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The effects of Audit Firms Rotation: An event study in Chile

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Abstract

In order to determine the market reaction to an announcement of a change in the audit firm, we carry on an event study between 2004 and 2013 that includes 130 publicly traded Chilean Companies. We find that the market reacted positively when a company announced that it will keep its audit firm that year. We rule out possible biases in the informational content of the event. This suggests that overall, the costs associated to a change of an audit firm (start-up cost and know how loss) would dominate the benefits of the same change (reduction in the probability of a value destroying event such as a fraud or an error). We discuss the implications of this result for the potential implementation of a rule of mandatory rotation in a developing country such as Chile. We also discuss the possibility of identifying the specific costs and benefits behind the audit firm change.

JEL: M42, G34

Keywords: Audit, Auditing, Audit firm, mandatory rotation rule, event study

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1. Introduction

As a central component of what we understand to be good corporate governance practices,[2] the process of external auditing[3] is a substantial contributor to the managers' goal of maximizing shareholders value. Given that one of the[4] main jobs of an auditor is to verify the reasonableness with which financial statements reflect the company's financial situation,[5] the auditor's report represents a key source of information for managers, shareholders, regulators and investors.

Recent (Freddie Mac and Fannie Mae) and not so recent (Enron and WorldCom) value destroying events[6] in corporate America, partially motivated or at least inadequately detected by external auditors, have lead academics[7], regulators[8] and practitioners to wonder whether rules in which companies must, mandatorily, change their auditors after a certain number of years[9] are socially beneficial. A priori, the answer is unclear. On one side there are efficiencies (in the form of learning curves and economies of scale and scope) associated to long auditor-auditee relations but on the other side there are serious concerns that a too long relation might (consciously or unconsciously) reduce the probability that the auditor will be able to detect a potentially value destroying event.[10]

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[2] According to Cadbury (1992), corporate governance can be understood as a set of mechanisms (some internal and some other external) which aim to maximize shareholders value subject to a set of legal, contractual and financial restrictions. In this reality, the Board of Directors fulfills the key role of protecting both Shareholders and Stakeholders interests.

[3]According to Cameran, Merlotti and Di Vincenzo (2005), auditors contribute to a better functioning of financial markets in two ways. First, they provide information to shareholders. Second, through a qualified opinion, they backup or correct errors in the statements.

[4] Many National Board of Accountants will state their role in similar terms. See for example the Chilean Accepted Accounting Principles and compare it to the ones used in the U.S.

[5] In accordance with generally accepted accounting principles.

[6] Such as: frauds, tunnelling or erroneous calculation of financial risks.

[7]Supporters of the rule include Coopley and Doucet (1993), Dopuch, King and Schwartz (2001), Gietzman and Sen (2002). Detractors of the rule include Arruñada and Paz-Ares (1997), Geiger and Raghunandan (2002), Nagy (2005).

[8] Brazil, India, Italy, Singapore and South Korea have implemented variations of a mandatory rule of rotation. Many other countries such as Chile and U.S.A. have implemented a partner rotation rule.

[9] For example, see Section 207 of Sarbanes-Oxley Act.

[10] For example see Cameran et al (2005).

This paper contributes to the literature that studies the costs and benefits of auditor-auditee relations by estimating the market reaction to the announcement of a change in the external auditor.

We study the announcements of voluntary changes in auditors made by 130 Chilean companies during the period 2004 to 2013, and we find that there is a statistically significant reward for companies that do not change auditors (greater return on shares following announcement of the decision to retain the auditor), as well as a slight decrease in the stock price of companies that do change auditors. In this last scenario, the punishment (stock price fall that follows the announcement of the change of auditor) is not statistically significant. The 5-day excess return (between days 2 and 6 following the announcement) for companies that do not change their auditor is 0.48%.[11] In other words, after announcing that the company would retain their auditors, in average their shares rose by 0.48%.

In order to support the robustness of our results we carry on a study event in differences between the control and the study groups.[12] Before the event there are no significant differences in CARs and when the window of time is long enough the differences tend to disappear as expected. That said, in all the windows of time after the event, the direction in the reaction of CARS (positive or negative) are opposed for the two groups.

We are careful to eliminate alternative hypothesis that the market reaction to the announcement is not (completely or partially) related to the costs and benefits that we

[11] Statistically significant at the 5% level.
[12] Because close to the shareholders meetings there is an abnormal return, (Wang and Hefner [2014]) the separation in the control and study groups allows us to effectively identify the effect associated to the announcement in the change of the auditor.

have mentioned before. Because financial statements have already been revealed when companies make the decisions to keep or change their auditors we rule out that investors are learning about the financial or business performance of the company.[13] We also rule out that the market reaction could be connected to other major issues such as dividend policy or information of transactions with potential conflicts of interests discussed during the shareholders meetings.[14]

We suggest that our result captures the *aggregate* response of the market to the costs and benefits associated to a change in the auditor. In order to support that we study market responses to variations in *specific* costs and benefits associated to the change in auditor.

There are three main costs and three main benefits associated to an auditor change (here we are not talking about a mandatory rule anymore but about the announcement of a one-time change in the auditor). In terms of the benefits, first, the presence of a new auditor reduces the probability that a value destroying event[15] is not found because of issues of overconfidence or conflicts of interest (moral hazard effect) which are higher with the current auditor. Second, due to a well understood effect of *low bailing*, the company will pay lower fees to a new auditor than the current auditor.[16] Third, due to corporate structure and/or legal issues the company, which is a conglomerate or a multinational, benefits from having the same auditor in all its subsidiaries or societies. [17]

[13] In Chile, financial statements are revealed in March and shareholders meetings (when the continuity or change of the auditor is decided) take place in April.

[14] Regarding dividends, we check that there are no significant differences between the controlled and studied groups' dividend policies in the period under study. Regarding transactions with potential conflicts of interests, we verify that there none of these transactions took place in the window of time of 20 days around the studied event for the 130 firms during the studied period.

[15] See footnote 11.

[16] De Angelo (1981) documents that, quite commonly, audit companies offer low prices (under marginal cost) the first years of a new auditor-auditee relationship only to raise them after. We find that the same effect is present in Chile.

[17] Conglomerates and multinationals gain on efficiency when they have the same auditor. First, consolidations are simpler when all the subsidiaries use the same accounting system. Second, many

In terms of the costs, a new auditor will have to incur in start-up costs.[18] Second, the probability that a value destroying event is not found, increases because the new auditor has less experience than the current auditor (learning effect).[19] For example, the familiarity with the company allows the auditor to accurately calculate the company's risk level[20], also to be more efficient at managing information.[21] Third and final, a long term relationship incentivizes the auditor to make specific investments that increases the efficiency of the service, all that is not yet present with the new auditor.[22]

With these considerations in mind we test the veracity of two hypothesis. First we check whether the stock price reaction for companies that announced no change in auditors relative to the ones that did would have been milder in the case that the change in auditor was associated to a change in control. The reason is that in these cases, the dismissal of the auditor is usually motivated by a need to keep the same auditor in all the corporate structure which has legal and strategic benefits.[23]

Second, we check whether the stock price reaction for companies that announced no change in auditors relative to the ones that did would have been stronger when auditor tenure was longer than two years. The reason is that, through a study for the frequency with which Chilean auditors generate re-statements, we conclude that in terms of the

countries make the auditor of the controlling company legally responsible for the audit of all the companies conforming the holding.

[18] In this industry, start-up costs mainly have the form of training employees, learning about the company's operations, and investing in specialized assets.

[19] See the detailed discussion in De Angelo (1981).

[20] Simunic (1980) documents that a lasting auditor-auditee relationship reduces business and financial risks essentially because, it reduces the asymmetries of information between the parties.

[21] Out of 73 firms Franzel (2004) finds that 73% of the surveyed firms consider of very great importance for their auditors to have appropriate knowledge of the client´s operations, systems, and financial reporting practices.

[22] See for example Arruñada and Paz Ares (1997) who argue that the auditor will be more willing to invest if it knows that the contract could last for many years. On a moral general discussion on hold-ups see Klien (1998).

[23] In Chile, the auditor of a Holding is made responsible for the auditing process (financial statements) of the subsidiaries. In addition, fix and variable costs are lower (due to economies of scale and scope) if the same auditor is responsible for all (or a large number of) the subsidiaries of the group.

quality of the provided work, a change of an auditor with tenure longer than 2 years should be a greater loss for the auditee than an auditor with tenure shorter than that mark. We use the frequency of re-statements as a proxy of the auditor work quality and conclude that while there is a significant increment in the first two years there are no differences afterwards.

Our estimations weakly support the veracity of the first hypothesis and strongly support the veracity of the second one.

Hence, and overall, our results suggest that from a *private perspective* a rule of mandatory rotation of auditors would destroy value. Even more, because the current auditor-auditee relationship tenure is much shorter in Chile than in other parts of the world (e.g. Europe) the eventual benefits of the rule would be smaller. It is true that we do not dig deeper into the convenience of weaker versions of the rule such as the requirement that different partners or directors are the one making the decision every certain time neither we study the welfare impact of the rotation but at least from the perspective of the market reaction, an announcement of an auditors change are assimilated as bad news.

The rest of this paper is organized as follows. In Chapter 2 we review the literature. Chapter 3 explains institutional issues associated to the market, the role of auditors and the procedure followed to change them in Chile. In Chapter 4 we present the model and the data used in the estimations. Chapter 5 summarizes our main results. Chapter 6 discusses individual costs and benefits associated to the announcement and Chapter 7 concludes.

2. Literature Review

In recent years there has been significant amount of research analyzing the desirability of a mandatory rotation rule. Cameran, Merlotti, and Di Vincenzo (2005)

conclude that there is more evidence supporting the thesis that the rotation rule would reduce company's value. However, there are contrasting opinions. Gietzmann and Sen (2002) find that a mandatory rule of rotation would be negative in a developed market in which there is no market power in the supply or demand for financial audits. These authors also find that a mandatory rule of rotation could provide deadweight gains in other conditions (i.e. a concentrated audit market and a market where the demand for auditing is equally concentrated).[24]

Arruñada and Paz-Ares (1997) separate the cost of ending a relationship between an auditor and a company into explicit and implicit costs. Explicit costs refer to start-up costs, as well as the transaction costs for hiring a new auditor. Implicit costs include the cost of revealing information to multiple audit firms and building trust between the two parties. The authors create an analytical model to estimate the cost of implementing a rotation rule and conclude that for a company that normally changes auditor every 40 years, moving to a mandatory rotation every nine years would increase the net present costs of auditing by 7% to 20%.[25]

In the same line of excessively burdening firms with numerous changes in the auditor, Gerakos and Syverson (2013) find that implementing a 10-year mandatory rotation rule would generate aggregate losses in the country that would range between US$ 2.4 billion and US$ 3.6 billion, and between US$ 4.3 billion and US$ 5.5 billion if the rotation was every 4 year.

Regarding the link between quality and the length in the auditor-auditee relation, authors are split in two groups. The first group (e.g.Copley and Doucet [1993], Geiger

[24] This last point is particularly important for a country like Chile. The authors develop an analytical model that generates predictions for a rule of rotation conditional on market concentration.
[25] Both the external and the internal auditing costs.

and Raghunandan [2002], Johnson, Khurana and Reynolds [2002]) argues that a prolonged contract with the same auditor will prevent it from having a fresh and healthy perspective when it comes to making judgments. The second group (e.g. Chung [2004], Nagy [2005]) say that there is no hard evidence to suggest this. A particularly relevant issue is that a lengthy relationship could jeopardize the independence of the auditor at generating its reports.[26]

For example, Johnstone, Warfield and Sutton (2001) argue that independence creates value as it leads to more credible reports. Auditors independence increases the confidence of investors, providing the market with reliable information and lowering both supervision and regulatory costs. The problem is that a long-term relationship tends to reduce auditors independence because a long-term relationship tends to increase the well understood conflicts of interests between doing a proper job and preserving the client who will pay the auditor in the future. [27] It follows that a long-term relationship could reduce the quality of the auditor's reports.

While detractors of the rule of mandatory rotation agree with the benefits of improving independence, they (e.g. Ruiz-Barbadillo and Gomez-Aguilar [2006]) argue that there are better mechanisms, such as self-regulation, that can be used to achieve the same results but at a lower cost.[28]

[26] Independence for external auditors is demanded in Chile. In its manual of Generally Accepted Accounting Principles, the Chilean School of Accountants states the following: "The auditor must keep an independent frame of mind in every aspect of the audit." It also states that "However, being independent does not mean taking on the attitude of a plaintiff's attorney. Instead, it is a level of impartiality where the auditor recognizes their obligation to be fair, not just to the management and owners of the company, but also to the creditors and those who in some way trust the auditor's report (at least partially), such as potential owners or creditors." For a general discussion on auditors independence see Antle (1984).

[27] See for example Duflo *et al* (2013).

[28] However Barton (2005) argues that we have to be careful with the usual argument that reputation could be a good substitute from regulation because auditors´ reputation is much resilient than was is thought. For example, more than 95% of Arthur Andersen did not dump it around the time of Enron, but waited until the auditor was indicted by criminal misconduct.

3. Chilean Auditors Market and Institutions

The Chilean auditing industry for public companies is highly concentrated.[29] The market share for the Big Four (Deloitte, PwC, KPMG and EY) is closer to 85% with the other 15% of the market being served by close to 70 minor firms. The significant number of mergers and acquisitions that has taken place in the last years has contributed to the consolidation of this reality.

The profession is regulated by the Board of accountants through their Chilean GAAP (Generally Accepted Accounting Principles) and supervised by the SVS.[30] In the last 20 years, there has been a significant increment in the amount of regulation addressing issues that go from the type of entities that are allowed to provide services to how the services should be provided.[31] Good part of the new regulation has been triggered by financial scandals in which auditors were involved. Most prominently, in 2011, a major Chilean retailer, La Polar, was discovered to have been using fraudulent practices in its accounting for more than five years. The practices had not been detected neither by the board of directors nor the external auditors. The scandal caused the retailer to lose close to 95% of its market value and the audit firm to be fined by the regulators.[32]

In the context of the Chilean Law,[33] shareholders decide on the continuity or replacement of the auditor for large and publicly traded firms, the ones that we study here. During the shareholders annual meeting, a Committee of three Directors proposes any changes and shareholders approve or reject with simple majority.

[29] This is in line with realities in many international markets in which these same companies are present.
[30] The equivalent of the Securities and Exchange Commission in the US.
[31] In Chile, audit firms can provide consultancy services as well as audits. While this is different to regulations in the USA, it should be noted that these services must be specified and any service directly related with auditing is prohibited. More details are available in Law 18,045, Section XXVIII and in General Regulation N° 275 from 2010.
[32] In addition, the auditor lost almost 50% of its most important clients at the time.
[33] Law n° 18.046.

In a typical process, during the shareholders meetings the Committee of Directors presents at least two alternative auditors and the shareholders, through simple majority choose.[34] Contesting auditors make an offer that includes: number of hours that will dedicate during the auditing process, the quality of the hours[35] and the fee for the service.[36]

The most typical reasons to replace and auditor are: 1) Fee; 2) service quality; 3) control change; 4) company follows a rule of mandatory change after certain number of years and; 5) personal disputes. For example several companies that replaced PriceWaterHouse in 2012 were motivated by La Polar scandal associated to a low service quality and in 2011 SQM changed its auditor from E&Y to PriceWaterHouse because the auditor was not willing to register a transaction in the way the controllers wanted.[37,38]

At the annual meeting, shareholders not only decide on the continuity of the auditor but in addition managers discuss financial results from the previous period, important transactions, changes in company's risk, executives' compensations and dividend policy.

4. Model and Data

4.1 Empirical Analysis

Using an event study we determine the market reaction to a company's announcement of a change in its auditor. [39] We test for evidence in favour of abnormal

[34] Before 2012 there could be only one alternative auditor. There was also the possibility that, with shareholders authorization, the Board made the decision.
[35] Senior or Junior partners working.
[36] The fee includes wages and vouchers.
[37] Details in a Press article published in El Mostrador on October 4, 2013. An extract of that news read…"Auditor rejected to recognize profits from one of SQM operations questioned by SVS. Discrepancies ended in a notorious discussion between Julio Ponce (controller) and executive from E&Y. The auditor was quickly replaced by PriceWaterHouse, La Polar auditor".
[38] A similar case occurred in mid-2012 with the company Alsacia and the audit firm Ernst & Young. The auditor rejected the accounting of a compensation, which impacted the value of its bonuses. The next year, Alsacia decided to hire KPMG as its external auditor.
[39] For more details on event studies, see MacKinlay (1997).

returns when the event takes place. That is, we look at whether the market implicitly considers that the costs associated, to a change in auditor, outweighs the expected benefits of the same. As usual, market return and company returns for each period are calculated (in this case daily) in the following way:

$$R_{it} = \text{Log}(\frac{P_{it}}{P_{it-1}})$$

$$R(IPSA_t) = \text{Log}(\frac{IPSA_t}{IPSA_{t-1}})$$

where P_{it} is the share price for the period t, R_{it} are the returns of share i for period t, $IPSA_t$ is the index value for period t, and $R(IPSA_t)$ are the returns of this index for period t.

We use a market model to determine normal returns. The dependent variable is the return on shares between days -770 and -20 (taking day 0 as the day of the event, which in this case is the shareholders meeting). The range was chosen in order to include a period of nearly 3 years, and we stop 20 days before the event so that this does not have an effect on the estimation of the benchmark (beta). We use the return of the IPSA[40] (the Selective Stock Price Index) as the independent variable, as well as a constant.

$$R_{it} = \alpha_i + \beta_i * R(IPSA)_t + \varepsilon_{it}$$

where ε_{it} is the error that follows a normal distribution with mean 0 (for company i in period t). To calculate abnormal return (AR), we worked with the period [-20,20] as follows:

$$AR_{it} = R_{it} - \alpha_i - \beta_i * IPSA$$

and with this, cumulative abnormal return (CAR) were obtained as:

[40] Stock market index composed of the 40 stocks with the highest average annual trading volume in the Santiago Stock Exchange.

$$CAR[t_1, t_2]_i = \sum_{t=t_1}^{t_1} AR_{it}$$

4.2 Data

The data consists on an unbalanced panel with information on 130 companies[41] that were in operation between 1980 and 2013, and their corresponding auditors.[42] The auditor tenure varies significantly. For example, CAP kept Deloitte from 1980 to 2013,[43] on the other side CMPC had PriceWaterHouse in 2011, Deloitte in 2012 and Ernst&Young in 2013.

Table 1 summarizes the auditor-auditee relationships (there are 471 relationships) and their duration within the period. In the first column of the table we specify the year in which the first relationship started.

<<Insert Table 1 about here>>

The average duration of an auditor-auditee relationship is 6.31 years[44] which according to Arruñada and Paz-Ares (1997) falls well under their estimations for auditor-auditee in Europe, which ranges between 30 and 40 years.[45]

From the 130 firms we eliminated the ones that did not trade more than 50 times in the period March-May or that did not trade the day of the event. That reduced the sample to 67 companies which traded between 2004 and 2013. Table 2 shows the

[41] We consider only the firms that traded in the main stock indexes in the last ten years and also companies that even when they were not included in the indexes, formed part of one of the main Chilean Business Groups.
[42] As of July 2014, there was a total of 76 registered auditors in Chile.
[43] Indeed the relationship began in 1979.
[44] If we remove current relationships, then the average becomes 6.44 years.
[45] The authors say that the average auditor-auditee relationship is between 15 and 20 years. But as those are current numbers and some of those durations will extend even longer, they build a model to estimate the average length for the relationship.

companies with their respective auditors. In the table, TEN shows the number of years that the auditor provided continuous services before 2004.

<<Insert Table 2 about here>>

After all these corrections, the event study sample included 407 observations. Of these, 354 are companies that did not change auditors and 53 who did. Figure 1 shows the distribution of auditor rotation for each year in the sample.

<<Insert Figure 1 about here>>

The figure does not show a clear pattern, except that in 2012 there is a peak. That can be associated to the events surrounding the case of La Polar.

Eight auditors[46] were present in the 53 rotations, either as the original or the final auditor.

4.3 Ruling out biases due to informational content

One possible problem with our estimations is the existence of variables associated with the change of auditor that also explain the results. In that case, our results would be biased. Next we discuss and rule out the two most likely sources of this problem.

4.3.1 Dividend Policy

If dividends were substantially lower or higher than expected dividends when the auditor is retained than when it is not then our estimations could present a serious bias. Fortunately as it is suggested by figure 2 and it is confirmed by a test of distributions we cannot rule out that dividend policies are the same for the control and study groups.[47]

[46] The big four plus, JMA, Humphrey, Moore Stephen and CE&A.

[47] With a 99% of confidence a Kolmogorov-Smirnov test cannot reject the hypothesis that the distribution of the differences in the dividend payout policy around the event day is the same for the studied (auditor change announcement) and controlled (auditor retention announcement) samples.

<<Insert figure 2 about here>>

The figure suggests that the distribution of payout ratio (dividend over earnings) was the same for firms that announced and did not announce an auditor change.

4.3.2 Transactions with related parties

Even when in the shareholders meeting, shareholders discuss transactions with related parties (i.e. transactions in which there could exist conflicts of interests among shareholders) that information always becomes public before the meeting, either with the revelation of financial statements or the list "of material events" that companies are obliged to disclose at the time of the event. Even more, after checking all the material events that took place during 2004 and 2013 we found that no transaction with potential conflicts of interest took place in a window of time of 20 days around the day of the event, regardless whether the firm announced a change in auditor.[48] That eliminates potential biases associated to the informational content of the shareholders meetings associated to relevant transactions.[49]

5. Results

This section contains the main results. Our sample was divided into two groups: companies that changed their auditors and companies that did not. This was done in order to control for unobservable external effects. Figure 3 shows the cumulative abnormal returns for both series.

<<Insert Figure 3 about here>>

[48] Data is publicly available at the SVS.
[49] That said, and as we will mention in Section 6.1, there were events such as changes in control that took place in years in which companies changed their auditors, only that those changes did not materialize in a window of 20 days around the event.

The horizontal-axis shows the days when the stock market was open, with day 0 being the day when the shareholders meeting was held. The graph shows that, following day 0, there is not much variation in the share value trend among companies that changed auditors. However, the price for companies that retained their auditors, experienced a rise. This provides evidence that the effect of changing auditors is negative or, from another perspective, that retaining auditors is a positive signal to the market.

To rule out the possibility that the no variation in price after day 0 for companies that changed their auditors, was due to errors in the measurement of beta, the two estimations were run again with random dates as the date of the event. The estimations did not reveal anything new for companies that changed their auditor, but did reveal a slight downward trend for companies that did not change their auditor. This is important as it means that we could be underestimating the positive returns of the shares for companies that changed their auditors.

Table 3 shows the cumulative abnormal returns for the respective periods.

<<Insert Table 3 about here>>

The results for the 6 to 3 days and the 2 to 1 days before event windows show that there were no abnormal returns occurring prior to the event. Abnormal returns before the event would reveal the existence of any leakage. The next window, meant to study the effect of the announcement, takes place between the day of the event and the day after. We work with a two days window because some shareholders meetings take place in the afternoon (after the trading period), hence any price impact in those stocks will be reflected in the day after. The next window comprises the week (5 days) following the previous interval. We carry on these estimation because there are many shares in Chile that are not traded every day and therefore require more time to adjust their values. The

next window is between 2 and 10 days after the announcement, that we consider to check potential mid-term effects (for example, it could be that the findings are reversed). The final window takes place between 6 days before and 6 days after the event. Over there we verify whether the rise/fall in the return on the shares before the event is compensated by a similar rise/fall after the event.

The results associated to the two last windows of time suggest that in the mid-term the movements in the prices of the companies that retained their auditors do not seem to revert back to 0. They also suggest that the positive returns following the event are not compensated by negative returns before the event. The most important change in the week following the event, is the gradual adjustment of the prices that are not traded regularly.

Still in table 3, if we look at the cumulated returns of companies that changed their auditors, we notice slightly negative coefficients, although not statistically significant. But when we look at the companies that did not change their auditors we find that in three of the tested windows of time, the coefficients are different from 0 and statistically significant.

Table 4 shows the abnormal returns for both groups in each period.

<<Insert Table 4 about here>>

With the exception of day 5 (where there was a negative return), there were no returns statistically different from 0 for companies that changed their auditors. This is in line with the results presented in table 3 and reveals that there is no major effect for companies that change their auditors. This is not the case for their counterparts who retained their external auditors. These companies began to accumulate positive results following day 0.

6. Costs and benefits of rotation

In the previous section we found that the market tends to react positively when a firm announces that it will keep its audit firm. That is not the case when the firm announces that it will change it. The costs associated to a change in auditor (start-up, lack of experience, less efficient) would dominate the benefits of the same (eliminate inertia, reduce price, legal or corporate homogeneity).[50] In this section we analyse two specific hypothesis to see whether indeed these specific costs and benefits are behind the market reaction.

The first hypothesis, which is formally written next, states that the expected effect of announcing the change of an auditor should be milder when the change is made by a conglomerate (or business group) that wants to keep the same auditor for all its subsidiaries. There are two main reasons for that. First, in many countries, including Chile, the auditor of the Holding is made responsible for the auditing process (financial statements) of the subsidiaries, hence the probability of an auditor to face legal actions because of an inadequate job should go down. Second, there are good reasons to believe that there are important economies of scale and scope if all the subsidiaries have the same auditor, for example, there could be cross-ownerships of assets and there could be common financial information.

[50] If markets are sufficiently efficient then, expected returns should already internalize the probability distribution of auditors change. That is consistent with the fact that the expected return for firms that keep their auditors is larger than the ones that do not and cannot be interpreted as a spot market reaction, what matter is the difference between the two groups. All that said, an alternative hypothesis is that there is a positive market reaction to shareholders meetings (e.g. Brickley [1986]) and announcement of an auditors change would mean to eliminate that positive reaction.

Hypothesis 1: *Announced auditor changes associated to companies that were bought by conglomerates should have a less negative reaction than announced auditor changes not associated to conglomerate acquisitions.*

In addition, a second hypothesis can be stated after we notice that, for the case of Chile, an increment in the quality of the service (considering both learning and efficiency effects) seem to be present only in the first two years of operation of a new auditor. That is, the probability that the auditor will detect or prevent a value destroying event should increase in the first two years with the firm, but will remain more or less constant after that. From there it follows that the announcement of a change of an auditor with a tenure shorter than three years should have a less negative reaction than the same announcement when the auditor has been with the company for more than two years. That is

Hypothesis 2: *Announced changes of auditors with tenures shorter than three years should have a less negative reaction than announced changes of auditors with tenures longer or equal than three years.*

In the appendix we provide details on the analysis we carried out to conclude that improvement in the quality of the service provided by auditors in Chile declines after two years of service. Essentially we study the evolution of the frequency with which an auditor "triggers" re-statements of financial statements with tenure and use them as a proxy of the quality of the work made by the auditor.[51] Re-statements relate to effort made by the external auditor at monitoring its client because re-statements are corrections made by external agents (typically regulators) to problems in the financial statements of a company

[51] In a similar analysis, Stanley and DeZoort (2007) use restatements of the financial statements as a proxy for the quality of the auditor's work, and reveal a negative relationship between the length of the auditor-auditee relationship and the number of restatements. Alternatively, Carcello and Nagy (2004) use financial fraud as a proxy for quality and discover that it is correlated with the length of the auditor-auditee relationship. Both find that shorter relationships tend to lead to more financial fraud and restatements of the financial statements.

identified by the auditors.[52] In the appendix we show a significant negative correlation between the number of restatements and the duration of the auditor-auditee relationship but only during the two first years of service of the auditor.[53]

Next we discuss our findings. They weakly support the veracity of the hypothesis.

6.1 Announcements and change in property structure

Table 5 exploits the fact that in five of our observations, companies experienced major changes in control.[54] In three of them the acquired firm changed its auditor and adopted the one utilized by the holding. In the other two cases, the firm did not change the auditor.

<< Insert Table 5 about here >>

While the results associated to the firms that kept the auditor did not change, the coefficients[55] for the firms that did change the auditor became less negative as expected. That said, still was the case that the coefficients did not turn to be significant.

6.2 Announcements and auditor tenure

In table 6 we summarize the results from the event study, separating the sample (auditor-auditee relationships) with tenure smaller than or longer or equal than 3 years.

<< Insert Table 6 about here >>

[52] Re-statements can appear because the company made a mistake and the auditor found it or the company did things properly and the auditor, erroneously claimed to have found a mistake.

[53] In other words, we find that the auditor's performance increases (decrease in restatements) as the contractual relationship with their client goes on (inverse relationship between the length of the relationship and number of restatements). In that sense, we could say that the learning curve (as understood by Yelle [1979]) becomes very flat after the second year.

[54] In three of them, a conglomerate incorporated the targeted company. In two of them there was a change in control without a conglomerate being involved.

[55] For the windows of time after the event ([0,1], [2,6], [2,10]).

As we expected, we find that the positive differences in favour of keeping the auditor are stronger when the replaced auditor had been with the auditee for less than 3 years. In the window of [2,6] days the stock prices of the firms that did not rotate and tenure was greater than two went up by 52 basis points while for the whole sample it was only 48.[56] Even more when we compare between the two samples (rotation and no rotation) we find that the reaction for the group of firms with rotation and tenure shorter than three was only 17 basis points. As mentioned before, that is consistent with the fact that replacing an auditor in the initial years is less costly as all the benefits associated to learning effects have not been sank yet.

7. Discussion and conclusion

This paper suggests that there is a positive relationship between a company retaining its auditors and its subsequent performance in the stock market. The event study found an increase in the share price of companies that retained their auditors and did not find a decrease in the share price of companies that changed their auditors (the returns are marginally below 0 but not statistically different from this value). It is true that this result could be consistent with alternative hypothesis but we do find evidence that supports the hypothesis that the aggregate costs associated to a change in auditor would dominate the aggregate benefits of the same change.

We show that the positive reaction (to a no-rotation) is stronger when the auditor auditee relationship has been longer than two years but it is weaker when a corporate buyer changes the auditor in order to align all the subsidiaries with the same auditor. The

[56] These two numbers were significant at 5%.

first being consistent with the fact that a re-statements analysis suggests that the quality of the services provided by Chilean auditors would go up in the first two years of service.

Hence, our results are consistent with the literature, which is the majority[57], that concludes that, in general, a rule of mandatory rotation of auditors is not necessarily welfare improving.[58] We cannot be categorical in our conclusions here because we have only measured private effects and it is well known that there are important externalities associated to the quality of an auditing job, for example in the form of systemic risk. That said, and recognizing that more research is needed to quantify and to relate auditors´ actions to value destroying events, this paper has revealed important facts that can be used to enrich the discussion on developing countries regulation over the auditor auditee relationship.

8. Appendix: Re-statement analysis

The system of restatements works as follows: A company issues its financial statements, which may or may not contain errors (intentional or otherwise). The statements are received by the auditor which checks for potential mistakes. Finally, the statements are reviewed again, but this time by an external party (EP) which establishes a re-statement if it finds a mistake, in all the other cases there is no re-statement. Figure 4 describes the sequence of events.

<<Insert Figure 4 about here>>

[57] Cameran, Di Vincenzo and Merlotti (2005) register the percentage of papers that argue in favour of a rotation rule, and find that that is close to 80%.
[58] Although there are papers such as Gietzmann and Sen (2002) which predict that for countries in which property and the auditors market are concentrated, such as Chile, a rule of rotation would be beneficial.

If the statements do not contain errors, they are approved by the auditor. Notice that we do not know whether the auditor has done a good job[59] or the original statements do not contain errors but in any case the EP does not find errors nor issues a re-statement.

Instead, if the company issues statements with an error, the auditor can detect it and correct it together with the company. In that case the EP does not issue a re-statement as well. But if the auditor does not find the error but the EP does it, a restatement is issued.

We formulate a linear probability model in which the dependent variable takes value 1 if the EP issues a restatement and 0 if not.

As independents variables we include the length of the auditor-auditee relationship, split into three levels: short [0 to 2 years]; medium [3 to 6 years]; and long [7 years or more]. In addition, we consider a number of control variables.

Real assets refers to the total assets for the period (end of year) in real terms.[60] Net income is measured at the end of each year and taken from the company's financial statements. Losses over the last 3 years is a dummy that takes value 1 if the company had a loss in any of the three years preceding the current year, and 0 if not. Absolute percentage difference in net income, assets and receivables refer to the absolute percentage differences between the current and previous years for each of these 3 accounts. A fixed effect for the audited firm is included for models (1), (2) and (3). A fixed effect for time is added in model (2), while a fixed effect for the auditor is also added in model (3).

[59] It might had been the case that initially the statements were not approved but then there was a discussion with the auditor and the company made the required changes to get the auditors approval.
[60] Divided by the *Unidad de Fomento*, an indexed unit of account related to changes in inflation.

Fees for audits and consultancy were obtained from the S.V.S, information which is contained in letter N° 327, General Regulation N°275 and official notice N° 1368.[61]

Table 7 describes the data used in the study (separating the companies that had restatements and those that did not).

<<Insert Table 7 about here>>

In general, the two samples are very similar, especially in terms of the length of the auditor-auditee relationship. By conducting a test of means, only the difference in net income is significant (to 5%). Looking at the median reveals a clear convergence between the two samples.

Table 8 summarizes the results of the statistical analysis.

<<Insert Table 8 about here>>

The main finding is that the probability of a restatement of the financial statements decreases as the length of the auditor-auditee relationship increases. After 2 years, the probability of a restatement drops by 7.5% (T = -2.06) and by 10.5% after 6 years (t = 2.12). Although these coefficients are statistically different from 0, they are not statistically different between each other, suggesting that after 2 years no further learning is required.[62]

In conclusion, this study provides evidence supporting the fact that profit is generated through the learning curve and an auditor's improved knowledge of their client that is garnered over the years. However, it must be noted that there is no evidence to

[61] Abrogated.

[62] By testing the difference between the estimated coefficients, we find that F(1.73)=0.49, with a p-value of 0.4861 (Prob>F=0.4861), without being able to reject these being equal.

suggest that following the third year there are any benefits in extending the relationship (in terms of decreasing the number of restatements of the financial statements). More specifically, in statistical terms there is no change in the probability of experiencing a restatement of the financial statements when the company has been with its auditors between 3 to 6 years and when they have been with them for more than 6 years. Another important point to highlight is the relatively short duration of the auditor-auditee relationship in Chile (in comparison with other countries). This may influence the findings (i.e. the market has already internalized more frequent changes as a matter of efficiency).

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10. Tables

Table 1: Auditor-auditee relationships

Company	Start	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
Aesgener	1988	P (3)	O (7)	O (3)	D (7)	E (Act.)									
Aguas Andinas	1988	D (3)	E (5)	O (2)	E (2)	O (2)	D (9)	E (Act.)							
Embotelladora Andina	1979	P (2)	D (2)	E (3)	P (4)	O (8)	P (11)	E (4)	P (Act.)						
Antarchile	1989	P (23)	D (Act.)												
Besalco	1992	O (1)	O (2)	P (4)	O (3)	E (6)	K (2)	E (2)	K (Act.)						
CAP	1973	P (6)	D (Act.)												
CCU	1927	P (53)	O (2)	P (Act.)											
Cencosud	1999	E (3)	P (Act.)												
CFR	2010	D (Act.)													
CMPC	1976	P (36)	D (1)	E (Act.)											
Colbun	1986	O (1)	D (6)	O (4)	E (4)	D (11)	E (Act.)								
Concha y Toro	1975	E (28)	D (3)	K (Act.)											
Copec	1985	P (27)	D (Act.)												
Cruz Blanca	1993	P (21)	K (Act.)												
E-CL	1981	O (3)	O (3)	P (1)	O (3)	O (2)	P (2)	O (7)	E (9)	D (Act.)					
Embonor	1995	O (1)	O (2)	O (4)	E (Act.)										
Endesa	1979	O (2)	O (2)	O (1)	O (3)	P (9)	K (2)	D (4)	E (6)	K (Act.)					
Enersis	1986	P (2)	O (2)	K (8)	D (1)	O (3)	D (9)	E (Act.)							
Entel	1973	O (1)	O (3)	D (2)	O (2)	D (3)	O (3)	E (4)	O (2)	K (5)	D (6)	E (6)	K (Act.)		
Falabella	1994	O (4)	O (4)	E (Act.)											
Forus	1995	O (3)	O (4)	E (Act.)											
Hites	2007	P (1)	D (Act.)												
IAM	2005	D (6)	E (Act.)												
ILC	2010	K (3)	E (1)	D (Act.)											
Lan	1994	P (Act.)													
Nueva Polar	2003	E (4)	P (4)	E (3)	D (Act.)										
Parque Arauco	1990	P (13)	E (7)	K (Act.)											
Paz	2005	E (Act.)													
Ripley	2004	D (Act.)													
Salfacorp	2004	P (8)	D (2)	P (Act.)											
SK	2004	E (4)	D (Act.)												
SmSaam	2010	K (Act.)													
Sonda	2004	D (Act.)													
SQM	1993	E (18)	P (Act.)												
Vapores	1978	O (2)	O (12)	D (3)	O (3)	O (3)	P (6)	K (Act.)							
Almendral	1993	P (12)	E (5)	K (Act.)											
Banmedica	1988	P (4)	D (3)	P (4)	O (2)	D (3)	P (3)	D (2)	P (3)	D (Act.)					
Calichera	1993	E (11)	P (4)	E (3)	P (Act.)										
Campos	1988	O (2)	E (7)	P (2)	O (1)	E (12)	K (Act.)								
CCT	1971	P (Act.)													
Cementos	1961	P (46)	K (5)	P (Act.)											
CGE	1968	O (15)	O (12)	O (6)	O (1)	E (3)	P (7)	E (Act.)							
Chilectra	2005	D (1)	K (2)	O (5)	O (1)	O (Act.)									
Colo-Colo	2005	D (1)	O (Act.)												
Cristales	1971	D (5)	O (22)	O (4)	E (6)	K (Act.)									
CTC	1989	D (2)	O (7)	P (2)	O (2)	D (3)	E (Act.)								
CTI	2002	E (6)	D (6)	P (Act.)											
Cuprum	1983	E (3)	O (2)	P (7)	D (15)	E (2)	K (1)	E (Act.)							
Esval	1986	D (6)	O (3)	D (2)	P (7)	D (Act.)									
IANSA	1977	D (2)	E (3)	D (3)	E (5)	O (2)	P (7)	O (2)	E (4)	K (1)	E (6)	K (Act.)			
Invercap	1994	D (Act.)													
Invermar	2001	E (11)	K (2)	O (Act.)											
Madeco	1983	P (17)	D (4)	E (Act.)											
Masisa	1998	P (9)	E (5)	K (Act.)											
Multifoods	2006	P (Act.)													
Nortegran	1990	E (14)	P (4)	E (3)	P (Act.)										
Oro blanco	1989	E (15)	P (4)	E (3)	P (Act.)										
Provida	1983	D (17)	O (2)	D (Act.)											
Quiñenco	1994	P (7)	O (1)	E (Act.)											
Viña san pedro	1990	O (6)	P (Act.)												
Socovesa	2006	D (7)	E (Act.)												
Soquicom	1993	E (18)	P (Act.)												
Tattersal	1984	O (3)	O (1)	P (4)	O (5)	O (5)	E (8)	K (Act.)							
Walmart	1994	D (14)	K (3)	E (Act.)											
Zofri	1990	D (1)	O (3)	E (3)	D (2)	E (2)	P (1)	K (2)	P (3)	K (4)	E (2)	K (Act.)			
Andromaco	2000	D (2)	K (6)	E (4)	K (Act.)										
Aquachile	2006	P (Act.)													
Australis	2010	P (Act.)													
Azul-Azul	2008	O (Act.)													

Company	Start	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
Banvida	1998	P (1)	O (2)	D (1)	P (Act.)										
Camanchaca	2010	P (Act.)													
CIC	1980	O (14)	K (1)	P (4)	K (8)	O (6)	O (1)	O (Act.)							
Cintac	1985	O (2)	D (2)	O (1)	D (Act.)										
Edelpa	1991	P (22)	E (Act.)												
Eisa	2010	O (1)	D (Act.)												
Elecmetal	1956	O (37)	E (3)	O (2)	O (4)	E (6)	K (Act.)								
Enaex	1991	K (4)	E (10)	K (2)	E (1)	D (Act.)									
Enjoy	2007	E (7)	D (Act.)												
Gasco	1974	O (1)	O (1)	P (1)	O (21)	O (4)	E (3)	P (7)	E (Act.)						
Habitat	1983	E (9)	P (5)	O (1)	O (3)	D (4)	E (4)	K (4)	E (1)	D (Act.)					
HF	2006	P (Act.)													
Indisa	1979	D (5)	O (1)	E (8)	P (2)	O (2)	O (3)	O (2)	D (Act.)						
Ingevec	2009	O (3)	D (1)	K (Act.)											
Clinica las Condes	1992	P (3)	O (6)	O (9)	D (Act.)										
Marinsa	1982	O (16)	O (3)	P (6)	K (Act.)										
Minera Valparaiso	1978	O (2)	D (1)	P (7)	K (10)	D (4)	K (5)	P (3)	D (3)	E (Act.)					
Molymet	1977	O (7)	D (2)	O (11)	O (5)	E (1)	P (Act.)								
Pasur	1980	D (1)	P (7)	K (10)	D (4)	K (5)	P (3)	D (3)	E (Act.)						
Electrica Pehuenche	1986	O (1)	D (4)	P (5)	K (2)	D (4)	E (6)	K (Act.)							
Electrica Pilmaiquen	1987	O (7)	D (8)	E (6)	P (3)	K (2)	E (Act.)								
Polpaico	1973	O (1)	P (22)	O (1)	O (2)	D (4)	E (Act.)								
Potasios	2011	P (Act.)													
Pucobre	1994	O (2)	E (2)	O (3)	P (3)	E (9)	D (Act.)								
Schwager	1987	P (11)	K (4)	O (2)	O (2)	O (6)	O (2)	O (Act.)							
Tricahue	1991	O (1)	K (1)	P (21)	E (Act.)										
Ventanas	1991	O (6)	O (5)	E (6)	D (Act.)										
Volcan	1977	O (2)	O (6)	P (8)	E (13)	P (Act.)									
Watts	1994	P (19)	K (Act.)												
Pesquera Iquique	1979	O (1)	P (32)	D (Act.)											
Arauco	1974	O (24)	O (1)	P (13)	D (Act.)										
Electrica Guacolda	1993	P (6)	O (3)	E (5)	P (3)	E (Act.)									
Corpesca	2000	P (12)	D (Act.)												
Pesquera Eperva	1963	O (1)	P (48)	D (Act.)											
Forestal Cholguan	1979	P (21)	O (2)	E (4)	P (6)	D (Act.)									
Inversiones CMPC	1997	P (15)	D (1)	E (Act.)											
Almendral Telecomunicaciones	2005	E (5)	K (Act.)												
Bicecorp	1994	P (8)	D (11)	K (Act.)											
Viña Santa Rita	1990	E (7)	P (1)	O (4)	E (6)	K (Act.)									
Viña Los Vascos	1994	P (7)	O (1)	E (Act.)											
Quemchi	1992	O (10)	P (5)	K (Act.)											
Navarino	1994	O (3)	O (4)	P (6)	K (Act.)										
Fepasa	1993	E (2)	P (7)	K (1)	E (5)	D (Act.)									
Intasa	2002	D (Act.)													
SMU	2010	D (3)	K (Act.)												
Sodimac	2002	E (Act.)													
Plaza	2009	E (Act.)													
Pacifico V Region	1989	P (7)	E (3)	O (1)	P (4)	E (9)	D (Act.)								
Invernova	1998	P (Act.)													
Metrogas	1998	O (4)	E (3)	P (6)	E (Act.)										
Transnet	1994	O (4)	O (2)	O (1)	O (1)	E (3)	P (7)	E (Act.)							
Elecda	1990	O (6)	O (2)	P (8)	E (2)	P (4)	E (Act.)								
Edelmag	1982	O (1)	O (1)	O (3)	P (1)	O (1)	O (1)	O (1)	D (5)	O (2)	O (1)	O (2)	O (1)	E (3)	P (7)
Eliqsa	1989	O (7)	O (2)	P (8)	E (2)	P (4)	E (Act.)								
Emelari	1990	O (6)	O (2)	P (8)	E (2)	P (4)	E (Act.)								
Conafe	1991	O (4)	O (2)	O (4)	O (1)	E (3)	P (7)	E (Act.)							
CGE Distribucion	2004	E (1)	P (7)	E (Act.)											
Agunsa	1994	P (10)	E (9)	P (Act.)											
Portuaria Cabo Froward	1989	P (15)	E (9)	P (Act.)											
Grupo Empresas Navieras	1990	P (14)	E (9)	P (Act.)											
CCNI	1944	D (11)	O (8)	O (1)	D (8)	O (1)	D (6)	P (25)	E (9)	P (Act.)					

Start is the first year that we know who was the auditor for that auditee. Rn is the n relationship for that auditee. In brackets the duration (in years) for this relationship.

D; Deloitte

P; PriceWaterhouseCooper

E; Ernst and Young

K; KPMG

O; Other

Table 2: Event study data

Company	TENURE	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
AESGENER	3	Deloitte	Deloitte	Deloitte	Deloitte	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Aguas Andinas	2	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	E&Y	E&Y	E&Y
Almendral	11	PwC	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG
Embotelladora Andina	6	PwC	PwC	PwC	PwC	PwC	E&Y	E&Y	E&Y	E&Y	PwC
Antarchile	15	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	Deloitte	Deloitte
Azul-Azul						Humphrey	Humphrey	Humphrey	Humphrey	Humphrey	Humphrey
Banvida	2	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
Besalco	2	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	E&Y	E&Y	KPMG	KPMG
CCT	33	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	
Campos	5	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG
CAP	25	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
CCU	22	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
Cementos	43	PwC	PwC	PwC	KPMG	KPMG	KPMG	KPMG	KPMG	PwC	PwC
Cencosud	2	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
CGE	3	E&Y	PwC	PwC	PwC	PwC	PwC	PwC	PwC	E&Y	E&Y
Cic	5	KPMG	KPMG	KPMG	JMyA	JMyA	JMyA	JMyA	JMyA	JMyA	Surlatina
Cintac	14	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
CMPC	28	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	Deloitte	E&Y
Colbun	3	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	E&Y	E&Y
Concha y Toro	1	Deloitte	Deloitte	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG
Copec	19	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	Deloitte	Deloitte
Cristales	28	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG
CTC	2	Deloitte	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Cuprum	9	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	E&Y	E&Y	KPMG	E&Y
E-Cl	9	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	Deloitte	Deloitte	Deloitte
Embonor	8	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Endesa	2	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG
Enersis	2	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	E&Y	E&Y	E&Y
Enjoy					E&Y		E&Y	E&Y	E&Y	E&Y	E&Y
Entel	6	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG
Falabella	10	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Forus	9	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Gasco	27	E&Y	PwC	PwC	PwC	PwC	PwC	PwC	PwC	E&Y	E&Y
Habitat	3	Deloitte	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG	E&Y
Hites					PwC	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
IAM			Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	E&Y	E&Y	E&Y
Iansa	5	E&Y	KPMG	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG
Indisa	2	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
Invercap	10	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
Invermar	3	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG
La Polar	1	E&Y	E&Y	E&Y	PwC	PwC	PwC	PwC	E&Y	E&Y	E&Y
Lan	10	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
Clinica Las Condes	3	Surlatina	Surlatina	Surlatina	Surlatina	Surlatina	Surlatina	Deloitte	Deloitte	Deloitte	Deloitte
Marinsa	3	PwC	PwC	PwC	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG
Masisa	6	PwC	PwC	PwC	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG
Molymet	1	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
Multifoods				PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
Parque Arauco	1	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG
Paz			E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Electrica Pehuenche	2	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG
Electrica Pilmaiquen	2	E&Y	E&Y	E&Y	E&Y	PwC	PwC	PwC	KPMG	KPMG	E&Y
Provida	2	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
Pucobre	3	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	Deloitte
Quiñenco	3	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y
Ripley		Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
Salfacorp		PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	Deloitte	Deloitte
Viña San Pedro	8	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC	PwC
Schwager	2	MS	MS	Humphrey	Humphrey	Humphrey	Humphrey	Humphrey	Humphrey	CE&A	CE&A
SK		E&Y	E&Y	E&Y	E&Y	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
Socovesa				Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	E&Y
Sonda		Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte	Deloitte
Soquicom	11	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	PwC	PwC	PwC
SQM	11	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	PwC	PwC	PwC
Tattersal	12	E&Y	E&Y	E&Y	E&Y	E&Y	E&Y	KPMG	KPMG	KPMG	KPMG
Vapores	3	PwC	PwC	PwC	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG	KPMG
Walmart	10	Deloitte	Deloitte	Deloitte	Deloitte	KPMG	KPMG	KPMG	E&Y	E&Y	E&Y
Zofri	2	PwC	PwC	PwC	KPMG	KPMG	KPMG	KPMG	E&Y	E&Y	KPMG

Tenure is the number of years in the relationship between the auditee and the audit company until 2003. For example, AESGENER kept Deloitte since 2001.

Table 3: Cumulative abnormal returns

Return Window	Cumulative Abnormal Return					
	Rotation		No Rotation		Mean differences	
	CAR	T-test	CAR	T-test	MD	Wilcoxon
(-6 ; -3)	28.79	0.50	13.78	0.64		
(-2 ; -1)	-14.41	-0.57	-1.25	-0.10		
(0 ; 1)	12.04	0.65	10.53	1.11		
(2 ; 6)	-51.71	-1.27	47.75 **	2.25 *	*	*
(2 ; 10)	-1.55	-0.03	49.30 *	1.86		
(-6 ; 6)	-30.28	-0.43	74.88 **	2.13		

This table present the result of the event study for both samples and differents event window. The unity measure is basis points. MD is a parametric mean difference and Wilcoxon is a non-parametric mean defference test.

** 95% significance

* 90% significance

Table 4: Abnormal returns per day

Event day (0)	Abnormal Return			
	Rotation		No Rotation	
	AR		AR	
-6	9.207		10.293	
-5	-4.551		0.321	
-4	28.655		4.847	
-3	-4.524		-1.677	
-2	-21.388		8.134	
-1	6.98		-9.385	
0	12.04		10.534	
1	-4.984		4.141	
2	25.312		-0.629	
3	7.417		24.706	***
4	-17.789		19.39	**
5	-43.905	**	6.864	
6	-22.749		-2.445	
7	17.888		11.618	
8	26.239		-14.003	*
9	16.921		0.229	
10	-10.884		3.708	

This table shows abnormals returns between 6 days before the event and 10 after the event for both samples. The unity measure is basis point.

*** 99% significance

** 95% significance

* 90% significance

Table 5: Cumulative abnormal returns considering changes in control

Return Window	Cumulative Abnormal Return					
	Rotation		No Rotation		Mean differences	
	CAR	T-test	CAR	T-test	MD	Wilcoxon
(-6 ; -3)	21.45	0.35	14.04	0.65		
(-2 ; -1)	-23.78	-0.93	0.05	0.00		
(0 ; 1)	13.16	0.41	15.31	1.20		
(2 ; 6)	-45.29	-1.06	47.00 **	2.21 *	*	
(2 ; 10)	1.50	0.03	47.31 *	1.79		
(-6 ; 6)	-34.47	-0.47	76.31 **	2.17		

This table present the result of the event study for both samples and differents event window. We eliminate companies who changed the auditor when they had changed it´s controller. The unity measure is basis points. MD is a parametric mean difference and Wilcoxon is a non-parametric mean defference test.

** 95% significance

* 90% significance

Table 6: Cumulative abnormal returns correcting by tenure

Return Window	Cumulative Abnormal Return			
	Greater or equal than 3 yrs		Less to 3 yrs	
	CAR	T-test	CAR	T-test
(-6 ; -3)	17.80	0.74	-16.05	-0.40
(-2 ; -1)	-2.97	-0.21	11.516	0.41
(0 ; 1)	11.48	0.81	38.39	1.57
(2 ; 6)	51.91	2.24 **	16.767	0.35
(2 ; 10)	56.26	1.94 *	-2.564	-0.04
(-6 ; 6)	78.14	2.02 **	50.623	0.70

This table present the result of the event study for companies that did not change theirs auditor. We separe this group in two samples; companies who kept the auditor with more than two years of tenure and companies who kept the auditor with less than three years of tenure. The unity measure is basis points.

** 95% significance

* 90% significance

Table 7: Data Re-statements

Variables	Restatement=1 (n=108)					Restatement=0 (n=404)					
	Mean	Median	Std. Dev.	Max	Min	Mean	Median	Std. Dev.	Max	Min	MD
Relationship	8.71	5	9.29	45	1	8.45	5	8.97	48	1	
Net income (MM)	67.80	36.20	137	571	-601	62.30	28	99	660	-152	
Loss last 3 years	0.21	0	0.41	1	0	0.19	0	0.39	1	0	
Absolut change in income	1.89	0.29	4.80	36.84	0.01	0.97	0.47	3.11	75.73	0.00	**
Absolut change in assets	0.18	0.12	0.22	1.83	0.01	0.31	0.07	2.86	57.10	0.00	
Absolut change in Receivables	0.68	0.19	2.36	22.60	0.00	3.66	0.17	58.34	1168.84	0.00	

This table shows basics stats for both samples. MD indicates if means between them are differents. Relationship indicates tenure of the relation between client and his auditor. Absolut change in income, assets and Receivables indicate the absolut value of the difference in those items between the current and the last year.

*** 99% significance

** 95% significance

* 90% significance

Table 8: Effect of tenure over re-statements

Results			
Endogenous variable	Log(auditfeer)		
	(1)	(2)	(3)
Relationship (3-6 years)	0.514***	0.436***	0.405**
	(3.47)	(2.63)	(2.48)
Relationship (7+ years)	0.774***	0.723***	0.729***
	(3.57)	(3.36)	(3.32)
Log(Consulting Feer)	0.031	0.053**	0.053
	(1.37)	(2.24)	(2.35)
Inventory/assets	-2.769**	-2.325**	-2.321**
	(-2.53)	(-2.03)	(-2.02)
Ln(Real Assets)	1.051***	0.559***	0.521**
	(7.12)	(2.68)	(1.52)
Receivables/assets	-0.991	-1.673	-1.961
	(-0.70)	(-1.29)	(-1.59)
netincome/assets	0.310	0.466	0.432
	(0.62)	(1.00)	(0.93)
Loss last 3years	-0.003	-0.078	-0.106
	(-0.01)	(-0.41)	(-0.57)
Absolut difference in net income	0.001	-0.003	-0.003
	(0.26)	(-0.82)	(-0.78)
Absolut difference in Assets	-0.156	0.037	0.065
	(-0.65)	(0.41)	(0.90)
Absolut difference in Receivables	0.001	-0.004	-0.003
	(0.10)	(-1.08)	(-1.11)
Absolut difference in inventories	0.0003	0.001	0.001
	(0.33)	(1.09)	(1.09)
Fix effect firm	Yes	Yes	Yes
Fix effect time	No	Yes	Yes
Fix effect auditor	No	No	Yes
Overall R-sq	0.05	0.13	0.14
Number of observations	524	524	524
Variables	Coeficient (t-test)	Coeficient (t-test)	Coeficient (t-test)

This table shows the results on audits fees and the correlation with tenure. We separe tenure (relationship in this table) in 3 categories: between 0 and 2 years; 3 and 6 years; more than 7 years. Loss last 3 years is a dummy variable who take1 if the company had a negative net income the last 3 years o otherwise. Consulting feer is the amount charged in consulting by the audit firm in real terms. Absolut change in assets, Receivables and inventories indicate the absolut value of the difference in those items between the current and the last year.

*** 99% significance

** 95% significance

* 90% significance

11. Figures

Figure 1: Number of Rotations per year



Figure 2. Dividends

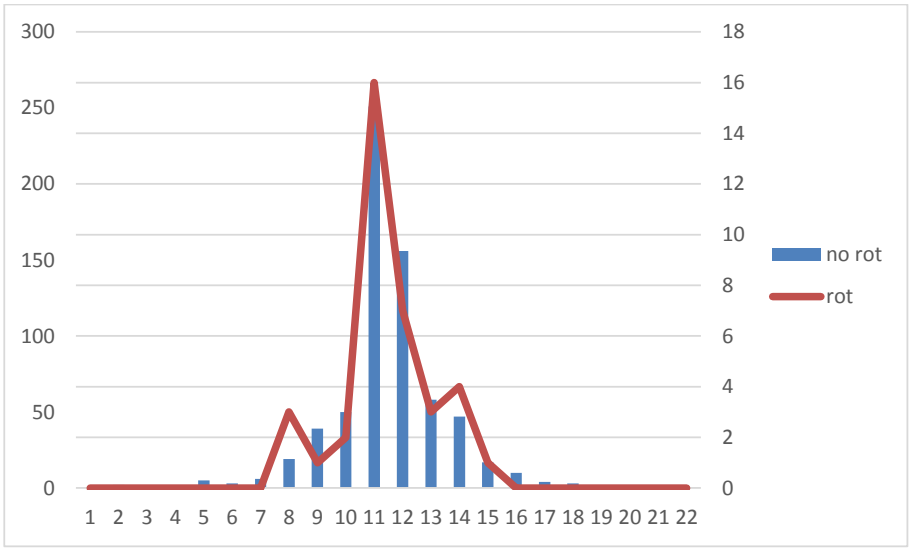


Figure 3: Evolution of cumulative returns for firms that did and did not rotate their auditors

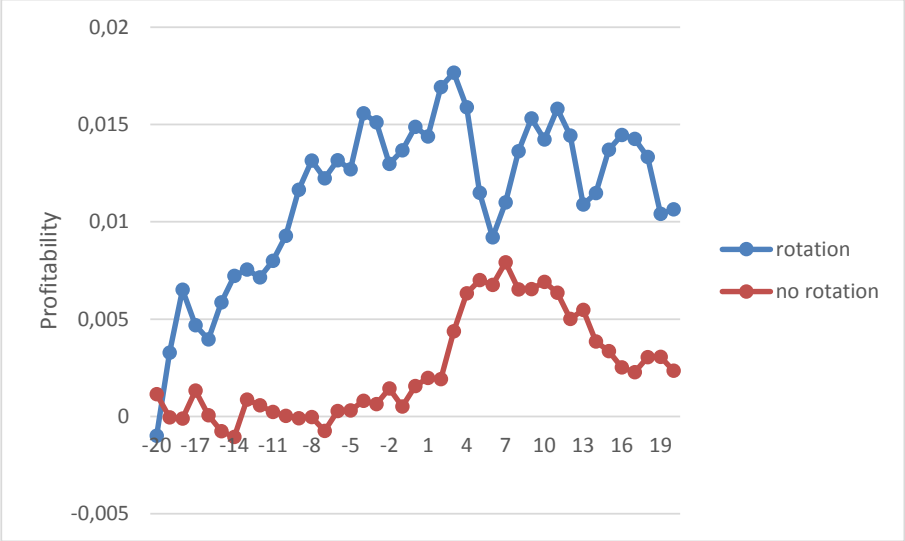


Figure 4: Re-statements

