UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

The existence of low balling on the Swedish audit market

A study of companies listed on the NASDAQ OMX Stockholm that voluntarily changed audit firm 2002-2010

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Abstract

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Titel: The existence of low balling on the Swedish audit market -A study of companies listed on the NASDAQ OMX Stockholm that voluntarily changed audit firm 2002-2010

Background and Problem: The lack of auditor independence is discussed being one of the reasons to scandals such as Enron and HQ. A pricing strategy that has been debated impairing auditor independence is low balling. To win a new client in a tender process, audit firms supposedly offer an audit fee below cost and then increase the fee the following years to recover the initial loss. The auditors' future financial interest in the company due to the initial loss is by some believed to impair auditor independence, which makes low balling in Sweden a relevant phenomenon to study.

Aim of study: This thesis aims to explain if low balling exists on the Swedish audit market and if the size of companies affects the results of low balling.

Methodology: To achieve the purpose of this thesis, a statistical study was conducted. Data, found in annual reports of companies listed on NASDAQ OMX Stockholm that changed audit firm 2002-2010, were analysed before and after the change. 107 companies that changed audit firm during the period were identified. 56 of these fulfilled our inclusion criteria; 21 companies listed on Small cap, 21 on Mid cap, and 14 on Large cap.

Analysis and conclusions: This study indicates that low balling exists on NASDAQ OMX Stockholm and in Sweden. The average initial audit fee discount was -17.53%, the second year after the change the discount was -4.57%, and the fees were almost back to normal levels by the third year, -0.61%, from the estimated normal audit fee. The results correlate with the most recent research on the subject done in Sweden and Germany. Our findings suggest that the extent of low balling varies between the caps; it exists among companies listed on Small and Large cap but not on Mid cap.

Keywords: Low balling, audit pricing, initial fee discount, and audit firm switch.

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Definitions

Auditee: The client of the audit firm.

Big 4: The four largest audit firms since 2002 in Sweden as well as worldwide; PwC, EY, KPMG and Deloitte.

Big 6: The six largest accounting firms 1989-1998; Ernst & Young, Arthur Andersen, Coopers & Lybrand, Deloitte & Touche, Peat Marwick Mitchell and Price Waterhouse.

Big 8: The eight largest audit firms before demises and mergers prior to 1989; Arthur Andersen, Arthur Young & Co., Coopers & Lybrand, Ernst & Whinney, Deloitte Haskins & Sells, Peat Marwick Mitchell, Price Waterhouse and Touche Ross.

Companies: In this thesis a company is considered to be the client of the audit firm. Further, a company is considered to be the Group and thus not the Mother company.

FAR: The professional institute for authorized public accountants, approved public accountants and other highly qualified professionals in the accountancy sector in Sweden.

1. Introduction

This chapter aims to put the topic into context by providing the reader with background. This is followed by the problem discussion that culminates in a problem statement. The purpose of this thesis is presented in the end of this chapter.

1.1 Background

There have been many discussions about the role of auditors in a financial crisis. The crisis in 2008 forced the EU to come up with regulations to stabilise the EU economic and financial system. One major outcome of the discussion was to introduce mandatory audit firm rotation every 10 years, with the possibility of member states to choose additional 10 years (European Union 2013). This is believed to enhance audit quality and auditor independence (European Union 2013). Schatzberg & Sevcik (1994) defines auditor independence as *"to be truthfully reporting an observed value for a client".* The lack of independence is assumed to be one of the reasons to scandals such as Enron in the US and HQ in Sweden (Grönboken 2010). Independence is hence a fundamental element in audit engagements and is therefore important to study.

A factor that has been discussed impairing independence is low balling (Simon & Francis 1988; Schatzberg 1990). DeAngelo (1981) describes low balling as a pricing strategy that aims to win a client at a low price that does not cover the audit's cost, and thereafter increases the audit fee the following years. By doing this, according to the author, the higher price aims to compensate for the lower audit fee paid by the auditee during the first couple of years. There have been arguments that discounting initial audit fee is a threat to auditor independence due to auditors' future interest in the company (Simon & Francis 1988). To be able to recover the initial sunk costs, a long-term audit engagement is needed. Further, there is also a possibility that auditors impair their independence by the desire of not losing the client even if severe auditor-client disagreements are present (Simon & Francis 1988). Schatzberg & Sevcik (1994) found evidence in their experiments that when low balling occurred, auditor independence was impaired since an observed value was less truthfully reported by

the auditors. DeAngelo (1981), however, opposes that low balling harms auditor independence and claims instead that it is a normal outcome of a competitive market. There are several studies regarding audit fees after a voluntary change of audit firm and results differ. For instance, Simon & Francis (1988) found that audit fees in the US declined the first three years after a voluntary change of audit firm. After four years, the audit fees were back to the normal level. The reason for this would be the discount given by auditing firms to win new clients (Simon & Francis 1988). In a different study on the Australian market, Francis (1984) found that no low balling existed, whereas in a recent study on the German market low balling was found (Krauß, Quosigk & Zülch 2014). In Sweden, Jonasson & Tungel (2012) found that low balling exists in Sweden.

1.2 Problem discussion

In prior research, studies have revealed many different factors that drive the audit fee (Hay et al 2006). The main attribute of the client that affects the price of audit is the size of auditee. This is possible to measure in two ways, by the Balance sheet component Total Assets or by the Income statement component Company Turnover (Hay et al 2006; Pong & Whittington 1994). Hay et al (2006) claim in a meta-analysis of 25 years of research that approximately three quarters of previous research of audit fees use Total Assets to measure the auditee size and remaining studies used Company Turnover.

Total Assets, however, is somewhat misleading since a large proportion of this could be an account where the audit fee does not correlate well with the size of that account. For example, the same amount of work will be required on Goodwill and Cash and Cash Equivalent independent of their size since a larger proportion of these accounts not necessarily require more audit. There is also a possibility that similar companies value assets differently, which has a direct effect on the size of Total Assets. The auditee could also use "Off balance sheet" financing as leasing, and Total Assets might therefore be misleading (Chan, Ezzamel & Gwilliam 1993). Company Turnover, on the other hand, could be a better variable to determine the size of auditee since no disruptive accounts occur. In the tender process, professional auditors

commonly use the ratio of Audit Fee and Company Turnover as a first approximation of the audit fee, since Company Turnover is an estimate of workload that is needed in audit (Oxera 2006).

Jonasson & Tungel (2012) maintained that low balling exists on the Swedish audit market by the majority of companies listed on the NASDAQ OMX Stockholm that voluntarily changed audit firm. However, ratios of Audit Fee and Total Assets calculated for each year around the change were used to determine if low balling existed. The above discussion shows that there could be a better way to measure auditee size and it is therefore uncertain if low balling actually exists on the Swedish audit market and consequently further studies on this are needed.

Arguments have been made that there is more room for a discount in a larger company due to the importance of large clients to maintain status as well as the major audit fees earned from these clients (Carson et al 2012). Earlier research does not mention regarding if low balling differs between small, medium or large companies. In Sweden, for example, Volvo is listed on NASDAQ OMX Stockholm Large cap with almost 300,000 millions in sales (VOLVO 2012), whereas Odd Molly listed on Small cap had sales of 228 millions the same year (Odd Molly International 2012). More research on this area is needed to show not only if low balling exists, but also if it varies between companies of different size.

1.3 Problem statement

Does low balling exist on the Swedish audit market and does the company size affect the extent of low balling?

1.4 Purpose

The aim of this thesis is to explain if low balling exists on the Swedish audit market and if the company size affects the results of low balling.

2. Frame of references

This section aims at a deeper understanding of the topic. Firstly, a wider description of the subject is outlined, then the survey of relevant previous research follows as it is used to analyse the empirics later in the thesis.

2.1 Auditing

Companies that are listed on a regulated market are required to have an auditor or an audit firm that audit their financial statements. The audit should be conducted in accordance with audit standards and regulations set by a government body (ABL 2005:551).

Audit firms and their auditors have a legal liability towards stakeholders (Lee & Gu 1998). To be able to make an accurate investment decision, financial statements are needed, and a qualitative and independent audit is hence demanded for insurance that the information presented reflects the financial position of the company (Oxera 2006; ABL 2005:551).

2.2 The tender process

The tender process is an expensive and time-consuming process for auditees as well as for audit firms. Consequently, only audit firms that are able to engage in the audit commitment are invited to take part in the tender process (FAR 2005). To be able to audit large global clients, a grand international network is needed as well as expertise and resources (Carson et al 2012; Oxera 2006). Each firm has to estimate an expected effort for the audit and state an estimated price. A fixed price of audit is forbidden, since conditions under which the audit is performed could change (FAR 2005).

There has been mixed evidence regarding how companies choose audit firm. A study ordered by the Department of Trade and Industry and the Financial Reporting Council in the UK, called the Oxera study (2006), stated that audit committees, in general, consider quality over price when choosing audit firm. Johnson & Lys (1990), on the

other hand, claim that clients choose audit firms that have the possibility to deliver audit at the lowest price.

2.3 Initial costs

There are many different start-up costs that occur for the audit firm. Start-up costs including checking the client's initial balance sheets figures and the loss of specific assets as mutual trust and familiarity are two main initial costs of audit (Arruñada & Paz-Ares 1997). A survey made by Ridyard & De Bolle (1992) showed that it took the auditor over a year to gain understanding of the auditee if the auditor had previous experience in the industry where the auditee performed and over two years in an industry where the auditor had no previous experience. Hence, with the above discussion, the costs of audit should realistically be higher the year of the switch.

2.4 Determinants of audit fees

There are many different factors that are considered to affect the price of audit such as the size, complexity, the number of subsidiaries, and the risk of the auditee (Simunic 1980). A factor that is highly significant and most important for setting the level of audit fees, according to previous research, is the size of the auditee (Hay et al 2006). The size of the auditee is possible to measure by Total Assets or Company Turnover (Hay et al 2006; Pong & Whittington 1994). Total Assets have been the most common figure used to measure auditee size in previous research of audit fee determinants and low balling (Hay et al 2006; Simon & Francis 1988; Jonasson & Tungel 2012), whereas Company Turnover is the figure which audit firms use as a first approximation of audit fees (Oxera 2006).

There are positive as well as negative aspects of both measurements. Total Assets include components that are risky from the audit point of view as inventories and receivables, which is a positive aspect (Simunic 1980). However, Total Assets could vary between otherwise comparable companies due to different accounting policies or different age profile of assets (Chan, Ezzamel & Gwilliam 1993). As mentioned earlier, Total Assets could include large proportions of misleading accounts as

Goodwill and Cash and Cash Equivalent do not necessarily require more audit. Company Turnover excludes problems such as financial structure and different accounting policies, but problems could still be present due to different turnover definitions in different industries (Chan, Ezzamel & Gwilliam 1993).

Another factor that affects the price of audit is accounting and audit regulations. The Oxera study (2006) stated that an increase of accounting and audit regulations could lead to an increase in audit fees. Companies expect their auditors to provide information about new accounting regulations; a larger number of work hours for auditors are thus needed which drives the audit fee (Oxera 2006).

2.4.1 NASDAQ OMX Stockholm

As previously mentioned, the size of the company is the most important factor that drives the price of audit (Hay et al 2006). Carson et al (2012) argue that large corporations are important clients due to the major audit fees and status, which these clients bring to the audit firm. Therefore, the possibility of larger audit fee discounts increase. NASDAQ OMX Stockholm is divided into three different segments depending on the size of the company: Large cap, Mid cap and Small cap. Companies listed on Large cap have a market value of more than one billion euros, Mid cap between 150 millions and one billion euros, whereas companies listed on Small cap have a market value of less than one billion euros (Swedbank 2014). 2012-12-31, 55 companies were listed on NASDAQ OMX Stockholm Large cap, 62 on Mid cap and 104 on Small cap (Retriever 2014).

2.5 Low balling

DeAngelo (1981) describes low balling as a pricing strategy when auditors aim at becoming the incumbent auditor to be able to earn extra profits on future audits during audit tenure. The incumbent auditor has cost advantages over competitors due to start-up costs and transaction costs that occur for the client when companies switch auditors. To be able to earn these quasi-rents under subsequent years, audit firms are supposedly willing to lower the initial audit fee. Hence, two requirements need to be met. Firstly, the audit firm has to accept a loss the year of the switch by offering a fee

lower than the costs of audit engagement. Secondly, the audit fee under the following years needs to cover for the initial loss as well as profit from the audit engagement (DeAngelo 1981).

Low balling has been discussed impairing auditor independence (Simon & Francis 1988; Schatzberg 1990; Schatzberg & Sevcik 1994). The Cohen Report (1978), written by the Commission of Auditors' Responsibilities in the US, discussed possible problems with low balling due to its signal of compliance to managers. Further, the authors of the report argue that a threat to independence might be present when a deep initial audit fee discount occurs since it creates a receivable. Consequently, it creates a need for the audit firm to audit a financial success company to recover the initial loss of the audit firm in the following years (The Cohen Report 1978). Opposite arguments have been made by Lee & Gu (1998) who argue that low balling instead enhances auditor independence. Lee & Gu (1998) conclude that initial audit fee discounts are less costly than an ineffective market and reflects the competition over clients. DeAngelo (1981) claims that low balling is a normal outcome of a competitive market and thus not affecting auditor independence. Chan (1999) argues that an industry specialisation of a new audit firm leads to lower audit fees due to expertise and agrees with DeAngelo (1981) that low balling is a normal outcome of a competitive market.

DeAngelo (1981) expects low balling in settings regardless of publicly disclosed audit fees, whereas Dye (1991) predicts that low balling will only occur in settings where audit fee figures are not publicly available, and the independence issue could consequently be avoided through publicly disclosed audit fees.

2.5.1 Earlier studies on low balling internationally

There have been plenty of studies examining if low balling exists in different markets with mixed results which is demonstrated in Table 1.

Study	Sample period	Evidence of low balling
Australia		
Francis (1984)	1974-1978	No
Germany		
Krauß, Quosigk & Zülch (2014)	2005-2011	Yes
Sweden		
Jonasson & Tungel (2012)	2002-2009	Yes
United Kingdom		
Gregory & Collier (1996)	1991	Yes
United States		
Simunic (1980)	1977	No
Palmrose (1986)	1980	No
Baber, Brooks & Ricks (1987)	1980-1984	Yes
Francis & Simon (1987)	1984-1985	Yes
Simon & Francis (1988)	1979-1984	Yes
Ettredge & Greenberg (1990)	1983-1987	Yes

Table 1 illustrates previous research on low balling

On the Australian audit market, Francis (1984) found no evidence of low balling. The sample of 26 companies was studied by comparing actual and predicted audit fees as well as the initial audit fee compared to the year before the change and the subsequent years. Low balling was not present in any of these two tests.

Krauß, Quosigk & Zülch (2014) found on the German audit market that low balling exists. The study included 992 observations of large companies listed on the Frankfurt Stock Exchange where audit fees were studied over a 4-year period. An average initial fee discount was found to be -13% and no discount effect was found the second year (Krauß, Quosigk & Zülch 2014).

In the UK, Gregory & Collier (1996) found evidence of low balling among the Big 6 audit firms when competing over clients. An initial fee reduction was found on an average of -22.4% and after four to five years the audit fee were at the same level as those companies did not change auditors (Gregory & Collier 1996).

Simunic (1980) and Palmrose (1986) found no evidence of the existence of initial fee discounts in the US. Simunic (1980) checked for initial fee discounts indirectly, by using an audit tenure variable in his audit fee model. A survey was mailed, since audit fees were not publicly disclosed during this time, with the response rate of 33% out of the 1207 companies. 397 respondents were then divided into companies with a Big 8 or a non-Big 8 auditor. Palmrose (1986) studied price cutting directly and included 361 companies that responded to the mailed questionnaire. The companies were domestic, public, and non-public companies.

Other studies have shown that low balling exists in the US (Baber, Brooks & Ricks 1987; Francis & Simon 1987; Simon & Francis 1988; Ettredge & Greenberg 1990). Francis & Simon (1987), however, researched initial fee discounts as a side issue of the paper which resulted in a small sample of 12 switches. Baber, Brooks & Ricks (1987) studied 37 auditor switches in North Carolina county governments. To detect a change of the initial audit fee, the initial fee was compared as a percentage of the mean audit fee in North Carolina county governments.

Simon & Francis (1988) argue that low balling exists by presenting evidence of an initial audit fee discount the year the switch took place. A sample of 214 companies that switched auditors between 1979-1984 was researched, and the results were compared to 226 companies that did not change auditors during the same period, which served as an estimated normal audit fee. The average discount given was -24% the first year, -15% the second and third year, while the audit fees were back to normal levels by the fourth year (Simon & Francis 1988). These findings are similar to evidence found by Ettredge & Greenberg (1990) who concluded that an average discount of -25% existed the year a company switched audit firm. Ettredge & Greenberg (1990) used a sample of 389 companies in their study. They included factors as if the switch was to a Big 8 firm or not as well as the total numbers of firms that were included in the tender process of the engagement (Ettredge & Greenberg 1990).

2.5.2 Earlier studies on low balling in Sweden

Jonasson & Tungel (2012) studied if low balling exists in Sweden. They identified 57 voluntarily changes of audit firm 2002-2009 on the NASDAQ OMX Stockholm that were relevant to the study. 27 of these switches occurred on Small cap, 19 on Mid cap, and 11 on Large cap. The authors include an auditee size in their study by calculating a ratio of Audit Fees and Total Assets. An average value was calculated two years before the change and two years after ($\bar{X}$). To avoid effects that could affect the study negatively by drastical changes of the company around the switch, the value two years before and after were also used ($X2$). A relative value was calculated for both $\bar{X}$ and $X2$ by dividing Audit Fee with Total Assets, which were found in the annual report of the auditee. A scarce majority of the companies in the study showed evidence of low balling when examining $\bar{X}$ and $X2$ (Jonasson & Tungel 2012).

For $\bar{X}$, the average initial fee discount among companies listed on NASDAQ OMX Stockholm was -27.06% followed by an increase of 14.55% when compared to the year of the change. For $X2$, the average initial fee discount was -30.16% followed by an increase of 13.67% when compared to the year of the change. By the third year, $X2$, the audit fees were 79.4% of the estimated normal fee (Jonasson & Tungel 2012).

2.6 Research questions

As discussed earlier in this chapter, there are many studies on low balling. These studies have used different variables but they all have included auditee size as the primary factor that affects the price (Hay et al 2006). This is possible to measure in two ways, by Total Assets or Company Turnover. However, research done on low balling has primarily used Total Assets (Simon & Francis 1988; Jonasson & Tungel 2012), whereas professional auditors use Company Turnover as a first approximation of price (Oxera 2006). The most common definition used to explain low balling is the one of DeAngelo (1981), namely an initial fee discount is present as well as an increase in fee the following years to cover the initial loss as well as profit from the audit engagement. To be able to see if an initial fee discount is present, a comparison with the estimated normal fee and the disclosed fee in the year of the change of audit firm was done. Previous research has shown mixed results regarding the length of

discount effect (Simon & Francis 1988; Gregory & Collier 1996; Krauß, Quosigk & Zülch 2014). In our study, to be able to determine if low balling exists in Sweden, the data was collected from audit firm switches made by companies listed on NASDAQ OMX Stockholm. The data was gathered the year of the change as well as two years before and after the change, which enabled capturing the phenomenon of low balling. NASDAQ OMX Stockholm is divided into three different caps depending on the market value of the company. As mentioned before, the size of the company is the primary factor that drives the price of audit (Hay et al 2006). This leads us to following research questions:

1) Which measure of auditee size, Total assets or Company turnover, correlates better with the audit fee?
2) Does the ratio of Audit Fee/Company Turnover decrease the year of the change of audit firm?
3) Does the ratio of Audit Fee/Company Turnover increase the following two years after the change of audit firm?
4) Do the results differ among different caps?

3. Methodology

This chapter describes how the study has been conducted and what methodological choices have been made to serve the purpose of this thesis. Later, the criteria of audit firm switches are presented followed by a paragraph on data analysis that aims to explain the methods of statistical analysis.

3.1 Research design

To serve the purpose of this thesis a statistical, quantitative study was conducted. This is the most suitable approach to answer our research questions. There exists a theory regarding the phenomena of low balling, and our study is deductive since we tested this theory on the Swedish audit market (Saunders et al 2009).

The study was conducted and analysed after DeAngelo's (1981) definition of low balling, who claims that two observed aspects of an audit engagement should be studied, the fees and the costs, to conclude if low balling occurs. Since the costs are not publicly available, the average audit fee from two years prior to the change is an estimation of a normal audit fee and was compared to the fees after the voluntary change. This made it possible to see if there was an initial fee discount the first year followed by an increase in fee the following years to conclude if low balling occurs.

3.1.1 Credibility

One can argue that a calculation of an average for only two years to estimate the normal audit fee is not enough. However, if more years were included in this average, more companies would be excluded due to the set of criteria of this study described in chapter 3.2. A larger population is more valued in this study to be able to explain if low balling exists than a possible limitation of a normal audit fee estimation.

Audit fees are publicly disclosed in the annual report of each company. The cost of audit from the audit firm's point of view is not available to the public, which makes possible only an indirect way of measuring low balling (Krauß, Quosigk & Zülch 2014). For example, in a tender process, audit firms present the most suitable way the audit will be conducted. An audit with a substantive testing approach demands more

work hours and is hence more costly than an internal control approach. It is possible that the company has purchased a different service, for example a least-cost service with the only purpose to make it possible for the audit firm to sign the Auditor's report. Therefore, a conclusion regarding low balling after a fee study could be difficult to make since this information is unavailable to the public. Consequently, there is a potential risk that a switch showing a "low balling effect" is in fact a different audit service purchased. Nevertheless, a study of audit fee changes over time is a common approach when researching low balling (Simon & Francis 1988; Krauß, Quosigk & Zülch 2014).

Another factor that could affect the credibility of this study is changes in regulations. If law requires a more thorough audit, the price of audit will consequently be higher (Oxera 2006). An increase in fees after a voluntary change could hence be due to new regulations and not low balling.

3.1.2 Literature

To find primary research for this study, several databases such as Web Of Science, Scopus, Retriever and Business Source Premier have been used. The keywords that were most successful in the databases were: "low balling", "price-cutting", "initial fee", discount, audit, fee, price, "audit change", "audit pricing", and "audit firm". This enabled peer-reviewed articles relevant and important to this study to be found. Some articles that have been used are old, but to verify that they are still relevant, the numbers of their recent citing were looked into. Other sources of information that have been used are web pages of the European Union and FAR. Secondary literatures that have been used are annual reports (Blumberg, Cooper & Schindler 2008). The annual reports have been downloaded from the webpage of each company that are included in this study or from Retriever.

3.2 Criteria to be included in this study

Each company listed on the NASDAQ OMX Stockholm that switched auditors during 2002-2010 are included in this study, to explain if low balling exists on the Swedish audit market. NASDAQ OMX Stockholm was chosen since this Stock Exchange is

the largest in Sweden and is divided into different segments depending on company size. Further, the study was based on the companies listed at the NASDAQ OMX Stockholm 2012-12-31. Consequently, companies that were liquidated before this date are not included in this study. However, for a company not to be qualified a dropout a set of criteria needs to be fulfilled.

The first criterion is that the company must be publicly listed during the whole period of study, that is two years before the change of audit firm as well as two years after; five years are thus studied for each switch. This criterion is set due to the increased costs of auditing which usually occurs when companies go public and is also a common criterion in previous studies (Francis & Simon 1988; Jonasson & Tungel 2012).

The second criterion is that the company must use the same accounting period during the years around the change. This criterion was set to enable comparisons between the years and establish that the periods are of the same length. The study also requires a new audit firm to have signed the Auditor's report the year of the change to determine that a change of audit firm has occurred. Additionally, not more than one change should have occurred during the five-year period, since it would destroy the possibilities to identify initial fee discounts as well as the following increase in fee which are needed to conclude if low balling occurred. The last criterion is that the switch of audit firm needs to be voluntarily done by the company and thus not forced.

3.2.1 Dropouts

During our period of study, 107 changes of audit firm were identified. 56 of these switches fulfilled the criteria presented above. Out of these 56 switches, 21 were listed on Small cap, 21 on Mid cap, and 14 on Large cap. Hence, 51 dropouts were found and are presented in Table 2.

Reason	Dropouts
Not publicly listed two years before the change	**17**
Small cap	14
Mid cap	2
Large Cap	1
Different accounting periods	**12**
Small cap	7
Mid cap	3
Large cap	2
Absence of a new audit firm signing the Auditor's report	**12**
Small cap	3
Mid cap	2
Large cap	7
Information missing	**7**
Small cap	5
Mid cap	1
Large cap	1
Switches that occurred in the same period	**2**
Mid cap	2
The demise of Arthur Andersen	**1**
Small cap	1
Total	**51**

Table 2 illustrates the dropouts of the study

17 companies were excluded due to not being listed during the five years of study. As presented in Table 2, Small Cap-listed companies stood for 14 of these exclusions that is natural since these companies are not as established on the stock exchange as the larger corporations. 12 companies had different accounting periods in the annual reports under study and were excluded due to the potential bias in numbers.

12 companies were excluded due to the criteria of a new audit firm signing the Auditor's report. These companies had a joint audit engagement prior to the switch. Companies that went from having two audit firms to only one of these firms were excluded from the study as well as they only switched one of the two audit firms. This is justified since the initial costs would be absent. However, switches from a joint audit to a third audit firm were included in this study since the initial costs would still occur.

In seven cases the information was missing or difficult to obtain, due to different reasons. For example, in some annual reports audit fee and audit fee related costs were not separately disclosed, and it would have been inaccurate to include these companies.

Some companies have changed auditors more than one time during the five-year period and a low balling effect, according to our methodology, was not possible to measure; hence two switches were excluded.

The demise of the audit firm Arthur Andersen in 2002 forced their clients to change audit firm. Most of the auditors as well as clients were taken over by Deloitte (SvD 2002) and therefore cannot be analysed in this thesis due to its non-voluntary nature. Further, the switch does not have the increase in initial costs that is expected from a change of audit firm and should be excluded from this study. One company was excluded due to this reason.

3.3 Data collection method

To be able to examine if low balling exists in Sweden, voluntarily changes of audit firms during the years 2002-2010 were studied. Since our study includes data from five years, two years before the switch, the year of the switch and two years after, our data collection period extends from 2000 to 2012. The companies whose annual reports we chose to study are companies that were listed on the NASDAQ OMX Stockholm (Small-, Mid- and Large cap) 2012-12-31. Retriever was used to establish which companies were listed on each cap. The data was then collected from the Annual report of each company and was either downloaded from their web page or from Retriever were annual reports sent to Bolagsverket (The Swedish companies registration office) are available.

The data collected from each annual report was: Company Turnover, Total Assets and Audit Fee from the Group Income Statement, Balance Sheet and Notes as well as which audit firm that signed the Auditor's Report. Hence, five annual reports were studied for each company that voluntarily changed audit firm. In some cases

companies changed accounting principles from one year to another during the period under study. This resulted in different retroactive figures in the annual report as required by law (IFRS 2012). Due to the lack of retroactive data for all five years, a decision was made to always collect the data from the annual report of the corresponding year. However, the differences between numbers due to changes in accounting principles were not significant.

3.3.1 Explanation of terms

As mentioned earlier, five years of data were collected from each switch of audit firm. The variables used in this study are presented in the Table 3.

Variables	t_{-2}	t_{-1}	t	t_{+1}	t_{+2}	$\bar{t} = \frac{t_{-1} + t_{-2}}{2}$
Audit Fee (F)	F_{-2}	F_{-1}	F	F_{+1}	F_{+2}	$\bar{F}$
Company Turnover (T)	T_{-2}	T_{-1}	T	T_{+1}	T_{+2}	$\bar{T}$
Total Assets (TA)	TA_{-2}	TA_{-1}	TA	TA_{+1}	TA_{+2}	$\overline{TA}$
Ratio of Audit fee/Company Turnover (R)	R_{-2}	R_{-1}	R	R_{+1}	R_{+2}	$\bar{R}$

Table 3 illustrates the different variables in this study

3.3.2 Determination of auditee size

As previously stated, Company Turnover, or Total Assets is normally used when measuring auditee size. The study includes three variables; Audit Fee, Company Turnover, and Total Assets. Firstly, a test of correlation that aims at determining which auditee size measure correlates best, and thus answering the first research question was made. A very strong relationship between the factors are considered when the correlation coefficient is between 0.8-1; a strong relationship occurs when the correlation coefficient is between 0.6-0.8, while a moderate relationship between the factors is considered when the correlation coefficient is between 0.4-0.6. A correlation coefficient between 0.2-0.4 is considered to have a weak relationship, and no relationship occurs when the correlation coefficient is between 0-0.2 (UNCC 2014).

The data used in the test of correlation is the average audit fee ($\bar{F}$) and the average auditee size the two years prior to the change of audit firm ($\bar{T}$ and $\overline{TA}$). By using the average measurements two years prior to the change, possible low balling affected

data is excluded. Each cap was examined separately as well as in total to answer research questions number one and four.

3.3.3 Audit fee ratio

The variable that mainly drives the price is auditee size (Hay et al 2006; Pong & Whittington 1994) and is therefore important to include in this study. To exclude possible effects of the audit fee due to changes in auditee size, an audit fee ratio of Audit Fee divided by Company Turnover was calculated.

3.4 Data analysis

To be able to answer the first part of our problem statement, if low balling exists on the Swedish audit market, two aspects of the audit engagement needs to be studied, according to DeAngelo's (1981) definition. An initial fee discount as well as an increase in fee the following years needs to be present. To enable answering if these two aspects exist on the NASDAQ OMX Stockholm, an audit fee ratio was calculated for each of five years to exclude possible changes in auditee size, which as previously mentioned, has a big impact on audit fees. The auditee size measure that was used is Company Turnover.

An average audit fee ratio, $\bar{R}$, is calculated of the two years prior to the change of audit firm. This serves as an estimated normal audit fee ratio. By comparing the ratios of $\bar{R}$ to R (audit fee ratio the year of the change), a percentage change in audit fee ratio was calculated to establish if an initial fee discount was present. To examine if an increase in audit fee the subsequent years after the switch was present on the NASDAQ OMX Stockholm, the ratios of the two years after the switch of audit firm, R_{+1} and R_{+2}, were compared to the estimated normal audit fee ratio, $\bar{R}$, to establish the percentage change.

To be able to answer the second part of the problem statement, if the size of the company affects the extent of low balling, the data was divided into Small-, Mid- and Large Cap as well as the Total for NASDAQ OMX Stockholm. The average percentage change for each cap and year was then calculated and presented.

To gain some insight of the shape of the distribution, a histogram and standard deviation are provided for the Total of NASDAQ OMX Stockholm for t, t_{+1} and t_{+2}. Due to the relatively small size of the population a histogram was done for total, and not for each cap.

The result of Mid cap the second year after the change, t_{+1}, stands out from the results of Small and Large cap as well as Total. An attempt was made to identify and remove outliers that affected the results. To achieve a low balling effect on Mid cap, nearly 20% of the companies had to be removed from the study. It would not have been accurate or truthfully to seriously affect the results in this way, since the shape of the distribution is widely spread out from the mean for the Total of NASDAQ OMX Stockholm and the results are hence possible to manipulate in both directions.

4. Empirics

In this chapter the empirics of the thesis is presented. It starts by introducing the results of the first research question as well as the differences between the caps followed by the results of research questions number two, three and four.

4.1 Correlation

To find the answer to the first research question, "*Which measure of auditee size, Total assets or Company turnover, correlates better with the audit fee?*" and the supplementary research question number four *"Do the results differ among different caps?",* a test of correlation for each cap as well as total has been done and presented in Table 4.

NASDAQ OMX Stockholm	Correlation Audit fees and Company Turnover	Correlation Audit fees and Total Assets
Small	0.88	0.66
Mid	0.82	0.47
Large	0.70	0.72
Total	0.83	0.82

Table 4 illustrates the correlation between Audit fees and Company turnover as well as the correlation between Audit fees and Total assets

The correlation coefficient on Small cap is 0.88 between Audit fees and Company Turnover and 0.66 between Audit Fees and Total Assets. On Mid cap, the correlation coefficient is 0.82 for Company Turnover and 0.47 for Total Assets, whereas on Large cap it is 0.7 for Company Turnover and 0.72 for Total Assets. As for the Total of NASDAQ OMX Stockholm, the correlation coefficient is 0.83 between Audit Fees and Company Turnover and 0.82 between Audit Fees and Total Assets.

Company Turnover has a higher degree of correlation with Audit Fees for companies listed on Small and Mid cap as well as the Total of NASDAQ OMX Stockholm. On Large cap, there is a slighter higher correlation, 0.02 units, between Audit Fees and Total Assets.

The relationship between Audit Fees and Company Turnover is very strong on Small and Mid cap as well as the Total of NASDAQ OMX Stockholm. The correlation

coefficient for Large cap shows only a strong relationship between Audit Fees and Company Turnover. Audit Fees and Total Assets show a very strong relationship only on the NASDAQ OMX Stockholm Total where the correlation coefficient is 0.82. On Small and Large cap the relationship is strong, while on Mid cap the relationship is moderate.

4.2 The percentage changes in the Audit Fee ratio

To be able to answer the second and third research questions, "*Does the ratio of Audit Fee/Company Turnover decrease the year of the change of audit firm?"* and *"Does the ratio of Audit Fee/Company Turnover increase the following two years after the change of audit firm?"* an average percentage change of the initial audit fees and the two following years are calculated. In line with the methodology of this thesis, the percentage change is calculated from the average ratio ($\bar{R}$) of two years before the switch. The results are presented in Table 5.

NASDAQ OMX Stockholm Total	t	t_{+1}	t_{+2}
Average percentage change of $\bar{R}$	-17.53%	-4.57%	-0.61%

Table 5 illustrates the average percentage changes on NASDAQ OMX Stockholm Total

An average initial audit fee discount of -17.53% is present for the NASDAQ OMX Stockholm listed companies. Hence, audit fees decrease the year of the change of audit firm. The second year after the switch, the discount compared to the estimated normal audit fee is -4.57%. An increase of audit fees is thus present from the year of the switch. The third year after the switch, the fees are almost back at the estimated normal audit fee at -0.62%. Hence, audit fees increase the following two years after the change of audit firm.

In line with the methodology the shape of the distribution is presented in the histograms in Figures 1-3 for year t, t_{+1} and t_{+2}.

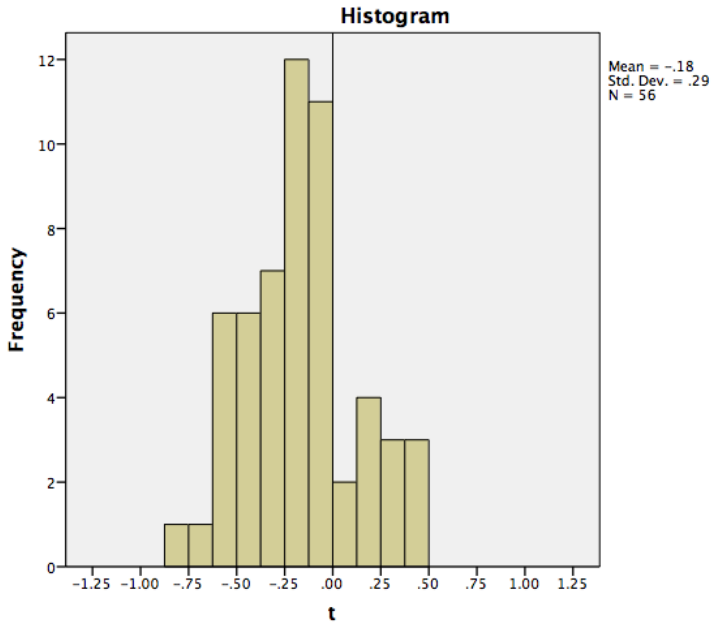

Figure 1 illustrates the shape of the distribution of the average percentage changes in audit fees the year of the switch, t, for the Total of NASDAQ OMX Stockholm

As presented above, the mean is -18%, due to the rounding of numbers, and the frequency distribution is widely spread around the mean. An initial audit fee discount is found in 44 audit firm switches and not found in 12 audit firm switches. The standard deviation for year t is 29%.

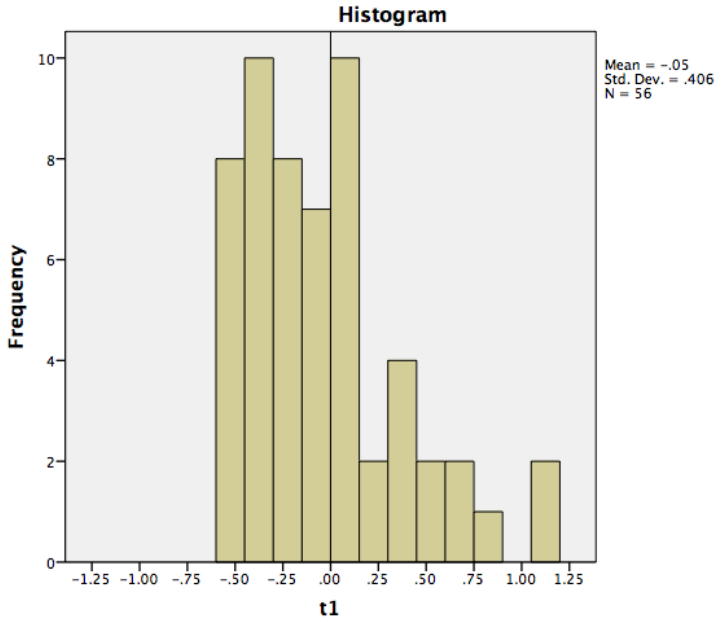

Figure 2 illustrates the shape of the distribution of the average percentage changes in audit fees year t_{+1} for the Total of NASDAQ OMX Stockholm

As Figure 2 illustrates, the distribution is skewed right. The mean is -5%, due to rounding in numbers, and the standard deviation is 40.6%. A discount effect year t_{+1} is found in 33 audit firm switches and not found in 23 audit firm switches.

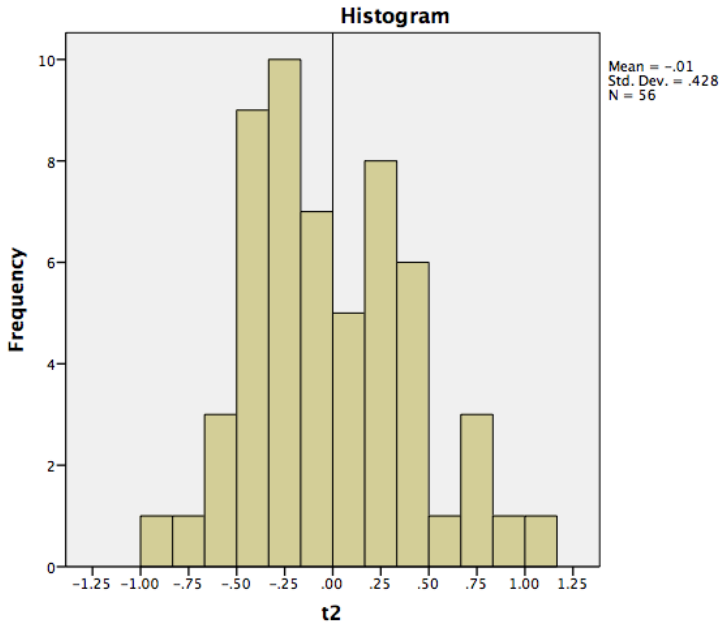

Figure 3 illustrates the shape of the distribution of the average percentage changes in audit fees year t_{+2} for the Total of NASDAQ OMX Stockholm

As presented in Figure 3, the mean is -1%, due to the rounding of numbers, and the standard deviation is 42.8%. A discount effect is found in 31 audit firm switches and not found in 25 audit firm switches the third year.

4.3 Different size companies

The fourth research question, "*Do the results differ among different caps?*", requires the companies to be divided into the three different caps of NASDAQ OMX Stockholm. The results are presented in Table 6.

4.3.1 Small cap

NASDAQ OMX Stockholm Small cap	t	t_{+1}	t_{+2}
Average percentage change of $\bar{R}$	-28.92%	-20.57%	-9.30%

Table 6 illustrates the average percentage changes on Small cap

The average initial audit fee discount when switching audit firm is -28.92% on Small cap. The discount the second year after the switch is -20.57% from the estimated normal audit fee. The third year the discount is -9.30% and is thus not back to the normal level. An initial audit fee discount is hence present as well as an increase of fee the following two years.

4.3.2 Mid cap

NASDAQ OMX Stockholm Mid cap	t	t_{+1}	t_{+2}
Average percentage change of $\bar{R}$	-10.00%	6.63%	-1.05%

Table 7 illustrates the average percentage changes on Mid cap

The average initial audit fee discount on Mid cap is -10%. The second year after the switch, an increase of 6.63% of the estimated normal fee is present while the third year a discount from the estimated normal audit fee is -1.05%. An initial fee discount is hence present during the first year of audit engagement. The second year, an increase in fee over the normal estimated fee is present but not the third year where a discount is found again.

4.3.3 Large cap

NASDAQ OMX Stockholm Large cap	t	t_{+1}	t_{+2}
Average percentage change of $\bar{R}$	-11.76%	2.64%	13.06%

Table 8 illustrates the average percentage changes on Large cap

The average initial audit fee discount is -11.76% when companies listed on Large cap switch audit firm. The audit fee ratio has increased by 2.64% from the estimated normal fee by the second year and by 13.06% the third year. An initial audit fee discount as well as an increase of the audit fee the following two years are thus present on Large cap.

4.3.4 Summary of different size companies

Compiled results	t	t_{+1}	t_{+2}
OMX Total	-17.53%	-4.57%	-0.61%
Small cap	-28.92%	-20.57%	-9.30%
Mid cap	-10.00%	6.63%	-1.05%
Large cap	-11.76%	2.64%	13.06%

Table 9 illustrates the compiled results of this study

As presented in Table 9 the results differ among different caps. The greatest initial audit fee discount exists on Small cap with -28.92%. The initial audit fee discount on Mid cap and Large cap are alike with discounts of -10.00% and -11.76%. The greatest increase of audit fees the following two years after the change exists on Large cap where an increase of 24.82 percentage points is found the third year. Companies listed on Small cap have an average increase of audit fees by 19.62 percentage points the third year after the change. Companies listed on Mid cap have an average increase of audit fees by 8.95 percentage points the third year after the switch and is thus the cap that has the lowest increase of audit fees. The results show that there are differences among the different caps.

5. Analysis

In this section the results of this thesis are put in relation to previous research that is outlined in the frame of references. The structure of the chapter is generally the same as the empirics' chapter to enable the reader to follow the connections between the two chapters.

5.1 Correlation

The results of correlation in this study agree with earlier research (Hay et al 2006) that auditee size is highly significant to set the level of audit fees. Company Turnover and Total Assets show a very strong or strong correlation with Audit Fees across companies listed on NASDAQ OMX Stockholm. However, Company Turnover correlates better than Total Assets with Audit Fees on Small cap, Mid cap and Total for all caps. Audit firms use Company Turnover as a first approximation of the price of audit (Oxera 2006), which is reasonable due to the results of this study.

On Large cap, the correlation shows only a strong relationship with Audit Fees for both Company Turnover and Total Assets. However, Audit Fees correlates slightly better with Total Assets but the difference is insignificant. The lower correlation coefficient of audit fees and auditee size could be due to other important factors that affect the price of audit. Large corporations may have a greater number of subsidiaries, which earlier studies have shown to be an important factor that affects the price of an audit engagement (Simunic 1980).

5.2 Low balling on the Swedish audit market

The results show that low balling behaviour exists among audit firms when competing over clients listed on NASDAQ OMX Stockholm since an initial audit fee discount is present as well as an increase of audit fees the following two years after the switch. The definition of low balling by DeAngelo (1981) is hence confirmed. This result disagrees with Dye's (1991) prediction that low balling only occurs in settings where audit fees are not publicly disclosed. The results, however, show a lesser initial audit fee discount, -17,53%, than the results presented by Jonasson & Tungel (2012) who

concluded that an initial audit fee discount of -27,06% occurred among companies listed on NASDAQ OMX Stockholm. Further, Jonasson & Tungel (2012) found that the audit fees were only 79.4% of the estimated normal fee the third year. The results of our thesis indicate that audit fees are very close to the estimated normal level, -0,61%, by the third year.

Figures 1-3 in the previous chapter show a distribution pattern widely spread around the mean. Also, the standard deviation for all three years is high; 29% the year of the switch, 40.6% the second year and 42.8% the third year after the switch. This is logical due to the wide spread shown in the histograms. The results indicate that not all audit firm switches have the characteristics of low balling. The year of the switch, an initial audit fee discount is present among the majority, in 44 out of 56 companies that switched audit firm. The second year after the switch, a discount effect is shown by 33 of the companies, which also make the majority. The third year after the switch, a discount effect is present among 31 of the companies that switched audit firm. Hence, 25 companies are above the estimated normal audit fee by the third year. As mentioned before, our results show that audit fees, at an average, are almost back to normal levels by the third year. The histogram presented in Figure 3, however, shows that only a minority of the companies are back to normal or higher levels of audit fees the third year. This indicates that audit firms need longer audit tenures to recover the initial losses.

The differences between the results presented by Jonasson & Tungel (2012) and the results of our study could be due to the different measure of auditee size. The results of correlation, however, in this thesis have shown a similar relationship between Audit fees and Company turnover and Audit fees and Total assets of the Total of NASDAQ OMX Stockholm. Since the correlation is fairly equal, the differences of percentage changes of audit fees shown in this thesis and in the thesis by Jonasson & Tungel (2012) could very likely be due to other factors.

The differences could suggestively be the differences in included switches. Jonasson & Tungel (2012) have a larger proportion of switches from companies listed on Small cap. As the results of Small cap in our thesis have shown, the initial fee discount is

larger, -28,92%, than the initial fee discount of the Total, -17,53%. Small cap-listed companies also show that audit fees have not recovered to normal levels by the third year where a discount of -9,30% is still present. The differences between the results could hence be partly explained by the difference in proportion of Small cap-listed companies, which, as this thesis has shown, have a larger initial fee discount and have not recovered to normal levels by the third year. Jonasson & Tungel (2012) also used a different methodology and a different composition of companies to calculate the low balling effect, which could also have affected the results.

5.2.1 Results compared to research done internationally

Contradictory to the findings of Simunic (1980) and Palmrose (1986) in the US and by Francis (1984) in Australia where no low balling was found, our study shows that low balling exists on the Swedish audit market when competing over companies listed on NASDAQ OMX Stockholm. However, the above studies only tested for low balling indirectly or had a small sample, which could have affected their results. These studies are also old, and the market of auditing as well as audit regulations have changed since that time.

Other studies in the 1980's and 1990's in the US and UK found that low balling existed since an initial audit fee discount of -22% to -25% occurred (Simon & Francis 1988; Ettredge & Greenberg 1990; Gregory & Collier 1996). The fees were back to normal levels by the fourth year (Simon & Francis 1988; Gregory & Collier 1996). Our study found a slightly smaller low balling effect on the Total of NASDAQ OMX Stockholm, a lower initial fee discount and a quicker recovery to normal audit fees. For audit firms to be able to profit from the audit engagement, longer audit tenures are needed since the initial losses due to the initial discounts are not recovered during the period of study. This could affect auditor independence if audit firms need their clients to be financial success companies to recover the receivables created by the initial audit fee discounts (The Cohen Report 1978). However, the new audit firms could be more effective in their work due to expertise in the respective industry (Chan 1999) and hence be able to lower the audit fee and do not depend on future receivables from the client. Auditor independence is thus not threatened, according to Chan (1999).

Francis & Simon (1987) and Baber, Brooks & Ricks (1987) also concluded that low balling existed in the US. However, their results are difficult to compare to ours. Francis & Simon (1987) used a very small sample of 12 switches due to the question of low balling being a side issue of the paper. Baber, Brooks & Ricks (1987) researched low balling on North Carolina county governments which makes comparisons difficult since our sample only includes publicly listed companies.

The most recent research done in the area of low balling is presented by Krauß, Quosigk & Zülch (2014) in Germany. An initial audit fee discount was discovered to be -13% (Krauß, Quosigk & Zülch 2014), which is a smaller initial audit fee discount than our results, -17.53%. Krauß, Quosigk & Zülch (2014) found no discount effect the second year, whereas our study shows a discount effect the second year after the switch. However, Krauß, Quosigk & Zülch (2014) only included large corporations in their study while our results of the Total of NASDAQ OMX Stockholm include Small and Mid size companies as well. The results of Krauß, Quosigk & Zülch (2014) and our results of companies listed on Large cap are more similar. Our study of Large cap shows an initial fee discount of -11.76% as well as no discount effect the subsequent years after the switch. This implies that the existence of low balling when audit firms compete over large clients is similar in Sweden and Germany.

5.3 Low balling and different size companies

As stated in the previous chapter, the results of the different caps differ. The results of Small cap indicate that an initial audit fee discount is present as well as an increase of fee the following two years. The definition of low balling by DeAngelo (1981) is hence met, and low balling occurs among audit firms when competing over clients listed on Small cap. There is still a discount effect by the third year of audit tenure, the audit fee is -9.30% of the estimated normal audit fee. The greatest initial audit fee discount of all three caps occurs on Small cap. This could be explained by that companies listed on Small cap find price as the most important factor when choosing audit firm. This agrees with statements made by Johnson & Lys (1990). The results indicate that audit firms need audit engagements to be longer on Small cap to be able

to profit from the engagement which, as mentioned earlier, could threaten auditor independence.

Mid cap shows a different pattern in numbers compared to the other caps and Total. An initial audit fee discount is found the year of the switch of audit firm. An increase of audit fees above the normal estimated audit fees the second year is also found. However, the third year of engagement a discount effect is found again. The results are hence ambiguous and do not agree with the definition by DeAngelo (1981). Initial audit fee discounts exist on Mid cap, but no low balling.

On Large cap, on the other hand, the definition of low balling by DeAngelo (1981) is met and low balling exists. The initial audit fee discount on Large cap is less than the discount found on the Total of NASDAQ OMX Stockholm. Our results are contradictory to the results found by Carson et al (2012) who reason that large clients can receive a greater discount due to the status and major audit fees, which these companies bring to the audit firm. Oxera (2006) presented evidence that companies choose quality over price when choosing audit firm. An explanation of our results could thus be that larger corporations find quality more important than the price and thus do not switch to the audit firm that tenders at lowest price, which is contradictory to our findings on Small cap. The audit fees on Large cap do not only recover, but are increased by 13.06% the third year. This could indicate that audit firms increased the audit fees to recover its initial losses as well as profit from the audit engagement.

6. Conclusions

In this chapter the problem statement "Does low balling exist on the Swedish audit market and does the size of the company affect the extent of low balling?" is answered. The conclusions are drawn from the analysis.

To be able to answer the first part of the problem statement of this thesis, if low balling exists on the Swedish audit market, the data on 56 identified switches of audit firms during 2002-2010 on the NASDAQ OMX Stockholm were collected. The results indicate that low balling exists on the Swedish audit market. An initial audit fee discount as well as a following increase of audit fees is present among companies listed on NASDAQ OMX Stockholm. The average initial audit fee discount is -17.53% of the estimated normal audit fee. The second year the average audit fee discount is -4.57%, and the third year the average audit fee discount is -0.61% of the estimated normal audit fee. This indicates that audit fees are nearly back to normal levels after three years of audit tenure. However, low balling does not appear in all switches of audit firms but an initial audit fee discount occurs in the majority of switches.

To be able to answer the second part of the problem statement of this thesis, if the size of the company affects the extent of low balling, 56 identified switches were divided into three groups depending on which cap the company was listed on. The results show considerable differences between the three caps. The results indicate that low balling exists on Small and Large cap. On Small cap, the average initial audit fee discount is -28.92%, the second year an average audit fee discount is -20.57%, and the third year the average audit fee discount is -9.30%, when compared to the estimated normal audit fee. Large cap shows a lesser initial audit fee discount of -11.76% the year of the switch, and the audit fees are over the estimated normal audit fees the second year by 2.64% as well as 13.06% the third year. The results of companies listed on Mid cap show an initial audit fee discount of -10.00% and an increase of audit fees over the estimated normal audit fee by 6.63% the second year. The third year after the switch, an audit fee discount is yet again found by -1.05%. Hence, initial audit fee discounts exist on Mid cap, but not low balling.

7. Suggestions for future research

This chapter provides the reader with suggestions for future research in the area of low balling. These suggestions are made in the light of the findings from our thesis.

Our study indicates that low balling exists when audit firms compete over clients listed on NASDAQ OMX Stockholm; however, the possible effects on auditor independence were not studied. There have been mixed results internationally in previous studies on low balling influence on auditor independence (The Cohen Report 1978; DeAngelo 1981; Gu & Lee 1998; Chan 1999). Further research on this issue in Sweden should obtain a deeper understanding of auditor independence since it is a highly debatable issue, especially after the financial crisis in 2008 (European Union 2013).

New regulations from the European Union introducing mandatory audit firm rotation every 10 years, with the possibility of member states to choose additional 10 years, to enhance audit quality and auditor independence were presented in December 2013 (European Union 2013). The mandatory rotation of 10 or 20 years will enter in Sweden in 2016. More frequent switches of audit firms and costly tender processes among listed companies may occur after the legislative change and could possibly lead to changes in competition on the audit market and difference in price pressure. It would be interesting to study if the extent of low balling increases when there is a time frame of the audit engagement. Another interesting subject to study is if the anticipated effects on auditor independence are achieved after the legislative change.

The differential results shown on Mid cap in this thesis also requires further studies as to why they differ from the other caps. Research on the phenomenon of low balling in Sweden that includes more variables than auditee size is advisable for a deeper understanding of the low balling extent. Examples of other factors that have been discussed driving audit fees are variables such as number of subsidiaries as well as location, different industries, and the risk of the auditee.

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Appendices

Appendix 1: Audit fees

Appendix 1 shows audit fees paid by companies in absolute numbers in MSEK, if not other specified, the year of the change as well as two years before and after.

Small Cap	Year of the change	F_{-2}	F_{-1}	F	F_{+1}	F_{+2}
ACAP Invest AB	2007	1.13	1.17	1.45	1.77	1.59
Addnode Group Aktiebolag	2003	1.06	0.20	0.81	1.15	1.27
Anoto Group AB	2008	0.32	0.38	0.35	0.31	0.31
CYBERCOM GROUP AB	2008	1.20	2.01	2.77	2.01	2.18
DORO AB	2007	1.50	1.10	1.10	0.90	1.20
Duroc Aktiebolag	2003	0.71	0.89	0.54	0.46	0.53
Duroc Aktiebolag	2006	0.46	0.55	0.47	0.83	1.20
Elanders AB	2008	1.68	2.13	2.17	2.46	2.02
Fingerprint Cards AB	2003	0.25	0.18	0.08	0.10	0.10
Image Systems AB	2002	0.44	0.37	0.16	0.20	0.22
Image Systems AB	2006	0.22	0.29	0.39	0.61	0.50
Micronic Mydata AB	2006	1.38	1.49	1.33	0.96	1.12
Midway Holding Aktiebolag	2005	2.60	2.80	1.30	1.90	2.40
NOTE AB	2008	1.61	1.59	0.95	1.24	1.10
NOVOTEK Aktiebolag	2003	0.24	0.21	0.21	0.22	0.20
Proact IT Group AB	2006	1.87	1.53	0.81	0.94	1.03
PROBI Aktiebolag	2002	0.07	0.08	0.12	0.20	0.25
ProfilGruppen AB	2007	0.80	0.80	0.60	0.70	0.70
Semcon Aktiebolag	2007	2.46	2.76	2.30	2.70	2.40
Stockwik Förvaltning AB	2008	1.38	1.05	0.31	0.53	0.48
Vitrolife AB	2007	0.46	0.53	0.39	0.39	0.48

Mid Cap	**Year of the change**	F_{-2}	F_{-1}	F	F_{+1}	F_{+2}
Avanza Bank Holding AB	2007	0.58	1.00	0.92	1.46	1.04
Betsson AB	2008	0.86	0.43	2.12	1.68	1.15
Eniro AB	2004	5.00	4.00	4.00	5.00	6.00
Fastighets AB Balder	2009	1.10	1.10	1.20	1.20	1.40
Fenix Outdoor AB	2006	0.72	0.75	0.40	1.12	1.63
G & L Beijer AB	2005	1.23	1.79	1.98	2.21	2.54
Gunnebo Aktiebolag	2008	10.80	10.20	7.40	8.80	7.10
Haldex Aktiebolag	2003	5.00	6.00	5.00	6.00	7.00
Heba Fastighets Aktiebolag	2007	0.28	0.25	0.32	0.35	0.37
Höganäs AB	2003	2.20	1.00	2.60	4.40	4.10
Intrum Justitia AB	2004	4.70	9.00	8.30	11.80	8.40
JM AB	2004	3.50	4.70	3.80	4.00	4.00
Net Entertainment NE AB	2008	0.16	0.25	0.51	0.72	0.91
Nobia AB	2007	9.00	10.00	10.00	11.00	12.00
Nolato Aktiebolag	2008	1.65	2.29	1.68	2.06	2.01
Nordnet AB	2004	2.34	1.71	1.62	2.69	2.53
Proffice Aktiebolag	2007	2.00	2.00	2.00	3.00	4.00
SkiStar Aktiebolag	2004	1.13	1.48	0.61	0.87	0.96
TradeDoubler AB	2009	2.80	5.30	4.73	6.77	4.46
ÅF AB	2003	1.80	2.00	1.60	2.21	2.73
ÅF AB	2007	2.73	3.49	2.35	3.17	3.55

Large Cap	**Year of the change**	F_{-2}	F_{-1}	F	F_{+1}	F_{+2}
Aktiebolaget Electrolux	2002	28.00	31.00	38.00	45.00	46.00
Aktiebolaget SKF	2005	24.00	24.00	25.00	46.00	33.00
Atlas Copco Aktiebolag	2010	53.00	58.00	44.00	48.00	51.00
BillerudKorsnäs Aktiebolag	2009	2.00	3.00	1.00	2.00	2.00
Boliden AB	2009	6.00	6.00	5.00	5.00	5.00
Getinge AB	2008	10.00	16.00	13.00	17.00	18.00
NCC Aktiebolag	2008	12.00	14.00	13.00	15.00	15.00
Stora Enso AB, MEURO	2008	6.10	7.60	4.90	4.10	5.10
Swedish Match AB	2004	14.00	13.00	13.00	14.00	26.00

Tele2 AB	2004	17.00	17.00	15.00	21.00	30.00
TeliaSonera Aktiebolag	2004	28.00	53.00	41.00	49.00	82.00
Tieto Sweden AB	2006	4.09	3.81	2.00	2.11	2.20
Trelleborg AB	2004	16.00	16.00	22.00	26.00	30.00
Wallenstam AB	2006	1.00	1.00	1.30	1.40	1.90

Appendix 2: Company Turnover

Appendix 2 shows Company Turnover of the companies in absolute numbers in MSEK, if not other specified, the year of the change as well as two years before and after.

Small Cap	**Year of the change**	T_{-2}	T_{-1}	T	T_{+1}	T_{+2}
ACAP Invest AB	2007	432.88	542.89	863.54	925.68	713.40
Addnode Group Aktiebolag	2003	315.01	29.11	196.42	322.15	579.94
Anoto Group AB	2008	108.73	168.77	182.20	205.86	208.40
CYBERCOM GROUP AB	2008	534.17	1155.99	1771.01	1714.43	1501.84
DORO AB	2007	621.30	433.20	346.30	632.50	488.40
Duroc Aktiebolag	2003	213.72	221.60	212.56	192.50	203.66
Duroc Aktiebolag	2006	192.50	203.66	199.48	560.40	698.00
Elanders AB	2008	1988.18	2035.62	2191.18	1756.74	1705.92
Fingerprint Cards AB	2003	2.05	4.41	5.17	2.85	2.71
Image Systems AB	2002	81.66	67.57	49.06	70.71	30.13
Image Systems AB	2006	30.13	59.66	78.53	114.80	59.00
Micronic Mydata AB	2006	839.48	1275.76	1204.14	522.98	568.62
Midway Holding Aktiebolag	2005	1949.10	2082.20	2070.90	2358.20	2449.50
NOTE AB	2008	1741.49	1743.79	1709.45	1200.06	1210.72
NOVOTEK Aktiebolag	2003	145.83	198.36	198.48	191.93	199.10
Proact IT	2006	833.59	689.22	756.48	864.77	641.98

Group AB						
PROBI Aktiebolag	2002	17.58	18.99	26.06	24.46	31.62
ProfilGruppen AB	2007	926.70	1086.90	1179.40	1086.10	764.30
Semcon Aktiebolag	2007	1495.73	1614.12	2497.40	3298.80	2281.10
Stockwik Förvaltning AB	2008	556.68	135.06	206.01	153.06	125.53
Vitrolife AB	2007	120.12	171.26	188.94	225.14	274.63

Mid Cap	**Year of the change**	T_{-2}	T_{-1}	T	T_{+1}	T_{+2}
Avanza Bank Holding AB	2007	331.00	556.00	751.00	779.00	603.00
Betsson AB	2008	391.50	648.96	1037.76	1299.71	1603.21
Eniro AB	2004	4737.00	4901.00	4918.00	4827.00	6697.00
Fastighets AB Balder	2009	678.30	632.60	854.00	1333.00	1466.00
Fenix Outdoor AB	2006	540.16	655.55	742.77	844.97	961.06
G & L Beijer AB	2005	1400.92	1973.67	2332.87	2592.21	3135.97
Gunnebo Aktiebolag	2008	6726.60	7025.00	6903.20	6788.40	5938.00
Haldex Aktiebolag	2003	6225.00	6414.00	6036.00	6759.00	7486.00
Heba Fastighets Aktiebolag	2007	204.80	191.56	183.85	197.04	205.36
Höganäs AB	2003	3245.00	3249.00	3750.00	4162.00	4594.00
Intrum Justitia AB	2004	2774.90	2864.60	2848.80	2823.20	2939.60
JM AB	2004	8872.00	7787.00	8414.00	9887.00	12065.00
Net Entertainment NE AB	2008	99.48	131.15	204.60	299.72	368.17
Nobia AB	2007	12442.00	15590.00	16622.00	15991.00	15418.00
Nolato Aktiebolag	2008	2702.00	2421.00	2824.00	2602.00	3375.00
Nordnet AB	2004	200.08	228.67	358.17	623.34	960.47
Proffice Aktiebolag	2007	2421.00	2851.00	3791.00	4266.00	3909.00
SkiStar Aktiebolag	2004	886.13	959.01	989.95	977.01	1280.49
TradeDoubler	2009	2663.64	3456.70	3014.35	2840.07	2612.70

AB						
ÅF AB	2003	1960.54	1914.14	1993.98	2135.97	2268.92
ÅF AB	2007	2268.92	3113.59	3862.35	4568.84	4677.91

Large Cap	**Year of the change**	T_{-2}	T_{-1}	T	T_{+1}	T_{+2}
Aktiebolaget Electrolux	2002	124493.00	135803.00	133150.00	124077.00	120651.00
Aktiebolaget SKF	2005	41377.00	44826.00	49285.00	53101.00	58559.00
Atlas Copco Aktiebolag	2010	74177.00	63762.00	69875.00	81203.00	90533.00
BillerudKorsnäs Aktiebolag	2009	7758.00	7792.00	7760.00	8828.00	9343.00
Boliden AB	2009	33204.00	30987.00	27635.00	30038.00	40323.00
Getinge AB	2008	13001.00	16445.00	19272.00	22816.00	22172.00
NCC Aktiebolag	2008	55876.00	58397.00	57465.00	56005.00	49420.00
Stora Enso AB, MEURO	2008	14593.90	13373.60	11028.80	8945.10	10298.90
Swedish Match AB	2004	13643.00	13036.00	13007.00	13311.00	12911.00
Tele2 AB	2004	31282.00	36911.00	43033.00	49943.00	50306.00
TeliaSonera Aktiebolag	2004	59483.00	82425.00	81937.00	87661.00	91060.00
Tieto Sweden AB	2006	395.54	454.79	425.25	445.09	5182.44
Trelleborg AB	2004	17630.00	17960.00	22912.00	23509.00	27041.00
Wallenstam AB	2006	1110.10	1219.80	1239.00	1241.00	1250.00

Appendix 3: Total Assets

Appendix 3 shows the value of Total Assets in absolute numbers in MSEK, if not other specified, the year of the change as well as two years before and after.

Small Cap	**Year of the change**	TA_{-2}	TA_{-1}	TA	TA_{+1}	TA_{+2}
ACAP Invest AB	2007	670.36	451.11	691.22	658.31	511.60
Addnode Group Aktiebolag	2003	95.64	7.29	212.67	523.45	761.59
Anoto Group AB	2008	576.98	564.53	601.44	554.90	479.79
CYBERCOM	2008	408.70	1388.44	2028.43	1735.45	1512.66

GROUP AB						
DORO AB	2007	270.00	181.70	161.40	170.10	232.30
Duroc Aktiebolag	2003	277.13	244.72	181.40	194.57	207.49
Duroc Aktiebolag	2006	194.57	207.49	233.71	463.50	448.90
Elanders AB	2008	1641.08	2224.28	2386.74	2113.75	2012.32
Fingerprint Cards AB	2003	130.72	103.95	81.87	56.41	61.05
Image Systems AB	2002	106.91	83.82	49.47	39.61	22.50
Image Systems AB	2006	22.50	92.42	92.85	118.40	83.40
Micronic Mydata AB	2006	1571.78	1870.85	1709.73	1506.66	1376.43
Midway Holding Aktiebolag	2005	1197.70	1137.70	1254.70	1364.00	1403.30
NOTE AB	2008	888.21	948.11	948.28	753.05	693.53
NOVOTEK Aktiebolag	2003	106.81	120.58	140.37	132.22	141.70
Proact IT Group AB	2006	440.98	439.05	474.45	515.55	644.31
PROBI Aktiebolag	2002	111.46	110.39	75.32	72.23	93.07
ProfilGruppen AB	2007	616.90	606.30	615.90	563.60	499.30
Semcon Aktiebolag	2007	669.38	663.26	2103.80	1776.20	1264.30
Stockwik Förvaltning AB	2008	189.52	324.26	214.88	155.05	100.83
Vitrolife AB	2007	211.37	271.03	299.46	342.66	359.32

Mid Cap	**Year of the change**	$\boldsymbol{TA_{-2}}$	$\boldsymbol{TA_{-1}}$	$\boldsymbol{TA}$	$\boldsymbol{TA_{+1}}$	$\boldsymbol{TA_{+2}}$
Avanza Bank Holding AB	2007	4505.00	8721.00	14449.00	15597.00	27795.00
Betsson AB	2008	592.55	843.61	1148.45	1392.19	1488.13
Eniro AB	2004	7320.00	7161.00	7163.00	19542.00	18213.00
Fastighets AB Balder	2009	7582.20	7945.90	13800.00	15065.00	18978.00
Fenix Outdoor AB	2006	410.93	470.30	520.81	588.21	639.65
G & L Beijer AB	2005	884.77	1429.00	1462.43	1542.15	1985.15
Gunnebo Aktiebolag	2008	4687.20	4837.30	5262.10	4336.30	3735.00

Haldex Aktiebolag	2003	4203.00	3859.00	3596.00	3885.00	4662.00
Heba Fastighets Aktiebolag	2007	2552.53	2687.32	3130.90	3058.49	3493.34
Höganäs AB	2003	4408.00	4205.00	4708.00	4742.00	5253.00
Intrum Justitia AB	2004	3737.30	3680.60	3547.50	4136.00	4461.50
JM AB	2004	10628.00	9145.00	8239.00	8155.00	8406.00
Net Entertainment NE AB	2008	56.56	98.09	162.01	248.68	306.87
Nobia AB	2007	7918.00	9624.00	10290.00	11338.00	10456.00
Nolato Aktiebolag	2008	1724.00	1918.00	2126.00	2113.00	2350.00
Nordnet AB	2004	1437.17	1814.02	2779.34	5873.67	10077.84
Proffice Aktiebolag	2007	987.00	1126.00	1432.00	1500.00	1571.00
SkiStar Aktiebolag	2004	1744.41	1670.48	1895.84	2038.09	2827.97
TradeDoubler AB	2009	2237.00	1551.29	1725.58	1415.73	1436.64
ÅF AB	2003	1276.33	1092.29	1121.77	1295.75	1220.13
ÅF AB	2007	1220.13	2300.23	2795.58	3609.53	3582.51

Large Cap	**Year of the change**	TA_{-2}	TA_{-1}	TA	TA_{+1}	TA_{+2}
Aktiebolaget Electrolux	2002	87289.00	94447.00	85424.00	77028.00	74932.00
Aktiebolaget SKF	2005	36326.00	35014.00	40349.00	46238.00	46331.00
Atlas Copco Aktiebolag	2010	75394.00	67874.00	71622.00	75109.00	81149.00
BillerudKorsnäs Aktiebolag	2009	9202.00	9021.00	9081.00	9200.00	9335.00
Boliden AB	2009	27231.00	30252.00	33258.00	35128.00	37615.00
Getinge AB	2008	15877.00	22970.00	33032.00	37498.00	34585.00
NCC Aktiebolag	2008	30603.00	34069.00	36247.00	29976.00	31104.00
Stora Enso AB, MEURO	2008	17440.30	15310.80	12240.80	11593.20	13036.70
Swedish Match AB	2004	15447.00	15102.00	14621.00	16806.00	15770.00
Tele2 AB	2004	46872.00	47970.00	47826.00	68283.00	66164.00
TeliaSonera Aktiebolag	2004	206656.00	190060.00	193018.00	203775.00	199392.00
Tieto Sweden AB	2006	1402.25	1575.45	1264.60	1331.90	2547.41

Trelleborg AB	2004	15400,00	22856.00	21799.00	24960.00	27557.00
Wallenstam AB	2006	14481,90	17330.20	19764.00	19747.00	20249.00

Appendix 4: Correlation

Appendix 4 shows the average value of two years before the change of auditors in absolute numbers in MSEK, if not other specified, of Total Assets, $\overline{TA}$, Audit Fee, $\bar{F}$ and Company Turnover, $\bar{T}$. These numbers were used when calculating the correlation coefficient.

Small Cap	$\overline{TA}$	$\bar{F}$	$\bar{T}$
ACAP Invest AB	560.73	1.15	487.89
Addnode Group Aktiebolag	51.46	0.63	172.06
Anoto Group AB	570.76	0.35	138.75
CYBERCOM GROUP AB	898.57	1.61	845.08
DORO AB	225.85	1.30	527.25
Duroc Aktiebolag	260.93	0.80	217.66
Duroc Aktiebolag	201.03	0.51	198.08
Elanders AB	1932.68	1.90	2011.90
Fingerprint Cards AB	117.34	0.22	3.23
Image Systems AB	95.36	0.41	74.61
Image Systems AB	57.46	0.25	44.90
Micronic Mydata AB	1721.31	1.44	1057.62
Midway Holding Aktiebolag	1167.70	2.70	2015.65
NOTE AB	918.16	1.60	1742.64
NOVOTEK Aktiebolag	113.69	0.23	172.09
Proact IT Group AB	440.01	1.70	761.40
PROBI Aktiebolag	110.92	0.07	18.29
ProfilGruppen AB	611.60	0.80	1006.80
Semcon Aktiebolag	666.32	2.61	1554.92
Stockwik Förvaltning AB	256.89	1.22	345.87
Vitrolife AB	241.20	0.50	145.69

Mid Cap	$\overline{TA}$	$\bar{F}$	$\bar{T}$
Avanza Bank Holding AB	6613.00	0.79	443.50
Betsson AB	718.08	0.64	520.23
Eniro AB	7240.50	4.50	4819.00
Fastighets AB Balder	7764.05	1.10	655.45
Fenix Outdoor AB	440.61	0.73	597.85
G & L Beijer AB	1156.89	1.51	1687.30
Gunnebo Aktiebolag	4762.25	10.50	6875.80

Haldex Aktiebolag	4031.00	5.50	6319.50
Heba Fastighets Aktiebolag	2619.93	0.27	198.18
Höganäs AB	4306.50	1.60	3247.00
Intrum Justitia AB	3708.95	6.85	2819.75
JM AB	9886.50	4.10	8329.50
Net Entertainment NE AB	77.33	0.21	115.31
Nobia AB	8771.00	9.50	14016.00
Nolato Aktiebolag	1821.00	1.97	2561.50
Nordnet AB	1625.60	2.02	214.37
Proffice Aktiebolag	1056.50	2.00	2636.00
SkiStar Aktiebolag	1707.44	1.31	922.57
TradeDoubler AB	1894.14	4.05	3060.17
ÅF AB	1184.31	1.90	1937.34
ÅF AB	1760.18	3.11	2691.25

Large Cap	$\overline{TA}$	$\overline{F}$	$\overline{T}$
Aktiebolaget Electrolux	90868.00	29.50	130148.00
Aktiebolaget SKF	35670.00	24.00	43101.50
Atlas Copco Aktiebolag	71634.00	55.50	68969.50
BillerudKorsnäs Aktiebolag	9111.50	2.50	7775.00
Boliden AB	28741.50	6.00	32095.50
Getinge AB	19423.50	13.00	14723.00
NCC Aktiebolag	32336.00	13.00	57136.50
Stora Enso AB, MEURO	16375.55	6.85	13983.75
Swedish Match AB	15274.50	13.50	13339.50
Tele2 AB	47421.00	17.00	34096.50
TeliaSonera Aktiebolag	198358.00	40.50	70954.00
Tieto Sweden AB	1488.85	3.95	425.16
Trelleborg AB	19128.00	16.00	17795.00
Wallenstam AB	15906.05	1.00	1164.95

Appendix 5: Audit fee ratio

Appendix 5 shows the ratio between Audit Fees and Company Turnover of each company the year of the change as well as two years before and after.

Small Cap	R_{-2}	R_{-1}	R	R_{+1}	R_{+2}
ACAP Invest AB	0.0026	0.0021	0.0017	0.0019	0.0022
Addnode Group Aktiebolag	0.0034	0.0069	0.0041	0.0036	0.0022
Anoto Group AB	0.0029	0.0022	0.0019	0.0015	0.0015
CYBERCOM GROUP AB	0.0022	0.0017	0.0016	0.0012	0.0015
DORO AB	0.0024	0.0025	0.0032	0.0014	0.0025

Duroc Aktiebolag	0.0033	0.0040	0.0025	0.0024	0.0026
Duroc Aktiebolag	0.0024	0.0027	0.0024	0.0015	0.0017
Elanders AB	0.0008	0.0010	0.0010	0.0014	0.0012
Fingerprint Cards AB	0.1239	0.0410	0.0145	0.0335	0.0351
Image Systems AB	0.0054	0.0055	0.0032	0.0028	0.0071
Image Systems AB	0.0071	0.0048	0.0050	0.0053	0.0085
Micronic Mydata AB	0.0016	0.0012	0.0011	0.0018	0.0020
Midway Holding Aktiebolag	0.0013	0.0013	0.0006	0.0008	0.0010
NOTE AB	0.0009	0.0009	0.0006	0.0010	0.0009
NOVOTEK Aktiebolag	0.0017	0.0011	0.0011	0.0011	0.0010
Proact IT Group AB	0.0022	0.0022	0.0011	0.0011	0.0016
PROBI Aktiebolag	0.0038	0.0041	0.0045	0.0082	0.0079
ProfilGruppen AB	0.0009	0.0007	0.0005	0.0006	0.0009
Semcon Aktiebolag	0.0016	0.0017	0.0009	0.0008	0.0011
Stockwik Förvaltning AB	0.0025	0.0078	0.0015	0.0035	0.0038
Vitrolife AB	0.0038	0.0031	0.0021	0.0018	0.0017

Mid Cap	$\boldsymbol{R_{-2}}$	$\boldsymbol{R_{-1}}$	$\boldsymbol{R}$	$\boldsymbol{R_{+1}}$	$\boldsymbol{R_{+2}}$
Avanza Bank Holding AB	0.0017	0.0018	0.0012	0.0019	0.0017
Betsson AB	0.0022	0.0007	0.0020	0.0013	0.0007
Eniro AB	0.0011	0.0008	0.0008	0.0010	0.0009
Fastighets AB Balder	0.0016	0.0017	0.0014	0.0009	0.0010
Fenix Outdoor AB	0.0013	0.0011	0.0005	0.0013	0.0017
G & L Beijer AB	0.0009	0.0009	0.0009	0.0009	0.0008
Gunnebo Aktiebolag	0.0016	0.0015	0.0011	0.0013	0.0012
Haldex Aktiebolag	0.0008	0.0009	0.0008	0.0009	0.0009
Heba Fastighets Aktiebolag	0.0014	0.0013	0.0018	0.0018	0.0018
Höganäs AB	0.0007	0.0003	0.0007	0.0011	0.0009
Intrum Justitia AB	0.0017	0.0031	0.0029	0.0042	0.0029
JM AB	0.0004	0.0006	0.0005	0.0004	0.0003
Net Entertainment NE AB	0.0016	0.0019	0.0025	0.0024	0.0025
Nobia AB	0.0007	0.0006	0.0006	0.0007	0.0008
Nolato Aktiebolag	0.0006	0.0009	0.0006	0.0008	0.0006
Nordnet AB	0.0117	0.0075	0.0045	0.0043	0.0026
Proffice Aktiebolag	0.0008	0.0007	0.0005	0.0007	0.0010
SkiStar Aktiebolag	0.0013	0.0015	0.0006	0.0009	0.0008
TradeDoubler AB	0.0011	0.0015	0.0016	0.0024	0.0017
ÅF AB	0.0009	0.0010	0.0008	0.0010	0.0012
ÅF AB	0.0012	0.0011	0.0006	0.0007	0.0008

Large Cap	R_{-2}	R_{-1}	R	R_{+1}	R_{+2}
Aktiebolaget Electrolux	0.0002	0.0002	0.0003	0.0004	0.0004
Aktiebolaget SKF	0.0006	0.0005	0.0005	0.0009	0.0006
Atlas Copco Aktiebolag	0.0007	0.0009	0.0006	0.0006	0.0006
BillerudKorsnäs Aktiebolag	0.0003	0.0004	0.0001	0.0002	0.0002
Boliden AB	0.0002	0.0002	0.0002	0.0002	0.0001
Getinge AB	0.0008	0.0010	0.0007	0.0007	0.0008
NCC Aktiebolag	0.0002	0.0002	0.0002	0.0003	0.0003
Stora Enso AB	0.0004	0.0006	0.0004	0.0005	0.0005
Swedish Match AB	0.0010	0.0010	0.0010	0.0011	0.0020
Tele2 AB	0.0005	0.0005	0.0003	0.0004	0.0006
TeliaSonera Aktiebolag	0.0005	0.0006	0.0005	0.0006	0.0009
Tieto Sweden AB	0.0103	0.0084	0.0047	0.0047	0.0004
Trelleborg AB	0.0009	0.0009	0.0010	0.0011	0.0011
Wallenstam AB	0.0009	0.0008	0.0010	0.0011	0.0015

Appendix 6: Changes in Audit fee ratios

Appendix 6 shows the estimated normal audit fee, $\bar{R}$, and the initial change in audit fee ratio the year of the switch as well as the two following years.

Small Cap	$\bar{R}$	**Audit Fee percentage change,** t	**Audit Fee percentage change,** t_{+1}	**Audit Fee percentage change,** t_{+2}
ACAP Invest AB	0.0024	-0.2903	-0.1926	-0.0588
Addnode Group Aktiebolag	0.0051	-0.1943	-0.3040	-0.5744
Anoto Group AB	0.0026	-0.2495	-0.4212	-0.4188
CYBERCOM GROUP AB	0.0020	-0.2138	-0.4105	-0.2708
DORO AB	0.0025	0.2825	-0.4255	-0.0080
Duroc Aktiebolag	0.0037	-0.3157	-0.3461	-0.2885
Duroc Aktiebolag	0.0026	-0.0719	-0.4187	-0.3285
Elanders AB	0.0009	0.0476	0.4809	0.2513
Fingerprint Cards AB	0.0825	-0.8243	-0.5935	-0.5748
Image Systems AB	0.0054	-0.4191	-0.4826	0.3118
Image Systems AB	0.0060	-0.1676	-0.1175	0.4168
Micronic Mydata AB	0.0014	-0.2154	0.3063	0.4002
Midway Holding Aktiebolag	0.0013	-0.5313	-0.3984	-0.2685
NOTE AB	0.0009	-0.3977	0.1257	-0.0101
NOVOTEK	0.0014	-0.2087	-0.1587	-0.2664

Aktiebolag				
Proact IT Group A	0.0022	-0.5229	-0.5153	-0.2835
PROBI Aktiebolag	0.0039	0.1415	1.0790	1.0025
ProfilGruppen AB	0.0008	-0.3638	-0.1940	0.1453
Semcon Aktiebolag	0.0017	-0.4507	-0.5118	-0.3725
Stockwik Förvaltning AB	0.0051	-0.7086	-0.3252	-0.2564
Vitrolife AB	0.0035	-0.3986	-0.4953	-0.5001

Mid Cap	$\overline{R}$	**Audit Fee percentage change, t**	**Audit Fee percentage change, t_{+1}**	**Audit Fee percentage change, t_{+2}**
Avanza Bank Holding AB	0.0018	-0.3075	0.0616	-0.0241
Betsson AB	0.0014	0.4295	-0.0953	-0.4977
Eniro AB	0.0009	-0.1309	0.1069	-0.0427
Fastighets AB Balder	0.0017	-0.1637	-0.4642	-0.4317
Fenix Outdoor AB	0.0012	-0.5612	0.0767	0.3769
G & L Beijer AB	0.0009	-0.0473	-0.0432	-0.0915
Gunnebo Aktiebolag	0.0015	-0.2988	-0.1520	-0.2179
Haldex Aktiebolag	0.0009	-0.0471	0.0211	0.0756
Heba Fastighets Aktiebolag	0.0013	0.3080	0.3151	0.3309
Höganäs AB	0.0005	0.4067	1.1449	0.8107
Intrum Justitia AB	0.0024	0.2050	0.7287	0.1819
JM AB	0.0005	-0.0950	-0.1893	-0.3356
Net Entertainment NE AB	0.0018	0.3924	0.3552	0.3928
Nobia AB	0.0007	-0.1184	0.0080	0.1406
Nolato Aktiebolag	0.0008	-0.2340	0.0166	-0.2365
Nordnet AB	0.0096	-0.5275	-0.5502	-0.7252
Proffice Aktiebolag	0.0008	-0.3093	-0.0793	0.3397
SkiStar Aktiebolag	0.0014	-0.5618	-0.3684	-0.4672
TradeDoubler AB	0.0013	0.2160	0.8454	0.3208
ÅF AB	0.0010	-0.1793	0.0551	0.2271
ÅF AB	0.0012	-0.4765	-0.4020	-0.3467

Large Cap	$\overline{R}$	**Audit Fee percentage change, t**	**Audit Fee percentage change, t_{+1}**	**Audit Fee percentage change, t_{+2}**
Aktiebolaget Electrolux	0.0002	0.2595	0.6006	0.6826
Aktiebolaget SKF	0.0006	-0.0905	0.5532	0.0104
Atlas Copco	0.0008	-0.2246	-0.2721	-0.3063

Aktiebolag				
BillerudKorsnäs Aktiebolag	0,0003	-0.5991	-0.2951	-0.3340
Boliden AB	0.0002	-0.0333	-0.1106	-0.3375
Getinge AB	0.0009	-0.2256	-0.1446	-0.0680
NCC Aktiebolag	0.0002	-0.0045	0.1786	0.3356
Stora Enso AB	0.0005	-0.0990	-0.0705	0.0042
Swedish Match AB	0.0010	-0.0121	0.0396	0.9905
Tele2 AB	0.0005	-0.3056	-0.1624	0.1879
TeliaSonera Aktiebolag	0.0006	-0.1014	0.0038	0.6171
Tieto Sweden AB	0.0094	-0.4970	-0.4921	-0.9546
Trelleborg AB	0.0009	0.0678	0.2299	0.2338
Wallenstam AB	0.0009	0.2196	0.3113	0.7668