

**The Information Content of First Quarter
Financial Reports before and after
the Adoption of IFRS:
Evidence from the Netherlands**

**Ceress Fiering
14 June 2011**

The Information Content of First Quarter Financial Reports before and after the Adoption of IFRS: Evidence from the Netherlands

Master thesis Department Accounting
Faculty of Economics and Business Studies
Tilburg University

Deloitte

Ceress Fiering

14 June 2011

Supervisor: C. Beuselinck

Abstract: Since 2005, all companies in the European Union are obliged to use International Financial Reporting Standards (IFRS) as accounting standard for their financial statements. This study investigates whether the information content of first quarter financial reports increased at the first time investors were confronted with quarterly figures prepared under IFRS. It is expected that investors react strongly on the first quarter financial report of 2005 because this report used a new, and generally more comprehensive accounting standard. The results of this study show that there is more stock price return and more trading volume in 2005 compared to 2004. Compared with the results of the sensitivity check, this indicates that the information content of first quarter financial reports has increased. Another result of this study is that the management discussion about the accounting change in the first-time IFRS quarterly report is significantly and negatively related to abnormal return and abnormal volume. We interpret this result as follows; when more effort is done to describe the effect of the accounting change, the abnormal return and abnormal trading effect is mitigated. Our evidence is in line with the general findings in the disclosure literature (e.g. Healy and Palepu, 1993).

Contents

1. Introduction	5
2. Literature review	8
2.1 International Financial Reporting Standards (IFRS)	8
2.1.1 IAS/IFRS specific standards	9
2.1.2 IAS/IFRS versus local GAAP	9
2.2 Information content of earnings announcements	10
2.3 The market reaction after an earnings announcement	12
2.4 IFRS: Market reaction and information content	13
3. Hypotheses	16
4. Research method	20
4.1 Research design	20
4.2 Dependent and independent variables	21
4.2.1 Abnormal stock price return	21
4.2.2 Abnormal trading volume	21
4.2.3 Independent variables	22
4.3 Univariate and multivariate tests	23
4.4 Sample selection	24
5. Results	25
5.1 Descriptive statistics	25
5.2 Univariate test	27
5.2.1 Abnormal stock price return	27
5.2.2 Abnormal trading volume	28
5.2.3 Independent variables	29
5.3 Multivariate tests	30
5.3.1 Multivariate test first and second regression	30
5.3.2 Multivariate test third and fourth regression	33
5.4 Sensitivity check	35
6. Conclusion and further research	37
6.1 Conclusion	37
6.2 Further research	39
7. References	40
Appendix A: Companies Used	45
Appendix B: Descriptive statistics	46
Appendix C: Mann-Whitney U Test	47
Appendix D: Univariate test abnormal return	48
Appendix E: Univariate test abnormal volume	49

Appendix F: T-test independent variables	50
Appendix G: Multivariate test first regression	51
Appendix H: Multivariate test second regression	52
Appendix I: Multivariate test third regression	53
Appendix J: Multivariate test fourth regression	54
Appendix K: Correlation matrix	55
Appendix L: Sensitivity check first regression	56
Appendix M: Sensitivity check second regression	57
Appendix N: Sensitivity check third regression	58
Appendix O: Sensitivity check fourth regression	59

1. Introduction

For a long time people are trying to formulate a global accounting standard. Nowadays, more than hundred countries have adopted or are thinking of adopting International Financial Reporting Standards (IFRS). IFRS are obligatory for all listed companies in the European Union (EU) since 2005 (Paananen and Lin, 2009). Before 2005 most companies in the EU used a domestic accounting standard. In the Netherlands, for instance, most companies used Dutch-GAAP (Dutch-General Accepted Accounting Principles). In recent years, the effect of this change in accounting standard in the European Union has been investigated a lot. Armstrong et al. (2009) investigated the market reaction on voluntarily adoption of IFRS, Landsman et al. (2011) examined whether the information content of earnings announcements increases in countries following mandatory IFRS adoption and Jarva and Lantto (2011) investigated the information content of financial statements in Finnish Accounting Standards (FAS) and IFRS. These studies show that investors react more strongly on the introduction of IFRS and that the information content of financial statements has increased when using IFRS.

The information content of financial statements has been investigated for more than 40 years, starting with Beaver (1968) and Ball and Brown (1968). Both studies showed that stock price return and trading volume increased after earnings announcements. This means that every time a company announces their earnings, it is expected that this is informative and stock price return and trading volume of that company increases. But what is the impact of a new accounting standard on the information content of the financial statements? This study investigates whether the information content of first quarter financial reports has increased because of International Financial Reporting Standards (IFRS). The publishing of the first quarter financial report of 2005 was the first moment the capital market was confronted with IFRS numbers.

A very recent study about the information content of financial statements was from Landsman et al. (2011) (henceforth: LMT). They investigated whether the information content increased in countries where IFRS became obligatory compared to countries that continued using a domestic accounting standard. The results of LMT were that using IFRS increases the information content of financial statements. However, LMT used annual financial statements. The first annual financial statements in according to IFRS were the annual statements of 2005. These financial statements were published in the beginning of 2006, which was already a year after the introduction of IFRS in the European Union. Companies that published quarterly or half-annual reports of 2005, already published these reports in according to IFRS. The information content of the first quarter financial reports of 2005, which is the first time investors are confronted with IFRS, has not been investigated yet. It is expected that a lot of new, IFRS-related information was already communicated in pro-forma

quarterly earnings announcements during the course of 2005. Therefore, the current study focuses on the first quarter financial reports of 2005. In particular, we study whether investors find the first quarter financial reports of 2005 more informative compared to the first quarter financial reports of 2004. The research question of this paper is: Has the information content of first quarter financial reports increased when using International Financial Reporting Standards?

To investigate this research question several hypotheses are used. The first set of hypotheses investigates whether the information content of the first quarter financial reports has increased in the mandatory IFRS adoption year 2005 compared to the pre-IFRS adoption year 2004. This is tested with the absolute abnormal stock price return ($|ABNRET|$) and absolute abnormal trading volume ($|ABNVOL|$). The absolute abnormal return and absolute abnormal volume are used because positive and negative numbers could cancel out each other and raw values for $ABNRET$ and $ABNVOL$. Therefore absolute numbers are used to investigate the relation between the dependent and independent variables (Kohlbeck and Magilke, 2004).

The second set of hypotheses investigates whether investors feel the disclosure about the change in accounting standard is informative. In 2004 the companies used in this study, used Dutch-GAAP as accounting standard and IFRS in 2005. All companies disclosed the differences between these accounting standards in their first quarter financial report of 2005. The hypotheses test whether the information content of this disclosure is high. It is expected that when it is informative, there is less market reaction when the first quarter financial report of 2005 is published, because investors already know a lot about the change in accounting standard and this disclosure only confirms their beliefs. Another reason why companies disclose information could be that companies want to reduce the uncertainty of investors. The first quarter financial report of 2005 was the first time investors were confronted with IFRS. Therefore investors could be very concerned about the change in accounting standard. Companies could reduce this uncertainty by disclosing what the impact of this new accounting standard is on the company's financial reports. So, when more is disclosed the uncertainty is reduced and therefore it is expected that the market reaction is less.

First, a univariate test is conducted. With a t-test the first set of hypotheses is tested. Both t-tests show that the $|ABNRET|$ and $|ABNVOL|$ of 2005 are not significantly different from the $|ABNRET|$ and $|ABNVOL|$ of 2004.

Thereafter multivariate tests are conducted. With a regression the first and second hypotheses are tested. The research method of Horton and Serafeim (2009) is used. The result of the first and second regression is there is less market reaction in the IFRS adoption year 2005 compared to 2004. However there is more trading volume in the adoption year 2005. In both regressions the relation is not significant, which suggests that the coefficients

are zero and that there is no relation between IFRS and the variables |ABNRET| and |ABNVOL|. The reason for the insignificance could be the low amount of observations.

The results of the third and fourth regression suggest that in the IFRS adoption year there is more market trading reaction when the first quarter financial report is published than in 2004. In these regressions an extra variable is added: NMBRIFRS. This variable includes the number of words that is dedicated to describe the effect on the change in accounting standard from Dutch-GAAP to IFRS. Consistent with expectations, the results of these regressions show that NMBRIFRS is negatively related to |ABNRET| and |ABNVOL|. It is expected that all investors have high prior information about the differences between Dutch-GAAP and IFRS and that investors know what the impact of this change is on the company's first quarter financial report and already revised their beliefs about the company's performance. Therefore when more is disclosed about the change in accounting standard, this confirms the investors beliefs about the impact of change in accounting standard, and so the market reaction is less. Another reason for this result could be that companies want to reduce the uncertainty of investors. Companies could reduce this uncertainty by disclosing what the impact of this new accounting standard is on the company's financial reports. So, when more is disclosed the uncertainty is reduced and therefore the market reaction is less.

To check whether these results hold when ABNRET and ABNVOL are used and not the absolute dependent variables, a sensitivity check is conducted. The first and second regression show that there is more market reaction in the IFRS adoption year 2005, but this reaction was again not significant. The third and fourth regression show that the variable IFRS is significantly and positively related to ABNRET and ABNVOL. This suggests that the information content of first quarter financial reports has increased by using IFRS. The tests also show that the variable NMBRIFRS is significantly and negatively related to ABNRET and ABNVOL. This suggests that the information content of the disclosure about the change in accounting standard is low. So, when more effort is done to describe the effect of the accounting change, the abnormal return and abnormal trading effect is mitigated.

This paper is organized as follows. In section 2 the literature review is given. This section is important for the development of the hypotheses. In section 3 the hypotheses are given and explained. Section 4 describes the research method and gives the sample selection. Section 5 gives and explains the results of this study and section 6 contains a conclusion of this study and suggestions for further research.

2. Literature review

This section gives a literature review about International Financial Reporting Standards (IFRS), the information content of earnings announcements, the market reaction after an earnings announcement, and the market reaction and information content after the adoption of IFRS.

2.1 International Financial Reporting Standards (IFRS)

Since 2005 all listed companies in the European Union are obligated to report their financial statements in according to International Financial Reporting Standards (IFRS) (Paananen and Lin, 2009). IFRS are accounting rules which are published by the International Accounting Standards Board (IASB). Between 1973 and 2000 international accounting standards were published by the precursor of the IASB, namely the International Accounting Standards Committee (IASC). The accounting rules which were published by the IASC were called: International Accounting Standards (IAS). In 2001 the IASB was founded and published the IFRS accounting rules. The goal of the IASB is to achieve “harmonization” and “convergence” of accounting rules (Jarva and Lantto, 2011). In more than hundred countries IFRS are or will be used as accounting standard.

IFRS have advantages and disadvantages compared to other accounting standards. Proponents of IFRS said that since the introduction of IFRS the financial statements of companies are more transparent (Armstrong et al, 2009). Opponents said that IFRS have not offered the expected benefits and it is just a change in accounting system without economic effects (Ball, 2006) or it even decreased the quality of the financial statements (Watts, 2006).

The introduction of IFRS in Germany is examined by Gassen and Sellhorn (2006). They analyzed the determinants of voluntary IFRS adoption by listed German companies. Size, international exposure, dispersion of ownership, and recent IPOs were important drivers for voluntary adopting IFRS. They also found that companies which adopted IFRS had more volatile stock prices. Daske (2006) investigated the benefits of adopting an international financial reporting standard. He found no evidence that companies which adopted an international accounting standard have a lower cost of capital.

Other studies investigated the differences between IFRS and the local standard, like Armstrong et al. (2009). They documented that the shift from local GAAP to IFRS for companies in the European Union was quite big, because many accounting rules are different in IFRS in according to the local GAAP. In IFRS more is disclosed in the footnotes about for example segments (IFRS 8), pensions (IAS 19) and share-based payments (IFRS 2) (Beuselinck et al, 2010).

2.1.1 IAS/IFRS specific standards

IFRS 8 is a standard about operating segments. It states that a company must disclose information to enable users to evaluate the business and operations of the company. It specifies how a company should report about its operating segments in annual financial statements and it sets requirements for related disclosures (IFRS 8).

Also IAS 19 differs from the accounting rules in the local GAAP. IAS 19 is a standard of employee benefits. The purpose of the standard is to prescribe the accounting and disclosure of employee benefits. A company may recognize a liability when an employee has provided service in exchange for benefits to be paid in the future. The standard recognizes an expense when the company has a benefit arising from the service provided by an employee in exchange for employee benefits (IAS 19).

In addition, IFRS 2 is a standard about share-based payments. A share-based payment is a transaction in which the company receives or acquires goods or services. This is either as consideration for its equity instruments or by incurring liabilities for amounts based on the price of the company's shares or other equity instruments. The concept of the share-based payments is to issue shares or to give rights to shares in return for goods or services (IFRS 2). These three examples show that IFRS increase transparency, because IFRS require more disclosed footnotes. Therefore it is expected that investors react positive on the introduction of IFRS as accounting standard, because they have more information to value the company compared to the old accounting standard.

2.1.2 IAS/IFRS versus local GAAP

A recent study about the differences between a local GAAP and IFRS is from Byard et al. (2011). They examine the effects of the mandatory adoption of IFRS on financial analysts' information environment. They use a sample that contains companies of 20 countries in the European Union. They also use Dutch companies and show that the domestic accounting standard in the Netherlands (Dutch GAAP) only differs from IFRS in four out of twenty-one items that they examine. This suggests that for Dutch companies the new accounting standard IFRS is not very different from the accounting standard they used before 2005, namely Dutch-GAAP. Therefore it is possible that this study cannot conclude that the information content of the first quarter financial reports has increased in 2005 compared with 2004, because Dutch-GAAP and IFRS rules do not differ very much. Byard et al. (2011) also show that the local GAAP of Greece differs a lot from IFRS. This suggests that when this study is performed with data from Greece, the outcomes are very different.

2.2 Information content of earnings announcements

In companies there could be a conflict of interest. This means that the interest of two parties is not aligned, like for example between a manager and an investor. The manager wants a bonus as high as possible, whether the investor wants the company doing well. This could result in the manager taking actions that is not in the best way of the company. Also the manager could have more information about the company than an investor, which could lead to a conflict of interest. Healy and Palepu (1993) found that disclosure strategies are important for managers to communicate their knowledge to outside investors, even if capital markets are efficient. It is expected that a company faces more costs when more is disclosed. This leads to lower earnings. Verrechia (1983) said that the incentive to disclose depends on two factors: costs of disclosure and favorableness of disclosure. Scott (1994) used the theory of Verrechia (1983) and found that when the costs are larger, the greater is the decrease in firm value upon disclosure and therefore the incentive not to disclose is greater. If a company decides to disclose the information, it is expected that investors react on it when the information is informative. According to Lev (1989) information is useful if changes in stock price or volume resulting from actions of investors can be attributed to specific information. When the information is useful for investors to make investment decisions, it is valuable and the information content is high. However if it is not useful, the information content is low.

The information content of earnings announcement was first investigated by Ball & Brown (1968) and Beaver (1968). Ball and Brown (1968) examined the usefulness of accounting income numbers and their information content and timeliness. Beaver (1968) studied the reaction of the investors to earnings announcements. He examined the abnormal stock price returns and abnormal trading volume in the weeks surrounding the earnings announcement. Both studies found a relation between an earnings announcement and stock price movements.

However, these studies were published more than 40 years ago. Some recent studies doubt about the usefulness and timeliness of accounting information and especially earnings nowadays (Amir and Lev, 1996, Aboody and Lev, 1998, and Lev and Zarowin, 1999). These studies express the concern that the economy of Western countries has shifted from a tangible assets based to an intangible assets based economy while accounting rules did not change over the years (Landsman and Maydew, 2002). Landsman and Maydew (2002) examined therefore whether the information content of quarterly earnings announcements has decreased over the years. The study used data over three decades: 1972-1998. They used the model of Beaver (1968): abnormal return volatility and abnormal trading volume to examine whether the information content has changed over the years. The result of the study was that they did not find any decrease in information content of earnings announcements

over these years. They found an increase in information content, but this was not necessarily because of the earnings announcement, because also other factors could have an influence on the information content.

Two other studies about information content have been published very recently. The first study is about the information content of annual earnings announcements and the mandatory adoption of IFRS (Landsman, Maydew and Thornock [LMT], 2011). LMT study whether the information content of earnings announcements has increased in countries following mandatory IFRS adoption. Also the conditions and mechanisms through which the increase occurred are investigated. LMT use the model of Beaver (1968) with the measures abnormal return volatility and abnormal trading volume to investigate the information content of earnings announcements of companies in 16 countries which used IFRS. LMT also use a control group of companies from 11 countries which use a domestic accounting standard. The results of their study indicate that the information content of earnings announcement increased when companies adopted IFRS mandatory compared to companies that maintained to use a domestic accounting standard. This result is found from both the univariate test and the multivariate test. LMT also find that IFRS reduced the reporting lag, increased analyst following and increased foreign investment.

Another very recent study is about IFRS, Finnish Accounting Standards (FAS), and the information content of financial statements in these accounting standards (Jarva and Lantto, 2011). The study documents that on average IFRS increased the amount of accounting earnings, decreased the value of equity, and increased the value of liabilities. The results of the study show that earnings in IFRS are not more timely compared to FAS. Also book values of assets and liabilities are not more value relevant in IFRS compared to FAS. However, the study shows that earnings in IFRS have greater information content to predict future cash flows compared to FAS.

Jarva and Lantto (2011) also survey twenty financial analysts. They use financial analysts to proxy for professional users of financial statements and with the survey they want to examine whether financial analysts use IFRS in the financial statement analyses. The purpose of this survey was to see whether financial analysts view IFRS disclosure as important. Jarva and Lantto (2011) find that on average the financial analyst has limited experience with IFRS. The results show that analysts use IFRS disclosures in their analysis and that the financial analysts view IFRS disclosure, like cash flow statements and segment reporting, as value relevant. The analysts also believe IFRS are of higher quality than non-U.S. domestic standards (Jarva and Lantto, 2011).

These two studies show a similar result. The adoption of IFRS has led to an increase in information content compared to domestic accounting standards. The intention of this study

is to investigate whether the information content of first quarter financial reports have increased through the adoption of IFRS

2.3 The market reaction after an earnings announcement

In an efficient market all information of a company that is available for investors is reflected in the share price. Investors use all information available to value the company. This is the so called efficient market hypothesis (Ball, 1972). So, in a perfect market the information about a new accounting standard should already be in the stock price of the company. Most research suggests that equity markets are efficient and investors “see through” the limitations of accounting (Healy and Palepu, 1993). However, other studies focused more on the capital market perspective to address accounting and disclosure decisions (Healy and Palepu, 1993). These studies assume that the manager of a company has more information about the company’s current and future performance than outside investors (Ronen, 1979; Holthausen and Leftwich, 1983; Schipper, 1989; Verrecchia, 1990) and therefore there is no efficient market. There is also information that is not available for investors, because of the information asymmetry between the manager of the company and the investor. When new information is available to the investor, he uses this to value the company. When the information is useful, he revises his estimates and believes about the performance of the company in the further and behaves to these believes on the stock market, which is expressed in a change in stock price. So disclosure is useful to mitigate the information asymmetry problem (Verrecchia, 2001).

However, the change in share price can be explained by a lot of variables and not only by the earnings announcement (Ball and Brown, 1968). Ball and Shivakumar (2008) investigated the importance of earnings announcement in providing new information to the market. They found that R^2 is between 5% to 9%. R^2 measures the proportion of total information incorporated in the share price annually that is associated with earnings announcements. They also test this for quarterly earnings announcements. They showed that only 1% to 2% of the information incorporated in the share price can be explained by the information in quarterly earnings announcements. This result is consistent with the theory that the primary role of earnings announcements is not to provide new information to the market, but probably to set contracts (Ball and Shivakumar, 2008). Other factors that could have an influence on the market reaction are firm size, industry group, capital structure, and earnings growth.

The market reaction after an earnings announcement could also be examined by the trading volume. Trading volume is used for studies that examined the information content of earnings announcement, but also for studies that investigated the information content of conference calls. Like Frankel et al. (1999) who found that the trading volume of shares of a

company increased when conference calls convey information for investors. In contrast with this study, Bushee et al. (2003) and Ahmed et al. (2007) found a decrease in trading volume when the conference call was made. These two studies were about the differences between open and closed conference calls. In an open conference call, everyone has access to the call, while with closed conference calls, only a limited group can join the call. These studies used intraday trading, because they measured the trading volume during conference calls. This is different from our study, because we use the sum of the daily trading, because we do not know when the first quarter financial report was published (before or after trading). Ahmed et al. (2007) expected a decline in trading volume because if everyone has access to the conference call, this reduces the differences in information quality between investors (also called the differential prior precision). This differential prior precision was introduced by Kim and Verrecchia (1997) and means that investors interpret earnings announcements differently. Ahmed et al. (2007) stated that differential prior precision has an effect on trading volume because, when new information is given to the market, investors with more prior information, revise their beliefs with a lesser extent than investors with less prior information. The study showed that there was a decrease in trading volume when a new regulation for conference calls was introduced, which suggests that differences between investors prior to the conference have decreased.

2.4 IFRS: Market reaction and information content

The effect of companies implementing IFRS is that financial statements can be better compared with each other (Jermakowicz, 2004). Before 2005 listed companies in the European Union used a domestic accounting standard. All countries used another standard so it was difficult to compare companies from different countries with each other. With the introduction of IFRS in 2005 this problem was solved, because all listed companies in the European Union had to use IFRS and therefore similar economic transactions are accounted for similarly (Jermakowicz, 2004). This should lead to more decision-useful accounting information for creditors, investors and other users of financial statements (Jermakowicz, 2004). The usefulness of financial reporting by investors can be measured by the change in share price or volume (Beaver, 1968). These changes in price and volume reflect the actions of investors taken when financial information is provided (Landsman et al., 2011).

Comprix et al. (2003) investigated the market reaction on four important events about the adoption of IFRS in 2000. They found a significant negative market reaction to these events. This meant that when the event was positively related to the adoption of IFRS, the market reaction was negative. Armstrong et al. (2009) (henceforth: ARM) have done quite the same study as Comprix et al. (2003) except that they used data from 2002 to 2005 and examined 16 important events related to the introduction of IFRS in the European Union. They used a

three-day market-adjustment return. The study showed that when investors think that the quality of financial statements increases by the adoption of IFRS, they react positively on the adoption of IFRS and because of the higher quality, the information asymmetry is lowered between companies and investors. However they also showed that investors could react negative on the adoption of IFRS. This could happen when investors believe that the adoption of IFRS have resulted in lower quality financial reporting information (also said by Watts, 2006). Or that the adoption of IFRS has more costs, like the implementation and transition costs, than benefits (ARM).

The results found by ARM were different from the study of Comprix et al. (2003). The market reacted positive (negative) when the event had a positive (negative) relation to the adoption of IFRS (ARM). ARM also found that the market reaction was more positive for companies that had lower pre-adoption information quality and higher pre-adoption information asymmetry. This is consistent with the study of Barth et al. (2008) who found that accounting quality increases when companies adopt voluntary IFRS compared to domestic accounting standards and with the expectation of investors that IFRS increase the information quality for the companies that adopt IFRS (ARM).

The study of Capkun et al. (2008) was about reconciliation of earnings and they found that reconciliations of earnings are value relevant when these are reconciled in 2005, the transition year. In addition, there is also some evidence that the first mandatory adoption of International Financial Reporting Standards (IFRS) in the European Union in 2005 have led to an increase in disclosed information compared to a local GAAP (Beuselinck et al., 2010). Beuselinck et al. (2010) found that companies did not only disclosed more information because of transition effects due to the use of IFRS but also disclose more footnotes about segments (IFRS 8), pensions (IAS 19), share-based payments (IFRS 2), and other transactions that were not disclosed under the local GAAP. These three examples are explained in paragraph 2.1.

The value relevance of the adoption of IFRS was also investigated by Horton and Serafeim (2010). Empirical evidence of Collins et al. (1997), Brown et al. (1999) and Francis et al. (1999) showed that the value relevance of earnings has declined over time. Horton and Serafeim (2010) find significant negative abnormal returns for companies that reported more negative earnings under IFRS than under UK-GAAP (United Kingdom-General Accepted Accounting Principles). Even though most companies claimed that the accounting change to IFRS had no cash flow effects and therefore had no effect on the share price of the company according to investors, Horton and Serafeim (2010) found something else. They found that the market reacts on the adoption of IFRS and includes the earnings adjustments into the stock prices. This is consistent with the advantage of IFRS that companies can better be compared with each other because of one accounting standard and the revealing news

because of the mandatory disclosure. Hall (2008), Hughes (2008) and Beuselinck et al. (2010) also stated that the first time mandatory adoption of IFRS in 2005 led to an increase in disclosed information.

The study of Beuselinck et al. (2010) showed the prospects of IFRS. IFRS requires disclosed footnotes and therefore IFRS reporting increases transparency. IFRS reporting also reduces the amount of reporting discretion relative to the local GAAP and IFRS reporting improves comparison across companies (Beuselinck et al., 2010; Daske et al., 2008; Barth et al., 2008). This suggests that the information content of IFRS reporting would increase in comparison with local GAAP reporting in the European Union in the pre-IFRS period. Therefore the research question of this study is: Has the information content of first quarter financial reports increased when using International Financial Reporting Standards?

This study is relevant, because most studies used annual earnings announcements to investigate whether the introduction of IFRS leads to greater information content while this study uses first quarter financial reports.

3. Hypotheses

In the literature section the question remains whether the information content of first quarter financial reports has increased when using International Financial Reporting Standards (IFRS). This study uses Dutch listed companies to examine whether the information content of first quarter financial reports has increased when using IFRS instead of Dutch GAAP. Most studies in the literature section only relied on annual financial statements instead of quarterly financial reports. However, a lot of companies already used IFRS for their first quarter financial reports in 2005. Therefore this study relies on first quarter financial reports. The first quarter financial reports (Q1) of 2004 (Dutch GAAP) and 2005 (IFRS) are compared with each other to investigate what the impact of the introduction of IFRS is on the information content of first quarter financial reports. Figure 1 illustrates the time line for this study.



Figure 1: Time line

Horton and Serafeim (2010) investigated the market reaction and value relevance of reconciliations from UK GAAP to IFRS. They found that the companies experience a negative abnormal return for reporting negative reconciliations. However they also found that the negative reconciliation adjustments are only value-relevant after disclosure, while positive reconciliation adjustments are value-relevant before and after disclosure. This indicates that companies already communicated good news to the market – captured by positive adjustments in UK GAAP earnings – prior to IFRS adoption, while bad news was communicated after the company complied with IFRS. So IFRS is used to reveal negative information and it suggests that investors react negatively on it (Horton and Serafeim, 2010).

In contrast with this study, the studies in the literature section show that the introduction of International Financial Reporting Standards (IFRS) in 2005 lead to an increase in information content. A very recent study of Landsman et al. (2011) (LMT) investigates the information content of annual financial statements. LMT use earnings announcements of 16 countries that adopted IFRS and 11 countries that used a domestic accounting standard. They measure whether the information content had increased by using IFRS. LMT found that companies in countries where IFRS is obligated, experience a greater increase in abnormal return and abnormal volume than companies that used a domestic accounting standard. So the mandatory adoption of IFRS leads to an increase in information content of earnings

announcements (LMT). This is consistent with the studies of Landsman and Maydew (2002); Jarva and Lantto (2011); and Horton and Serafeim (2009).

According to Beuselinck et al. (2010) IFRS requires disclosed footnotes and therefore IFRS reporting increases transparency. Also IFRS reporting reduces the amount of reporting discretion relative to the local GAAP and IFRS reporting improves comparison across companies (Beuselinck et al., 2010; Daske et al., 2008; Barth et al., 2008). This suggests that the information content of IFRS reporting would increase in comparison with local GAAP reporting in the European Union in the pre-IFRS period. Therefore in this study it is expected that the information content of first quarter financial reports increases after the introduction of IFRS.

In this study abnormal stock price return and abnormal trading volume are used. However, negative and positive abnormal returns and volumes could cancel out each other. Therefore the absolute abnormal stock price return and absolute abnormal trading volume are used (Kohlbeck and Magilke, 2004).

The first set of hypotheses are:

H_{1a}: The absolute abnormal stock price return ($|ABNRET|$) on first quarter financial reports increased in the mandatory IFRS adoption year 2005 compared to the pre-IFRS adoption year 2004.

H_{1b}: The absolute abnormal trading volume ($|ABNVOL|$) on first quarter financial reports increased in the mandatory IFRS adoption year 2005 compared to the pre-IFRS adoption year 2004.

This study also examines the effect of the disclosure of IFRS in the first quarter financial reports of 2005. Healy and Palepu (1993) found that disclosure strategies are important for managers to communicate their knowledge to outside investors, even if capital markets are efficient. However, if it is costly to disclose information in the financial statements, managers do not want to disclose and the company is misvalued (Healy and Palepu, 1993). If a company even though discloses the information, it is expected that investors react on it. When new information about the company is available to the investor, he uses this to value the company. When the information is useful, he revises his estimates and believes about the performance of the company in the further and behaves to these believes on the stock market. So disclosure is useful to mitigate the information asymmetry problem between the manager and investor (Verrecchia, 2001).

Hall (2008), Hughes (2008) and Beuselinck et al. (2010) stated that after mandatory adoption of IFRS there was an increase in disclosed footnotes. This suggests that in 2005 there are more disclosures in the first quarter report compared to 2004 and therefore IFRS reporting increases transparency. This was not only because of transition effects due to the use of IFRS, but also because of the use of more disclosed footnotes. When more is disclosed in the financial statements, it is expected that investors react on this, because they are better able to value the company.

The studies of Ahmed et al. (2007) and Bushee et al. (2003) showed that trading volume has decreased when the conference call was made. These studies used intraday trading, because they measured the trading volume during conference calls. This is different from our study, because we use the sum of the daily trading, because we do not know when the first quarter financial report was published (before or after trading). Ahmed et al. (2007) expected a decline in trading volume because if everyone have access to the conference call, this reduces the differences in information quality between investors (also called the differential prior precision (Kim and Verrecchia, 1997)). Ahmed et al. (2007) stated that differential prior precision has an effect on trading volume because, when new information is given to the market, investors with more prior information, revise their beliefs with a lesser extent than investors with less prior information. The study showed that there was a decrease in trading volume after a new regulation for conference calls was introduced, which suggests that differences between investors prior to the conference have decreased. In our study it is expected that investors already know a lot about the new accounting standard IFRS. The European Union already in 2002 decided to use IFRS as accounting standard from the year 2005 on. Investors were informed about this change in accounting standard and anticipated on this change. It is expected that all investors have high prior information about the differences between Dutch-GAAP and IFRS and that investors know what the impact of this change is on the company's first quarter financial report and already revised their beliefs about the company's performance. Therefore when more is disclosed about the change in accounting standard, this confirms the investors beliefs about the impact of change in accounting standard, and so the market reaction is less.

Another reason why we expect that the market reaction is less, is that companies want to reduce the uncertainty of investors. The first quarter financial report of 2005 was the first time investors were confronted with IFRS. Therefore investors could be very concerned about the change in accounting standard. Companies could reduce this uncertainty by disclosing what the impact of this new accounting standard is on the company's financial reports. So, when more is disclosed the uncertainty is reduced and the market reaction on the first quarter financial report is less.

Therefore the second set of hypotheses of this study are:

H_{2a}: The extent of IFRS disclosure in the first quarter IFRS financial report of 2005 is negatively related to |ABNRET|.

H_{2b}: The extent of IFRS disclosure in the first quarter IFRS financial report of 2005 is negatively related to |ABNVOL|.

4. Research method

In this section the research design is explained which is used in this study. The dependent and the independent variables and dataset are also given. The independent variables consist of control variables.

4.1 Research design

In this study, a lot of financial market data is used so an event study is done. An event study measures the impact of a specific event on the value of the firm. In an event study the major concern is the extent to which the stock price return and trading volume are abnormal. This is the extent to which stock price returns (or trading volumes) are different from those expected (Brown and Warner, 1980). This study uses the same abnormal returns as Beaver (1968): abnormal stock price return and abnormal trading volume. These variables are used to examine whether the implementation of IFRS in the first quarter financial reports of 2005 increased the information content. However, at the time of announcing the first quarter financial reports, there could also have taken place some other actions, which could have an influence on the stock price or trading volume of the company, like other companies (in the same industry) announcing their first quarter financial reports. Therefore, the overall market return must be subtracted from the stock price return of the company. For the trading volume an average of three days is subtracted from the trading volume of the company.

In this study it is important to take into account that the earnings announcements could be before or after trading. Therefore a three day event window is used for the abnormal stock price return. This means that the stock price for the company and the market return are used for the days $t = -1$, $t = 0$ and $t = 1$. This event window is used, because Bamber et al (1997) found that most of the reaction occurs during that period. At day $t = 0$ the earnings should be announced by the company. For the trading volume day $t = 0$ is used and also the trading volumes at day $t = -7$, $t = -14$ and $t = -21$.

In this study, the impact of International Financial Reporting Standards (IFRS) in the first quarter financial reports is investigated. Since 2005 IFRS are obligated for listed companies in the European Union and therefore the first quarter financial reports of 2005 are used to measure the impact of IFRS. However, when only the first quarter of 2005 is used, no conclusion can be drawn, so also the first quarter financial reports of 2004 are used. In 2004 the companies used in this study reported their first quarter financial report in according to Dutch-GAAP. These two years are compared with each other to see whether IFRS have any impact on the abnormal returns of the companies.

4.2 Dependent and independent variables

This section explains the dependent variables (abnormal stock price return and abnormal trading volume) and the independent variables.

4.2.1 Abnormal stock price return

The first dependent variable in this study is abnormal stock price return (ABNRET). This is the abnormal change in stock price of the company because of issuing the first quarter financial report. The abnormal return is measured by a formula used by Horton and Serafeim (2009):

$$AR_{it} = R_{it} - R_{mt}$$

AR_{it} (or ABNRET) is the abnormal return of company 'i' for period 't', R_{it} is the actual return of the stock price of the company for period 't' and R_{mt} is the normal return of the market for period 't'. The absolute abnormal return is used, because otherwise positive and negative numbers could cancel out each other (Kohlbeck and Magilke, 2004).

$$R_{it} = \frac{P_{it+1} - P_{it-1}}{P_{it-1}}$$

P_{it+1} is the stock price of the company on day 't+1' and P_{it-1} is the stock price of the company on day 't-1'. Where day 't' is the first quarter financial report release date of the company.

$$R_{mt} = \frac{M_{it+1} - M_{it-1}}{M_{it-1}}$$

M_{it+1} is the market index on day 't+1' and M_{it-1} is the market index on day 't-1'. Where day 't' is the first quarter financial report release date of the company.

The dependent variable abnormal stock price return (|ABNRET|) is used to test the hypotheses H_{1a} en H_{2a} .

4.2.2 Abnormal trading volume

The second dependent variable in this study is abnormal trading volume. The abnormal trading volume is tested with the model also used by Verbeek (2010):

$$ABNVOL = \frac{VOL_{it} - VOL_{it-x}}{VOL_{it-x}}$$

ABNVOL is the abnormal trading volume of the shares of the company. Again the absolute abnormal volume is used, because otherwise positive and negative numbers could cancel out each other. VOL_{it} is the trading volume for company 'i' traded on day 't'. Day 't' is the day the first quarter financial report was published. VOL_{it-x} is the average number of traded shares for company 'i' on t-7, t-14 and t-21, where 't' is the day the first quarter financial reports are published. The average of these three days is used, to calculate the abnormal trading volume. It is assumed that on these three days there is a normal trading volume and no other firm specific event occurred on these days (Verbeek, 2010). The dependent variable abnormal trading volume ($|ABNVOL|$) is used to test the hypotheses H_{1b} and H_{2b} .

4.2.3 Independent variables

Most of the independent variables used in this study are from the paper of Landsman and Maydew (2002). The independent control variables are:

- ❖ Earnings per share (EPS). This control variable is to control for the earnings published by the company and the growth in earnings compared to last year. In the regression EPS and Δ EPS are used. EPS are the earnings per share for the first quarter. Δ EPS is the change in earnings per share from the first quarter last year compared to this year's first quarter earnings per share. This number is divided by the share price at $t = 0$. The formula for Δ EPS is:
$$\frac{EPSt - EPSt-1}{Share\ price\ t}$$
.
- ❖ Company size (SIZE). This is measured as the total assets of the company. However, the amount of total assets is quite high compared to the other control variables, so the natural logarithm (ln) of the total assets is used. Demski and Feltham (1994) found that earnings announcements and public reports of small companies contain on average more information about the company. This suggests that trading volume and stock price return at the date of the earnings announcement are decreasing with company size.
- ❖ Price to book value (PTBV). This is a proxy for conservatism.
- ❖ Leverage (LEV). This control variable is measured as total debt to total capital.
- ❖ Industry group (IND). Industry group is the industry in which the company is in (Landsman and Maydew, 2002).

Group 1: Traditional fixed asset-intensive companies such as mining, construction, food, chemicals, extractive industries, durable manufacturers and transportation.

Group 2: Intangible-intensive companies such as pharmaceuticals and computers.

Group 3: Financial services companies.

Group 4: Services companies.

Group 1 is the default industry in the regression equation.

Besides these control variables this study also adds 2 extra control variables. Since 2005 IFRS is obligatory for all listed companies in the European Union (Paananen en Lin, 2009). The companies used in this study uses IFRS as accounting standard for their first quarter financial report of 2005 and Dutch-GAAP in 2004. Therefore a control variable named 'IFRS' is added. This control variable is a dummy variable, which means that it only can take the value 0 or 1. It is 0 when the first quarter financial report is of 2004 and 1 if it is from 2005. This variable is used for the first and second regression. For the third and fourth regression another control variable is added 'NMBRIFRS'. This variable calculates the number of words that is disclosed in the financial report about the change in accounting standard. In 2004 the companies used in this study used Dutch-GAAP as accounting standard and IFRS in 2005. All companies disclosed the differences between these accounting standards in their first quarter financial report of 2005. The number of words about this change in accounting standard is used as variable 'NMBRIFRS'. For 2004 this variable is 0 and for 2005 the natural logarithm of the total number of words is added.

4.3 Univariate and multivariate tests

First a univariate test is used to test the hypotheses H_{1a} and H_{1b} . A t-test investigates whether $|ABNRET|$ and $|ABNVOL|$ of 2005 are significantly different from $|ABNRET|$ and $|ABNVOL|$ of 2004. The results of this test are published in section 5.

Then multivariate tests are done which tests all hypotheses. Two regression models are conducted for the first hypotheses. These regression models include the aforementioned control variables. The following regression models are used to test the hypotheses H_{1a} and H_{1b} :

$$|ABNRET| = \alpha_0 + \alpha_1 * EPS + \alpha_2 * \Delta EPS + \alpha_3 * SIZE + \alpha_4 * PTBV + \alpha_5 * LEV + \alpha_6 * IND2 + \alpha_7 * IND3 + \alpha_8 * IND4 + \alpha_9 * IFRS$$

$$|ABNVOL| = \alpha_0 + \alpha_1 * EPS + \alpha_2 * \Delta EPS + \alpha_3 * SIZE + \alpha_4 * PTBV + \alpha_5 * LEV + \alpha_6 * IND2 + \alpha_7 * IND3 + \alpha_8 * IND4 + \alpha_9 * IFRS$$

Hypothesis H_{1a} is supported if α_9 in the first regression is significantly positive and hypothesis H_{1b} is supported if α_9 in the second regression is significantly and positive.

Two other regression models are conducted to test the second hypotheses. These regression models include the same control variables as for the first hypotheses, but also

add the control variable NMBRIFRS. The following regression models are used to test the hypotheses H_{2a} and H_{2b}:

$$|ABNRET| = \alpha_0 + \alpha_1 * EPS + \alpha_2 * \Delta EPS + \alpha_3 * SIZE + \alpha_4 * PTBV + \alpha_5 * LEV + \alpha_6 * IND2 + \alpha_7 * IND3 + \alpha_8 * IND4 + \alpha_9 * IFRS + \alpha_{10} * NMBRIFRS$$

$$|ABNVOL| = \alpha_0 + \alpha_1 * EPS + \alpha_2 * \Delta EPS + \alpha_3 * SIZE + \alpha_4 * PTBV + \alpha_5 * LEV + \alpha_6 * IND2 + \alpha_7 * IND3 + \alpha_8 * IND4 + \alpha_9 * IFRS + \alpha_{10} * NMBRIFRS$$

Hypothesis H_{2a} is supported if α_{10} in the first regression is significant and negative. Hypothesis H_{2b} is supported if α_{10} in the second regression is significantly negative.

4.4 Sample selection

For this study Dutch listed companies are used. Since 2005 these companies had to present their financial statements in according to IFRS. From all listed companies in 2004 and 2005, 55 companies are selected. These companies are not cross-listed and are the same as Verbeek (2010) used in his study. Of these 55 companies, 20 companies are removed. Part of these companies (5) is removed because these companies only published half-annual or annual financial statements. Other companies (11) are deleted because no first quarter financial report of 2005 could be found which is needed to count the number of words about the change in accounting standard. Also, 4 companies are removed because not all information about the independent variables is included in Datastream. Therefore, 35 companies remain in our sample and are used in this study. A breakdown of the selection process is summarized in table 1.

Table 1: Dataset

	Number of Companies	First quarter financial reports for 2004 and 2005
Original dataset (Dutch listed companies with earnings announcements in 2004-05)	55	110
Does not publish first quarter reports	5	10
No first quarter financial report available	11	22
Not all information in Datastream	4	8
Useful dataset	35	70¹

¹ For this study only 70 first quarter financial reports are used. This might give power problems for the results of this study. The number of first quarter financial reports is low, so this could lead to results that are not significant and therefore the hypotheses are not supported.

5. Results

In this section the descriptives are given. Also the results of the univariate test and multivariate tests are showed and explained.

5.1 Descriptive statistics

This study uses information of 35 Dutch listed companies. In Appendix A the names of these companies are given. All companies are listed on the Amsterdam Exchange and used Dutch-GAAP as accounting standard in 2004 and International Financial Reporting Standards (IFRS) in 2005. The industries in which the 35 companies are participating are presented in table 2. Most companies are in the first group, which includes the traditional fixed assets-intensive companies.

Table 2: Companies per industry

Group	Description	N
1	Traditional fixed asset-intensive companies such as mining, construction, food, chemicals, extractive industries, durable manufacturers and transportation.	18
2	Intangible-intensive companies such as pharmaceuticals and computers.	4
3	Financial services companies.	4
4	Service companies.	9
	Total	35

For this study the first quarter financial reports of 2004 and 2005 of the 35 companies are used. The date at which these first quarter reports were published, is crucial. This date is in the research model $t = 0$ and with this date the abnormal stock price return and abnormal trading volume could be measured. The earnings announcement dates used in this study are from Verbeek (2010). He used financial media, such as the Dutch financial newspaper (Het Financiële Dagblad) to investigate the release date. The problem is that it is not known whether the earnings announcement is before or after exchange. Therefore the date of publishing the first quarter financial report in the financial media is used. The earnings announcements for 2004 are between April 15 and June 15 and for 2005 between April 14 and May 31.

In table 3 the descriptives of some variables are given for 2004. It shows that the mean of $|ABNRET|$ (0,0312) and $|ABNVOL|$ (2,1709) are higher than the median of these variables. This means that the distribution of these variables is skewed to the right. This could be due to the low number of observations. It also shows that the minimum and maximum of $|ABNVOL|$ are more scattered compared to $|ABNRET|$. The mean of dEPS is positive

(0,0685), which means that on average EPS has grown in 2004 compared to 2004. The variable SIZE has a mean of 50,3 million and a median of 1,6 million. PTBV has a mean of 1,75% in a range of -10,69% and 12,39%. The table also reveals a LEV mean of 0.488. This means that on average the companies in this sample have more equity than debt. The table also shows that there are no observations for the variables IFRS and NMBRIFRS. This is expected, because the variable IFRS is a dummy variable and has the value 0 in 2004. NMBRIFRS is also zero, because in the first quarter financial report of 2004 there was no disclosure about the accounting change.

Table 3: Descriptive statistics 2004

	N	Minimum	Maximum	Mean	Median	Std. Deviation
ABNRET	35	0,004	0,0943	0,0312	0,0237	0,0263
ABNVOL	35	0,0226	14,9474	2,1709	0,7321	3,4886
EPS	35	-0,94	3,70	0,7047	0,52	1,0031
dEPS	35	-0,0541	1,7061	0,0685	0,0062	0,2890
SIZE	35	8.163	866.201.000	50.251.127	1.604.900	1,760E8
PTBV	35	-10,69	12,39	1,7540	1,42	3,1272
LEV	35	0,0054	1,3459	0,4883	0,4658	0,2659
IFRS	35	0,00	0,00	0,00	0,00	0,00
NMBRIFRS	35	0,00	0,00	0,00	0,00	0,00

Table 4 gives the descriptive statistics of 2005. This table shows that the mean of |ABNRET| (0,0279) and |ABNVOL| (3,5344) are again higher than the median, which indicates that the distribution of these variables are skewed to the right. The mean of dEPS (0,0001) is positive, which indicates that on average EPS has grown compared to the year before, but this grow is very small. The growth in EPS is also on average smaller than in 2004 (0,0685). The size of the companies has also grown, because the minimum of the size was in 2004 8.163 and in 2005 13.233. Also on average the companies has grown (67.904.594 in 2005, compared to 50.251.127 in 2004). The price to book value (2,29) is higher compared to 2004 (1,754) and the leverage (0,4519) has decreased (0,4883) on average. The variable IFRS is in this table 1. This is expected, because it is a dummy variable that takes 1 in 2005. The table also shows the number of words that are said about the change in accounting standard. On average companies used 1.399 words to disclose the change in accounting standard. The minimum is 20 and the maximum is 5.731.

Table 4: Descriptive statistics 2005

	N	Minimum	Maximum	Mean	Median	Std. Deviation
ABNRET	35	0,0002	0,1105	0,0279	0,0182	0,0283
ABNVOL	35	0,0174	44,3312	3,5344	1,145	8,4654
EPS	35	-0,06	2,38	0,5697	0,43	0,5853
dEPS	35	-0,1727	0,0452	0,0001	0,0040	0,0330
SIZE	35	13.233	1.156.521.000	67.904.594	1.961.800	2,415E8
PTBV	35	0,830	7,470	2,29	1,720	1,6910
LEV	35	0,0065	0,8669	0,4519	0,4428	0,2178
IFRS	35	1,00	1,00	1,00	1,00	0,00
NMBRIFRS	35	0,0065	5.731	1.399,14	801,00	1.650,86

To test whether the values used in this study are normally distributed, a Mann-Whitney U test is performed. This test is used to test if one sample is different from the other sample. First the Mann-Whitney U test is performed for ABNRET. The result of this test is shown in Appendix C. The significance level for the Mann-Whitney U test is 0,388. This means that the null hypothesis retains and that the distribution of ABNRET is the same across the years 2004 and 2005. For ABNVOL the Mann-Whitney U test is also performed. The result is shown in Appendix C. The significance level is 0,626, which suggests that the distribution of ABNVOL is the same across the years 2004 and 2005. These tests show that the distribution for 2004 is quite the same as for 2005, so it is expected that the introduction of IFRS does not have an influence on the ABNRET and ABNVOL.

5.2 Univariate test

The univariate test is in this study a paired t-test. This test calculates if the 2005 |ABNRET| and |ABNVOL| are significantly different from the ones observed in 2004. Also a t-test is performed for the independent variables.

5.2.1 Abnormal stock price return

First a paired t-test is conducted for the abnormal stock price return. With a t-test the first set of hypotheses is tested. A t-test tests whether the mean of |ABNRET|₂₀₀₅ is significantly different from the mean of |ABNRET|₂₀₀₄. The assumption of the paired t-test is that the means of the two groups are the same. Hypothesis H_0 is therefore: $\mu_1 = \mu_2$. This hypothesis is rejected when the p-value is lower than 0,05. To determine whether |ABNRET|₂₀₀₄ and |ABNRET|₂₀₀₅ are correlated, a Pearson correlation matrix is conducted. In Appendix D the table for this matrix is shown. The correlation between |ABNRET|₂₀₀₄ and |ABNRET|₂₀₀₅ is

-0,093. This suggests that the two variables are not correlated with each other. Also the significance level of 0,597 suggests this. Even though the variables are not correlated, a paired t-test is conducted.

Table 5: Paired t-test ABNRET

	Mean	Std.	Std. Error	95% Confidence Interval		t	df	Sig. (2-tailed)
		Deviation	Mean	Lower	Upper			
Pair 1 ABNRET ₂₀₀₅ – ABNRET ₂₀₀₄	-0,335793	4,03927	0,68276	-1,723330	1,051743	-0,492	34	0,626

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively.

Table 5 shows the result of the t-test. We derive from this test that the differences in mean is -0,34, which means that |ABNRET|₂₀₀₄ is slightly higher than |ABNRET|₂₀₀₅. However, the t-value of the test is -0,492 with a p-value of 0,626. We therefore cannot conclude that the mean of |ABNRET|₂₀₀₅ is different from the mean of |ABNRET|₂₀₀₄.

5.2.2. Abnormal trading volume

A t-test is also conducted for the abnormal trading volume. To examine whether the abnormal trading volumes of 2004 and 2005 are correlated, a Pearson correlation matrix is conducted. In Appendix E the table of this matrix is shown. The correlation between |ABNVOL|₂₀₀₄ and |ABNVOL|₂₀₀₅ is 0,348 and significant at a 0,05 level. This means that the abnormal volumes of the two years are correlated with each other. With this data a paired t-test is conducted.

Table 6 shows the result of this paired t-test. It gives that the differences in mean is 1,3635, which means that the abnormal volume of 2005 is on average higher than in 2004. However, the t-value of the test is 1,014 with a p-value of 0,318. Therefore we cannot conclude that the mean of |ABNVOL|₂₀₀₅ is different from the mean of |ABNVOL|₂₀₀₄.

Both t-tests show that the |ABNRET| and |ABNVOL| of 2005 are not significantly different from the |ABNRET| and |ABNVOL| of 2004. The reason for this is probably the low number of observations.

Table 6: Paired t-test ABNVOL

	Mean	Std.	Std. Error	95% Confidence Interval		t	df	Sig. (2-tailed)
		Deviation	Mean	Lower	Upper			
Pair 1 ABNVOL ₂₀₀₅ – ABNVOL ₂₀₀₄	1,363505	7,954365	1,344533	-1,368915	4,095924	1,014	34	0,318

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively.

5.2.3 Independent variables

A t-test is also done for the independent variables to check whether the means of 2004 and 2005 of these independent variables are different from each other. First the correlation between the variables is tested (see Appendix F). It shows that LEV_{2005} and LEV_{2004} are significant correlated ($p < 0,10$). The other independent variables are not significantly correlated with each other. Table 7 shows the results of the t-test.

Table 7: Paired t-test ABNVOL

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 $EPS_{2005} - EPS_{2004}$	-0,13503	1,08920	0,18411	-0,50918	0,23912	-0,733	34	0,468
Pair 2 $dEPS_{2005} - dEPS_{2004}$	-0,06833	0,29198	0,04935	-0,16863	0,03197	-1,384	34	0,175*
Pair 3 $SIZE_{2005} - SIZE_{2004}$	1,765E7	3,076E8	5,199E7	-8,800E7	1,233E8	0,340	34	0,736
Pair 4 $PTBV_{2005} - PTBV_{2004}$	0,536	3,59572	0,60779	-0,69917	1,77117	0,882	34	0,384
Pair 5 $LEV_{2005} - LEV_{2004}$	-0,03636	0,29034	0,04908	-0,13609	0,06338	-0,741	34	0,464
Pair 6 $NMBRIFRS_{2005} - NMBRIFRS_{2004}$	1.399,14	1.650,86	279,045	832,054	1.966,23	5,014	34	0,000***

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively (one-tailed).

The table shows that $dEPS_{2005}$ is one-tailed significantly different from $dEPS_{2004}$, because the p-value (0,175) is lower than the significance level. The differences in mean (-0,06833) shows that $dEPS_{2004}$ is bigger than $dEPS_{2005}$. This is consistent with the tables 3 and 4. These tables showed that the mean of $dEPS_{2004}$ (0,0685) is bigger than the mean of $dEPS_{2005}$ (0,0001). Also $NMBRIFRS_{2005}$ is significantly different from $NMBRIFRS_{2004}$, because the p-value (0,000) is lower than the significance level. The differences in mean (1.399,14) indicates that the $NMBRIFRS_{2005}$ is bigger than $NMBRIFRS_{2004}$. This is again consistent with the tables 3 and 4. These tables shows that the mean of $NMBRIFRS_{2005}$ (1.399,14) is bigger than the mean of $NMBRIFRS_{2004}$ (0,00). The other variables are not significantly different, because the p-values are bigger than the significance levels. Therefore it cannot be concluded that the variables are different in 2005 and 2004. This insignificance could be due to the low number of observations.

5.3 Multivariate tests

In this section the multivariate tests are conducted. With the regression models made in section 4.3 a linear regression is conducted to test the hypotheses. First a Pearson Correlation Matrix is made for all variables in the regression. Table 8 shows this matrix (see also Appendix K).

Table 8: Correlation matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
ABNRET (1)	1											
ABNVOL (2)	0,497** 0,000	1										
EPS (3)	-0,317** 0,007	-0,166 0,171	1									
dEPS (4)	0,099 0,415	-0,044 0,715	-0,178 0,141	1								
SIZE (5)	-0,423** 0,000	-0,424** 0,000	0,326** 0,006	-0,099 0,416	1							
PTBV (6)	0,063 0,605	0,057 0,642	-0,111 0,362	-0,227 0,058	0,073 0,546	1						
LEV (7)	-0,066 0,585	-0,157 0,195	-0,126 0,299	0,256* 0,033	0,192 0,112	-0,270* 0,024	1					
IND2 (8)	0,395** 0,001	0,315** 0,008	-0,333** 0,005	0,298* 0,012	-0,574** 0,000	0,064 0,601	-0,096 0,432	1				
IND3 (9)	-0,211 0,080	-0,137 0,259	0,079 0,515	-0,048 0,696	0,508** 0,000	0,033 0,786	0,217 0,071	-0,129 0,287	1			
IND4 (10)	0,085 0,486	0,081 0,503	-0,326** 0,006	-0,074 0,543	0,010 0,936	0,148 0,222	-0,156 0,197	-0,211 0,069	-0,211 0,079	1		
IFRS (11)	-0,062 0,609	0,106 0,381	-0,083 0,494	-0,166 0,169	0,033 0,786	0,108 0,376	-0,076 0,534	0,000 1,000	0,000 1,000	0,000 1,000	1	
NMBRIFRS (12)	-0,246* 0,040	-0,135 0,266	-0,043 0,722	-0,166 0,169	0,149 0,219	-0,018 0,882	-0,025 0,837	0,056 0,647	0,073 0,549	-0,127 0,293	0,519** 0,000	1

Pearson correlation coefficients (N=70). Two-tailed p-values are reported below the correlation coefficients

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

The table shows that abnormal return and abnormal volume are significantly correlated (0,497). Abnormal return is also significantly correlated with EPS ($p < 0,01$), SIZE ($p < 0,000$) and IND2 ($p < 0,01$). Abnormal volume is significantly correlated with SIZE ($p < 0,000$) and IND2 ($p < 0,01$). IFRS and NMBRIFRS are also significantly correlated ($p < 0,000$). This is understandable, because only in the IFRS adoption year 2005, there is disclosure about the accounting change.

5.3.1 Multivariate test first and second regression

The first set of hypotheses are about the influence of the introduction of IFRS in 2005. The hypotheses test whether the new accounting standard (IFRS) increases the information content compared to Dutch-GAAP. For these first hypotheses the first and second regression

models are used. The R^2 in the first regression is 0,253 (see Appendix G). This means that 25,3% of |ABNRET| can be explained by the coefficients used in the regression. The R^2 is also calculated for |ABNVOL| (see Appendix H), which is 0,237. This means that the coefficients explain 23,7% of |ABNVOL|.

Table 9 gives the results of the first regression with |ABNRET| as dependent variable. The table shows that the variable SIZE is one-tailed significant (significance level of 0,10) negatively related to abnormal return. The variable abnormal return in this regression is absolute, which means that it contains only positive numbers. Therefore a negative reaction suggests that the bigger the company, the less reaction in abnormal return. The variable IND2 is significantly positively related to abnormal return. The effect of the industry group was against the basis level of the fixed asset intensive companies (industry group 1). Industry group 2 (IND2) contains intangible intensive companies. The positive relation between IND2 and abnormal return is consistent with the findings of Landsman and Maydew (2002). The other variables used in this regression are not significant. This suggests that these variables do not affect the dependent variable abnormal return. Also the variable IFRS is not significant, which suggests that the introduction of IFRS has no influence on the abnormal return. This insignificance could be due to the low number of observations.

Table 9: First regression results of abnormal return^a

	B	Std. Error	Beta	t	Sig
IFRS	-0,396	0,621	-0,073	-0,638	0,526
(Constant)	6,699	2,753		2,433	0,018***
EPS	-0,463	0,476	-0,139	-0,973	0,335
dEPS	-0,257	1,688	-0,020	-0,152	0,879
SIZE	-0,254	0,191	-0,229	-1,335	0,187*
PTBV	0,051	0,134	0,047	0,383	0,703
LEV	0,176	1,463	0,016	0,120	0,905
IND2	1,967	1,356	0,232	1,451	0,152*
IND3	-0,366	1,184	-0,043	-0,300	0,758
IND4	0,465	0,842	0,075	0,522	0,583

a. Dependent Variable: ABNRET

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively (one-tailed).

A regression is also conducted for |ABNVOL|. The results of this regression are shown in table 10. In this regression only SIZE is significant and negatively related to abnormal trading volume. This is consistent with prior research suggesting that on average the smaller the company the more informative the earnings announcements and public reports (Demski and

Feltham, 1994). Other variables are not significant, which indicates that these variables have zero effect on the dependent variable abnormal trading volume. Also the variable IFRS is not significant and this suggests that the introduction of IFRS has no effect on abnormal volume. Again, the high level of insignificance could be due to the low number of observations.

Table 10: Second regression results of abnormal volume^a

	B	Std. Error	Beta	t	Sig.
IFRS	1,398	1,492	0,109	0,937	0,352
(Constant)	17,507	6,618		2,646	0,010***
EPS	0,499	1,145	0,063	0,435	0,665
dEPS	-2,382	4,059	-0,076	-0,587	0,559
SIZE	-1,138	0,458	-0,432	-2,485	0,016***
PTBV	0,060	0,322	0,023	0,185	0,854
LEV	-0,571	3,516	-0,021	-0,162	0,872
IND2	3,172	3,260	0,157	0,973	0,334
IND3	2,640	2,845	0,131	0,928	0,357
IND4	2,272	2,024	0,155	1,123	0,266

a. Dependent Variable: ABNVOL

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively (one-tailed).

The results of the first and second regression show that the influence of the variable IFRS on the dependent variables is low, because in both regressions the variable IFRS is not significant. The reason for this could be explained by the study of Byard et al (2011). They showed that IFRS differs from Dutch-GAAP in only four out of twenty-one items they used in their study. This suggests that the introduction of IFRS did not increase or decrease the information content of the first quarter financial reports and therefore no significant results are found. Also the low number of observations could be the reason why the variable IFRS is not significant.

Even though the results of these regressions show that the introduction of IFRS does not influence the abnormal stock price return and abnormal trading volume, we expect certainly there is a market reaction, but this market reaction depends on the number of words about the change in accounting standard that the management of the company wrote in the first quarter financial report of 2005. The introduction of IFRS gives some uncertainty about the company's performance. So when a company discloses information about this change in accounting standard and when this disclosure was informative, the companies could reduce the uncertainty and therefore there was zero market reaction. Another reason why these regressions do not show a relation, could be because of the theory of Ahmed et al. (2007). They indicated that when new information is given to the market, investors revise their beliefs

to a lesser extent when they have more prior information. It is expected that investors already know a lot about the new accounting standard IFRS, because in 2002 the European Union decided to use this accounting standard from the year 2005 on. Therefore all investors have high prior information about the differences between Dutch-GAAP and IFRS and they know what the impact of this change is on the company's first quarter financial report and already revised their beliefs about the company's performance. Therefore when more is disclosed about the change in accounting standard, this disclosure confirms the investors' beliefs about the impact of the change in accounting standard, and so the market reaction is less. Therefore an extra variable is added, to test whether IFRS has an influence on the market reaction and what the impact is of the disclosure about the change in accounting standard.

5.3.2 Multivariate test third and fourth regression

The second set of hypotheses is about the information content of the disclosure about the change in accounting standard. To test these hypotheses a regression is conducted. To test how much of the dependent variable can be explained by the independent variables, the R^2 is calculated. The R^2 in the third regression is 0,312 (see Appendix I). This means that 31,2% of the abnormal stock price return is explained by the variables used in the regression. The R^2 in the fourth regression is 0,323 (see Appendix J). This suggests that 32,3% of the abnormal trading volume is explained by the variables in the regression.

Table 11 shows the results of the third regression. The variable IND2 is significantly and positively related to abnormal return. The effect of the industry group was against the basis level of the fixed asset intensive companies. The positive relation suggests that companies in this industry produce more informative first quarter financial reports compared to the companies in industry group 1 (tangible asset intensive companies).

The variable IFRS is significantly and positively related to abnormal return. The abnormal stock price return is absolute, which means that it only contains positive numbers. The positive relation indicates that when the variable IFRS is higher (in 2005), |ABNRET| is higher. This means that when the 2005 first quarter financial report is published, there is more market reaction than in 2004. This is consistent with prior research, which also found more market reaction when the financial report was published for the first time in according to IFRS.

The variable NMBRIFRS is significantly and negatively related with abnormal return. |ABNRET| is absolute, which suggests that the variable can only contain positive numbers. So when more is said about the accounting change, abnormal stock price return is lower (and not negative). This is consistent with what is expected. Investors know a lot about the change in accounting standard and already anticipated on this change. Therefore when more is disclosed about the change in accounting standard, this confirms the investors' beliefs

about the impact of change in accounting standard, and so the market reaction is less. Another reason for this result could be that companies want to reduce the uncertainty of investors. The first quarter financial report of 2005 was the first time investors were confronted with IFRS. Therefore investors could be very concerned about the impact of the change in accounting standard. Companies could reduce this uncertainty by disclosing what the impact of this new accounting standard is on the company's financial reports. So, when more is disclosed and this disclosure is informative, the uncertainty is reduced and therefore the market reaction is less. The result is consistent with hypothesis H_{2a}.

The other variables in this regression are not significant and therefore the effect on the dependent variable is expected to be zero. The insignificance could be due to the low number of observations.

Table 11: Third regression results abnormal return^a

	B	Std. Error	Beta	t	Sig.
IFRS	3,347	1,767	0,620	1,895	0,063**
NMBRIFRS	-0,603	0,268	-0,747	-2,253	0,028**
(Constant)	4,921	2,778		1,771	0,082**
EPS	-0,487	0,461	-0,146	-1,055	0,296
dEPS	-0,577	1,640	-0,044	-0,352	0,726
SIZE	-0,124	0,193	-0,111	-0,640	0,525
PTBV	0,022	0,130	0,020	0,170	0,866
LEV	0,050	1,416	0,004	0,035	0,972
IND2	2,547	1,337	0,300	1,905	0,062**
IND3	-0,410	1,146	-0,048	-0,358	0,721
IND4	0,310	0,818	0,050	0,379	0,706

a. Dependent Variable: ABNRET

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively (one-tailed).

The fourth regression tests the relation between the independent variables and abnormal trading volume. Table 12 shows the results of this regression. The table shows that company size (SIZE) is significantly and negatively related to abnormal volume. This is consistent with the literature of Demski and Feltham (1994). It also shows that IND2 is significantly and positively related to abnormal volume. The effect of the industry group was against the basis level of the fixed asset intensive companies. This positive relation suggests that the earnings reports of the companies in this industry are more informative compared to companies in the tangible asset intensive industry.

Table 12: Fourth regression results abnormal volume^a

	B	Std. Error	Beta	t	Sig.
IFRS	12,134	4,169	0,945	2,911	0,005***
NMBRIFRS	-1,729	0,631	-0,901	-2,738	0,008***
(Constant)	12,409	6,556		1,893	0,063**
EPS	0,432	1,088	0,055	0,397	0,693
dEPS	-3,299	3,870	-0,106	-0,852	0,397
SIZE	-0,763	0,456	-0,289	-1,673	0,100**
PTBV	-0,024	0,308	-0,009	-0,079	0,938
LEV	-0,933	3,342	-0,035	-0,279	0,781
IND2	4,835	3,155	0,240	1,532	0,131*
IND3	2,513	2,703	0,125	0,930	0,356
IND4	1,827	1,930	0,124	0,947	0,348

a. Dependent Variable: ABNVOL

*, **, *** indicate significance at 10, 5 and 1 percent levels respectively (one-tailed).

The variable IFRS is significantly and positively related to abnormal volume. |ABNVOL| is absolute, which means that it can only contain positive numbers. The result of this regression suggests that in the IFRS adoption year 2005 there is more trading volume. This is consistent with prior research that found more market reaction when a financial report was published for the first time in IFRS.

The variable NMBRIFRS is significantly and negatively related with abnormal volume. When more is said about the accounting change, abnormal trading volume associated with the IFRS switch is reduced. This is consistent the theory that when more is disclosed about the change in accounting standard, this confirms the investors beliefs about the impact of change in accounting standard, and so the market reaction is less. Another reason for this result is that the disclosure reduces the uncertainty by investors and therefore the market reaction was less. The result of this test is consistent with hypothesis H_{2b}.

5.4 Sensitivity check

To test whether the results hold when the dependent variables are not absolute, a sensitivity check is done. In Appendices L, M, N and O the results of these tests are given. It shows that the R² of these tests are lower than when the absolute dependent variables are used. Therefore these tests are less useful to make conclusions compared to the tests which used the absolute dependent variables. The result of the first regression shows that there is more abnormal return in 2005 compared to 2004. However this is not a significant relation, so it cannot be concluded that the abnormal raw return has increased in 2005 compared to

2004. This insignificance can be due to the low number of observations. The result of the second regression shows that there is more abnormal raw trading volume in 2005 compared to 2004. Again this relation is not significant, probable because of the low number of observations.

The third and fourth regression show the same result. IFRS has a positive significant relation with ABNRET and ABNVOL. This suggests that in 2005 there is more market reaction when the first quarter financial report is published compared to 2004. To take into account the results of the regressions which used the absolute dependent variables, these results indicate that the market reacts more in 2005 and this market reaction was also more positive compared to 2004. So this suggests that the information content of first quarter financial reports has increased by using IFRS.

In the third and fourth regression, NMBRIFRS is negative significant related to ABNRET and ABNVOL. This suggests that when more is disclosed about the change in accounting standard, the market reacts negatively on this. In table 11 and 12 NMBRIFRS is negatively related to |ABNRET| and |ABNVOL|, which suggests that there is less market reaction in 2005, when more is said about the accounting change. The results of the sensitivity check show that even though there is less market reaction when more is said about the change in accounting standard, when there is a market reaction, this market reaction is negative. This indicates that investors react negatively on the disclosure about the change in accounting standard. According to Horton and Serafeim (2009), the cost of disclosure could be very high. It is expected that a company faces more costs when more is disclosed. This leads to lower earnings. Verrechia (1983) said that the incentive to disclose depends on two factors: costs of disclosure and favorableness of disclosure. Scott (1994) used the theory of Verrechia (1983) and found that when the costs are larger, the greater is the decrease in firm value upon disclosure and therefore the incentive not to disclose is greater. So the negative market reaction suggests that investors think the disclosure is too costly compared with the benefits (the value relevance of the disclosure). This suggests that the information content of the disclosure is low.

6. Conclusion and further research

In this section, the conclusion of this study is discussed. Also suggestions for further research are given.

6.1 Conclusion

This study investigates whether the information content of first quarter financial reports has increased by the introduction of the new accounting standard International Financial Reporting Standards (IFRS). Since 2005 all listed companies in the European Union (EU) are obliged to use IFRS as accounting standard. Before 2005 these companies used local General Accepted Accounting Principles (GAAP). In the Netherlands, for instance, the companies used Dutch-GAAP. This study looks whether the introduction of IFRS in 2005 has increased the information content of first quarter financial reports. This study uses the research method that was used by Horton and Serafeim (2009) with the dependent variables absolute abnormal stock price return ($|ABNRET|$) and absolute abnormal trading volume ($|ABNVOL|$). The data for the first quarter financial report of 2004 and 2005 are used to test the impact of the introduction of IFRS.

The results of the first and second regression, to test the first set of hypotheses, show that there is a negative relation between the IFRS adoption year 2005 and $|ABNRET|$ and a positive relation with $|ABNVOL|$. However in both regressions the variable IFRS is not significant and therefore the effect on the dependent variables is zero. The reason for this could be explained by the study of Byard et al (2011). They showed that IFRS differs from Dutch-GAAP in only four out of twenty-one items they used in their study. This suggests that the introduction of IFRS did not increase or decrease the information content of the first quarter financial reports and therefore no significant results are found. Also the low number of observations could be the reason why the variable IFRS is not significant.

In the third and fourth regression an extra variable is added: 'NMBRIFRS'. This variable measures whether the number of words that is said about the change in accounting standard has an impact on $|ABNRET|$ and $|ABNVOL|$. In 2004 the companies used in this study used Dutch-GAAP as accounting standard and in 2005 they used IFRS. The number of words about the change in accounting standard, which is stated in the 2005 first quarter financial report, are counted and used in these regressions.

The results of these regressions are that in the IFRS adoption year 2005 there is more market reaction, expressed in abnormal return and abnormal trading volume, when the first quarter financial report is published compared to 2004. Another result of these regressions is that when more is said about the accounting change, abnormal return and abnormal trading volume are reduced. This is consistent with the theory that investors already anticipated on the change in accounting standard. So when more is said about the change in accounting

standard, this confirms their beliefs and the market reaction is less. Another reason for this result could be that companies want to reduce the uncertainty of investors. The first quarter financial report of 2005 was the first time investors were confronted with IFRS. Therefore investors could be very concerned about the change in accounting standard. Companies could reduce this uncertainty by disclosing what the impact of this new accounting standard is on the company's financial reports. So, when more is disclosed the uncertainty is reduced and therefore the market reaction is less.

To check whether the results hold when the dependent variables are not absolute, a sensitivity check is performed. The sensitivity check used ABNRET and ABNVOL as dependent variables and not the absolute dependent variables. In the first and second regression the variable IFRS is not significant and therefore no conclusion can be made. This insignificance is probable because of the low number of observations. The results of the third and fourth regression suggest that in the IFRS adoption year 2005 the market reacts more positively on the first quarter financial report compared to 2004. The result of the regressions with the dependent variables |ABNRET| and |ABNVOL| already showed that there is more market reaction in the IFRS adoption year 2005. So these regressions show that there is more market reaction in 2005 and this market reaction is positive. Therefore it can be concluded that the information content of the first quarter financial reports has increased by using IFRS.

The results of the sensitivity check for the third and fourth regression show that there is a significant negative relation between the number of words about the accounting change and ABNRET and ABNVOL. The results of the regressions with dependent variables |ABNRET| and |ABNVOL| also show a negative relation with NMBRIFRS, which suggests that there is less market reaction in 2005, when more is said about the accounting change. The results of this sensitivity check show the market reaction is negative in 2005. So these regressions show that there is less market reaction when more is said about the accounting change, but if there is a market reaction, this market reaction is negative. According to the literature of Horton and Serafeim (2009), Verrechia (1983) and Scott (1994) the negative market reaction suggests that investors think the disclosure is too costly compared with the benefits (the value relevance of the disclosure). This suggests that the information content of the disclosure is low.

Overall, the results of this study indicate that the information content of first quarter financial reports has increased by using International Financial Reporting Standards. However this study also show that the information content of the disclosure about the change in accounting standard is low, because when more effort is done to describe the effect of the accounting change, the abnormal return and abnormal trading effect is mitigated.

6.2 Further research

This research gives some implications for further research. First, this study can be used to study the information content of first quarter financial reports in other countries in the European Union. Since 2005 all listed companies in the European Union have to publish their financial reports in accordance with IFRS. Byard et al. (2011) studied the differences between local GAAP and IFRS. They showed that the differences are not the same for different countries in the European Union. For instance, in Greece there are more differences between the local GAAP and IFRS than in the Netherlands. If this study is done in Greece, the results are not the same as this study. To make a general conclusion, this study must also be performed in other countries in the European Union.

Second, this study can be improved by using data of more first quarter financial reports from listed companies in the Netherlands. In this study some independent variables are not significant, because of the low amount of data. In this study 35 companies are used, while more than 100 companies are listed on the Amsterdam Exchange, so to improve this study, the first quarter financial reports of all these companies can be used. The problem then is that not all first quarter financial reports of 2004 and 2005 are on the World Wide Web, because most companies only publish these reports for the last 4 to 5 years.

Third, this study could be improved by also using data for the years after 2005. When data for the first quarter of 2006 till 2011 are also used, an improved conclusion can be made about the information content of the first quarter financial report of 2005. Landsman et al. (2011), who used also data after 2005, looked whether there is an alternative explanation for the increased information content in 2005. They found that after 2005, the information content decreased. This study could be used to look whether the information content of first quarter financial reports decreased after 2005.

7. References

Aboody, D., and Lev, B., 1998. The Value Relevance of Intangibles: The Case of Software Capitalization. *Journal of Accounting Research*, vol. 36.

Ahmed, A. S., and Schneible Jr., R. A., 2007. The Impact of Regulation Fair Disclosure on Investors' prior information quality — Evidence from an Analysis of changes in trading volume and stock price reactions to Earnings Announcements. *Journal of Corporate Finance*, vol. 13, pp. 282-299.

Amir, E., and Lev, B., 1996. Value Relevance of Non-Financial Information: The Wireless Communications Industry. *Journal of Accounting and Economics*, vol. 22, pp. 3-30.

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., and Riedl, E. J., 2009. Market Reaction to Events to the Adoption of IFRS in Europe. *Accounting Review*, vol. 85, no. 1, pp. 31-61.

Ball, R., 1972. Changes in Accounting Techniques and Stock Prices. *Journal of Accounting Research*, vol. 10, pp. 1-38.

Ball, R., and Brown, P., 1968. An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research*, vol. 6, no. 2, pp. 159-178.

Ball, R., 2006. International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and Business Research*, International Accounting Policy Forum: pp. 5-27.

Ball, R., and Shivakumar, L., 2008. How much New Information is there in Earnings? *Journal of Accounting Research*, vol. 46, no. 5, pp. 975-1016.

Bamber, L. S., Barron, O. E., and Stober, T. L., 1997. Trading Volume and Different Aspects of Disagreement Coincident with Earnings Announcements. *The Accounting Review*, vol. 72, no. 4, pp. 575-597.

Barth, M. E., Landsman, W. R., and Lang, M., 2008. International Accounting Standards and Accounting Quality. *Journal of Accounting Research*, vol. 46, pp. 467-498.

Beaver, W. H., 1968. The Information Content of Security Prices. *Journal of Accounting and Economics*, pp. 3-28.

Beuselinck, C., Joos, P., Khurana, I. K., and Van der Meulen, S., 2010. Mandatory IFRS Reporting and Stock Price Informativeness. Working paper, pp. 1-56.

Brown, S. J., and Warner, J. B., 1980. Measuring Security Price Performance. *Journal of Financial Economics*, vol. 8, pp. 205-258.

Brown, S. J., Lo, K., and Lys, T., 1999. Use of R² in Accounting Research: Measuring Changes in Value Relevance of the Last Four Decades. *Journal of Accounting and Economics*, vol. 28, pp. 83-115.

Bushee, B. J., Matsumoto, D. A., and Miller, G. S., 2003. Open versus Closed Conference Calls: the Determinants and Effects of broadening access to Disclosure. *Journal of Accounting and Economics*, vol. 34, pp. 149-180.

Byard, D., Li, Y., and Yu, Y., 2011. The Effect of Mandatory IFRS Adoption on Financial Analysts' Information Environment. *Journal of Accounting Research*, vol. 49, no. 1, pp. 69-96.

Cairns, D., 2006. The Use of Fair Value in IFRS. *The European Accounting Review*, vol. 15, pp. 5-22.

Capkun, V., Cazavan-Jeny, A., Jeanjean, T., and Weiss, L., 2008. Earnings Management and Value Relevance during the Mandatory Transition from Local GAAPs to IFRS in Europe. Working paper, Georgetown University.

Collins, D., Maydew, E. L., and Weiss, I., 1997. Changes in the Value-relevance of Earnings and Book Values over the Past Forty Years. *Journal of Accounting and Economics*, vol. 24, pp. 39-67.

Comprix, J., Muller, K., and Standford-Harris, M., 2003. Economic Consequences from Mandatory Adoption of IASB Standards in the European Union. Working paper, Penn State University.

Daske, H., 2006. Economic Benefits of Adopting IFRS or US-GAAP – Has the Cost of Equity Capital really decreased? *Journal of Business Finance and Accounting*, vol. 33, no. 3-4, pp. 329-373.

Daske, H., Hail, L., Leuz, C., and Verdi, R., 2008. Mandatory IFRS Reporting around the World: Early Evidence on the Economic Consequences. *Journal of Accounting Research*, vol. 46, pp. 1085-1142.

Dasgupta, S., Gan, J., and Gao, N., 2009. Transparency, Stock Return Synchronicity, and the Informativeness of Stock Prices: Theory and Evidence. *Journal of Financial and Quantitative Analysis*.

Demski, J., and Feltham, G., (1994). Market Response to Financial Reports. *Journal of Accounting and Economics*, no. 17, pp. 3-40.

Francis, J., and Schipper, K., 1999. Have Financial Statements lost their Relevance? *Journal of Accounting Research*, vol. 37, pp. 319-35.

Frankel, R., Johnson, M., and Skinner, D. J., 1999. An Empirical Examination of Conference Calls as a Voluntary Disclosure Medium. *Journal of Accounting Research*, vol. 37, no. 1, pp. 133-150.

Gassen, J., and Sellhorn, T., 2006. Applying IFRS in Germany – Determinants and Consequences. *Betriebswirtschaftliche Forschung und Praxis*, vol. 58, no. 4.

Hall, B., 2008. France Telecom: Lack of Clarity may lead to Confusion. *Financial Times*, April 30.

Healy, P. M., and Palepu, K. G., 1993. The Effect of Firms' Financial Disclosure Strategies on Stock Prices. *Accounting Horizons*, vol. 7, no. 1, pp. 1-11.

Holthausen, R., and Leftwich, R., 1983. The Economic Consequences of Accounting Choices: Implications of Costly Contracting and Monitoring. *Journal of Accounting and Economics*, vol. 5, no. 2, pp. 77-117.

Horton, J., and Serafeim, G., 2010. Market Reaction to and Valuation of IFRS Reconciliation Adjustments: First Evidence of the UK. *Rev. Accounting Stud.*, no. 15, pp. 725-751.

Hughes, J., 2008. CEOs need to take Account of IFRS. *Financial Times*, April 30.

IAS 19 Employee Benefits. <http://www.iasb.org/NR/rdonlyres/C561FAFB-2E4E-41B8-A6D7-FB7E92070ED8/0/ias19sum.pdf>

IFRS 2 Share-based Payments. <http://www.iasb.org/NR/rdonlyres/B18E5BAE-9934-4BB4-868B-DC08F4696FDE/0/IFRS2.pdf>

IFRS 8 Operating Segements. <http://www.iasb.org/NR/rdonlyres/4DE81E34-D5FC-4829-86AD-D0F2E49A6A8B/0/IFRS8.pdf>

Jermakowicz, E. K., 2004. Effects of Adoption of International Financial Reporting Standards in Belgium: The Evidence from Bel-20 Companies. *Accounting in Europe*, vol. 1, pp. 51-71.

Jarva, H., and Lantto, A. M., 2011. The Information Content of IFRS versus Domestic Accounting Standards: Evidence from Finland. Working paper, University of Oulu.

Kim, O., and Verrecchia, R. E., 1997. Pre-announcement and Event-period Private Information. *Journal of Accounting and Economics*, vol. 24, pp. 395-419.

Kolhbeck, M., and Magilke, M., 2004. The impact of concurrent conference calls on the information content of earnings announcements. Working paper, University of Wisconsin.

Landsman, W. R., and Maydew, E. L., 2002. Has the Information Content of Quarterly Earnings Announcements declined in the Last Three Decades? *Journal of Accounting Research*, vol. 40, pp. 797-807.

Landsman, W. R., Maydew, E. L., and Thornock, J. R., 2011. The Information Content of Annual Earnings Announcements and Mandatory Adoption of IFRS. Working paper, University of North Carolina.

Lev, B., 1989. On the Usefulness of Earnings and Earnings Research: Lessons and Directions from Two Decades of Empirical Research. *Journal of Accounting Research*, vol. 27.

Lev, B., and Zarowin, P., 1999. The Boundaries of Financial Reporting and How to Extend Them. *Journal of Accounting Research*, no. 37, pp. 353-385.

Paananen, M., and Lin, H., 2009. The Development of Accounting Quality of IAS and IFRS over Time: The Case of Germany. *Journal of International Accounting Research*, vol. 1, no. 8, p. 31-55.

Ronen, J., 1979. *The Dual Role of Accounting: A Financial Economic Perspective*. New York, New York. North Holland.

Schipper, K., 1989. Commentary on Earnings Management. *Accounting Horizons*, vol. 3, no. 4, pp. 91-102.

Scott, T. W., 1994. Incentives and Disincentives for Financial Disclosure: Voluntary Disclosure of Defined Benefit Plan Information by Canadian Firms. *Accounting review*, vol. 69, pp. 26-43.

Verbeek, R., 2010. *The Information Content of Quarterly Earnings Reports before and after IFRS Adoption: "The Case of the Netherlands"*. Masterthesis University of Tilburg.

Verrecchia, R., 1983. Discretionary Disclosure. *Journal of Accounting and Economics*, vol. 5, pp. 179-194.

Verrecchia, R., 1990. Information Quality and Discretionary Disclosure. *Journal of Accounting and Economics*, no. 12, pp. 365-380.

Verrecchia, R., 2001. Essays on Disclosure. *Journal of Accounting and Economics*, no. 32, pp. 97-118.

Watts, R. L., 2006. What has the Invisible Hand achieved? *Accounting and Business Research*, International Accounting Policy Forum, pp. 51–61.

Appendix A: Companies used

ABN Amro	Akzo Nobel	Arcadis
Athlon Holding	Bam Groep	Beter Bed
Corio	Corporate Express	Ctac
Dim Vastgoed	EVC International	ING Groep
Kardan NV	Kendrion	Koninklijke Ahold
Koninklijke DSM	Koninklijke KPN	Nieuwe Steen
Numico	Pharming Group	Randstad
Rodamco	Royal Dutch Shell	Simac Techniek
Stork	Ten Cate	TNT
Unilever	Vastned Offices	Vastned Retail
Vedior	Vopak	Wereldhave
Wessanen	Wolters Kluwer	

Appendix B: Descriptive statistics

Statistics 2004

	ABNRET	ABNVOL	EPS	dEPS	SIZE	PTBV	LEV	IFRS	NMBRIFRS
N Valid	35	35	35	35	35	35	35	35	35
Missing	0	0	0	0	0	0	0	0	0
Mean	,03122422	2,17091030	,7047	,068464509	50251127,37	1,7540	,4883	,00	,00
Median	,02372113	,73210162	,5200	,006208000	1604900,00	1,4200	,4658	,00	,00
Std. Deviation	,026283950	3,48855216	1,0030	,2890074723	1,760E8	3,12715	,26594	,000	,000
Minimum	,000398	,022641	-,94	-,0541401	8163	-10,69	,01	0	0
Maximum	,094263	14,947368	3,70	1,7061224	866201000	12,39	1,35	0	0

Statistics 2005

	ABNRET	ABNVOL	EPS	dEPS	SIZE	PTBV	LEV	IFRS	NMBRIFRS
N Valid	35	35	35	35	35	35	35	35	35
Missing	0	0	0	0	0	0	0	0	0
Mean	,02786631	3,53441482	,5697	,000135769	67904593,74	2,2900	,451949	1,00	1399,14
Median	,01816700	1,14495114	,4300	,003967300	1961800,00	1,7200	,442800	1,00	801,00
Std. Deviation	,028335167	8,465449235	,58529	,032968024	2,415E8	1,69099	,2178114	,000	1650,855
Minimum	,000168	,017391	-,06	-,1726619	13233	,83	,0065	1	20
Maximum	,110455	44,331169	2,38	,0451613	1156521000	7,47	,8669	1	5731

Appendix C: Mann-Whitney U test

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of ABNRET is the same across categories of Year.	Independent-Samples Mann-Whitney U Test	.388	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of ABNVOL is the same across categories of Year.	Independent-Samples Mann-Whitney U Test	.626	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Appendix D: Univariate test abnormal return

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 ABNRET2005	2,78662903	35	2,833515998	,478951620
ABNRET2004	3,12242234	35	2,628394961	,444279837

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 ABNRET2005 & ABNRET2004	35	-,093	,597

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 ABNRET2005 - ABNRET2004	-,335793316	4,039265380	,682760464	-1,723329521	1,051742889	-,492	34	,626

Pearson Correlation Matrix:

Correlations

		ABNRET2004	ABNRET2005
ABNRET2004	Pearson Correlation	1	-,093
	Sig. (2-tailed)		,597
	N	35	35
ABNRET2005	Pearson Correlation	-,093	1
	Sig. (2-tailed)	,597	
	N	35	35

Appendix E: Univariate test abnormal volume

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 ABNVOL2005	3,53441482	35	8,465449235	1,430922088
ABNVOL2004	2,17091030	35	3,488552169	,589672942

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 ABNVOL2005 & ABNVOL2004	35	,348	,040

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 ABNVOL2005 - ABNVOL2004	1,363504524	7,954364877	1,344533064	-1,368915413	4,095924461	1,014	34	,318

Pearson Correlation Matrix:

Correlations

		ABNVOL2004	ABNVOL2005
ABNVOL2004	Pearson Correlation	1	,348*
	Sig. (2-tailed)		,040
	N	35	35
ABNVOL2005	Pearson Correlation	,348*	1
	Sig. (2-tailed)	,040	
	N	35	35

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix F: T-test independent variables

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	EPS2005	,5697	35	,58529	,09893
	EPS2004	,7047	35	1,00305	,16955
Pair 2	dEPS2005	,000135769	35	,0329680249	,0055726133
	dEPS2004	,068464509	35	,2890074723	,0488511790
Pair 3	SIZE2005	67904593,74	35	2,415E8	4,083E7
	SIZE2004	50251127,37	35	1,760E8	2,974E7
Pair 4	PTBV2005	2,2900	35	1,69099	,28583
	PTBV2004	1,7540	35	3,12715	,52858
Pair 5	LEV2005	,451949	35	,2178114	,0368169
	LEV2004	,488306	35	,2659444	,0449528
Pair 6	NMBRIFRS2005	1399,14	35	1650,855	279,045
	NMBRIFRS2004	,00	35	,000	,000

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	EPS2005 & EPS2004	35	,138	,428
Pair 2	dEPS2005 & dEPS2004	35	-,033	,849
Pair 3	SIZE2005 & SIZE2004	35	-,062	,722
Pair 4	PTBV2005 & PTBV2004	35	-,027	,875
Pair 5	LEV2005 & LEV2004	35	,292	,088
Pair 6	NMBRIFRS2005 & NMBRIFRS2004	35	.	.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	EPS2005 - EPS2004	-,13503	1,08920	,18411	-,50918	,23912	-,733	34	,468
Pair 2	dEPS2005 - dEPS2004	-,0683287400	,2919767537	,0493530791	-,1686262641	,0319687841	-1,384	34	,175
Pair 3	SIZE2005 - SIZE2004	1,765E7	3,076E8	5,199E7	-8,800E7	1,233E8	,340	34	,736
Pair 4	PTBV2005 - PTBV2004	,53600	3,59572	,60779	-,69917	1,77117	,882	34	,384
Pair 5	LEV2005 - LEV2004	-,0363571	,2903403	,0490765	-,1360925	,0633782	-,741	34	,464
Pair 6	NMBRIFRS2005 - NMBRIFRS2004	1399,143	1650,855	279,045	832,054	1966,231	5,014	34	,000

Appendix G: Multivariate test first regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,503 ^a	,253	,141	2,519278811

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129,035	9	14,337	2,259	,030 ^a
	Residual	380,806	60	6,347		
	Total	509,841	69			

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

b. Dependent Variable: ABNRET

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,699	2,753		2,433	,018
	EPS	-,463	,476	-,139	-,973	,335
	dEPS	-,257	1,688	-,020	-,152	,879
	SIZE	-,254	,191	-,229	-1,335	,187
	PTBV	,051	,134	,047	,383	,703
	LEV	,176	1,463	,016	,120	,905
	IND2	1,967	1,356	,232	1,451	,152
	IND3	-,366	1,184	-,043	-,309	,758
	IND4	,465	,842	,075	,552	,583
	IFRS	-,396	,621	-,073	-,638	,526

a. Dependent Variable: ABNRET

Appendix H: Multivariate test second regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,486 ^a	,237	,122	6,056299400

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	682,159	9	75,795	2,066	,047 ^a
	Residual	2200,726	60	36,679		
	Total	2882,885	69			

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

b. Dependent Variable: ABNVOL

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17,507	6,618		2,646	,010
	EPS	,499	1,145	,063	,435	,665
	dEPS	-2,382	4,059	-,076	-,587	,559
	SIZE	-1,138	,458	-,432	-2,485	,016
	PTBV	,060	,322	,023	,185	,854
	LEV	-,571	3,516	-,021	-,162	,872
	IND2	3,172	3,260	,157	,973	,334
	IND3	2,640	2,845	,131	,928	,357
	IND4	2,272	2,024	,155	1,123	,266
	IFRS	1,398	1,492	,109	,937	,352

a. Dependent Variable: ABNVOL

Appendix I: Multivariate test third regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,559a	,312	,196	2,437812507

a. Predictors: (Constant), IFRS, IND4, SIZE, dEPS, PTBV, EPS, LEV, IND3, IND2

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	159,208	10	15,921	2,679	,009 ^a
	Residual	350,633	59	5,943		
	Total	509,841	69			

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

b. Dependent Variable: ABNRET

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,921	2,778		1,771	,082
	EPS	-,487	,461	-,146	-1,055	,296
	dEPS	-,577	1,640	-,044	-,352	,726
	SIZE	-,124	,193	-,111	-,640	,525
	PTBV	,022	,130	,020	,170	,866
	LEV	,050	1,416	,004	,035	,972
	IND2	2,547	1,337	,300	1,905	,062
	IND3	-,410	1,146	-,048	-,358	,721
	IND4	,310	,818	,050	,379	,706
	IFRS	3,347	1,767	,620	1,895	,063
	NMBRIFRS	-,603	,268	-,747	-2,253	,028

a. Dependent Variable: ABNRET

Appendix J: Multivariate test fourth regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,568 ^a	,323	,208	5,752777719

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	930,313	10	93,031	2,811	,006 ^a
	Residual	1952,573	59	33,094		
	Total	2882,885	69			

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

b. Dependent Variable: ABNVOL

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12,409	6,556		1,893	,063
	EPS	,432	1,088	,055	,397	,693
	dEPS	-3,299	3,870	-,106	-,852	,397
	SIZE	-,763	,456	-,289	-1,673	,100
	PTBV	-,024	,308	-,009	-,079	,938
	LEV	-,933	3,342	-,035	-,279	,781
	IND2	4,835	3,155	,240	1,532	,131
	IND3	2,513	2,703	,125	,930	,356
	IND4	1,827	1,930	,124	,947	,348
	IFRS	12,134	4,169	,945	2,911	,005
	NMBRIFRS	-1,729	,631	-,901	-2,738	,008

a. Dependent Variable: ABNVOL

Appendix K: Correlation matrix

Correlations

		ABNRET	ABNVOL	EPS	dEPS	SIZE	PTBV	LEV	IND2	IND3	IND4	IFRS	NMBRIFRS
ABNRET	Pearson Correlation	1	,497**	-,317*	,099	-,423**	,063	-,066	,395*	-,211	,085	-,062	-,170
	Sig. (2-tailed)		,000	,007	,415	,000	,605	,585	,001	,080	,486	,609	,158
	N	70	70	70	70	70	70	70	70	70	70	70	70
ABNVOL	Pearson Correlation	,497**	1	-,166	-,044	-,424**	,057	-,157	,315**	-,137	,081	,106	-,034
	Sig. (2-tailed)	,000		,171	,715	,000	,642	,195	,008	,259	,503	,381	,783
	N	70	70	70	70	70	70	70	70	70	70	70	70
EPS	Pearson Correlation	-,317*	-,166	1	-,178	,326*	-,111	-,126	-,333*	,079	-,326**	-,083	-,043
	Sig. (2-tailed)	,007	,171		,141	,006	,362	,299	,005	,515	,006	,494	,722
	N	70	70	70	70	70	70	70	70	70	70	70	70
dEPS	Pearson Correlation	,099	-,044	-,178	1	-,099	-,227	,256	,298	-,048	-,074	-,166	-,166
	Sig. (2-tailed)	,415	,715	,141		,416	,058	,033	,012	,696	,543	,169	,169
	N	70	70	70	70	70	70	70	70	70	70	70	70
SIZE	Pearson Correlation	-,423**	-,424**	,326*	-,099	1	,073	,192	-,574**	,508	,010	,033	,127
	Sig. (2-tailed)	,000	,000	,006	,416		,546	,112	,000	,000	,936	,786	,296
	N	70	70	70	70	70	70	70	70	70	70	70	70
PTBV	Pearson Correlation	,063	,057	-,111	-,227	,073	1	-,270	,064	,033	,148	,108	,088
	Sig. (2-tailed)	,605	,642	,362	,058	,546		,024	,601	,786	,222	,376	,467
	N	70	70	70	70	70	70	70	70	70	70	70	70
LEV	Pearson Correlation	-,066	-,157	-,126	,256	,192	-,270	1	-,096	,217	-,156	-,076	-,057
	Sig. (2-tailed)	,585	,195	,299	,033	,112	,024		,432	,071	,197	,534	,637
	N	70	70	70	70	70	70	70	70	70	70	70	70
IND2	Pearson Correlation	,395*	,315**	-,333*	,298	-,574**	,064	-,096	1	-,129	-,211	,000	,001
	Sig. (2-tailed)	,001	,008	,005	,012	,000	,601	,432		,287	,079	1,000	,991
	N	70	70	70	70	70	70	70	70	70	70	70	70
IND3	Pearson Correlation	-,211	-,137	,079	-,048	,508**	,033	,217	-,129	1	-,211	,000	,065
	Sig. (2-tailed)	,080	,259	,515	,696	,000	,786	,071	,287		,079	1,000	,593
	N	70	70	70	70	70	70	70	70	70	70	70	70
IND4	Pearson Correlation	,085	,081	-,326**	-,074	,010	,148	-,156	-,211	-,211	1	,000	-,048
	Sig. (2-tailed)	,486	,503	,006	,543	,936	,222	,197	,079	,079		1,000	,696
	N	70	70	70	70	70	70	70	70	70	70	70	70
IFRS	Pearson Correlation	-,062	,106	-,083	-,166	,033	,108	-,076	,000	,000	,000	1	,937**
	Sig. (2-tailed)	,609	,381	,494	,169	,786	,376	,534	1,000	1,000	1,000		,000
	N	70	70	70	70	70	70	70	70	70	70	70	70
NMBRIFRS	Pearson Correlation	-,170	-,034	-,043	-,166	,127	,088	-,057	,001	,065	-,048	,937**	1
	Sig. (2-tailed)	,158	,783	,722	,169	,296	,467	,637	,991	,593	,696	,000	
	N	70	70	70	70	70	70	70	70	70	70	70	70

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Appendix L: Sensitivity check first regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,307 ^a	,094	-,041	,040333132

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,010	9	,001	,695	,711 ^a
	Residual	,098	60	,002		
	Total	,108	69			

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

b. Dependent Variable: ABNRET

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,035	,044		,789	,433
	EPS	-,004	,008	-,085	-,540	,591
	dEPS	,016	,027	,085	,599	,551
	SIZE	-,001	,003	-,069	-,363	,718
	PTBV	-,004	,002	-,242	-1,776	,081
	LEV	-,003	,023	-,021	-,143	,886
	IND2	-,001	,022	-,007	-,040	,968
	IND3	,011	,019	,085	,555	,581
	IND4	-,007	,013	-,073	-,488	,627
	IFRS	,003	,010	,032	,255	,800

a. Dependent Variable: ABNRET

Appendix M: Sensitivity check second regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,476 ^a	,227	,110	6,178688844

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	670,779	9	74,531	1,952	,061 ^a
	Residual	2290,572	60	38,176		
	Total	2961,351	69			

a. Predictors: (Constant), IFRS, IND4, SIZE, PTBV, dEPS, LEV, IND3, EPS, IND2

b. Dependent Variable: ABNVOL

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16,140	6,751		2,391	,020
	EPS	,476	1,169	,059	,407	,685
	dEPS	-2,559	4,141	-,081	-,618	,539
	SIZE	-1,057	,467	-,395	-2,262	,027
	PTBV	,075	,329	,029	,229	,819
	LEV	-,653	3,587	-,024	-,182	,856
	IND2	3,598	3,326	,176	1,082	,284
	IND3	2,261	2,903	,111	,779	,439
	IND4	2,306	2,065	,155	1,117	,269
	IFRS	1,374	1,522	,106	,903	,370

a. Dependent Variable: ABNVOL

Appendix N: Sensitivity check third regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,430 ^a	,184	,046	,038596363

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,020	10	,002	1,335	,234 ^a
	Residual	,088	59	,001		
	Total	,108	69			

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

b. Dependent Variable: ABNRET

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,003	,044		,065	,949
	EPS	-,005	,007	-,094	-,621	,537
	dEPS	,010	,026	,055	,403	,688
	SIZE	,001	,003	,077	,406	,686
	PTBV	-,004	,002	-,276	-2,101	,040
	LEV	-,006	,022	-,034	-,251	,803
	IND2	,010	,021	,077	,450	,654
	IND3	,010	,018	,079	,536	,594
	IND4	-,009	,013	-,104	-,724	,472
	IFRS	,070	,028	,888	2,492	,016
	NMBRIFRS	-,011	,004	-,922	-2,554	,013

a. Dependent Variable: ABNRET

Appendix O: Sensitivity check fourth regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,554 ^a	,307	,190	5,895995832

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	910,347	10	91,035	2,619	,010 ^a
	Residual	2051,003	59	34,763		
	Total	2961,351	69			

a. Predictors: (Constant), NMBRIFRS, IND2, PTBV, IND3, EPS, LEV, dEPS, IND4, SIZE, IFRS

b. Dependent Variable: ABNVOL

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11,131	6,719		1,657	,103
	EPS	,411	1,115	,051	,368	,714
	dEPS	-3,459	3,966	-,109	-,872	,387
	SIZE	-,689	,468	-,258	-1,473	,146
	PTBV	-,007	,315	-,003	-,022	,982
	LEV	-1,010	3,425	-,037	-,295	,769
	IND2	5,232	3,234	,256	1,618	,111
	IND3	2,137	2,771	,105	,771	,444
	IND4	1,868	1,978	,126	,945	,349
	IFRS	11,922	4,272	,916	2,790	,007
	NMBRIFRS	-1,699	,647	-,874	-2,625	,011

a. Dependent Variable: ABNVOL