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COMMON MISSTATEMENTS IN THE FINANCIAL STATEMENTS OF LATVIAN COMPANIES.

DO INVESTORS CONSIDER POSSIBLE FRAUD IN FINANCIAL DATA THEY ANALYZE?

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Abstract

The author of the bachelor thesis identifies common areas of misstatements in the financial statements of Latvian companies and fins out, whether investors consider the possibility of fraud in financial data they analyze.

In the first part of the thesis, common areas of misstatements are identified by interviewing auditors. The differences on financial statement items between unaudited and audited financial statements of listed Latvian companies are analyzed to reveal areas, where misstatements and fraudulent data are discovered by auditors. The quantitative findings are compared to the interviews performed and previous researches.

In the second part of the thesis, it is found out how investors use financial statements by analyzing responses to questionnaires. Event study methodology is applied to reveal, how investors react to the differences between unaudited and audited financial statements of listed Latvian companies. By analyzing abnormal returns around annual report announcement date, it is discovered, whether investors consider the risk of fraud, when using unaudited financial statements to make decisions.

The findings allow drawing conclusions that most commonly, there are misstatements in financial statement items that require judgment to be exercised. Accrued expense, provisions for doubtful debt and inventory were among most frequently the items, where audit adjustments were made. Also, prepaid expense, accounts receivable and payable, and deferred tax liability were often subject to change after audit. It was found that assets were mostly overstated, while liabilities understated in the unaudited financial statements. Net profit was in more than half of reviewed cases revised, partly due to misstatements in the balance sheet items.

Event study revealed no evidence that misstatement and fraud possibility in financial statements are considered by investors. However, it was found that investors react to changes, caused by auditing financial statements, if the differences affect the financial ratios they analyze.

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1. Introduction

Financial statement preparation in a company is usually done by internal accountants, who are directly influenced by the management of the company. This implies an inherent risk of management to be able to affect company's financial statements, causing misstatements or fraud in them. The users of financial statements may make certain decisions, based on the information they get, so the fraud possibility implies a risk for financial statements users to make wrong decisions.

The purpose of the paper is to identify most common areas of misstatements in financial statements of Latvian companies, also describing the possible reasons of the misstatements. Next, it will be found out how investors' decisions are based upon financial statements. Finally, it will be analyzed, whether the risk of fraudulent financial statement usage is considered by investors.

Thus, two research question are raised:

What are the most common areas of misstatements in the financial statements of Latvian companies?

Do investors consider the possibility of fraud in financial data they analyze?

The scope of this thesis is to identify fraud that is common in financial statements of Latvian companies in general; this means that some details of industry specific frauds are discussed, but that is not the aim of this paper. For the purposes of the paper, fraud is defined as misstatement in financial statements, either deliberate or unintentional. This is done because without litigation, it is not possible to distinguish between the two; however, the author believes that not showing 'true and fair view' of the company shall be considered as fraud. It must be noted that only reporting fraud is analyzed, excluding such types of fraud as money laundering, embezzlement etc. When considering investor reaction to financial statements and fraud considerations, listed Latvian companies are used, as the methodology requires share price to be known.

1.1 Relevance of the Topic

After the infamous case of *Enron*, when the management was accused of committing fraud and *Arthur Andersen* was accused of hiding it, there has been significant effort to improve fraud prevention and detection – most noticeably, the standards on auditing were reviewed and improved. These global changes influenced

also Latvia, as international auditing companies, doing business in Latvia, use standardized methodology all over the world. Therefore, it can be assumed that the quality of audit and fraud detection procedures have improved in Latvia as well, although no researches have been done in the field to find out the current situation.

Despite these improvements, significant risk of fraud still exists, if unaudited financial statements are used, as nobody has reviewed the statements for fraud. Although audit does not eliminate such risks completely, by auditing, much additional assurance is provided to the users of financial statements. The topic of the thesis is therefore relevant in the sense that the research might give an insight to the financial statement users of what are common areas of fraud and how this fraud influences their decision making.

1.2 Structure of the Paper

The structure of the paper is the following – first, review of literature and researches done in the field is carried out. In this section, potential areas of fraud are identified and a review of papers on financial reporting situation in Latvia is done. Also, financial analysis of financial statements is described, and a review of researches, showing relationship between accounting numbers and investor decisions, is performed.

The thesis proceeds with the methodology section, which contains the methods used, to find out what are the common areas of misstatements in financial statements of Latvian companies and whether investors consider them, when making decisions. Next, analysis of empirical findings is done, followed by conclusions of the thesis.

2. Review of Literature

2.1 Fraud in Financial Statements

Financial statements of Latvian companies are prepared either using Latvian Generally Accepted Accounting Principles (GAAP), defined by the Law on Accounting and the Law on Financial Statements, or using International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS), issued by

the International Accounting Standards Board. These standards are not enforceable together; therefore, companies choose one of them for reporting purposes.

According to Law on Financial Statements 4.3, financial statements 'shall present true and fair view on enterprise's assets, liabilities, financial position, profit or loss and cash flow.'

According to IAS 1.13, financial statements 'shall present fairly the financial position, financial performance and cash flows of an entity. Fair presentation requires the faithful representation of the effects of transactions, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses set out in the Framework.'

Both of these standards basically state that financial statements shall be 'true and fair'; nevertheless, this is not always the case in financial reports. Frequently, companies manipulate with accounting data to show a better financial position than it actually is; this is called 'window-dressing'. As Rees (1995) puts it, 'Some managers believe that firms can be shown in a better light by judicious choice of accounting policies and by applying bias to the necessary estimation procedures'.

Rees (1995) also describes analysis of Smith and Hannah (1991), where the latter classify the most common accounting manipulations into 11 categories:

1. *Excessive provisions*. Goodwill is overstated and not expensed, thereby increasing profits

2. *Extraordinary items.* Significant reorganization/rationalisations costs showed as extraordinary items

3. *Off balance sheet finance.* Loans not shown on balance sheet

4. *Capitalised costs.* Inappropriate capitalisation to reduce costs

5. *Non-trading profits.* Such profits classified as normal earnings figure

6. *Brand accounting.* Brands showed as intangible assets

7. *Depreciation rate change.* Reduction in depreciation policy to show growth

8. *Pension fund holidays.* Reduction in pension fund contribution shows larger pre-tax profits

9. *Earn-out commitments.* Profit-sharing schemes to personnel

10. *Foreign exchange mismatch.* Mismatch between debts and deposits

11. *Low tax charge.* If low tax charge appears, profit manipulation probable

Although the research by Smith and Hannah (1991) is a bit outdated, as accounting standards have changed, still, the conclusions they make are important –

many largest UK quoted firms have these ‘creative accounting’ procedures. They also found that these procedures significantly affect important security market variables – price/earnings ratio, annual abnormal return and beta.

Feroz et al (1992) analysed source of accounting misstatements according to Securities and Exchange Comission’s (SEC) investigations and found that in most cases, trade receivables were the source of misstatements, followed by inventories, investments and long-term assets.

Concerning the accounting problems in Latvia, Silins (2003) has found that companies in Latvia have problems in accounting of intangible assets, namely, the distinction between capitalizeable costs and costs that should be directly expensed. He used case studies of Latvian companies and interviews with auditors. Another study by Sivare (2004) reveals that companies tend to avoid making proper provisions for expenses that are hard to estimate, e.g. court cases, warranties. The empirical research was based on reviewing financial statements of Latvian companies and interviews with auditors.

These researches are in line with the paper by Gerety and Lehn ‘Causes and Consequences of Accounting Fraud’ (1997) – they investigate cases of firms accused of committing accounting fraud. First conclusion they draw concerns the causes of fraud: they found that external factor - cost of valuing assets - significantly influences choice of committing fraud. They used industry classification to identify cost of valuing assets of a firm, and found positive relationship with fraud. Also, presence of intangible assets positively affects choice of fraud, although this relationship is not statistically significant. However, they found minimal influence on fraud from internal factors, such as compensation schemes, corporate governance structures and auditor reputation.

2.2 Financial Analysis of Financial Statements

The usage of financial statements depends on the user of them; if investors are viewed, they usually perform financial analysis, based on financial statements.

White et al (2003) present ratio and financial analyses, used by users of financial statements. Ratios can be classified in 5 groups (some examples of ratios given).

Activity ratios. Analyses sustainability of operating activities.

Inventory Turnover = Cost of Goods Sold / Average Inventory

Receivable Turnover = Sales / Average Trade Receivables

Payables Turnover = Purchases / Average Trade Payables

Working Capital Turnover = Sales / Average Working Capital

Fixed Asset Turnover = Sales / Average Fixed Assets

Total Asset Turnover = Sales / Average Total Assets

Liquidity ratios. Analyses ability to meet obligations.

Current Ratio = Current Assets / Current Liabilities

Quick Ratio = Cash+Marketable Securities+Accounts Receivable / Current Liabilities

Cash Ratio = Cash + Marketable Securities / Current Liabilities

Solvency ratios:

Debt to Assets = Total Debt / Total Assets

Debt to Equity = Total Debt / Total Equity

Debt to Equity (market adjusted) = Debt (book value) / Equity (market value)

Times Interest Earn (Coverage) = EBIT / Interest Expense

Profitability ratios. Analysis of profitability.

Gross Margin = Gross Profit / Sales

Pre-tax Margin = Earnings Before Tax (EBT) / Sales

Profit Margin = Net Income / Sales

Return on Assets = EBIT / Average Total Assets

Return on Equity = Pre-tax Income / Average Equity

Other valuation ratios. Used for securities valuation.

Earning per Share = Earnings Available for Common Shareholders / Number of Shares

Price-to-Earnings Ratio = Market Value of Equity / Net Income

Dividend Payout Ratio = Dividends / Net Income

Price-to-Book Ratio = Market Value of Equity / Book Value of Equity

According White et al (2003), the latter – ratios for securities valuation – are widely used by investors, as they link market and book values.

Another way of analyzing financial statements is to use Discounted Cash Flow method, which involves discounting all estimated future cash flows to present time, by using Weighted Average Costs of Capital, which is calculated, using required

returns on equity and debt and solvency ratios; this is also described by White et al (2003).

2.3 Investor Decisions based on Accounting Information

According Fama (1970) Efficient Market Hypothesis (EMH), there exist three forms of market efficiency:

1. *Weak form:* market prices incorporate all information on historical prices and returns. This means that technical analysis of historical prices and trends does not allow earn abnormal profits. However, the use of other sources of information – fundamental analysis of financial numbers – can be applied to earn abnormal profits.

2. *Semi-strong form*: all information on historical prices and returns, as well as all publicly available information is already incorporated in market prices.

3. *Strong form:* all information, both publicly and privately available, is incorporated in market prices, so there is no possibility to earn abnormal profits.

Therefore, according Fama (1970), using information available from financial statements is feasible, if the form of market efficiency is not stronger than weak form.

Research by Kukins and Strupka (2004) comes to a conclusion that Baltic markets are approaching weak-form efficiency. This means that historical prices are incorporated in market prices of stocks; however, it says nothing about financial statement information.

Martinuks and Stepanovs (2002) find that in Latvian stock market, quarterly earnings announcements are reflected in stock price movements; however, they do not influence number of shares traded. This finding means that the market reacts to financial information, provided publicly, meaning, the market efficiency form is definitely not strong.

Martinuks and Stepanovs (2002) use a model, originally used by Ball and Brown (1968), when the latter applied event studies method to find out whether earning announcements contain important information to investors. They measure the deviation of announced from expected earnings and measured the relationship with cumulative abnormal returns within a time window around the announcement date. What Ball and Brown (1968) find is that firms with announced earnings higher than expected earn abnormal returns over the window period.

MacKinlay (1997) researched and compiled different event study methods in economics and finance, also by Ball and Brown (1968). What he finds is that methods, used by Ball and Brown (1968) can be adjusted to analyze influence of any kind of event on stock returns, and explains in detail, how it should be done. The steps are: defining date event; defining time window around the event date; selecting sample; calculating expected return and abnormal return thereafter; expected event and deviation from it. Expected return can be calculated, either using mean return over some estimation window, or return, compared to market return (by using regression). Then, sample firms are classified, based on the deviation from the expected event outcome. Cumulative abnormal returns are compared among the classified groups to draw conclusion on the relationship between the event and the returns.

Concerning fraud and stock prices, Gerety and Lehn (1997) find that when the fraud is commenced, stock prices tend to increase; while on the announcement of fraud accuse, stock prices significantly decrease. This means that the market is fooled by the fraud, but later, when the fraud is detected, investors adjust their decisions. This is found, using conventional event study method used by Ball and Brown (1968) and described by MacKinlay (1997) – estimating cumulative abnormal returns around a time window.

3. Methodology

3.1 Identifying Common Fraud in Financial Statements

If companies meet certain turnover, profit or number of employees criteria, their financial statements must be audited by an independent auditor, as stated by the law. Auditor's task, on the other hand, is to provide opinion whether company's financial statements provide true and fair view of company in all material aspects. Therefore, auditor's prime task is to check, whether there are no material misstatements or fraud in the financial statements, and give official opinion about that.

In order to identify most common areas of fraud in financial statements of Latvian companies, similar methods as in paper by Sivare (2004) will be used –

interviews with auditors and financial statement review. The choice of this methodology is made due to several reasons.

Firstly, consulting representatives from companies, which commit fraud by misstating financial figures, would probably not bring results needed. Neither the management, nor accountants would be likely to respond to inquiries, as admitting misstating accounting figures is a sensitive issue. On the other hand, the issue is not sensitive to auditors, who have revealed the misstatements. Also, auditors have experience with number of companies and different types of misstatements, so they are potentially more valuable source of information. Nevertheless, due to confidentiality issues, names of the companies are not disclosed by the auditors.

Semi-structured, open ended question interviews are performed with auditors. The author has some prior knowledge in the field and is able to set the guidelines for the interview, therefore, semi-structured interviews are done. Open ended questions are used to obtain as much details as possible, also leaving possibility for examples. Questions to be asked:

1. What are the main areas of misstatements in financial statements of Latvian companies?
2. What are the most common misstatements in assets/equity/liabilities?
3. What is the cause for such misstatement?
4. Do you think the client intentionally misreports the results?

Interviews are carried out with 4 auditors – one manager level auditor (experience 7 years) and three senior level auditors (experience 3-4 years) from international auditing company in Latvia “Ernst&Young Baltics”. This company was chosen due to the fact it is the largest in Latvia in terms of turnover, which might be an indicator of auditing the widest range of different companies. Although there is a possible bias from interviewing auditors only from one auditing company, the author believes the risk is mitigated by the fact that in Latvia, auditors are not specialized – they audit companies from diverse industries. Next, the methodology applied in Big Four auditing companies (Ernst&Young, PricewaterhouseCoopers, KPMG and Deloitte) is fundamentally similar, so choosing another would not cause significantly different results. Auditors from local auditing companies are not considered for interviews, as typically they do not audit as wide representation of company types as leading international companies, both in industry diversification and size. Also, auditors from

international auditing companies have more sophisticated methods than local auditors, so they are more valuable source of information for the thesis.

Secondly, financial statements are reviewed. In order to identify misstatements or fraud, the author looks at unaudited and audited financial statements and differences between them. Although audited financial statements are not necessarily fully free from misstatements and fraud, they are significantly more reliable than unaudited, therefore, the adjustments made by the auditors are reviewed. The differences are identified on the level of account classification, e.g. debtors, cash, inventory, accounts payable etc.; the relative differences are taken to draw conclusions on the magnitude of missatements. Afterwards, the differences are analyzed to identify most common areas of misstatements. When these results are compiled with the interviews with auditors, a more clear picture of reporting situation in Latvia is found – which are the main areas, where unaudited financial statements are misstated and/or contain fraudulent numbers.

Financial statements to be analyzed are obtained from Riga Stock Exchange, as the rules of listing require submission of both unaudited and audited financial statements. The author uses all financial statements available from the source, which makes a sample of 63 pairs of unaudited and audited annual reports for period 2003-2005.

Although the usage of listed companies for this purpose imposes a selection bias, as listed companies are not necessarily a representative sample of all population, there are very limited opportunities to obtain unaudited financial statements from not listed companies. This limits the ability to generalize findings to all Latvian companies; nevertheless, common areas of misstatements as found from interviews with auditors still apply for the non-listed companies as well. As the final part, the consideration of fraud by investors, also relies on listed companies, the results can be compiled to draw meaningful and applicable conclusions.

3.2 Identifying Investor Usage of Financial Statements

In order to identify, how investors use financial statements and whether they consider fraud that is common in financial statements, structured, closed-end nominal and ordinal scale type questionnaires (see Appendix 1) are provided to investors. Prior to compiling the questionnaire, a professional financial analyst of an asset management company is consulted, so the questions asked cover all required

information, as well as possible answers are known. Ordinal scale is used for answers, as the degree of respondents approval is important for some questions; for others, nominal type used. Concerning ratios, they are not further explained, based on the assumption that if a person uses a ratio, he/she does not need an explanation of what it is. Another reason for closed-end questionnaires is that relatively large number of investors are interviewed. Although the precise number can not be known beforehand, the author expects to receive about 40 answers. From them, approximately one third is expected to be financial analysts in asset management companies, while the remaining - private investors. Financial analysts are indirectly contacted through professional networking; they are from largest asset management companies. Private investors are selected from users of internet portals, delegated to trading of shares (www.wallstreet.lv, www.lhv.lv). An online survey is created, to ease collection and coding of responses.

The results of the questionnaires are coded and analyzed, using statistical analysis – discovering mean of scaled answers, and percentage of respondents for nominal scaled answers. Conclusion about investor reliance on unaudited, and thus potentially fraudulent data, is drawn; also, the types of financial analyses applied by investors are found.

3.3 Consideration of Fraud: Event Study

In order to find out, whether investors consider possible fraud in financial statements, event study methodology is applied. The method used is pioneered by Ball and Brown (1968) and reviewed by MacKinlay (1997).

Investor consideration of fraud is found out by identifying their reaction to publications of audited financial statements; namely, how do investors react to differences or absence of differences between unaudited and audited financial statements. If there are no audit differences (i.e. unaudited and audited are the same) and on the publication of audited financial statement there are positive abnormal returns, investors do consider possibility of misstatements in financial statements. This is because when they observe audited statements, they increase their confidence in the accounting numbers and react. On the other hand, if there are no differences in statements and there are no abnormal returns, investors do not consider fraud in financial statements, when making decisions.

The publication of the audited statement is an event, which has a definite date – a prerequisite to use the methodology selected. The sample is all listed companies (official, second and free list) and all years, for which they have both unaudited and audited financial statements. This makes a sample of 63 observations over period 2003-2005. However, stocks that were traded less than 90% of trading days should be omitted, as including them would create a noise in the model. Also, stocks of companies, which publish their financial statements with less than 20 days between the dates should be omitted, as, firstly, it would be impossible to distinguish the reaction to unaudited and audited financial statements. Secondly, if publication of audited financial statements almost instantly follows the publication of unaudited financial statements, it is very likely that the latter were already audited, but the audit opinion was added only to annual reports.

The time window around the event date is set to half of the shortest time in the sample between publication of unaudited and audited financial statements. This is done so that window around event date (audited reports) for one company does not overlap with window around unaudited report, as that would cause distortion in abnormal returns, as described above. As the stocks with less than 20 days are eliminated from the event study, time window is set to 10 days.

All stocks will be classified, according to changes in financial ratios due to changes in financial report items. Expected item is taken from unaudited financial statements, as financial statements users generally expect them to be correct. On the event date, when audited financial statements are provided, there might be a change compared to unaudited financial statements due to identified misstatements or fraud. Based on these changes, all stocks will be divided into three categories – ‘good’ difference (e.g. increase in Net Margin), ‘no change’; and ‘bad’ difference (e.g. decrease in Gross Margin; decrease in Net Margin). The stocks will be classified into abovementioned three categories, according to most popular financial ratios, as revealed by questionnaires with investors. In such a way, the author is able to later indirectly identify, to which differences investors react more, and which financial statement positions investors do not consider fraud in.

Expected return is calculated, using market model, meaning, the estimated return is connected with the market return and is estimated, using OLS regression:

$$R_K = \alpha_K + \beta_K(Rm) + u_K \quad (1)$$

where R_K is the return of a stock *k* on a certain day, Rm is return of market on the same day, which is approximated to Riga Stock Exchange index OMXR. u_K is the error term.

The use of market model is justified by reviewing the literature, mentioned above. Firstly, the researches this thesis partly basis the methodology on, used market model – Ball and Brown (1968), MacKinlay (1997). Secondly, MacKinlay (1997) found that market model is substantial improvement over unconditional mean model in estimating expected return. He also found that factor models, such as APT, adds little explanatory power, if the companies are not similar i.e. not from the same industry. As the companies, listed in Riga Stock Exchange, are from diverse industries, market model is used.

It should be noted that this regression is done for every stock every year it had unaudited and audited statements, on a period of 120 days starting 150 days before unaudited statement publishing. Estimation window must be set so that it does not include effects of unaudited statement publishing, which is the basis of expectation formation; therefore, estimation started 30 days before. More than 120 days estimation window not reasonable, as that would mean more than 150 days before unaudited financial statements and would cause the risk of including effects of half year report publication. Although such estimation window includes the effects of quarterly report publications, setting an estimation window large enough that does not include them is not possible. The estimation to be more precise, as large window as possible must be made, so the amount of 120 days selected.

Later on, when calculating abnormal returns for a stock, α_K and β_K are used for estimation:

$$AR_K = R_K - \alpha_K - \beta_K (Rm) \quad (2)$$

AR_K is abnormal profit, when the stock's *k* return is R_K, and estimation of expected return yielded $\alpha_K + \beta_K$ (Rm). Rm, as stated above, is index OMXR.

For the time windows around event dates, abnormal returns for all the stocks in a portfolio are calculated for each day and summed up. Cumulative Abnormal Returns (CAR) of portfolios are calculated, accumulating the abnormal returns of each day from the first event window day; see equation (3).

(3) $$CAR_T = \sum AR_T$$

As stated above, if there are no changes between audited and unaudited statements, and there are no abnormal returns, then the conclusion is that investors do not consider fraud in unaudited statements, when making decisions. However, if there are abnormal returns in 'no change' group, investors do consider.

As in event classification by comparing the outcome to expected, stocks are classified to groups according many financial ratios, the author is able to identify the areas of misstatements that investor are more sensitive to.

Concerning the statistical significance testing of the results, the author is not performing statistical significance testing, due to following reasons. MacKinlay (1997) presents a statistical test with an assumption that no clustering exists, meaning, event windows do not overlap. However, this assumption does not hold in the sample used for the thesis. Two solutions are provided by MacKinlay (1997) – aggregating stocks in portfolios according event date or using data without aggregation. The first solution can not be applied due to relatively small sample size – aggregating stocks in portfolios according date and then classifying according 'good', 'no change' and 'bad' portfolios would cause results to be less reliable and less applicable, as there would be large number of portfolios, consisting of small number of stocks.

The second solution – using data without aggregation – according MacKinlay (1997), has a major drawback - the test often has little power. As the sample size is relatively small in the thesis, it is believed that applying this test would very likely have little power. Considering the alternatives, the author believes that none of the tests can be applied, as they are either incompatible with the methodological setup, or will add little value to the research. As MacKinlay (1997) has reviewed common event study methodology applied by different researchers, and the author himself has found no other applicable statistical tests, a decision not to use statistical testing is made.

4. Empirical Findings

4.1 Findings of Common Misstatements in Financial Statements

In this section, a summary of findings of common misstatements in financial statements are presented.

4.1.1 Results from Interviews with Auditors

From the interviews with auditors (see list on Appendix 3), it was found that there are certain areas in financial statements of Latvian companies, that are more often misstated then others. Mainly, these are areas, which involve judgments to be exercised. Usually, assets are more subjected to judgmental issues, although some liabilities need estimations as well.

On the asset side, impairment of Fixed assets and Goodwill is often times subject to audit adjustments. Impairment is done, to analyze, whether the investment is recoverable in the future; it involves an estimation of future cash flows, generated from Fixed assets or Goodwill. Such estimations can be done very subjectively (for instance, estimating growth of cash flows above objective amounts), in such a way not showing true and fair value of financial position. Such types of misstatements are usually not because of fraudulent intentions, but because of subjective opinions on the issue. Similarly, fair value determination is an area, commonly misstated. Fair value most often is applied to financial investments and investment properties; however, valuing at fair value, revaluation reserves are made, thus increasing also the passive side of the balance sheet.

Construction in progress is one of the items, which are more likely to be subject to fraud – inappropriate recognition timing is applied to construction in progress. In case of a company, providing a good or service over a long period of time and with estimations involved in the completion rate, this also affects profit and loss statement – more revenues from contracts are commonly recognized than actually have been performed. This is an issue, for instance, in construction companies, as well as various service providing companies, auditing being one of them.

In current assets, inventory is often misstated; usually, due to inadequate levels of provision for damaged, obsolete or slow-moving stock. According the auditors, these are also misstatements due to subjectivity of the accountants.

Most common problem in Accounts receivable is that there are not enough provisions made for doubtful debtors; usually, there are debts outstanding for too long to be recognized as fully recoverable. Companies tend to avoid making sufficient provisions; these are types of misstatements are more likely done on purpose, to show better short term liquidity.

On the liability side, accrued expenses are common to be misstated. These are often for litigation, environmental issues, accruals for guarantees, accrual for bonuses. Sometimes accrued expense for untaken vacation is not calculated correctly; however, the risk of such technical errors is little in publicly traded companies, as stated by auditors.

Main concern in profit and loss statement is that companies often times fraud with revenue recognition, as well as timing of revenues. Concerning recognition, one of the issues is Incoterm application; another issue is that some companies recognize full amount of sales, although have issued some kind of after-sales service to customer, which should be accrued already at the moment of sales. Another problem, concerning the timing, is known as improper income or expense cut-off. This is crucial at the financial year end, when typically, companies try to recognize next year's revenues already this year, while postponing the expenses.

Main causes for deliberate misstatements or fraud in financial statements of Latvian companies, according auditors interviewed, are bonus systems, based on financial performance; meeting loan covenants; income smoothing (typical for banks); increase company value before selling. These causes mentioned by auditors are not specific for Latvian companies only – they are prevalent in the whole world. Misstatements not due to deliberate fraud often occur because of changes in legislation – accountants are not aware of the new standards.

4.1.2 Analysis of Audit Differences in Financial Statements

Analyzing the differences between unaudited and audited financial statements reveal results, which generally coincide with auditors' opinion.

The sample consists of 63 pairs of unaudited and audited financial statements; a detailed summary with publication dates is in Appendix 4. Data from each of the

126 financial statements is input in a spreadsheet, according predefined form, observable in Appendix 5. The differences between unaudited and audited financial statements are summarized, according the magnitude of the change: more than 1%, 5% and 10%. As the minimum change, 1% threshold is taken, as the author believes a smaller change is not considered to be a relevant change. In the summary, the number of companies, with difference greater then the aforementioned threshold is presented. Also, depending on the sign of the change, it is identified, how many cases of understatement and overstatement were present.

Most audit differences occur due to misstatements/fraud in profit and loss statement (Table 1), causing audited net profit to be different from unaudited net result in 39 cases out of 63. This means that in more than half of cases, the net profit is adjusted after audit. It should be noted that the difference of more than 5% was present in 28 cases, and in 24, more than 10% audit adjustment was created. If analyzed more in depth, in more than half of cases, the profit was actually overstated in unaudited financial statements, as it decreased after the audit. This is connected with the misstatements in balance sheet, that will be explained later on – the asset positions were frequently overstated, and liability positions – understated; the adjustments on balance sheet positions caused the profit to be adjusted as well.

	Difference			Understated			Overstated		
	1%	5%	10%	1%	5%	10%	1%	5%	10%
Turnover	19	2	1	5	1	1	14	1	0
COS	28	11	6	9	4	1	19	7	5
Gross Profit	**38**	**19**	**13**	**15**	**11**	**8**	**23**	**8**	**5**
Other income/costs	43	28	18	23	16	12	20	12	6
EBT	37	23	17	16	12	9	21	11	8
Tax	39	28	24	19	15	15	20	13	9
Minority interest	4	2	2	1	0	0	3	2	2
Net Profit	**39**	**28**	**24**	**18**	**12**	**10**	**21**	**16**	**14**

Table 1: Differences in Profit and Loss statement

If profit and loss statement analyzed further, it can be found that in unaudited financial statements, problems with classification exist – there are more differences across some captions than the net result changes, meaning, after auditing, some income and costs were reclassified to correct captions, while not changing the net result. This should not be a problem to a financial statement user, who is able to reclassify revenues and costs in unaudited financial statements him/herself; however,

if figures are taken as is, the user might get wrong impression of financial situation in the company.

Concerning the balance sheet (Table 2), total assets tend to be overstated in 6 cases out of 63, while understated in 12 cases. A deeper analysis reveals that the main differences were due to current assets – in 24 cases, they were misstated; out of which in 13 cases, current assets were higher in unaudited statements than in audited. If the threshold for difference is taken at 10% level, it can be noted that in 6 cases, current assets were misstated; nevertheless, the understatements and overstatements were of equal numbers.

In current assets, most attitude should be devoted to trade and other accounts receivable, and prepayments made – they were the most common subject for audit adjustments in the sample reviewed. Trade receivables were often misstated; however, the differences of more than 10% occurred due to understatement of accounts receivable, not vice versa, as is suggested by auditor interviews and literature review. Prepayments are even more often understated than overstated. On the other hand, other accounts receivable are more often overstated than vice versa, in 11 cases out of 63 the difference is above 10%. Concerning inventory, financial statement review revealed that in unaudited financial statements, it tended to be overstated, although by small magnitudes.

	Difference			Understated			Overstated		
	1%	5%	10%	1%	5%	10%	1%	5%	10%
Non-Current Assets									
Intangible assets	15	11	8	10	9	6	5	2	2
FA	11	7	6	7	5	4	4	2	2
Financial assets	21	19	19	7	6	6	14	13	13
Investment property	4	4	4	3	3	3	1	1	1
Total Non-Current Assets	**16**	**7**	**5**	**11**	**7**	**5**	**5**	**0**	**0**
Current Assets									
Inventory	17	7	3	6	1	1	11	6	2
Trade AR	23	11	7	11	8	5	12	3	2
AR from related	10	8	8	5	5	5	5	3	3
Other AR	34	24	20	16	10	9	18	14	11
Tax asset	5	4	4	4	3	3	1	1	1
Prepayments	23	19	18	13	12	11	10	7	7
Accrued income	0	0	0	0	0	0	0	0	0
Cash	7	5	4	6	5	4	1	0	0
Total Current Assets	**24**	**11**	**6**	**11**	**6**	**3**	**13**	**5**	**3**
Total Assets	**18**	**6**	**2**	**12**	**6**	**2**	**6**	**0**	**0**

Table 2: Differences in Assets

Financial statement analysis revealed that companies do have problems with intangible asset and financial asset accounting. In six cases, intangible assets in audited financial statements increased than 10%. This is in line with Silins (2003) main findings – companies have problems with accounting for intangible assets, namely, identifying capitalizeable costs. In non-current assets, financial assets were the most misstated caption – in 21 cases, it was wrongly reported, out of which, in 14 cases, financial assets were represented of higher value than should be, as revealed by audit. It should be noted that in 13 of the cases, the overstatement was by more than 10%.

Concerning equity (Table 3), besides profit for the year, the main audit revisions were in retained earnings – companies tend to understate them. Next, there were revisions in financial statements due to reserve misstatement, the difference was larger than 10% in 8 cases; most often, reported as too high. Share capital and markup were almost 100% properly reported in unaudited financial statements, which is not surprisingly, as they tend to stay constant over longer periods of time.

	Difference			Understated			Overstated		
	1%	5%	10%	1%	5%	10%	1%	5%	10%
Equity									
Share Capital	0	0	0	0	0	0	0	0	0
Markup	1	0	0	0	0	0	1	0	0
Reserves	12	11	8	6	5	3	6	6	5
Retained earnings	16	11	6	8	5	4	8	6	2
Profit for the period	39	28	24	18	11	9	21	17	15
Total Equity	**18**	**3**	**1**	**6**	**0**	**0**	**12**	**3**	**1**

Table 3: Differences in Equity

In liability side, both non-current and current liabilities are subject to revisions upwards – meaning, in unaudited financial statements, liabilities tend to be understated. This is in line with the interviews with auditors, as is the fact that in 13 cases, there is 10% audit revision due to understatement of accruals – this is in line also with previous research done in the field of accounting in Latvia. Nevertheless, there are also cases, when accruals are overstated – by more than 10% accruals were overstated in 11 unaudited financial statements. Often misstated captions are taxes payable and other accounts payable – in total, 32 and 27 adjustments were created by auditors, respectively. In most of such cases, these liabilities were understated.

	Difference			Understated			Overstated		
	1%	5%	10%	1%	5%	10%	1%	5%	10%
Non-current Liabilities									
Long term loans	9	9	5	4	4	2	5	5	3
Deferred tax liability	23	20	17	15	13	12	8	7	5
Other non-current liabilities	9	7	7	6	5	5	3	2	2
Total Non-Current Liabilites	**25**	**20**	**16**	**14**	**12**	**10**	**11**	**8**	**6**
Current Liabilities									
Short term loans	13	8	8	11	7	7	2	1	1
AP	26	16	11	15	8	6	11	8	5
Taxes payable	32	24	17	20	15	11	12	9	6
Other AP	27	19	15	19	12	11	8	7	4
Deferred income	8	8	5	3	3	2	5	5	3
Accruals	28	24	24	16	13	13	12	11	11
Total Current Liabilities	**32**	**19**	**8**	**22**	**16**	**7**	**10**	**3**	**1**

Table 4: Differences in Liabilities

Deferred tax liability seems to be most problematic in non-current liabilties – in 25% of the total sample, it was understated. This is mainly due to the fact that accountants often are not able to calculate it correctly, as revealed by interviews with auditors.

Main conclusion after the analysis of differences between unaudited and audited financial statements is that in many cases, the adjustments are of relatively high magnitude – even more than 10% - and, as these adjustments are due to misstatement and/or fraud, financial statement users should consider that such differences may arise.

4.2 Use of Financial Statements as Revealed by Questionnaires

As described in the research design part, investors and financial analysts were provided questionnaires (Appendix 1) about financial statement usage in stock analysis. In total, 37 complete responses were obtained; 27 of them from private investors and 10 from financial analysts (summary of responses in Appendix 2). Average experience in the field (either stock trading or analyzing) is 3.8 years.

Most of the respondents analyze financial statements to obtain additional information about company stocks; this is suggested by a positive mean of 2.09 in the scale of -3 .. +3. The 95% confidence interval for the mean is (1.47; 2.71), suggesting more probable using financial statement analysis than not using. Similar results are

obtained, concerning financial ratio application in analysis – mean for using financial ratios is 1.34 ± 0.78 for 95% confidence interval.

Responds show that Discounted Cash Flow method and CAPM model are less popular among investors and financial analysts – both resulted negative means of -1.16 and -1.72 respectively, which at 5% significance level are below zero.

Respondents claim that they use the newest financial information available (mean 1.69 ± 0.74 for 95% C.I.) and that they compare it to previous available information (mean 1.69 ± 0.70 for 95% C.I.).

Concerning the use of unaudited financial statements, a clear approving of the statement is observed – mean 1.63 with 95% C.I. of (0.93;2.32) suggests that the respondents do use unaudited financial statements, when performing analytics and developing their investment decisions.

When asked about consideration of possible misstatement or fraud in financial statements, the answers were more evenly distributed, forming a positive mean of 0.66; and due to standard error, the true mean lies between 0.02 and +1.30 with 95% confidence. This suggests that there is evidence of consideration of fraud or misstatements in financial statements, and the result is statistically significant at 5% significance level.

Summarizing the results above, investors and financial analysts do use financial statements to obtain information about company stocks; most often, they use financial ratios in their analysis. Results show that newest available financial information is used, even if it is not audited. The results show evidence of consideration of fraud in financial statements that is barely significant; however, the answers to previous questions about unaudited financial information usage suggest that it is not very likely to be true, as possibly misstated and fraudulent data are used.

What is also important, it is claimed that the newest available financial information is compared to previous; suggesting that if audited financial statements are available, they are compared to unaudited. This confirms the view of the author that there should be reaction to audited financial statements, if they are different from unaudited ones, as in such case, investors and analysts should revisit their decisions, based on the newest information.

Concerning the use of financial ratios in the analysis of financial statements, a summary of ratio usage in percentage is presented in Figure 1.

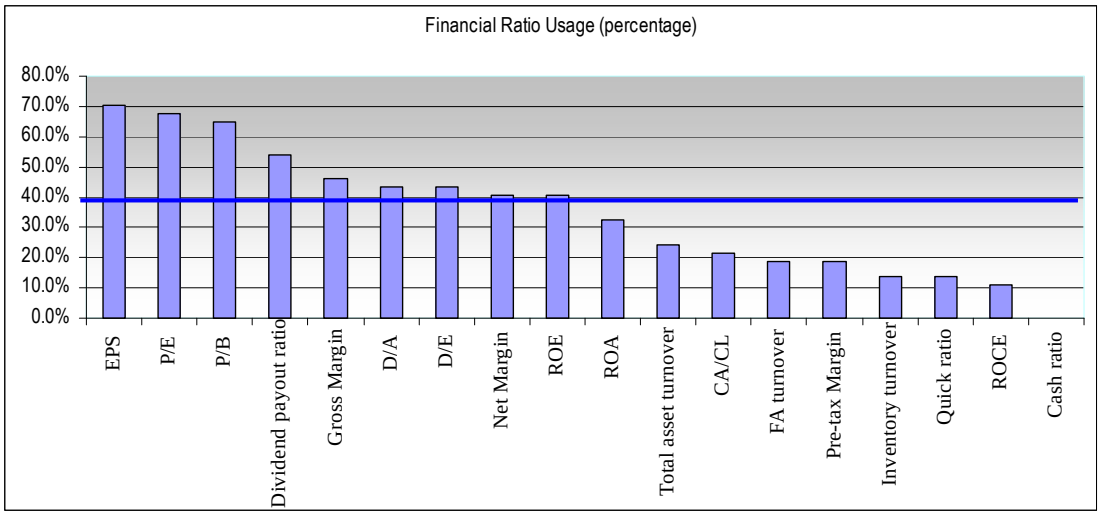

Figure 1: Financial Ratio Usage (percentage)

As predicted by the theory, most popular ratios among investors and financial analysts are the market ratios – 70% use EPS, about 68% use P/E and 65% use P/B ratios. Next popular is dividend payout ratio, being used by more than half of the respondents. 46% use Gross Margin in their analysis. Then, equally popular are liquidity ratios D/A and D/E with 43%, and profitability measure ROE and Net Margin with 41% responses. Other ratios were mentioned less frequently, which coincides with the nature of them – turnovers of inventory and fixed assets, for instance, are frequently used in management accounting, but, as appears, are less popular among stock market participants/analysts.

From the use of financial ratios by investors and financial analysts, it was indirectly revealed, which financial statement captions are important to them, when analyzing a company. If audited financial statements differ from unaudited, then undoubtedly, also financial ratios are different from those calculated on unaudited data. So, further analysis will be based on the changes in most popular financial ratios, as revealed by the questionnaire.

To select most popular, a cut-off point of 40% was established. That was done, because there are several ratios just above this point, and setting it higher would omit potentially important ratios; however, setting the cut-off point lower is not reasonable, as the distributions of usage is declining, meaning, no reasonable point to set cut-off.

Concerning the ratios, affected by differences in financial statements, there are several groups of ratios, which are influenced by the same captions of financial statements; therefore, in further analysis of abnormal returns, only one of them is taken. Such ratios are:

1. EPS, P/E and Dividend payout ratio. All of them are affected by potential changes in net earnings; however, other determinants (number of shares, share price and dividend amount) of the ratios are not directly affected by financial statements. Therefore, for further analysis, only EPS is taken, as it captures changes in net earnings effect.
2. D/A and D/E basically measure the same thing, only the presentation is different (as D + E = A); therefore, only ratio D/A will be used further.

Therefore, in the next part, ratios EPS, Gross Margin, D/A, Net Margin and ROE will be used. An increase in EPS, Gross Margin, Net Margin and ROE is generally considered as being a positive signal, as it means increased profitability, therefore, companies experiencing such a change are classified in 'good' portfolio. Leverage ratio D/A decrease is generally considered as better than increase in the ratio, as this is viewed as a decrease in the risk of bankruptcy; therefore, companies with a decrease in D/A are classified in 'good' change portfolio. 'Bad' change portfolio consists of companies with the opposite change in the ratios, calculated on audited financial statements.

Price-to-book ratio P/B is not used in event studies, as financial statement review revealed that the differences in book value of equity occur mainly due to difference in net profit, and only in some cases, in reserves and retained earnings. Therefore, P/B calculated on unaudited and audited financial statements differs mainly due to net profit changes, and price changes; which, as argued above, is an effect, covered by EPS ratio.

4.3 Results of Event Study

The final empirical part of the thesis is to apply event study methodology to analyze, whether investors react to differences between unaudited and audited financial statements, as, argued before, gives insights, whether investors consider the possible fraud in financial data they analyze.

A total of 63 pairs of unaudited and audited financial statements and differences between them were analyzed, then, the differences in the financial ratios selected were calculated. However, before it can be proceeded with the analysis, the sample should be revised for companies with window between publications of financial statements below 20 days and for companies, which were traded less than

10% in the estimation period. A summary of results for this filter (Appendix 6) reveals that 21 of the initial sample should be omitted, to obtain more reliable results. This leaves a sample size of 42 to be used in the event study (Appendix 7).

These 42 pairs of unaudited and audited financial statements were grouped in three categories – 'good', 'no change' and 'bad' – based on financial ratio differences that arise due to differences in unaudited and audited financial statements. Financial ratios used, as mentioned above, were EPS, P/B, Gross Margin, D/A, Net Margin and ROE. Summary of classification can be observed in Appendix 8.

As described in the methodology, Cumulative Abnormal Returns (CAR) are calculated, by classifying the stocks according the difference in financial ratios, caused by auditing. Summary of calculations available in Appendix 9.

The main task of this event study was to identify the reaction of investors, as indicated by CAR, to differences or absence of differences in financial ratio they analyze.

Firstly, a general tendency can be observed in CAR calculations for 'no change' portfolio across all five ratios – the CAR for this portfolio is negative. Not only at the last day of the event window the CAR is negative; it is negative for 'no change' portfolio for almost all periods, and there can be observed no tendency of Abnormal Returns (AR) upwards on the day of and after the day of publication of audited results. This means there is no positive investor reaction to the fact that audited financial statements are the same as unaudited financial statements, which, in turn, means, there is no evidence that audit adds value to the investors. A conclusion can be drawn that investors do not consider the possible fraud in unaudited financial statements; if they did, they would value the decrease of fraud risk by increasing demand for audited company's stocks, thus increasing price and AR of the stock.

Concerning CAR calculations for differences in individual ratios, if Earnings per share (EPS) is viewed (Figure 2), several issues can be identified. Firstly, if the ratio, calculated on audited statements, increased, compared to unaudited financial statements, 'good' change portfolio CAR shows the reaction of such an event. It can be observed that 7 days prior the publishing of audited annual reports, CAR increases – this suggests that positive increase in EPS might already be incorporated in the price of a stock before the actual publishing day. This can possibly occur due to insider trading – executing deals, using privately held information. On the day of announcement, CAR reaches the maximum, suggesting investors quickly react to

positive information from audited financial statements; however, a decrease in CAR in the following days is possible due to investors cashing out on the abnormal returns obtained. CAR remain stable afterwards, meaning, no abnormal returns are earned. It can be concluded that the effect of increase in EPS is gradually incorporated in stock prices before the actual announcement, reaching the peak on the publishing day, while not influencing price afterwards.

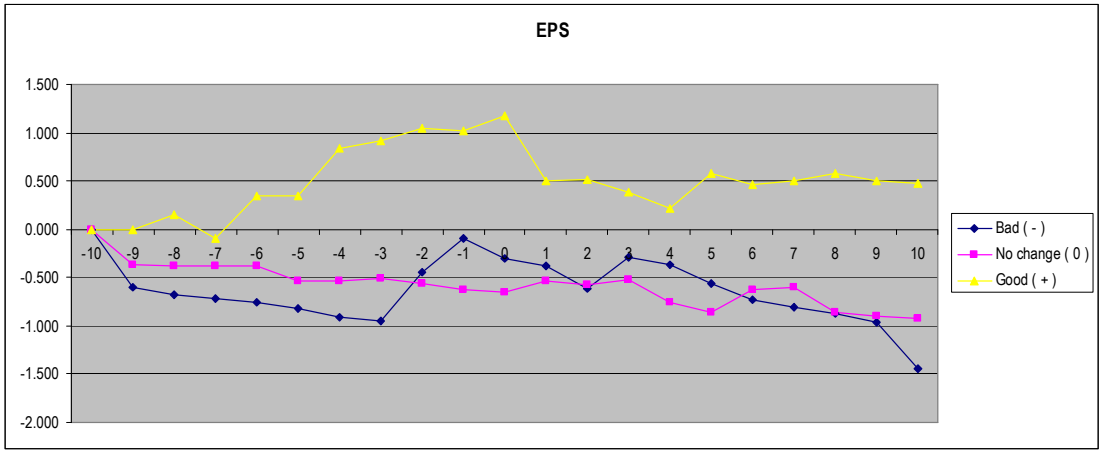

Figure 2: CAR using EPS ratio

If ‘bad’ portfolio stocks, as classified by a decrease in EPS, are reviewed, it can be seen that that in 3 to 9 days before the publishing of audited results, CAR are negative – meaning, the downward difference due to adjustment is gradually incorporated in stock prices. In days 1 to 3 prior the publication date, there is a sharp increase in CAR, which is probably caused by risk taking investors, who want to speculate on the uncertainty of audited financial results. However, when the annual reports are published, ‘bad’ portfolio CAR decreases, and keeps decreasing till the end of the event window, with a one time exception in day 3. This means that negative change in EPS ratio due to auditing causes abnormal returns to decrease.

This analysis reveals that investors do react to changes in EPS ratio, which is directly affected by Net profit. Although this means that investors revise their decisions, if misstatements identified, in case of absence of misstatements, as presented by ‘no change’ portfolio, their decisions are not revised, meaning, investors generally do not consider possibility of fraud, until it is discovered.

CAR calculations for portfolios, classified according changes in Gross margin ratio, reveal controversial results (Figure 3). If the change in the ratio was positive, meaning, Gross margin increased after auditing, such stocks tend to earn abnormal returns right before the publication of audited annual reports and peak on the day 0.

However, afterwards, the CAR are steadily decreasing. On the other hand, companies, for which Gross margin decreased as the consequence of auditing financial figures, tend to earn abnormal profits; CAR starts to increase at day -5 and remain positive throughout the rest of the event window. There is no fundamental reasoning, why investors should consider lower Gross margin being more financially attractive than higher. This suggests that the abnormal returns of these portfolios are probably not explained by the changes in Gross margin; if this is the case, the investors do not adjust their decisions, if misstatements in Gross Margin determinants (Sales and Cost of Sales) are revealed by auditing.

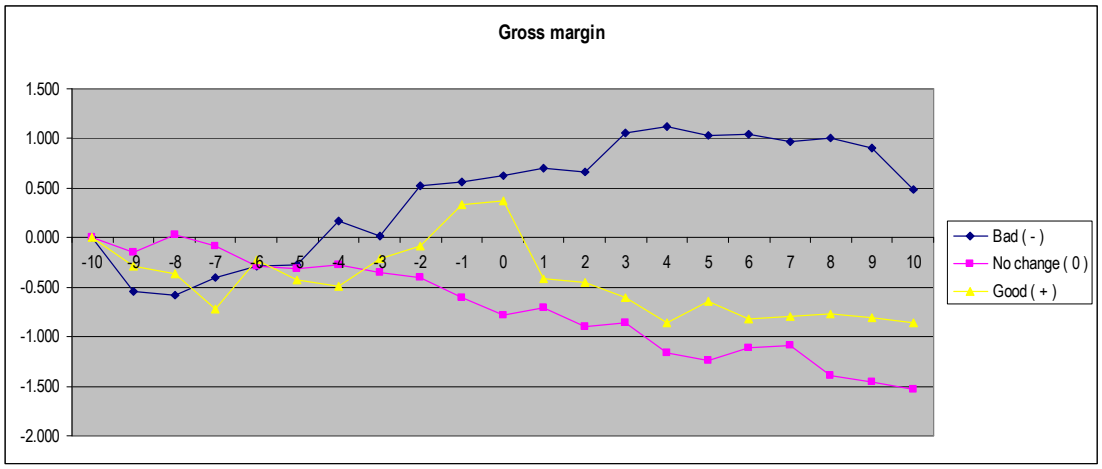

Figure 3: CAR using Gross Margin

When analyzing CAR, based on Debt to Assets (D/A) ratio (Figure 4), it can be noted that portfolio with ‘good’ change stocks, as defined by the author as decrease in ratio, actually experience negative CAR, while ‘bad’ portfolio stocks experience positive CAR. This means that investors consider increase in D/A ratio as a positive financial signal. In Latvia, as the economy is expanding, this might mean that investors use the ratio to evaluate future potential of the companies. If a company has low ratio, it can be suggested it has limited investing opportunities, therefore, no need to increase debt, while a high ratio means the opposite. The author believes this is the most appropriate explanation of the situation observed. Concerning the reaction on the event, ‘bad’ portfolio CAR increases rapidly, starting 4 days prior audited financial statement publication, meaning, incorporation of information in prices before the actual event. After the announcement day, a decrease is probably due to cashing out abnormal returns. ‘Good’ change portfolio experiences negative AR right after the publication, which means a negative reaction to audit differences. If the investing opportunity view presented just above is considered, such reaction is reasonable.

Nonetheless, changes in CAR around the event day suggest revision of decisions due to misstatements identified.

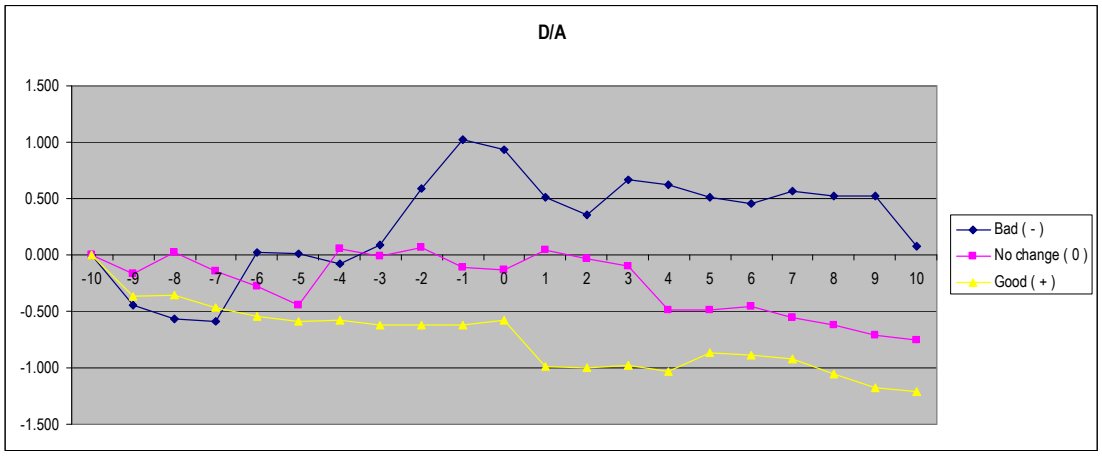

Figure 4: CAR using D/A ratio

If CAR calculations, according changes in Net margin and ROE ratios is analyzed (Figure 5 and Figure 6), similar results as for EPS ratio – positive change in financial statement positions, influencing the ratios, are already incorporated in stock prices, 7 days prior the publication, and reaches peak on the event day. CAR decreases right afterwards, possibly due to cashing out of abnormal returns. Similar results are also for 'bad' change portfolio.

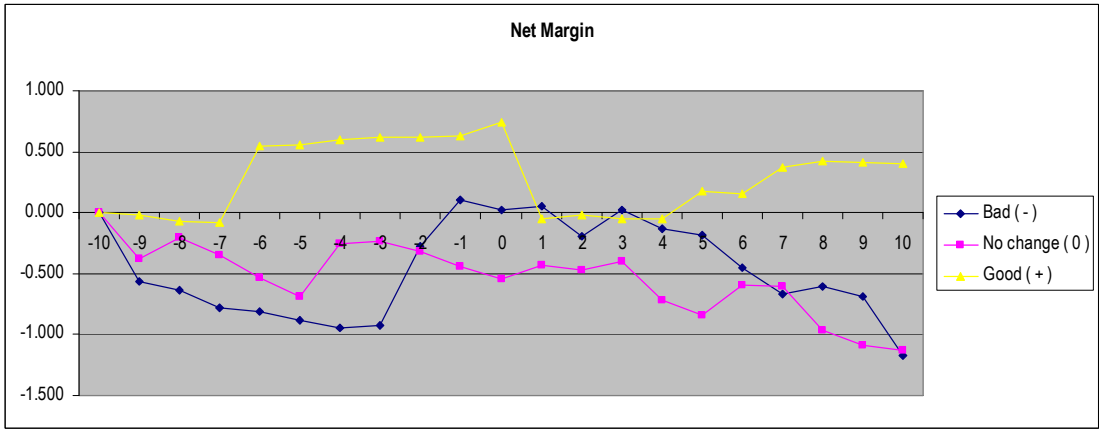

Figure 5: CAR using Net Margin ratio

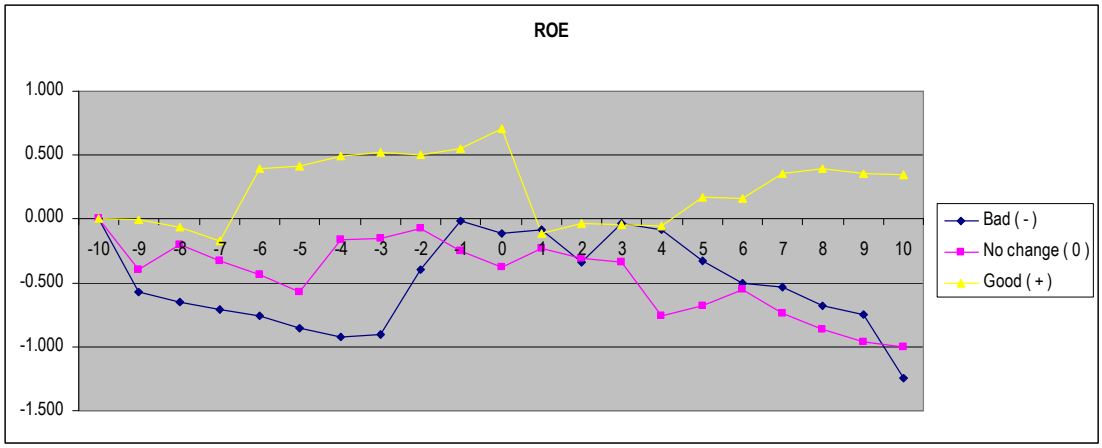

Figure 6: CAR using ROE ratio

As the results of CAR according Net margin and ROE are similar to CAR according EPS ratio, the same conclusions can be drawn – investors do react to change due to misstatements in financial statement positions that influence the ratio. Nonetheless, the absence of changes is not valued by investors, suggesting no consideration of possible fraud, as argued above.

5. Conclusions

Several relevant conclusions can be drawn from the empirical research findings of common misstatements in financial statements of Latvian companies and consideration of fraud by investors.

Firstly, interviews with auditors and detailed review of differences between unaudited and audited financial statements revealed areas in financial statements that are most often subject to misstatements and fraud. As explained by auditors, areas, which involve judgment to be exercised, are more commonly misstated than others. Such areas, according the interviews, are accrued expense, financial assets and investment property, as well as provisions for doubtful debts and inventory. Detailed review of financial statements confirmed auditor view to a very large extent – financial assets, accounts receivable and accrued expense were among financial statement positions most often adjusted by auditing, suggesting that in unaudited financial statements, these positions were misstated. Other areas, commonly misstated, as revealed by financial statement review, are prepaid expense, accounts payable and taxes payable, as well as deferred tax liability. What is more, asset positions were in more cases overstated than understated, while the liabilities were more often subject to increase as a result of auditing.

Net result in more than 50% of reviewed cases was subject to audit revision; in more than third of the cases, the difference between unaudited and audited net profit was more than 10%. As revealed by investor and financial analyst questionnaires, financial ratios that include net profit are among most commonly used for financial statement analysis. This leads to a conclusion that there is a high risk for investors and financial analysts to make wrong decisions, if they use unaudited financial statements for analysis and do not consider possible misstatements and fraud in them.

Answers to investor and financial analyst questionnaires revealed controversial results – although the respondents claimed they consider possibility of fraud in financial statements they analyze, they also stated they use unaudited financial statements to form a decision.

Whether or not investors consider possible fraud in financial statements of Latvian companies was examined, applying event study methodology on price reaction to differences between unaudited and audited financial statements. The results revealed that there is no evidence that misstatement and fraud possibility in financial statements is considered by investors. Nevertheless, it was found out that investors react to changes, caused by auditing financial statements, if the differences affect the ratios they analyze.

General conclusion of the thesis is that there are certain areas in financial statements that are more often misstated than others. Detailed financial statement reviews revealed these areas and showed which positions and by what magnitude are misstated. Finally, there is no evidence that investors consider these common misstatements, when making investing decisions.

6. Suggestions for Further Research

During the thesis writing process, the author identified areas, which might be interesting and relevant to research, but due to limited resources, was not able to perform himself.

Firstly, a comparison with reporting situation in other countries could be made. The author believes a comparison with Estonia and Lithuania would be reasonable, as the Baltic countries have similar history and background. What is more, all three Baltic stock exchanges are part of OMX group, therefore, specific requirements of listed companies are similar.

Secondly, analyzing differences between unaudited and audited financial statements in profit and loss statement in a more detailed way would allow drawing conclusions on the positions, which are more often misstated than others. This would also explain the most common misstatements in net profit.

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Appendix 1.

Questionnaire to private investors and financial analysts

You are *(please select one, most applicable):*

Private investor (You trade stocks)

Financial analyst (You perform analysis, but do not trade)

How many years have you been trading stocks/ performing analytics?

(For the next questions, please rank your answer from -3 (strongly disagree) to 3 (strongly agree))

Do you analyze financial statements, to acquire information about company stocks?

-3 -2 -1 0 1 2 3

Do you use financial ratio analysis?

-3 -2 -1 0 1 2 3

Do you use discounted cash flow method?

-3 -2 -1 0 1 2 3

Do you use the newest financial information available?

-3 -2 -1 0 1 2 3

Do you compare newest financial statements to previous?

-3 -2 -1 0 1 2 3

Do you use unaudited financial statements, when performing analytics?

-3 -2 -1 0 1 2 3

Are you applying CAPM, when performing analytics?

-3 -2 -1 0 1 2 3

Do you consider possible misstatement/fraud in financial statements, when performing analytics?

-3 -2 -1 0 1 2 3

(Please, select the financial ratios you use (if any))

ROE	Gross Margin	D/A	Quick ratio	EPS	Dividend payout ratio
ROA	Net Margin	D/E	Cash ratio	P/E	Inventory turnover
ROCE	Pre-tax Margin	CA/CL	FA turnover	P/B	Total asset turnover

Appendix 2.

Summary of Questionnaire results

You are:	Answers	Percentage
Private investor (You trade stocks)	27	73.0%
Financial analyst (You perfrom analysis, but do not trade)	10	27.0%

	Average
How many years have you been trading stocks/ performing analytics?	3.84

Do you analyze financial statements, to acquire information about company stocks?

			Scale	Answers	Percentage
Mean	2.09		-3	2	5.4%
			-2	1	2.7%
St.dev.	1.79		-1	0	0.0%
			+0	3	8.1%
St.error	0.32		+1	5	13.5%
			+2	8	21.6%
95% C.I.	1.47	2.71	+3	**18**	**48.6%**

Do you use financial ratio analysis?

			Scale	Answers	Percentage
Mean	1.34		-3	5	13.5%
			-2	2	5.4%
St.dev.	2.27		-1	0	0.0%
			+0	3	8.1%
St.error	0.40		+1	6	16.2%
			+2	7	18.9%
95% C.I.	0.56	2.13	+3	**14**	**37.8%**

Do you use Discounted Cash Flow method?

			Scale	Answers	Percentage
Mean	-1.16		-3	**12**	**32.4%**
			-2	4	10.8%
St.dev.	1.94		-1	5	13.5%
			+0	10	27.0%
St.error	0.34		+1	2	5.4%
			+2	2	5.4%
95% C.I.	-1.83	-0.48	+3	2	5.4%

Do you use the newest financial information available?

			Scale	Answers	Percentage
Mean	1.69		-3	4	10.8%
			-2	1	2.7%
St.dev.	2.11		-1	0	0.0%
			+0	3	8.1%
St.error	0.37		+1	7	18.9%

			+2	5	13.5%
95% C.I.	0.95	2.42	+3	**17**	**45.9%**

Do you compare newest financial statements to previous?

			Scale	Answers	Percentage
Mean	1.69		-3	3	8.1%
			-2	2	5.4%
St.dev.	2.01		-1	0	0.0%
			+0	2	5.4%
St.error	0.36		+1	8	21.6%
			+2	7	18.9%
95% C.I.	0.99	2.38	+3	**15**	**40.5%**

Do you use unaudited financial statements, when performing analytics?

			Scale	Answers	Percentage
Mean	1.63		-3	3	8.1%
			-2	0	0.0%
St.dev.	2.01		-1	4	10.8%
			+0	2	5.4%
St.error	0.35		+1	6	16.2%
			+2	7	18.9%
95% C.I.	0.93	2.32	+3	**15**	**40.5%**

Are you applying CAPM, when performing analytics?

			Scale	Answers	Percentage
Mean	-1.72		-3	**18**	**48.6%**
			-2	4	10.8%
St.dev.	1.98		-1	3	8.1%
			+0	7	18.9%
St.error	0.35		+1	2	5.4%
			+2	1	2.7%
95% C.I.	-2.40	-1.03	+3	2	5.4%

Do you consider possible misstatement/fraud in financial statements, when performing analytics?

			Scale	Answers	Percentage
Mean	0.66		-3	2	5.4%
			-2	3	8.1%
St.dev.	1.85		-1	5	13.5%
			+0	7	18.9%
St.error	0.33		+1	**8**	**21.6%**
			+2	6	16.2%
95% C.I.	0.02	1.30	+3	6	16.2%

	Answers	Percentage
EPS	26	70.3%
P/E	25	67.6%
P/B	24	64.9%
Dividend payout ratio	20	54.1%
Gross Margin	17	45.9%
D/A	16	43.2%
D/E	16	43.2%
Net Margin	15	40.5%
ROE	15	40.5%
ROA	12	32.4%
Total asset turnover	9	24.3%
CA/CL	8	21.6%
FA turnover	7	18.9%
Pre-tax Margin	7	18.9%
Inventory turnover	5	13.5%
Quick ratio	5	13.5%
ROCE	4	10.8%
Cash ratio	0	0.0%

Appendix 3.

List of Auditors Interviewed

Oskars Bilzonis, Senior level auditor, Ernst&Young Baltics

Māris Būmanis, Audit manager, Ernst&Young Baltics

Juris Misters, Senior level auditor, Ernst&Young Baltics

Armands Podoļskis, Senior level auditor, Ernst&Young Baltics

Appendix 4.

Sample of Listed Companies with Unaudited and Audited Financial Statements

	Dates of disclosing Financial Statements							
	2003		2004		2005		2006	
	Unaudited	Audited	Unaudited	Audited	Unaudited	Audited	Unaudited	Audited
Official List								
GRD1R			16.02.2005	20.04.2005	21.02.2006	23.05.2006		
GZE1R			13.06.2005	15.06.2005				
LSC1R			16.05.2005	26.05.2005	27.02.2006	11.05.2006		
OLF1R	28.04.2004	23.07.2004	25.02.2005	21.06.2005	27.02.2006	27.06.2006		
SAF1R			26.07.2004	20.10.2004	26.07.2005	12.10.2005	27.07.2006	10.10.2006
VNF1R					27.02.2006	22.05.2006		
Second List								
BAL1R					01.03.2006	12.04.2006		
DPK1R			16.03.2005	01.04.2005	28.02.2006	11.04.2006		
LME1R	17.03.2004	08.07.2004	14.03.2005	08.06.2005	27.02.2006	10.03.2006		
RKB1R			16.05.2005	30.06.2005	28.02.2006	25.07.2006		
VSS1R					24.02.2006	03.04.2006		
Free List (i-list)								
BLZ1R			09.12.2004	23.12.2004	01.12.2005	21.12.2005	30.11.2006	20.12.2006
BRV1R					27.02.2006	02.05.2006		
FRM1R					28.02.2006	12.04.2006		
GRZ1R	16.03.2004	06.04.2004			27.02.2006	25.04.2006		
KA11R			15.03.2005	25.04.2005	28.02.2006	19.04.2006		
KCM1R					28.02.2006	03.04.2006		
KVD1R					28.02.2006	03.04.2006		
LAP1R			10.03.2005	26.04.2005	27.02.2005	03.05.2006		
LJM1R			24.02.2005	24.05.2005	28.02.2006	16.05.2006		
LKB1R					17.02.2006	28.02.2006		
LOD1R					01.03.2006	18.04.2006		
LOK1R			06.04.2005	13.04.2005	28.02.2006	22.05.2006		
LTT1R			01.03.2005	13.05.2005	27.02.2006	10.05.2006		
NKA1R			11.03.2005	23.05.2005	28.02.2006	19.07.2006		
NLB1R					28.02.2006	13.03.2006		
OLK1R								
POC1R								
RAR1R					28.02.2006	05.04.2006		
RER1R					24.02.2006	24.04.2006		
RJR1R					27.02.2006	20.04.2006		
RRA1R			07.04.2005	13.04.2005	28.02.2006	11.04.2006		
RRR1R			15.04.2005	29.04.2005	28.02.2006	18.04.2006		
RSA1R			04.03.2005	08.03.2005	27.02.2006	03.03.2006		
SCM1R	27.02.2004	19.04.2004			24.02.2006	10.03.2006		
SMA1R					28.02.2006	19.04.2006		
SMR1R					27.02.2006	27.03.2006		
TKB1R			31.03.2005	22.04.2005	28.02.2006	25.04.2006		
TMA1R			11.03.2005	31.03.2005	17.02.2006	25.04.2006		
VEF1R					28.02.2006	13.04.2006		
ZOV1R								
TOTAL	4	4	20	20	37	37	2	2

GRAND TOTAL **63 Pairs of unaudited and audited financial statements**

Appendix 5.

Sample form of input date from financial statements

	Unaudited	Audited	Difference, %
Non-Current Assets			
Intangible assets			
FA			
Financial assets			
Investment property			
Total Non-Current Assets			
Current Assets			
Inventory			
Trade AR			
AR from related			
Other AR			
Tax asset			
Prepayments			
Accrued income			
Cash			
Total Current Assets			
Total Assets			
Equity			
Share Capital			
Markup			
Reserves			
Retained earnings			
Profit for the period			
Total Equity			
Minority			
Non-current Liabilities			
Long term loans			
Deferred tax liability			
Other non-current liabilities			
Total Non-Current Liabilites			
Current Liabilities			
Short term loans			
AP			
Taxes payable			
Other AP			
Deferred income			
Accruals			
Total Current Liabilities			
Total Equity and Liabilities			
Turnover			
COS			
Gross Profit			
Other income/costs			
EBT			
Tax			
Minority interest			
Net Profit			

Appendix 6.

Companies with less than 20 days between financial statements and trading below 10% of days in estimation widow

	Days between unaudited/audited FS				Trading activity in estimation window			
Ticker \ Year	2003	2004	2005	2006	2003	2004	2005	2006
Official List								
GRD1R		63	91			94%	94%	
GZE1R		2*				83%		
LSC1R		10*	73			96%	99%	
OLF1R	86	116	120		84%	93%	97%	
SAF1R		86	78	288		54%	45%	47%
VNF1R			84				98%	
Second List								
BAL1R			42				98%	
DPK1R		16*	42			91%	98%	
LME1R	113	86	11*		100%	96%	93%	
RKB1R		45	147			89%	93%	
VSS1R			38				83%	
Free List (i-list)								
BLZ1R		14*	20	20		8%*	4.%*	3%*
BRV1R			64				0%*	
FRM1R			43				32%	
GRZ1R	21		57		32%		30%	
KA11R		41	50			40%	53%	
KCM1R			34				13%	
KVD1R			34				12%	
LAP1R		47	430			7%*	52%	
LJM1R		89	77			10%	16%	
LKB1R			11*				98%	
LOD1R			48				32%	
LOK1R		7*	83			23%	92%	
LTT1R		73	72			10%	18%	
NKA1R		73	141			5%*	26%	
NLB1R			13				7%*	
OLK1R								
POC1R								
RAR1R			36				62%	
RER1R			59				0%*	
RJR1R			52				63%	
RRA1R		6*	42			21%	10%	
RRR1R		14*	49			8%*	15%	
RSA1R		4*	4*			3%*	4%*	
SCM1R	52		14*		11%		16%	
SMA1R			50				30%	
SMR1R			28				5%*	
TKB1R		22	56			26%	41%	
TMA1R		20	67			10%	10%	
VEF1R			44				8%*	
ZOV1R								

Note: * omitted from event study

Appendix 7.

Sample of companies (stocks) across years, used in event study

	Used in the event study				
Ticker \ Year	**2003**	**2004**	**2005**	**2006**	**TOTAL**
Official List					
GRD1R		X	X		
GZE1R					
LSC1R			X		
OLF1R	X	X	X		
SAF1R		X	X	X	
VNF1R			X		
Second List					
BAL1R			X		
DPK1R			X		
LME1R	X	X			
RKB1R		X	X		
VSS1R			X		
Free List (i-list)					
BLZ1R					
BRV1R					
FRM1R			X		
GRZ1R	X		X		
KA11R		X	X		
KCM1R			X		
KVD1R			X		
LAP1R			X		
LJM1R		X	X		
LKB1R					
LOD1R			X		
LOK1R			X		
LTT1R		X	X		
NKA1R			X		
NLB1R					
OLK1R					
POC1R					
RAR1R			X		
RER1R					
RJR1R			X		
RRA1R			X		
RRR1R			X		
RSA1R					
SCM1R	X				
SMA1R			X		
SMR1R					
TKB1R		X	X		
TMA1R		X	X		
VEF1R					
ZOV1R					
TOTAL	4	10	27	1	42

Appendix 8.

Allocation of a stock in portfolios (+ for 'good', 0 for 'no change' and – for 'bad') across the years, based on differences in ratios

		GRD1R	LSC1R	OLF1R	SAF1R	VNF1R	BAL1R	DPK1R	LME1R	RKB1R	VSS1R	FRM1R	GRZ1R	KA11R	KCM1R	KVD1R
EPS	2003			-					-				+			
	2004	+		+	+				+	-				0		
	2005	+	-	+	-	-	-	0		+	+	-	-	+	0	+
	2006				+											
GM	2003			-					-				0			
	2004	-		+	+				-	0				+		
	2005	-	-	+	-	-	+	+		0	0	+	0	0	0	-
	2006				-											
DA	2003			-					+				0			
	2004	-		-	+				+	0				0		
	2005	-	-	-	+	+	-	0		0	-	-	+	0	0	-
	2006				+											
N/M	2003			-					-				0			
	2004	+		-	0				0	-				0		
	2005	+	-	+	-	+	-	0		+	0	-	0	+	0	+
	2006				+											
ROE	2003			-					-				0			
	2004	+		-	+				+	-				0		
	2005	+	-	+	-	+	-	0		+	+	-	0	+	0	+
	2006				+											

Allocation of a stock in portfolios (+ for ‘good’, 0 for ‘no change’ and – for ‘bad’) across the years, based on differences in ratios

		LAP1R	LJM1R	LOD1R	LOK1R	LTT1R	NKA1R	RAR1R	RER1R	RJR1R	RRA1R	RRR1R	SCM1R	SMA1R	TKB1R	TMA1R
EPS	2003												0			
	2004		+			+									+	+
	2005	-	-	-	0	-	+	0		+	0	-		-	+	-
	2006															
GM	2003												0			
	2004		+			+									0	-
	2005	-	+	-	0	-	+	0		+	0	-		-	+	0
	2006															
D/A	2003												0			
	2004		+			+									0	0
	2005	-	-	-	0	-	-	0		0	+	-		-	+	-
	2006															
NM	2003												0			
	2004		+			+									0	0
	2005	-	-	-	0	-	+	0		-	0	-		-	0	-
	2006															
ROE	2003												0			
	2004		+			+									0	0
	2005	-	-	-	-	-	+	0		0	0	-		-	+	-
	2006															

Appendix 9.

Abnormal Return (AR) and Cumulative Abnormal Return (CAR) calculations, according classification

	EPS						**Gross Margin**						**D/A**					
	Bad (-)		No change (0)		Good (+)		Bad (-)		No change (0)		Good (+)		Bad (-)		No change (0)		Good (+)	
Day	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR
-10	-0.094	0.000	-0.077	0.000	0.094	0.000	0.007	0.000	0.036	0.000	-0.120	0.000	0.001	0.000	-0.068	0.000	-0.010	0.000
-9	-0.509	-0.602	-0.289	-0.366	-0.099	-0.005	-0.545	-0.538	-0.182	-0.146	-0.169	-0.289	-0.442	-0.441	-0.101	-0.169	-0.353	-0.363
-8	-0.073	-0.675	-0.020	-0.386	0.152	0.147	-0.046	-0.584	0.180	0.035	-0.075	-0.364	-0.130	-0.570	0.186	0.017	0.003	-0.360
-7	-0.044	-0.719	0.000	-0.386	-0.246	-0.099	0.181	-0.403	-0.119	-0.085	-0.352	-0.716	-0.014	-0.585	-0.166	-0.149	-0.110	-0.470
-6	-0.042	-0.762	0.007	-0.379	0.442	0.343	0.112	-0.291	-0.197	-0.282	0.492	-0.224	0.605	0.021	-0.125	-0.274	-0.074	-0.544
-5	-0.063	-0.824	-0.160	-0.539	0.000	0.343	0.017	-0.275	-0.034	-0.316	-0.205	-0.430	-0.008	0.013	-0.167	-0.441	-0.049	-0.593
-4	-0.086	-0.910	0.008	-0.531	0.498	0.840	0.440	0.166	0.041	-0.276	-0.061	-0.491	-0.092	-0.079	0.502	0.061	0.010	-0.583
-3	-0.037	-0.948	0.018	-0.513	0.077	0.918	-0.148	0.018	-0.078	-0.354	0.284	-0.207	0.167	0.088	-0.074	-0.013	-0.035	-0.618
-2	0.498	-0.450	-0.046	-0.558	0.126	1.043	0.505	0.523	-0.054	-0.408	0.127	-0.080	0.503	0.591	0.074	0.061	0.000	-0.617
-1	0.352	-0.098	-0.069	-0.627	-0.027	1.016	0.037	0.560	-0.199	-0.607	0.418	0.338	0.428	1.019	-0.168	-0.106	-0.004	-0.622
0	-0.204	-0.302	-0.028	-0.656	0.161	1.177	0.065	0.625	-0.174	-0.782	0.038	0.377	-0.086	0.932	-0.026	-0.132	0.041	-0.580
1	-0.079	-0.381	0.115	-0.541	-0.679	0.499	0.075	0.700	0.074	-0.708	-0.792	-0.415	-0.418	0.515	0.179	0.046	-0.404	-0.984
2	-0.238	-0.619	-0.034	-0.575	0.013	0.511	-0.035	0.665	-0.193	-0.901	-0.032	-0.447	-0.163	0.352	-0.080	-0.034	-0.017	-1.001
3	0.336	-0.283	0.058	-0.518	-0.131	0.380	0.386	1.050	0.036	-0.864	-0.159	-0.606	0.310	0.662	-0.066	-0.100	0.019	-0.982
4	-0.085	-0.368	-0.235	-0.752	-0.158	0.222	0.073	1.123	-0.297	-1.161	-0.253	-0.859	-0.036	0.626	-0.388	-0.488	-0.054	-1.036
5	-0.195	-0.562	-0.106	-0.858	0.355	0.577	-0.090	1.033	-0.072	-1.233	0.216	-0.643	-0.109	0.516	-0.006	-0.494	0.170	-0.866
6	-0.172	-0.734	0.237	-0.621	-0.114	0.463	0.005	1.038	0.119	-1.114	-0.174	-0.817	-0.063	0.453	0.036	-0.458	-0.022	-0.888
7	-0.080	-0.814	0.020	-0.602	0.042	0.505	-0.076	0.962	0.031	-1.083	0.027	-0.790	0.115	0.568	-0.095	-0.553	-0.038	-0.925
8	-0.056	-0.870	-0.260	-0.861	0.073	0.578	0.049	1.012	-0.306	-1.389	0.015	-0.775	-0.042	0.526	-0.070	-0.624	-0.130	-1.055
9	-0.094	-0.963	-0.032	-0.894	-0.079	0.499	-0.107	0.905	-0.070	-1.459	-0.028	-0.803	-0.002	0.524	-0.083	-0.706	-0.120	-1.175
10	-0.483	-1.447	-0.031	-0.924	-0.026	0.473	-0.417	0.488	-0.073	-1.533	-0.050	-0.853	-0.451	0.073	-0.051	-0.758	-0.038	-1.214

Abnormal Return (AR) and Cumulative Abnormal Return (CAR) calculations, according classification

	Net Margin						**ROE**					
	Bad (-)		No change (0)		Good (+)		Bad (-)		No change (0)		Good (+)	
Day	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR	AR	CAR
-10	-0.091	0.000	0.010	0.000	0.005	0.000	-0.084	0.000	-0.091	0.000	0.098	0.000
-9	-0.476	-0.568	-0.393	-0.383	-0.027	-0.022	-0.488	-0.573	-0.303	-0.394	-0.105	-0.007
-8	-0.072	-0.640	0.182	-0.201	-0.050	-0.072	-0.078	-0.650	0.196	-0.197	-0.059	-0.066
-7	-0.137	-0.777	-0.146	-0.347	-0.007	-0.079	-0.056	-0.706	-0.130	-0.327	-0.105	-0.171
-6	-0.032	-0.809	-0.189	-0.536	0.627	0.548	-0.055	-0.760	-0.107	-0.434	0.568	0.396
-5	-0.072	-0.882	-0.155	-0.691	0.004	0.552	-0.095	-0.856	-0.143	-0.577	0.015	0.412
-4	-0.063	-0.944	0.437	-0.255	0.046	0.598	-0.069	-0.925	0.410	-0.167	0.079	0.491
-3	0.019	-0.925	0.021	-0.233	0.017	0.616	0.016	-0.909	0.012	-0.155	0.030	0.521
-2	0.648	-0.277	-0.079	-0.312	0.009	0.624	0.515	-0.394	0.078	-0.077	-0.015	0.506
-1	0.378	0.101	-0.125	-0.437	0.003	0.627	0.379	-0.015	-0.169	-0.246	0.046	0.552
0	-0.080	0.021	-0.105	-0.542	0.114	0.741	-0.096	-0.111	-0.132	-0.379	0.158	0.710
1	0.035	0.056	0.108	-0.435	-0.786	-0.045	0.025	-0.086	0.151	-0.227	-0.820	-0.110
2	-0.250	-0.194	-0.040	-0.474	0.030	-0.015	-0.253	-0.339	-0.078	-0.305	0.072	-0.039
3	0.219	0.025	0.076	-0.399	-0.031	-0.046	0.301	-0.038	-0.032	-0.337	-0.006	-0.045
4	-0.157	-0.133	-0.317	-0.716	-0.003	-0.049	-0.047	-0.085	-0.417	-0.754	-0.014	-0.058
5	-0.046	-0.178	-0.128	-0.843	0.228	0.178	-0.243	-0.328	0.074	-0.680	0.224	0.165
6	-0.269	-0.447	0.244	-0.600	-0.024	0.154	-0.172	-0.500	0.125	-0.555	-0.002	0.163
7	-0.222	-0.669	-0.009	-0.609	0.213	0.368	-0.029	-0.529	-0.186	-0.741	0.197	0.360
8	0.064	-0.605	-0.358	-0.967	0.052	0.419	-0.153	-0.681	-0.120	-0.862	0.031	0.390
9	-0.080	-0.684	-0.117	-1.084	-0.009	0.410	-0.071	-0.752	-0.100	-0.962	-0.034	0.357
10	-0.489	-1.174	-0.044	-1.128	-0.007	0.403	-0.493	-1.245	-0.036	-0.998	-0.012	0.345