



Compliance with Goodwill Accounting in a Low Enforcement Environment

An empirical study of Swedish listed companies

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ABSTRACT

In this paper, we examine the effects of CEO bonus intensity and monitoring of companies on companies mandatory disclosure on acquisitions. We conduct our study in a low enforcement environment by using unique data on Swedish listed companies in the years 2011-2013. In the analysis, we use a self-constructed disclosure index and ordered logistic regressions.

We find that only 23 percent of all companies that made acquisitions disclosed all mandatory information. We also find that there is a positive relationship between the amount of monitoring a company is subject to and their disclosure on acquisitions and a negative relationship between CEO bonus intensity and the disclosure on acquisitions.

We contribute to the literature by examining goodwill accounting in a low enforcement environment and by examining effects on mandatory disclosure instead of voluntary disclosure.

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This is a master thesis written as a part of our Master of Science in Economics and Business Administration at the Norwegian School of Economics (NHH). The topic is overlapping both our majors, Financial Economics (FIE) and Business Analysis and Performance Management (BUS).

When we started working with our thesis, we were initially interested in goodwill accounting and the factors influencing purchase price allocations. As we read more on the subject and started the data collection, we discovered that a noteworthy amount of companies were not disclosing all mandatory accounting items regarding acquisitions. This discovery made us change the scope of our thesis to focus on companies' compliance with international accounting standards regarding acquisitions.

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1. INTRODUCTION

We investigate how monitoring and CEO bonus intensity affect disclosure on goodwill accounting in a low enforcement environment.

The field of goodwill accounting has historically focused on factors influencing purchase price allocations and the effects of excess allocation to goodwill, and the research on financial disclosures has predominantly focused on voluntary disclosures in annual reports. In this paper, we combine these two lines of research and expand the horizon of both fields by investigating disclosure on goodwill accounting.

The disclosure literature investigates causes for voluntary disclosures and the effects increased voluntary disclosure can have. The likely reason for such a one-sided focus on voluntary disclosure instead of also investigating mandatory disclosure comes from the assumption that mandatory information is always disclosed. Mandatory disclosures are disclosures demanded by accounting standards, so one would expect companies to disclose this information. Companies choose to follow the law because there are sanctions if they do not comply. As such, compliance with the law demands a high enforcement environment.

In the US, the Securities and Exchange Commission's (SEC) provide a high degree of enforcement with their monitoring of firms and efforts to combat financial fraud and enhance issuer disclosures. It has therefore been most focus on the study of voluntary disclosure. In countries with low enforcement, the study of mandatory disclosure will also be interesting since it is not certain that companies actually comply with the accounting standards.

In an environment with low enforcement from the government, it will become even more important with a high degree of monitoring from private investors. A company whose annual report is not subject to a high degree of monitoring will have a better opportunity to disclose less information. Hope's (2002) findings, that there is a positive relation between the number of financial analysts following a company and the amount of disclosure, support this hypothesis.

In accordance with agency theory, many firms make parts of the CEO remuneration variable to align CEO interests with shareholder interests. When this variable part is tied to a profit measure, it can cause managers to allocate in excess to goodwill to increase short-term

earnings (Shalev, 2009). Unlike other intangible assets, goodwill is not subject to amortization, but is tested yearly for impairment.

When management has allocated in excess to goodwill, they have greater incentives to try to hide it by not disclosing all the required information on the acquisition. Since bonus intensity affects manager's propensity for opportunism, we hypothesize that it should also lead to less disclosure on acquisitions.

We conduct our tests by using unique data on Swedish listed firms in the period 2011-2013. We focus on Sweden because this is a country with low enforcement of disclosure requirements on acquisitions. It is also an interesting research setting due to its many large international firms and high frequency of acquisitions. Bonuses in Sweden is mostly cash bonuses, which simplifies our analysis.

The study has a greater importance when set in a low enforcement environment such as Sweden, than in a high enforcement environment such as the US. Firstly, because there is a high degree of non-compliance with IFRS 3. Secondly, when there is less enforcement from the government, it is necessary with more market supervision, hence there should be stronger effects of monitoring on disclosure in a low enforcement environment. The same goes for the effect of bonus intensity on disclosure.

We test the effect of monitoring and CEO's bonus intensity on firm's disclosure on goodwill accounting in a low enforcement environment, and find that there is a positive relationship between monitoring and disclosure, and a negative relationship between CEO bonus intensity and disclosure.

Our contribution is that we examine goodwill accounting in a low enforcement environment and further contribute by examining the effects on mandatory disclosure instead of voluntary disclosure. That is, we examine the effects of market monitoring and bonus intensity on compliance with IFRS 3.

The remainder of this paper is divided into five sections. In Section 2, we review prior literature and Sweden as our research setting. Section 3 expands on our hypotheses and methodology. Section 4 reports the results of our analyses and Section 5 discuss these results. Finally, we provide concluding remarks in Section 6.

2. PRIOR LITERATURE AND THE RESEARCH SETTING

2.1 Disclosure

The study of accounting disclosure is of importance to investors, researchers, companies, market participants, standard setters and regulatory bodies. Although disclosure is an important research topic, it is a theoretical concept which is difficult to measure directly. Consequently, researchers have not agreed on the best way of measuring disclosure. We generally classify measures into two main groups: proxies for disclosure that are not based on the researcher examining the original disclosure vehicle, and proxies for disclosure that depend on examining the original disclosure vehicle (Hassan & Marston, 2010).

Although there are many different types of financial disclosure, most researchers consider the annual report among the most important disclosures by companies (Marston & Shrides, 1991). Therefore, the focus of most studies on disclosure has been on voluntary information in the annual report. One of the methods commonly used to measure the disclosure in annual reports is a disclosure index. Disclosure indices are extensive lists of selected items, which may be disclosed in a company report (Marston & Shrides, 1991).

In her study from 1998, Sengupta examines the association between the high disclosure ratings from financial analysts and costs of debt. She finds that firms with high disclosure ratings enjoy a lower cost of debt.

Among the costs of disclosure are the costs of information production and dissemination. Furthermore, competitors may make use of available information about a company to their own advantages (Verrecchia, 1983). If a company disclose erroneous information, they can be subject to lawsuits further increasing the costs of disclosure (Skinner, 1994). Therefore, Healy and Palepu (1993) advice that a decision to provide more information to the public should, in theory, be based on a cost-benefit analysis, although detailed estimation of all costs and benefits is difficult.

2.2 Monitoring

There has been several studies looking at the relationship between monitoring and disclosure, most notably between the number of analysts following a company and the general disclosure

level. Financial analysts serve an important role as intermediaries between firms and investors (Hope, 2002). Lang and Lundholm (1996) finds that a firm with more informative disclosures have more analysts following the firm.

Hope (2002) finds a positive relationship between the number of analysts following a company and the disclosure the company provides in their annual report, supporting the findings of Lang and Lundholm. More specifically, he finds that analyst following is more strongly associated with the extent of note disclosure than the comprehensiveness of the basic financial statements.

2.3 Purchase price allocation and bonus intensity

In their study from 2011, Hamberg, Paananen and Novak find that goodwill recognized in acquisitions increased substantially in Sweden after the implementation of IFRS 3. It is unlikely that such a shift is caused by economic parameters alone. More likely the explanation is that it has become more beneficial for CEOs to allocate more to goodwill after the adoption of IFRS 3. This is supported by Dechow and Huson (1994), and Adut, Cready, and Lopez (2003), who find that CEO bonuses are shielded from nonrecurring losses, such as an impairment due to over-allocation of goodwill. This will increase management's incentives for excess allocation of goodwill. This is especially the case when the CEO has an earnings-based bonus plan (Shalev, Zhang, & Zhang, 2013).

Moreover, Hirshey and Richardson (2003) find that investors underreact to news about goodwill write-offs with regard to the stock price. Thus, although a CEO has shares in a company he still has incentives to over-allocate to goodwill in order to achieve a higher bonus, because the resulting fall in stock price will be less than the fall in real value when the goodwill write-offs take place.

There has been several studies discussing CEO compensation packages and purchase price allocation. Shalev, Zhang and Zhang (2013) conduct an investigation into the effect of bonus intensity and CEO age on goodwill allocation. They find evidence that CEOs whose compensation packages rely more on earnings-based bonus tend to allocate more to goodwill when acquiring companies. Their results are also valid for European firms, as demonstrated

by Detzen and Zülch (2012), who find that there is a positive relationship between bonus intensity and goodwill allocation.

Furthermore, Shalev (2009) finds that the disclosure level on acquisitions decreases with excess allocation to goodwill. This suggests that a high bonus intensity will lead to incentives for managerial opportunism by allocating more of the purchase price to goodwill, which in turn leads to less disclosure on acquisitions.

2.4 Sweden as research setting

To protect stakeholders, the EU has ascertained that an organization is required to conduct enforcement of financial information to make sure that annual reports are correct and that companies comply with the accounting standards. In Sweden, this task was given to Finansinspektionen (FI), the Swedish Financial Supervisory Authority, alongside the two Swedish stock exchanges, NASDAQ OMX Stockholm AB and Nordic Growth Market NGM AB (Finansinspektionen, 2014). The role of FI is to coordinate enforcement in Sweden and Europe, and to ensure that enforcement in Sweden is of high, consistent quality. The stock exchanges, on the other hand, are responsible for enforcement of financial information of the companies on their respective regulated markets (Finansinspektionen, 2014).

Sweden is unique in the European Economic Area (EEA) with respect to the stock exchange having the responsibility to supervise that the information in the annual report is consistent with the law (Heneryd & Hjelström, 2009), and that this authority is delegated through Swedish law (Finansinspektionen, 2014).

FI selects a sample of companies to control based on a combination of a rotation approach and a risk-based approach. Their goal is to ensure that they review each company on the regulated markets at least once during a five-year period.

Out of the 252 companies on Stockholm Stock Exchange (SSE), 37 percent were checked for flaws in the annual report in 2013, and 21 percent of these were given remarks for lacking required information (Finansinspektionen, 2014). Less than 40 percent of controls that SSE performed were for the entire annual report.

The SEC is FI's American counterpart. They have a high focus on enforcement and prosecute companies that do not comply with the law. In addition to giving substantial fines when not complying with the disclosure laws, it is common for the SEC to sue violating employees as individuals. Both the name of the company and the name of the violators are publicly disclosed.

According to La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999), "Sweden has some of the highest law enforcements, accounting standards and anti-corruption indices in the world". Sweden also has a well-developed code of corporate governance (Swedish Corporate Governance Board, 2010), where in contrast to the US code of corporate governance, the Chairman of the board of directors and the CEO cannot be the same person (Grapsas & Powell, 2013). The SCGC follows the "comply or explain" principle. Although Sweden in general has some of the highest law enforcements, the enforcement of disclosure on acquisitions is low.

The drawbacks of using the Swedish setting instead of e.g. the US, is that most previous literature is not directly comparable. Research set in the US is in a high enforcement environment and therefore focus on voluntary disclosure. Although the findings are on voluntary disclosure, it is probable that the inferences will be the same for mandatory disclosure as well. E.g. if cost of debt decreases with more voluntary disclosure as Sengupta (1998) finds, we expect that the cost of debt will also decrease as a company increases its disclosure from none to the mandatory information required.

The overall problem we investigate is the effect bonus intensity and monitoring have on disclosure on acquisition. Sweden is an ideal setting to investigate this problem, since the low enforcement is likely to increase the effects of monitoring and bonus intensity on the disclosure. It is also a country with many large and international firms and a high level of acquisitions. Our findings from Sweden should therefore be generalizable to other low enforcement countries.

3. HYPOTHESES AND METHODOLOGY

3.1 Hypotheses

Sengupta (1998) shows that increased disclosure leads to lower costs of debt. When companies still choose not to disclose all mandatory information, they must have motives that surpasses the benefits of disclosure and cause them to break the law. Such motives may be costs, hiding information from competitors or future targets, or it may be to hide managerial opportunism. However, it is not enough to have incentives not to disclose everything required, the company also needs opportunity to do so. If a company's annual report is subject to a lot of monitoring, it would reduce the opportunity to hide information. Hope's (2002) findings, that there is a positive relation between the number of financial analysts following the firm and overall disclosure level, support this claim.

H₁: More disclosure on acquisitions is positively related to monitoring.

Detzen and Zülch (2012), and Shalev, Zhang and Zhang (2013) find that a high bonus intensity for CEOs leads to excess allocation of goodwill in acquisitions. Their explanation is that as the variable part of the CEO's remuneration increases, so does his incentives for managerial opportunism, and one way to increase earnings is to allocate more of the purchase price to goodwill. Building on the assumption that increased bonus intensity will increase managerial opportunism, we hypothesize that the incentives for disclosing complete information regarding acquisitions will decrease as the incentives for managerial opportunism increases. The assumption is supported by Shalev's (2009) finding that abnormal allocation of goodwill leads to less disclosure. We expect that a high bonus intensity will lead to less disclosure on acquisitions.

H₂: More disclosure on acquisitions is negatively related to bonus intensity.

3.2 Model

Our hypotheses is that monitoring and bonus intensity affect the disclosure level on acquisitions. To avoid potential problems with endogeneity we include both variables of interest along with the control variables in one model.

$$DISC = \alpha + \beta_1 ACT + \beta_2 BONUS + \beta_3 SIZE + \beta_4 BLOCK + \beta_5 LEV + \beta_6 ROE + \beta_7 GW + \beta_8 YEAR + \epsilon$$

In this model, we also control for differences between industries by setting industry as the panel-defining variable.

3.3 Disclosures

In accordance with previous research (Hope, 2003; Sengupta, 1998; Chow & Wong-Boren, 1987), we use a disclosure index to measure the amount of disclosure of acquisitions. We have had full involvement in designing the disclosure index in order to make it measure not only the extent of information given, but also to measure the quality of the information disclosed. The drawback of not using an existing index is that we cannot make direct comparisons with previous research (Marston & Shrives, 1991). Another potential limitation of using a self-constructed disclosure index is that the results are only valid to the extent that we use an appropriate index (Hassan & Marston, 2010).

In our disclosure index, we grade each acquisition from 0 to 7 based on 7 different mandatory information items, as shown in table 1. We focus only on the mandatory disclosure items, therefore a score of 7 indicates that the firm has disclosed all accounting items required for the acquisition. If a company discloses several acquisitions separately, the overall disclosure score for that year will be the median of the scores for the individual acquisitions.

Information item	Not disclosed	Disclosed
Name of target firm	0	1
Country of target firm	0	1
Number of targets per disclosure	0	1
Only one target per disclosure	0	1
Total consideration offered	0	1
Original book values of target	0	1
Adjustments of book values to fair value	0	1

Table 1, Variables in the disclosure index

To evaluate which statistical tests to use, it is necessary to evaluate what level of measurement we achieve by using the disclosure index. The data is at least ordinal and the question then becomes whether or not it is interval data. One way to transform the disclosure index into interval data is to assign weights to the different variables. To achieve such weights it is common to conduct attitude surveys among relevant user groups (Marston & Shrides, 1991). In such surveys, it is clear that a 6 is better than a 2, but not necessarily three times as important. Weights do not appear to achieve the measurement level of interval data and we therefore treat the disclosure index as an ordinal variable.

3.4 Monitoring (+)

We measure the level of monitoring by using the level of activity in the company's stock as a proxy. A company with a high level of activity will be subject to more scrutiny, because this means that more investors have owned the shares, and has therefore likely analyzed the firm to some extent. We measure activity as each firm's share of the total trading volume compared to the average trading volume per stock.

3.5 Bonus intensity (-)

Shalev, Zhang and Zhang (2013) find that the bonus intensity of managers influence how much they allocate to goodwill. Shalev (2009) finds that such an excess allocation to goodwill leads to less disclosure by the company. By combining the findings in these studies, we expect that CEOs with high bonus intensity will have incentives to disclose less information regarding acquisitions. We measure bonus intensity as the variable part divided by the fixed part of the CEO's remuneration and divide this by the firm's total assets.

3.6 Control variables

We select the control variables partly based on prior research and give the expected relation with disclosure level in parenthesis.

3.6.1 Firm size (+)

Ahmed and Courtis (1999) find that there is a positive correlation between firm size and the amount of disclosure by a company. This includes both voluntary and mandatory disclosure. We measure size as the logarithm of book value of debt and market value of equity. We use market value of equity instead of book value to take into account that some companies have large intangible assets that has not been capitalized. In our analysis, we will test if this choice has any impact on our results.

3.6.2 Ownership concentration (+)

Agency theory predicts that a larger shareholder takes more interest in the company and will seek to mitigate information asymmetry (Jensen & Meckling, 1976). This suggests a positive relationship with disclosure levels. To control for ownership concentration we use a dummy variable that takes on the value 1 if there are block holders in the company, 0 otherwise.

3.6.3 Leverage (+)

Jensen and Meckling (1976) observed that agency costs, i.e. costs arising from the information asymmetry are higher for firms with a relatively high leverage. Furthermore, high levels of disclosure lead to lower costs of debt (Sengupta, 1998). This suggests a positive relationship between leverage and disclosure levels.

3.6.4 Profitability (-)

Investors give companies with high profitability more slack when it comes to disclosure than they give companies with low profitability. We measure profitability as return on equity (ROE).

3.6.5 Goodwill (+)

For a company with a high degree of capitalized goodwill, the goodwill will be a more substantial part of the firm's assets and therefore information about further acquisitions may be more important to shareholders than it would be in a firm with no previous capitalized goodwill.

3.6.6 Year

We include dummy variables for the years 2012 and 2013 to control for effects arising from changes in accounting policy between years.

3.6.7 Industry

We use one-number SIC codes as the industry variable. We use industry as the panel defining variable to control for potential differences between industries.

3.7 Data collection

We have hand-collected data on acquisitions from all companies listed on the Swedish Stock Exchange, NASDAQ OMX Stockholm, in the years 2011-2013, by going through each annual report. Other data¹ come from Bureau van Dijk, Compustat and annual reports.

Our original sample consisted of 749 observations. Removing all companies that had not made any acquisitions reduced the sample to 243. We further remove financial companies and companies with missing values for CEO remuneration reducing the sample to 229 and 210. To avoid problems arising from extreme values on size, we remove companies with total assets less than SEK 200 million and total assets more than SEK 200.000 million, reducing the sample size to 195. If we do not remove these extreme values, size will be the only significant variable. Finally, data limitations for market value of equity and block holders reduce the sample to 194 and 185. Our final sample consists of 185 observations from 97 different companies listed on NASDAQ OMX Stockholm.

¹ We thank Mattias Hamberg for providing us with the data.

4. RESULTS

4.1 Descriptive statistics

Since disclosure is an ordinal variable, we report median and quartiles. The median score of disclosure is 6, which is the score for 46 percent of our observations. Only 23 percent of the observations have the maximum score of seven. 25 percent have a disclosure of 5 or lower. Although the disclosure index ranges from 0 to 7, the range of our observations is from 3 to 7.

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLE	N	1.quartile	median	3.quartile	min	max
DISC	185	5.00	6.00	6.5	3.00	7.00

Table 2, Descriptive statistics for the variable Disclosure index

The descriptive statistics for the independent variables are shown in table 3. The mean activity is 0.50, with values ranging from 0.04 to 4.27, which shows that the distribution is skewed. The mean bonus intensity relative to firm size is 6.33E-5, with values ranging from 0 to 7.28E-3. Size is logtransformed, so a mean value of 8.85 is the same as SEK 6 905 million.

	(1)	(2)	(3)	(4)	(5)
VARIABLES	N	mean	sd	min	max
ACT	185	0.50	0.54	0.04	4.27
BONUS	185	6.33e-05	1.18e-04	0.00	7.28e-04
SIZE	185	8.84	1.73	5.74	12.49
BLOCK	185	0.41	0.49	0.00	1.00
LEV	185	0.58	0.12	0.19	1.07
ROE	185	0.13	0.20	-1.26	1.37
BM	185	0.64	0.61	-0.96	4.32
GW	185	0.27	0.19	0.00	1.75

Table 3, Descriptive statistics for all independent variables

4.2 Correlations

Table 4 presents the correlation coefficients. For correlations between the interval variables we have used Pearson correlation, but for correlation with disclosure and block holders we use Spearman's rank correlation. The correlations marked with a star are significant on the 5% level.

	DISC	ACT	BONUS	SIZE	BLOCK	LEV	ROE	GW
DISC	1,00							
ACT	-0,01	1,00						
BONUS	-0,03	-0,07	1,00					
SIZE	-0,13	0,42 *	-0,38 *	1,00				
BLOCK	0,15 *	-0,26 *	-0,09	-0,26 *	1,00			
LEV	0,10	0,14	-0,27 *	0,21 *	0,13	1,00		
ROE	-0,02	0,05	-0,05	0,23 *	-0,15 *	0,18 *	1,00	
GW	0,04	0,04	0,05	-0,04	0,09	0,21 *	-0,06	1,0

Table 4, Pearson's correlation of all variables except for correlations for Disclosure and Blockholders which are Spearman's correlation

The correlation between disclosure and activity in the company stock is -0.01, and the correlation between disclosure and bonus intensity is -0.03. Neither of these correlations are significant. These findings are contradictory to our hypotheses that there is a clear relationship between the disclosure on acquisitions and the variables of interest.

There are significant correlations between size and activity, 0.42, and between size and bonus intensity, -0.38. Neither of these correlations are large enough to cause a problem for further analysis. The correlations between size and all other control variables, except goodwill, are significant.

4.3 Ordered logistic regression

The dependent variable, disclosure on acquisitions, is an ordinal variable, which limits our range of possible tests. The most suitable test for our model is the ordered logistic regression, which is a regression model for an ordinal dependent variable and several independent

variables. The implications of using this model instead of an OLS regression is that the coefficients cannot be interpreted directly from the model, but requires further analysis.

There are four underlying assumptions that must be fulfilled to use the ordered logistic regression. The first and second assumption is that the dependent variable is ordinal and that the independent variables are continuous, ordinal or categorical. All our variables fulfill these assumptions.

The third assumption assumes that there is no problems with multicollinearity. We calculate the variance inflation factor (VIF) to test for multicollinearity. The VIF ranges from 1 to infinity. A rule of thumb says that a variable has a large degree of multicollinearity if the VIF value is larger than 10. This assumption is fulfilled as all VIF values are less than 2.

The last assumption is that we have proportional odds, i.e. that each independent variable have an identical effect at each split of the ordinal variable. To test this assumption we use `omodel`, a likelihood-ratio test. Our null hypothesis in this test is that there is no difference in the coefficients between models. If the test yields a significant result the assumption of proportional odds is violated.

The approximate likelihood-ratio test of proportionality of odds across response categories gave a chi-squared value of 37.74 with a probability of 0.658. The assumption of proportional odds is therefore fulfilled and we can use the ordinal logistic regression.

The ordered logistic regression gives the coefficients and significance level for each of the independent variables. In addition, we generate the odds ratio for each variable. If the odds ratio is above 1, then for a one unit increase in the independent variable the odds of a high disclosure increases, and vice versa.

We test our model using the ordered logistic regression, controlling for differences between industries by treating industry classification as our panel-defining variable, and differences between years by using dummy variables for 2012 and 2013.

	(1)	(2)	(3)
VARIABLES	Logit coeff	Odds ratio	VIF
ACT	0.72** (0.33)	2.05** (0.69)	1.23 (0.17)
BONUS	-3.30** (1.40)	0.00** (0.00)	0.00** (0.00)
SIZE	-0.33*** (0.11)	0.72*** (0.08)	0.88*** (0.04)
BLOCK	0.40 (0.31)	1.49 (0.46)	1.13 (0.16)
LEV	0.91 (1.31)	2.49 (3.25)	1.59 (0.94)
ROE	-0.70 (0.79)	0.50 (0.39)	0.82 (0.28)
GW	0.45 (0.74)	1.57 (1.16)	1.27 (0.46)
2012.YEAR	-0.58* (0.35)	0.56* (0.19)	0.80 (0.13)
2013.YEAR	-0.39 (0.37)	0.68 (0.25)	0.80 (0.14)
Observations	185	185	185

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5, Results from Ordered Logistic Regression with Disclosure as dependent variable

From our ordered logistic regression, we find that both activity in the company stock and bonus intensity is significant on the 5% level. The odds ratio of activity is 2.05, which suggests a strong positive relationship with the disclosure on acquisitions. The odds ratio of bonus intensity is 0.00. This low number is due to the bonus intensity being divided by the firm's total assets. However, it still gives us that the relationship between bonus intensity and disclosure is negative. The VIF values for all variables are very low, suggesting that multicollinearity is not a problem in our model.

The only control variables that are significant are size and the dummy for 2012. The correlation between size and disclosure is negative, contradicting our assumption of a positive relationship. None of the other control variables is significant.

We also test if the results differ when we use book value of equity instead of market value in our calculation of size. There are minor changes in the coefficients, but this does not affect our inferences.

Running the ordered logistic regression with only activity, bonus intensity and size as explanatory variables yields the same results, but with greater significance. This regression is included in the appendix.

The coefficients from the ordered logistic regression can be used to calculate the probability of a specific disclosure level given a value for each independent variable. We vary the level of activity while holding all other variables constant at their mean value. We get a probability for each level of disclosure, but group these into low (0-5), medium (5.5-6) and high (6.5-7). This yields the following graph of probabilities for disclosure with varying amounts of activity.

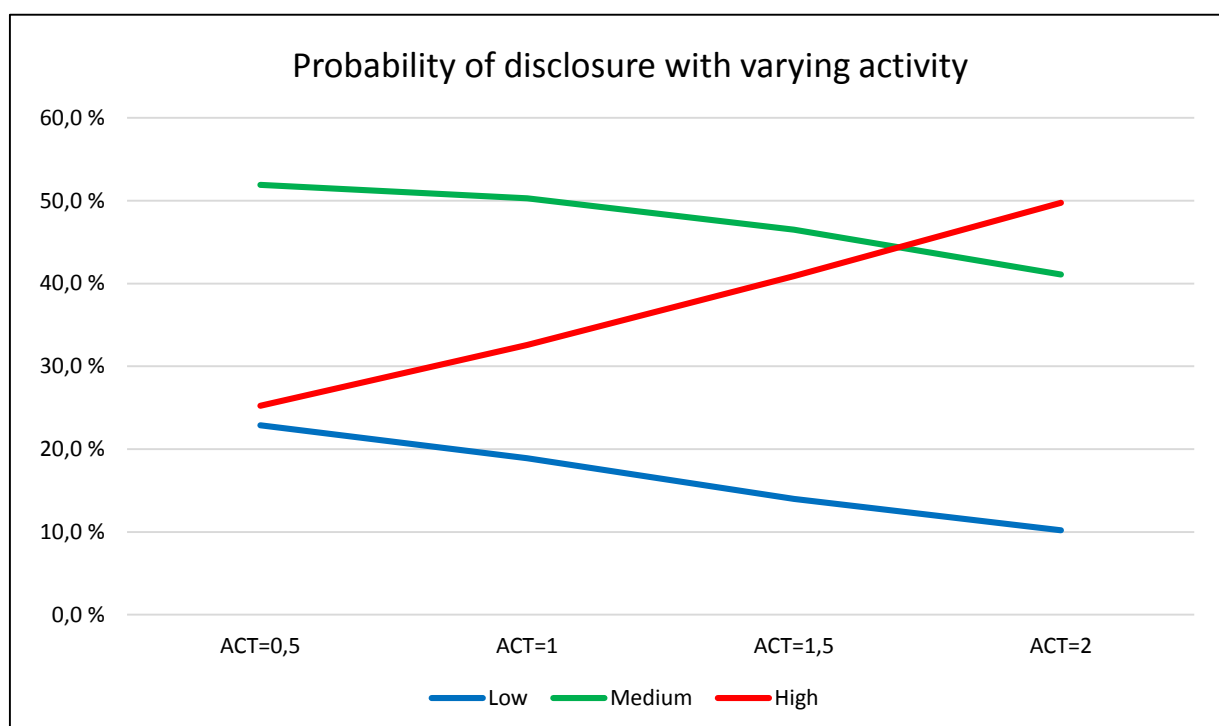


Figure 1, Probability of low, medium and high disclosure with varying amounts of activity and all other variables at mean value

From the graph, we see that the probability of high disclosure will increase from 25 to 50 percent as activity increases from 0.5 to 2. At the same time, the probability for low disclosure decreases from 23 to 10 percent as activity increases from 0.5 to 2.

From the ordered logistic regression we find that both activity and bonus intensity has an effect on disclosure level. However, when we tested for correlation between only disclosure level and one of the variables, the results were not significant. We hold the ordered logistic regression to be most correct in this analysis due to endogeneity problems arising when testing the effects of just one variable on the disclosure level.

5. ANALYSIS

Despite IFRS 3 demanding full disclosure, we find that only 23 percent disclosed all accounting items required. Although IFRS 3 states that firms are obligated to disclose information only on significant acquisitions, it is not likely that this is the case for 77 percent of the acquiring companies. Another explanation could be that supervision by the authorities may be too poor.

The consequences of a remark from SSE can be a fine and to correct the information. All remarks in 2013 lead to the company having to correct the mistake in future financial reports. The implication of making the firms give the correction in the consecutive annual report is that it delays important information for investors. Various research give evidence that the ability to predict future earnings is improved significantly when firms provide high levels of disclosure (Lundholm & Myers, 2002; Gelb & Zarowin, 2002; Hussainey, Schleicher, & Walker, 2003). To protect investors, SSE ought to force companies with lacking reports to make the correction in the current annual report, instead of the consecutive report.

Our results suggest that the enforcement of disclosure on acquisitions in Sweden is not as effective as it ought to be. One of the reasons is likely the delegation of responsibility to the SSE. The way enforcement is carried out should therefore be changed into one supervisory authority with full responsibility, in line with FI's own recommendations (Heneryd & Hjelström, 2009).

We find that low monitoring of a company stock is correlated to low disclosure on acquisitions. Therefore, instead of randomly choosing firms for control, FI could stratify the sample and prioritize firms with low stock activity for a full control. In this sense, FI compensates for the lack of monitoring by investors. On the other hand, one might say that firms with a lot of activity have more investors that need to be protected, and therefore should be monitored even closer.

The claim from La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999), and Holmen and Högfeldt (2004), that "Sweden has some of the highest law enforcement, accounting standards and anti-corruption indices in the world" is doubtful, at least regarding acquisitions. Our findings compared to FI's findings regarding lacking information in the annual report strongly suggests that the enforcement is weaker than the previous claim.

Prior research suggests that CEOs with higher bonus intensity allocates more of the purchase price in acquisitions to goodwill (Shalev, Zhang, & Zhang, 2013). They do this in order to increase their bonuses, as the excess allocation of goodwill helps to increase earnings in the short run. Shalev (2009) also finds that excess allocation to goodwill leads to less disclosure. These findings are supported by the negative correlation we find between bonus intensity and disclosure on acquisitions.

Agency theory suggests that CEO bonuses are implemented to align CEO interests with those of the shareholders. Bonuses might have much of the desired effect, but as our and Shalev's (2009) results suggest, there are negative effects of bonuses as well. With increased bonus intensity the disclosure on acquisitions is likely to be lower and it is more likely that there will be excess allocation to goodwill, which in turn is bad for investors.

Since transparency is of great importance to investors, the executive board and the general assembly should take the possible negative effects on disclosure into consideration when making decisions regarding the structure of the CEO bonus package.

In our analysis, we find that monitoring is positively related to disclosure. However, the causality is not certain, as it might be that increased disclosure leads to increased monitoring. Most likely, this relationship is circular, where increased monitoring incentivizes the firm to disclose more information, and the increased disclosure makes the company more attractive to investors, which in turn might lead to more monitoring.

6. CONCLUSION

In this study, we examine the impact of CEO bonus intensity and monitoring on mandatory disclosure of goodwill accounting in a low enforcement environment. Previous studies have found that a higher bonus intensity leads to excess allocation of goodwill (Shalev, Zhang, & Zhang, 2013; Detzen & Zülch, 2012). We hypothesize that if a manager has allocated in excess to goodwill, he has greater incentives to try to hide it by disclosing less information. Studies have also found a positive relation between the number of analysts following a company and the company's amount of disclosure (Hope, 2002). Since not only registered analysts analyze a company and monitor their financial report, we proxy for monitoring by using the activity in the company's stock. Research on goodwill accounting has predominantly focused on the US and to some extent on Europe in general. This entails that the focus has been on voluntary disclosure, as it is assumed that all mandatory information is disclosed. We conduct our research on Swedish listed companies, where there is low enforcement of disclosure requirements on acquisitions. Thus, our research focus on the mandatory disclosure on acquisitions.

Our results from analyzing data on Swedish listed firms in the years 2011-2013 show that only 23 percent of all firms that had made acquisitions disclosed all mandatory information items. We find that companies that are subject to a lot of monitoring have high disclosure on acquisitions and companies where the CEO has high bonus intensity have low disclosure on acquisitions.

These findings suggest that the methods employed by SSE and FI for discovering lacking information is inadequate. This is supported by FI themselves who argue for a change in how enforcement should be carried out (Heneryd & Hjelström, 2009).

We contribute to the literature in several ways. We examine goodwill accounting in a low enforcement environment by using data on Swedish listed companies. We further contribute by examining the effects of monitoring and bonus intensity on compliance with international accounting standards. Previous studies have found that high bonus intensity leads to a higher allocation to goodwill (Shalev, Zhang, & Zhang, 2013) and that excess allocation of goodwill leads to lower disclosure on acquisitions (Shalev, 2009). We bridge these two studies with our finding that high bonus intensity leads to lower disclosure on acquisitions.

A caveat of our research is that we treat firms that do not mention any acquisitions as not having acquired any companies, but it could also be the case that they have acquired a business without disclosing it. An implication of using a self-constructed disclosure index is the possibility of low measurement validity. In addition, when doing manual data collection there is always a possibility of human error.

In our sample, every annual report has been audited, but we still find many reports with missing information. A line of further research could be to examine if there are differences between auditors and the amount of discrepancy they allow for.

In our study, we do not examine each company's rationale for not disclosing all mandatory information. This could be done in future research by conducting in-depth research on the individual companies that do not disclose all mandatory information. It could also be interesting to study whether a sanction from FI leads to better disclosure in the future or if the sanction has little effect.

7. REFERENCES

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8. APPENDIX

8.1 Ordered logistic regression results complete model

This table shows the results from the ordered logistic regression (OLR) of disclosure on acquisitions. The dependent variable is disclosure, and the independent variables are activity, bonus intensity, size, blockholders, leverage, ROE, goodwill and year. Industry has been used as a panel-defining variable. Odds ratio and variance inflation factor (measure of colinearity) is also included. All assumptions of OLR are fulfilled.

VARIABLES	(1) Logit coeff	(2) Odds ratio	(3) VIF
ACT	0.718** (0.334)	2.049** (0.685)	1.225 (0.170)
BONUS	-3,302** (1,399)	0** (0)	0** (0)
SIZE	-0.334*** (0.108)	0.716*** (0.0775)	0.883*** (0.0411)
BLOCK	0.400 (0.307)	1.492 (0.458)	1.129 (0.160)
LEV	0.914 (1.305)	2.494 (3.254)	1.591 (0.940)
ROE	-0.695 (0.790)	0.499 (0.394)	0.821 (0.283)
GW	0.450 (0.740)	1.568 (1.161)	1.271 (0.455)
2012.YEAR	-0.581* (0.345)	0.559* (0.193)	0.795 (0.128)
2013.YEAR	-0.387 (0.371)	0.679 (0.252)	0.802 (0.138)
Constant cut1	-7.147*** (1.403)	0.000787*** (0.00110)	
Constant cut2	-6.733*** (1.342)	0.00119*** (0.00160)	
Constant cut3	-5.111*** (1.236)	0.00603*** (0.00745)	
Constant cut4	-3.641*** (1.205)	0.0262*** (0.0316)	
Constant cut5	-3.523*** (1.203)	0.0295*** (0.0355)	
Constant cut6	-1.339 (1.175)	0.262 (0.308)	
Constant cut7	-1.144 (1.175)	0.319 (0.374)	
Observations	185	185	185

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

8.2 Ordered logistic regression results simplified model

This table shows the results from the ordered logistic regression (OLR) of disclosure on acquisitions. The dependent variable is disclosure, and the independent variables are activity, bonus intensity and size. Odds ratio and variance inflation factor (measure of colinearity) is also included. All assumptions of OLR are fulfilled.

VARIABLES	(1) Logit coeff	(2) Odds ratio	(3) VIF
ACT	0.766** (0.317)	2.151** (0.683)	1.294* (0.169)
BONUS	-3.315** (1.319)	0** (0)	0** (0)
SIZE	-0.370*** (0.103)	0.691*** (0.0708)	0.870*** (0.0383)
Constant cut1	-7.769*** (1.178)	0.000423*** (0.000498)	
Constant cut2	-7.355*** (1.104)	0.000639*** (0.000706)	
Constant cut3	-5.734*** (0.972)	0.00323*** (0.00314)	
Constant cut4	-4.266*** (0.929)	0.0140*** (0.0131)	
Constant cut5	-4.148*** (0.926)	0.0158*** (0.0146)	
Constant cut6	-2.027** (0.881)	0.132** (0.116)	
Constant cut7	-1.841** (0.879)	0.159** (0.139)	
Observations	185	185	185

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

8.3 List of the data items that were hand-collected from the acquirers' annual reports

Information on acquirer:

- Whether the acquirer explicitly state that they comply with IFRS 3
- Name and number of auditors

General information on targets:

- Number of targets per disclosure
- Target name
- Target country
- Public or private target
- Amount of ownership purchased
- Acquisition related costs
- Stock consideration paid
- Total consideration paid

Allocation of purchase price:

- Goodwill before acquisition
- Goodwill after acquisition
- Cash
- Intangible assets
- Adjustments to intangible assets
- Total assets
- Adjustments to total assets
- Net assets
- Adjustments to net assets
- Tax liabilities
- Adjustments to tax liabilities
- Liabilities
- Adjustments to liabilities
- Interest bearing debt
- Adjustments to interest bearing debt

8.4 Disclosure requirements under IFRS 3

Details of the business combination

- Name and description of the target
- Acquisition date
- Percentage of voting equity interests acquired
- Primary reason for the acquisition

Details of goodwill

- Qualitative description of the factors that make up the goodwill recognised, such as synergies.
- Total amount of goodwill that is expected to be deductible for tax purpose

Fair value of consideration transferred

- Acquisition-date fair value of the total and each major class consideration, such as goodwill, cash, tangible and intangible assets, liabilities and equity interests of the acquirer.

Details of assets acquired and liabilities assumed

- Amounts recognised at the acquisition date for each major class of assets acquired and liabilities assumed
- Additional disclosures for each major class of acquired receivables

Acquisition-related costs

8.5 Initial recognition of purchase price allocation and accounting treatment

ASSETS RECOGNIZED		ACCOUNTING TREATMENT
Finite Life Intangible Assets	Goodwill an Indefinite life Intangible Assets	Not Subject to Amortization. Subject to a Mandatory Annual Impairment Test
	Patent and Technology	Amortized over Economic Useful Life
	Customer Related	
	Other Intangible Assets	Written Off at Acquisition
	In-Process R&D	Restated to Fair Value
	Net Tangible Assets	

Table adopted from Shalev, Zhang and Zhang (2013, p. 838).