The Bel-first contains general and financial data provided by Bureau Van Dijk, the Euro-DB and the register of National Commerce amongst others.

4.2 Model Specification

4.2.1 Discretionary Accruals

For measuring earnings management, and in a later phase income smoothing, we need a proxy for earnings management. For this we use the cross-sectional version of the modified Jones model of Dechow et al. (1995). This looks like follows:

$$\frac{ACCR_{i,t}}{TA_{i,t-1}} = \frac{\alpha}{TA_{i,t-1}} + \beta \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}} \right) + \gamma \frac{PPE_{i,t}}{TA_{i,t-1}} + \epsilon_{i,t}$$

Although, there are some supplementary modifications we made. First of all, Teoh et al. (1998) and DeFond and Jiambalvo (1994) were followed in using only the current accruals, and not the total accruals as in the original (and modified) model. This also leads to dropping the Plant, Property and Equipment variable. Also a second suggestion, from Peasnell et al. (2000), was included. We agree namely in the benefit of not scaling the constant and hereby not forcing it through the origin. A last modification is also of econometric thought: in the modified model, one has been trying to take into account the effect of managed credit sales. This has been done by subtracting the change in receivables from the change in revenues. This difference is seen as a new variable. While we only have a relative small

sample size, we believe that it is a pity to lose information about the separated estimators. So the difference wasn't treated as one variable with one estimator, but as two variables, with of course two estimators. All these modifications together lead to

$$\frac{C.ACC_{i,t}}{TA_{i,t-1}} = \alpha + \beta \frac{\Delta REV_{i,t}}{TA_{i,t-1}} + \gamma \frac{\Delta REC_{i,t}}{TA_{i,t-1}} + \epsilon_{i,t} \quad (1)$$

where $C.ACC_{i,t}$ is Current Accruals of firm i in year t , $TA_{i,t-1}$ is Total Assets of firm i in the beginning of year t , $\Delta REV_{i,t}$ is firm i 's revenues in year t minus i 's revenues in year $t-1$ and the same for $\Delta REC_{i,t}$ which is the change in firm i 's receivables between year t and $t-1$. For γ we expect a negative sign.

Current accruals are calculated as follows: $C.ACC_{i,t} = (\Delta CurrentAssets_{i,t} - \Delta Cash_{i,t}) - (\Delta CurrentLiabilities_{i,t} - \Delta CurrentMaturitiesofLongTermDebts_{i,t})$. This model was estimated separately for each 3-digit industry attendant in the 37 firms and for each of the six years. The mean number of firms per industry per year was 258. The estimators found were then used for calculating the fitted values of the current accruals for the 37 firms over the six years. These fitted values were subtracted from the actual values, resulting in the error terms, our variable "Discretionary Accruals". This new variable, abbreviated as DAC, is our proxy for earnings management.

4.2.2 Disclosure Quality - Income Smoothing

In a first step, we try to detect a relationship between disclosure quality (DQ) and discretionary accruals, our proxy for earnings management. For estimating a model which relates these two variables, it is important to include some control variables. For this inclusion we look at other research and decide to include size, return, issue and the correlation between earnings and return.

Firm size will be measured by the natural logarithm of total assets (*Size*) at the beginning of the year, and firm performance by returns (*Ret*). For the correlation between earnings and return we use the correlation between net income before extraordinary items (as earnings) and return over the available years (*CRet*). Extreme values of net income before extraordinary items are deleted, as Dechow et al. (1995) reported the negative effect on the estimators of these extreme values. Issues will be taken into account as a dummy variable, equaling one when a firm issues in that or one of the two following years, and zero otherwise (*Issue*). Together this gives the model:

$$DQ_{i,t} = \alpha_0 + \alpha_1 DAC_{i,t} + \alpha_2 Size_{i,t} + \alpha_3 Ret_{i,t} + \alpha_4 CRet_{i,t} + \alpha_5 Issue_{i,t} + \epsilon_{i,t} \quad (2)$$

This model will be estimated for testing the first hypothesis.

In the end, we want to detect a relationship between disclosure quality and income smoothing, and not earnings management. So we have to alter equation (2). What is typically about income smoothing, is the opposite use of discretionary accruals during good news years relative to bad news years. Income smoothing involves income-decreasing accruals during good news years, and income-increasing accruals during bad news years. Hence we have to comprise a variable that takes into account this news variation. In following Shaw (2003) amongst others we do this by the use of a dummy variable (*News*) which equals 1 in a year of bad news (stock returns are smaller than zero) and zero otherwise. This gives:

$$DQ_{i,t} = \beta_0 + \beta_1 DAC_{i,t} + \beta_2 News_{i,t} + \beta_3 (News_{i,t} * DAC_{i,t}) + \beta_4 Size_{i,t} + \beta_5 Ret_{i,t} + \beta_6 CRet_{i,t} + \beta_7 Issue_{i,t} + \epsilon_{i,t} \quad (3)$$

The relationship between disclosure quality and discretionary accruals during good news years is captured in β_1 . The difference of the relation between good and bad news years is comprised in β_3 . The sum of both represents the relation between quality and accruals during bad news years. This model will be estimated using panel data over the years 1997 through 2002 for the 37 firms of our sample.

4.2.3 Disclosure Quality - Earnings Timeliness

Eventually we want to link disclosure quality to timeliness, as stated before. The reasoning for this was the association between conservatism and timeliness. As Basu (1997) stated: "More timeliness implies that earnings reflect more of the variance in returns contemporaneously rather than spreading it out over current and future periods." This phenomenon is expected to be higher with high disclosure quality firms than with low disclosure quality firms, according to hypothesis 3.

Timeliness will be measured by the earnings - return relation. Earnings, net income before extraordinary items, are scaled by lagged assets. Following Beaver et al. (1980), Basu (1997) and Shaw (2003) we estimate a "reverse regression" of earnings on returns, with dummy variables presenting disclosure quality and news type. The dummy of disclosure quality (*DQd*) equals 1 in case of a higher disclosure quality rating than the median of the sample, zero otherwise. The dummy of news stays the same as before: 1 in case of bad news, 0 otherwise.

$$\begin{aligned}
Earnings_{i,t} = & \gamma_0 + \gamma_1 Ret_{i,t} + \gamma_2 DQd_{i,t} + \gamma_3 News_{i,t} + \\
& \gamma_4 (Ret_{i,t} * News_{i,t}) + \gamma_5 (Ret_{i,t} * DQd_{i,t}) + \\
& \gamma_6 (Ret_{i,t} * News_{i,t} * DQd_{i,t}) + \epsilon_{i,t}
\end{aligned} \tag{4}$$

The earnings - return relation for low quality firms during good news years is captured in γ_1 and during bad news years in the sum of γ_1 and γ_4 . The timeliness for high disclosure quality firms during good news years is presented by $\gamma_1 + \gamma_5$ and during bad news years by the sum of γ_1 , γ_4 and γ_5 . Also this model will be estimated using panel data of the 37 firms over the six years.

5 Research Findings

5.1 First hypothesis of lower earnings management for higher disclosure quality firms

For testing the first hypothesis, we estimated equation (2). An acceptance of the hypothesis would result from a significant negative estimator of α_1 . The higher the disclosure quality, the lower the discretionary accruals. We estimated the model with an Iterated General Least Square procedure (IGLS), taking care of heteroscedasticity and autocorrelation of first order. This of course was done after finding results of presence of these two phenomenons. Table 1 reports the results of estimating equation (2).

We see that there is a significant relationship between disclosure quality and discretionary accruals on a .04-level, after controlling for other determinants of disclosure quality. Only this relation is not what we expected it to be. This is a positive relation, indicating that high disclosure quality firms use relatively more income-increasing accruals than low quality firms. In other words: the higher the quality of disclosure, the lower the conservatism in recognition. Hereby we reject the first hypothesis. But still it stays interesting to find out if this relationship lasts the same under different circumstances regarding news type.

5.2 Second hypothesis of lower income smoothing for higher disclosure quality firms

This second hypothesis is tested by estimating equation (3). Tests for heteroscedasticity (White) and for first-order autocorrelation (Wooldridge) were exercised. They indicated again the same problems as for the first

Table 1: Disclosure Quality - Earnings Management

$$DQ_{i,t} = \alpha_0 + \alpha_1 DAC_{i,t} + \alpha_2 Size_{i,t} + \alpha_3 Ret_{i,t} + \alpha_4 CRet_{i,t} + \alpha_5 Issue_{i,t} + \epsilon_{i,t}$$

	<i>Intercept</i>	<i>DAC</i>	<i>Size</i>	<i>Ret</i>	<i>CRet</i>	<i>Issue</i>
<i>Coefficient</i>	-3.8184	.2251	.2769	.0008	.1191	.2743
<i>p-value</i>	.000	.039	.000	.068	.050	.001

$DQ_{i,t}$ = the disclosure quality rating of firm i in year t .

$DAC_{i,t}$ = the discretionary component of total accruals of firm i in year t . These are equal to the error terms of the following model:

$$\frac{C.ACC_{i,t}}{TA_{i,t-1}} = \alpha + \beta \frac{\Delta REV_{i,t}}{TA_{i,t-1}} + \gamma \frac{\Delta REC_{i,t}}{TA_{i,t-1}} + \epsilon_{i,t}$$

This model was OLS estimated for all Belgian firms by year and by 3-digit NACE-codes, where $C.ACC_{i,t}$ stands for Current Accruals of firm i in year t , $TA_{i,t-1}$ for Total Assets of firm i in the beginning of year t , $\Delta REV_{i,t}$ for firm i 's revenues in year t minus i 's revenues in year $t-1$ and the same for $\Delta REC_{i,t}$ which is the change in firm i 's receivables between year t and $t-1$.

$Size_{i,t}$ = the natural logarithm of total assets of firm i at the beginning of year t

$Ret_{i,t}$ = stock returns for firm i in year t , a proxy of performance

$CRet_{i,t}$ = the correlation between earnings and return for firm i over all the available years before and including year t

$Issue_{i,t}$ = a dummy variable, equaling one when a firm issues in that or one of the two following years, and zero otherwise

¹The model was estimated using iterated generalized least squares. The results reported include the estimated coefficients of the variables and the p-values. Number of observations equals 155

regression, so we estimated also this model with IGLS controlling for heteroscedasticity and autocorrelation first-order. According to the second hypothesis we expect a positive relation between disclosure quality and accruals during good news years. So the estimator of β_1 is expected to be positive. In the bad news years however, we expect this relation to be negative (the lower the quality, the higher the (income-increasing) accruals). This would be the case with a significant negative $(\beta_1 + \beta_3)$. The results of the estimation are to be found in Table 2.

As we can see, the opposite of our hypothesis is true in good news years. In good news years, there is a negative relation between disclosure quality and discretionary accruals of -.6851 with a significance level of .05. This means that during good news years, firms with a higher disclosure quality tend to decrease their income more than lower quality firms. This is the opposite of what we found in the first place, under hypothesis 1. There we found evidence that high disclosure quality firms manage earnings more upward in relation to low disclosure quality firms. So apparently this situa-

Table 2: Disclosure Quality - Income Smoothing

equation (3)

	<i>Intercept</i>	<i>DAC</i>	<i>News</i>	<i>News * DAC</i>	<i>Size</i>	<i>Ret</i>	<i>CRet</i>	<i>Issue</i>
<i>Coefficient</i>	-4.6410	-.6851	-.0296	.4266	.3374	.0015	.1080	.1123
<i>p-value</i>	.000	.049	.724	.248	.000	.061	.102	.214

$DQ_{i,t}$ = the disclosure quality rating of firm i in year t .

$DAC_{i,t}$ = the discretionary component of total accruals of firm i in year t . These are equal to the error terms of the following model:

$$\frac{C.ACC_{i,t}}{TA_{i,t-1}} = \alpha + \beta \frac{\Delta REV_{i,t}}{TA_{i,t-1}} + \gamma \frac{\Delta REC_{i,t}}{TA_{i,t-1}} + \epsilon_{i,t}$$

This model was OLS estimated for all Belgian firms by year and by 3-digit NACE-codes, where $C.ACC_{i,t}$ stands for Current Accruals of firm i in year t , $TA_{i,t-1}$ for Total Assets of firm i in the beginning of year t , $\Delta REV_{i,t}$ for firm i 's revenues in year t minus i 's revenues in year $t-1$ and the same for $\Delta REC_{i,t}$ which is the change in firm i 's receivables between year t and $t-1$.

$News_{i,t}$ = equals 1 in a year of bad news (stock returns are smaller than zero) and zero otherwise

$Size_{i,t}$ = the natural logarithm of total assets of firm i at the beginning of year t

$Ret_{i,t}$ = stock returns for firm i in year t , a proxy of performance

$CRet_{i,t}$ = the correlation between earnings and return for firm i over all the available years before and including year t

$Issue_{i,t}$ = a dummy variable, equaling one when a firm issues in that or one of the two following years, and zero otherwise

²The model was estimated using iterated generalized least squares. The results reported include the estimated coefficients of the variables and the p-values. Number of observations equals 128

tion isn't always the case. In good news years, it appears that they manage earnings more downward. Under the assumption of a general tendency of income smoothing³, there is a positive relation between disclosure quality and income smoothing during good news years. This significant finding, of high disclosure quality firms manipulating income more than low disclosure quality firms, is not present in bad news years. In bad news years, the coefficient capturing the relation between disclosure quality and discretionary accruals is $-.02528$ ($-.6851 + .4266$) and not significant. Although this is not significant, maybe the positive change of good news years to bad news years (.4266) can indicate an overall income smoothing, but just not always dependent of disclosure quality.

So up till now, we found evidence of high disclosure quality firms manipulating income more upwards in general, but more downwards in times of

³see Lybaert et al. "Provisions, a tool for earnings management?"

good news. This higher manipulation isn't found in bad news years. So we have no evidence of income smoothing related to disclosure quality, and hereby reject hypothesis 2. If there was any result significant, it was in the opposite direction we expected it to be, namely that high disclosure firms manipulate more than low disclosure firms.

Although there was no relation between disclosure quality and income smoothing, this doesn't mean that our last hypothesis of asymmetric timeliness related to disclosure quality has no chance to stand. We found evidence of high disclosure quality firms to be less conservative and to decrease income more during good news years than low quality firms do, so maybe the opposite of the third hypothesis is to be found. This would be a confirmation of Lang and Lundholm's and Shaw's findings.

5.3 Third hypothesis of higher asymmetric timeliness for high disclosure quality firms

The link between timeliness and disclosure quality is investigated using equation (4). First we did two explorative estimations, like Shaw (2003). This was to see whether our data confirms the findings of Lang and Lundholm (1993) and Basu (1997). The (untabulated) results of the regression of *Earnings* on *Ret*, *DQd* and *Ret*DQd* confirmed in a way the findings of Lang and Lundholm (1993). We namely found a negative relation between the earnings - return relation and disclosure quality, but this was only slightly significant. The coefficient of γ_5 was significant on a .10 level. Taken our relatively small sample size into account, this is quite reasonable we think. A regression of *Earnings* on *Ret*, *News* and *Ret*News* also confirms Basu's findings of a higher earnings - return relation in times of bad news than in times of good news. The estimator of γ_4 was positive and significant on a .05 level.

The results of the estimation of the full model (equation (4)) are reported in Tabel 3. For the estimation the same tests are used as for the estimation of equation (2) and (3).

For interpretation of these results, some calculations have to be made. The relation between disclosure quality and earnings' timeliness, in different situations is expressed by:

		Coefficient	p-value
Low DQ/Good News	γ_1	0.0000929	.218
Low DQ/Bad News	$\gamma_1 + \gamma_4$	0.0003795	.008
High DQ/Good News	$\gamma_1 + \gamma_5$	0.0000765	.017
High DQ/Bad News	$\gamma_1 + \gamma_4 + \gamma_5$	0.0000853	.471

Table 3: Disclosure Quality - Earnings' Timeliness

equation (4)

	<i>Interc.</i>	<i>Ret</i>	<i>DQd</i>	<i>News</i>
<i>Coefficient</i>	.0352	.0000929	-.0046526	.0083325
<i>p-value</i>	.000	.218	.281	.019

	<i>Ret*News</i>	<i>Ret*DQd</i>	<i>Ret*News*DQd</i>
<i>Coefficient</i>	.0002866	-.0000164	-.0002778
<i>p-value</i>	.094	.823	.175

$Earnings_{i,t}$ = Net income before extraordinary items, scaled by lagged assets, of firm i in year t .

$Ret_{i,t}$ = stock returns for firm i in year t , a proxy of performance

$DQd_{i,t}$ = the disclosure quality dummy of firm i in year t , equaling 1 if the rating is above the sample median, zero otherwise.

$News_{i,t}$ = equals 1 in a year of bad news (stock returns are smaller than zero) and zero otherwise

⁴The model was estimated using iterated generalized least squares. The results reported include the estimated coefficients of the variables and the p-values. Number of observations equals 168

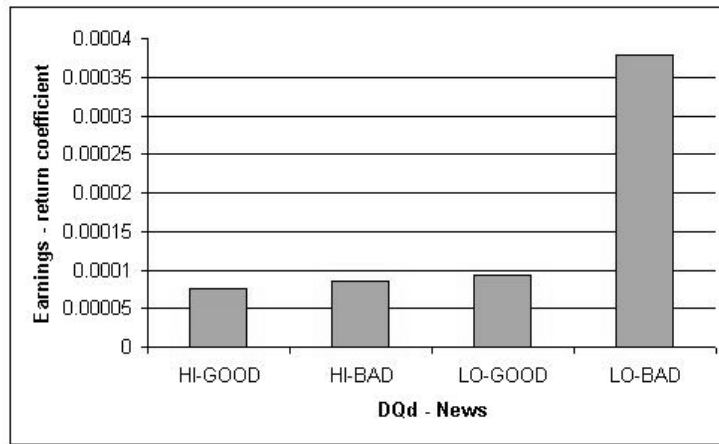


Figure 1: Histogram of timeliness in relation to disclosure quality and news type

For a better comparison with the results of Shaw, we also provided a histogram of these coefficients. We generally become the same results.

In good news years, disclosure quality doesn't have an impact on a firms'

timeliness. The earnings - return relation coefficient for high disclosure quality firms equals .0000765 and is significant (.02). But this coefficient isn't significantly different from the coefficient of low quality firms in good news years (.0000929). In bad news years however, the earnings - return relation of low disclosure quality firms is almost 4,5 times as high as with high disclosure quality firms (.0003795 vs. .0000853). This difference has a p-value of .017. So in bad news years, firms with a high disclosure quality postpone recognition of this bad news, while low disclosure quality firms don't.

If we watch the histogram, the sensitivity of bad news which leads to asymmetric timeliness, found by Basu and also in our sample, is apparently only to be brought back to the low disclosure quality firms. Although timeliness is 4 times as high in times of bad news as in times of good news (.0003795 vs. .0000929), this difference is not significant.

So the main finding here is that high disclosure quality firms don't show asymmetry in earnings' timeliness, which normally goes along with conservatism, but that low disclosure quality firms do show this asymmetry. This leads to rejecting hypothesis 3 and to confirming the findings of Lang and Lundholm (1993) and Shaw (2003).

6 Conclusions and Limitations

In this paper the relations between disclosure quality and earnings management and disclosure quality and income smoothing among Belgian firms are investigated. Later on also the relation between disclosure quality and earnings' timeliness was investigated. In general, evidence was found for high disclosure quality firms to manage earnings more. But when we introduced a variable containing news type into the model, no evidence of a relation between disclosure quality and income smoothing was found. There was however proof that during good news years, high quality firms engage more in income-decreasing accruals than low disclosure quality firms do.

For a relationship between disclosure quality and earnings' timeliness, we did find significant evidence. It seems that firms of low disclosure quality show asymmetry in their recognition process (timeliness), and that firms of high disclosure quality don't. So where low disclosure quality firms immediately recognize bad news in their financial reports, high disclosure quality firms postpone this. Probably they trade rapid recognition for higher quality in disclosure, and so take the time to prepare the shareholders. This is consistent with Shaw's and Lang and Lundholm's findings (2003 and 1993).

As in any other research, there are some limitations to the research done here. First of all, the search for a relationship between disclosure quality and earnings management/income smoothing is as good or as bad as

the model used for determining earnings management. The cross-sectional modified Jones model, with some extra alterations, was used here. Using other procedures for detecting earnings management and comparing results with these results would be interesting. In this paper the model is used to establish the discretionary component of 37 firm's accruals. This can be subjected to further research in the expansion of the sample by rating more firms' disclosure quality. Here of course plays the time component a major role. Our 37 firms could have caused a selection bias, since these were all firms, rated by the Belgian Association of Financial Analysts.

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