

Master of Science in Business and Economics

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Governance Mechanisms and Ownership Structure

A study of Norwegian banks

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This thesis is a part of the MSc programme at BI Norwegian School of Management. The school takes no responsibility for the methods used, results found and conclusions drawn.

Abstract

This paper work is written as a master thesis being a part of our Master of Science program in Business and Economics, examining the corporate governance in Norwegian banks regarding disciplinary mechanisms triggered by bad performance. Governance mechanisms considered are CEO replacement, board turnover and mergers. The main attribute is ownership structure being different among banks in our sample, where the purpose is to determine if there is any intervention attempt as a result of poor economic performance. Second, if there is a different level of interventions in banks with different ownership structure. Our result shows a negative relationship between performance and governance intervention. However, the results vary for each form of ownership and each type of intervention. For instance, looking at commercial banks we observe that the intervention is highest, where both CEO replacement and board turnover mechanisms are dominating. On the other hand, looking at PCC¹ banks and savings banks we see that they are almost identical in the use of intervention mechanisms, both in type of mechanism and level of intervention. An important issue we have come across is that the mechanism of merging has not appeared that often in our observations, giving us no significant results in this case. One explanation could be the restrictive regulation protecting savings banks.

¹ PCC banks were initially savings bank, but after issuing equity securities in form of primary capital certificates they became PCC banks.

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1. Introduction

The separation of ownership and control is one of the characteristics of large firms in capitalistic economies. The investors delegate the management of their capital with the aim of obtaining positive returns. Corporate governance deals with the ways in which suppliers of finance assure themselves of getting these returns (Shleifer and Vishny, 1997). Indeed, the relationship between shareholders and managers is governed by a collection of rules and institutions, which function as instruments for regulating potential conflicts between both parties. These mechanisms can be external (takeovers, competition in the products market or labour market), or internal, such as the ownership structure, the supervisory role given to large shareholders, the presence of incentive contracts for managers, the financial structure and the control exerted by the board of directors. In some countries, such as The United States and Great Britain, external mechanisms predominate, while in others (Germany, Japan) internal mechanisms are seen as more important and also more used. Even though it would be ideal to have one model of optimum governance in theoretical perspective, it is important to know that both models coexist, with similar results for both.

The aim of our thesis is to examine which governance mechanisms are used by banks with different ownerships structure due to poor performance. The main characteristic of our thesis is that we consider two extreme situations when it comes to ownership structure of the firms (i.e. presence of owners and absence of owners). As we will show below, these two types of firms with completely opposite ownership structure perform at least equally in economic terms. At the same time, we want to consider the situation between our extreme points (i.e. PCC banks which we expect to be situated in the middle of commercial banks and savings banks when it comes to the ownership structure).

The organs exerting control in our sample represents different interests depending on the structure of ownership, which in turn reflects different incentives. The objective of the firm and the distribution of ownership rights among its stakeholders are two main points that leads to different incentives

among ownerless firms and owned firms. In cases of poor economic performance, a governing body in commercial banks is more likely to intervene than a governing body in savings banks. In order to understand this issue, we must recognize that the composition of boards among these three types of firms differs. The board of the commercial banks represents the shareholders' interests, while the board of the savings banks represents the interests of all stakeholders and is called the multi-constituency board. To summarize, we would say that the different ownership forms of the banks in the sample is a matter of special interest.

2. Literature Review

What captured our interest of writing a master thesis within this field is a paper written by Crespi, Garcia-Cestona and Salas (2004) which examines the governance of Spanish banks. The main aspect is that savings banks in Spain have a characteristic ownership structure (i.e. they are ownerless), which is the case in Norway as well. The researchers in Spain found a negative relationship between performance and governance intervention for banks, but the results change for each form of ownership and each type of intervention. The main result that differed among firms with different ownership structure was that internal-control mechanisms (i.e. board turnover, CEO and management dismissal), worked well for Commercial banks, while savings banks showed weaker internal mechanisms of control. The only significant relationship between performance and governance intervention that appears in Spanish savings banks is merging. A study of this type has never been conducted in Norway and hardly in any other countries. Another interesting basis for our study is that banks with different ownership structure in Norway have shown at least equal economic performance. This helps us to exclude the fact that ownership structure affects performance. However, the interesting insight is that governance mechanisms used by firms with different ownership structure vary as incentives among those firms are dispersed.

While bank shareholders have well-defined property rights over the bank's assets, those being present on the board of savings banks act more as trustees

than as owners of the assets. Since clearer and well-defined property rights should imply more pressure on the managerial team to increase shareholders' profit, one would expect that savings banks perform worse in economic terms compared to commercial banks. However, existing study suggests that ownerless firms with multiple objectives perform at least as well as profit-oriented firms owned by stockholders (Bøhren & Josefsen, 2008). This study questions the critical role of owners, the residual claimants, posited by agency theory, but supports the idea that the disciplining effect of product market competition substitutes for ownership. After all, ownership structure and governance are not so decisive for a firm's economic performance when that firm is subject to sufficient competition, which is the case in Norwegian retail banking.

3. The research questions and hypothesis

Even though the economic performance in commercial banks and savings banks does not differ, there is still a reason to believe that commercial banks will have a stronger incentive to intervene as an action due to poor performance since firms owned by stockholders (commercial banks) are more monitored than ownerless firms (savings banks). Product market competition could be an explanation of savings banks not being outperformed by the commercial banks in the sense that savings banks are trying to do their best in order to be able to compete with commercial banks. This means that the management of both owned firms and ownerless firms establish efficient corporate governance systems in order to survive.

The critical question is if savings banks use the same governance mechanisms as commercial banks when intervening or if they use other mechanisms due to different incentives. The degree of underperformance in savings banks could influence the type of mechanism used to intervene. One interpretation could be that a bank merges with another when the bank is close to bankruptcy.

Our thesis addresses the corporate governance issue in ownerless and owned firms by trying to answer these questions:

- Does poor economic performance activate governance mechanisms as intervention attempt?
- Does the relationship between poor economic performance and governance intervention vary with ownership form of the bank?

Since owned firms are basically profit-oriented and shareholders have cash flow rights, they have stronger incentives to activate a disciplining mechanism when poor performance is a fact, while savings banks may postpone this action. When firms have no owners or other residual claimants who can consume the firm's cash flows it is not obvious that those firms maximize the return to capital invested. Hence, the link between performance and government intervention is not necessarily identical for owned firms and ownerless firms. The ownerless firms have to take into consideration the interests of many stakeholders at the same extent, meaning that the main focus is not on shareholders, as is the case in owned firms. For instance, even though the economic performance is poor, a stakeholder-oriented firm cannot dismiss CEO's, managers and employees as easily as a stockholder-oriented firm because they enjoy more effective power.

H0: The stronger ownership level, the higher governance activity.

The difference between our study and the one conducted in Spain is that we include PCC banks in our sample, which makes our setting a bit different. As mentioned above, we consider PCC banks to lie between commercial banks and savings banks in terms of ownership structure. On the other hand, we expect PCC banks to be more like commercial banks when choosing governance mechanisms in case of intervention. The reason why we expect this result is exactly the presence of equity holders at PCC banks, even though the degree of owner presence is lower in PCC banks than in commercial banks.

Since savings banks in Norway have multiple-stakeholder orientation with different governance bodies (i.e. general assembly, board of directors and committees) with different natures, we can say that they have a potentially weak internal system of corporate governance. This may put downward pressure on the level of intervention in savings banks.

H1: a) The probability of CEO turnover due to poor performance is higher in commercial banks than in PCC banks.

b) The probability of CEO turnover due to poor performance is higher in PCC banks than in savings banks.

H2: a) The probability of board turnover due to poor economic performance is higher in commercial banks than PCC banks.

b) The probability of board turnover due to poor economic performance is higher in PCC banks than savings banks.

In the history of corporate governance we sometimes see that governing bodies have had difficulties to discipline managers performing badly. The extreme cases, worth to mention, have been those when managers have enjoyed more effective power. This could be the case in the savings banks. In order for this conflict to be solved, the governing bodies must use other mechanisms than the internal ones. For instance, the arrival of external offers to merge may lead to improved manager behaviour. Therefore, we expect mergers to be relatively more relevant as a governance mechanism for savings banks than PCC banks, and relatively more relevant for PCC banks compared to commercial banks.

H3: a) The probability of merging due to poor performance is higher in savings banks than PCC banks.

b) The probability of merging due to poor performance is higher in PCC banks than commercial banks.

4. Theory

Corporate governance is concerned with the resolution of collective action problems among dispersed investors. It deals with the agency problem, meaning the separation of control and ownership. The objective of long-term maximization and stockholders being the dominant stakeholder in corporate governance is a common view in the Anglo-American world (Macey and O'Hara, 2003). In contrast, Continental Europe, Japan, and Scandinavia have another view on this issue. According to them firms should have multiple goals and allocate power to more stakeholder types than just stockholders (Allen et al., 2007). The politics of corporate governance takes a stand on this issue by imposing regulatory restrictions on the stockholders' ability to control the corporation. Some of them mentioned by Bøhren and Josefsen (2007) are laws and codes on management's fiduciary duty, independence and diversity in the boardroom and codetermination by stockholders and employees.

As stated above, in savings banks control rights are shared between groups of stakeholders with different interests. Even though there are stakeholders with no cash flow rights, they may have an interest in exerting control over the bank's decision-making and management and may therefore exercise not only formal, but also effective control. The challenge is to exert effective control. There are stakeholders who may find it difficult to exert effective control even if they sit on the firm's governing bodies (Hansmann, 1996).

When stakeholders have divergent interests, multiple objectives may be difficult to align. The theory of the firm is an important theory for our thesis as the distribution of control rights may influence the firm's behaviour and performance. Tirole (2001) points out that the difficulty of aligning different objectives represents a major hindrance when it comes to the implementation of the stakeholder society.

Agency theory usually links monitoring over managers to shareholder-oriented firms. Nevertheless, our setting includes banking firms where the governance system is affected by the absence of owners. In this sense, we could anticipate

that shareholder-oriented banks, with the presence of owners, show a more active disciplinary behaviour over managers. Due to this the incentives of managers in savings banks and commercial banks differ. Tirole (2001) showed that the major governance problem faced by firms with multiple goals is to evaluate the quality of decision-making. Managers of stakeholder-oriented firms may not clearly know along which lines they will be evaluated, a fact that reduces their incentives.

The firm's behaviour is influenced by other concerns as well, not only profit maximization. According to Bøhren and Josefsen (2007) ownerless savings banks are smaller, less risky, charge higher prices, and grow less. This is a low risk strategy in order to avoid bank distress and to go for modest growth. According to Allen et al. (2006), the tendency for stakeholder-oriented firms to charge higher prices will also produce higher interest margins in savings banks than in commercial banks. Thus, the income statement and the balance sheet are influenced by the bank's stakeholder structure.

As the literature review section presents, the main findings of Bøhren and Josefsen (2007) is that owned banks do not outperform ownerless banks in economic terms. However, this does not imply that stockholders produce no value, but it does suggest that owners are redundant in the sense that other mechanisms can do the owners' monitoring job. This means that managers of ownerless firms may be efficiently disciplined by substitutes for owner monitoring. One thing that contributes to keep managers on their toes is the threat of being fired by the board of directors or removed by the market for corporate control through a takeover or a proxy fight. Other things could be being put on a tight leash during financial distress, and the prospect of being appointed to new boards of directors or of receiving offers for executive directorships in more prestigious companies.

4.1 Governance mechanisms

Our endogenous variable in our model is governance activity taking place due to poor economic performance. According to existing theory of corporate

governance there are many corporate governance mechanisms used as disciplining tools across firms with different ownership structure. Because of the difference in the ownership structure, not all mechanisms are applicable to every firm. Thus, we have to choose between those that are appropriate for our study. The most appropriate and interesting mechanisms for us are those implemented by the board. Below we have tried to list those mechanisms that are most used in recent corporate governance and evaluated the relevance of each mechanism for our sample.

4.1.1 CEO Dismissal

CEO dismissal is an important governance mechanism used by the board of directors. The threat of dismissal for poor performance should provide stronger incentives, which in turn may have an impact on both the level of compensation and the probability of turnover. Factors affecting the likelihood of CEO turnover are the independence of the board members, the presence of large investors, and the participation in stock markets. CEO turnover is a task that is decided by the board, which monitors the CEO's performance. Therefore, when there is a poor performing CEO, the board may replace him/her to improve the firm performance (Hermalin & Weisbach, 1998). However, the existing empirical evidence on relationship between CEO turnover and firm performance show variety results. On the one hand, there exists evidence suggesting a positive impact of CEO turnover on operating performance, especially for the case of forced departures (Denis & Denis, 1995). Similarly, Borokhovich et al. (1996) and Huson et al. (2004) have got statistically significant results showing positive change in firm performance after CEO departure. On the other hand, CEO replacement could be interpreted as a negative signal consequence of poor managerial performance, leading to a fall in both firm value and future outcomes. For instance, Warner et al. (1988) find that price changes are not influenced by CEO turnover, whereas Khanna and Poulsen (1995) show that in distressed firms stock prices negatively react to turnover announcements. It is also important to remark that CEO turnover may be voluntary due to retirement or an eternal offer to manage another firm,

and voluntary leave does not necessary be due to poor firm performance. The mechanism of CEO replacement is one of the central ones used by our sample.

4.1.2 Board Turnover

Board turnover is a disciplining mechanism usually available for stakeholders. Firms change their boards to improve the quality of decision-making processes and consequently, firm performance (Hermalin and Weisbach, 2003). The board of directors is widely recognized to play an important role in corporate governance because of the monitoring role leading to disciplined managers. Since one of the principal responsibilities of the board of directors is monitoring the company's performance, a firm's poor performance would indicate that their job is not done properly and, consequently, that should undertake changes in board membership. When it comes to the board size, Yermack (1996) and Eisenberg et al. (1998) find that there is negative relation between board size and performance, indicating that large boards are less efficient since free-riding problems within the board rise with the board size. Concerning board composition, a study conducted by Hermalin and Weisbach (1991) do not support the positive relation between more independent boards and performance. Another study conducted by them in 1998 suggests that poor performing firms increase their outside directors, leading to the insignificant relation between performance and more independent boards. Lafuente and Garcia-Cestona (2008) provide evidence about a negative relationship between board turnover and changes in performance reflecting the presence of costs associated to changes in the board that may outweigh its benefits, especially for the case of forced replacements. Hiring of new members who may lack expertise in board tasks related to a specific firm leads to a learning process that can negatively affect the firms' performance. Hence, we see that this type of governance intervention could also create costs. This governance mechanism is also relevant as an intervention tool for our sample.

The threat of dismissal if the return to shareholders is low will stimulate managers and all board members to take decisions in the interest of the shareholders. If poor performance causes higher turnover of board members,

then there exists a mechanism, which allows for substitution of board members in the event of poor performance. Specifically, when the shareholders receive information about the performance of the firm and lose trust in the directors appointed by them, those directors are replaced. The rate of total board turnover is measured as the dismissals of board members during a calendar year divided by the average number of total board members along the year. We intend to use dismissals since we believe that it is a better indicator of the disciplining effect. The board turnover variable can only be zero or positive.

4.1.3 Merging

Merging is a way of pooling of interests between two or more companies. This mechanism can primarily create value by increasing the market power of merging entities and by improving their efficiency. It is considered as an intermediate control mechanism, lying somewhere in between the internal mechanisms and the external ones. According to Crespi, Garcia-Cestona and Salas (2004) this is a governance mechanism most used by savings banks, a phenomenon being assumed for our sample as well. Thus, the relevance of this intervention mechanism is very high for our research.

Gjensidige NOR issued equity securities and became a listed company in 2003. Immediately after the issuance Gjensidige NOR decided to merge with DnB. The main argument for this was the wish to create a big entity such that a takeover by a foreign candidate would become impossible. Therefore, this merger got huge political support even though the organ for competition in Norway (i.e. Konkurransetilsynet) had the opinion that a huge entity like this would gain so much market power that the competition would be destroyed.

Kredittilsynet has been worried about the development of savings banks' sector. The chairman in Sparebankforeningen, Terje Vareberg, has given rise to concern that the protection for acquisitions/takeovers for savings banks would

be removed². Large banks want to acquire small banks, but the law of protection prohibits them of doing so.

From the legislators' perspective it is very important that savings banks are protected against undesirable takeovers/mergers. Savings banks are very important to the society since they contribute a lot and the protection will help not to destroy competition among banks. Based on the information we got from Kredittilsynet, there are not many mergers that found place in the period 2000-2007.

4.1.4 Monitoring

Monitoring of the CEO by the board of directors is an alternative way of solving the collective action problem among dispersed stakeholders. The board of directors' mission is to select the CEO, monitor management, and vote on important decisions. Active and continuous monitoring by a large block holder (i.e. financial intermediary, holding company, pension fund, etc.) is also an efficient form of corporate governance. It offers one way of resolving collective action problem among multiple stakeholders. Monitoring is a continuous mechanism not only triggered by poor performance, but a mechanism that is used continuously in order to discipline CEO's or managers. Hence, monitoring cannot be used as a dependent variable in our methodological analysis, but the outcome of the monitoring is one of the mechanisms we want to study, for instance CEO dismissal. Based on the differing ownership structure of our sample, we can conclude that owner monitoring is more used by the commercial banks and PCC banks compared to savings banks since the incentives of the stockholders to monitor are stronger than the incentives of other stakeholders.

² Vareberg expressed himself to the media Stavanger Aftenblad 31.12.05 after Sparebanken Møre had applied for an acquiring of sparebanken Tingvoll. The application was later denied by Kredittilsynet.

4.1.5 Sharing of control

Sharing of control between several parties with different objectives could produce conflicts among those parties, but at the same time it could work as a disciplining tool. Berkovitch and Israel (1996) argue that when it comes to replacement of managers, stockholders may be more inclined to exert control than creditors. Sometimes a large stockholder may be too eager to replace management, in which case it may be desirable to let creditors have veto rights over management replacement decisions (i.e. to have them sit on the board). Another way of limiting the stockholders' power to dismiss management is to have a diffuse ownership structure. Chang (1992) modelled that the firm can only rely on creditors to dismiss managers since ownership is dispersed. Creditors are more likely to dismiss a poorly performing manager if the firm is highly leveraged. This leads to an efficient level of leverage implementing a particular division of control rights. Sharing of control has huge implications for our study, but it is not a governance mechanism being able to be used as a dependent variable.

Chang's model can also be reinterpreted and used in the sharing of control between employees and the providers of capital. The role of employee representatives on the board can be justified as a way of dampening stockholders' excessive urge to dismiss employees and protection of employee's human capital investment. To counteract the employees' influence, the firms must be highly levered.

5. Data and Methodology

In Norway there are three main bank institutions: savings banks, commercial banks and PCC banks (grunnfondsbank). All these bank institutions compete under equal conditions in the loan, deposit and financial service markets. By conducting an empirical analysis we want to see how performance influences governance mechanisms in banks with different ownership structures. We will focus on internal mechanisms such as CEO dismissal and board turnover, and the external mechanisms such as mergers and acquisitions.

Economic performance is measured through the ratio of accounting profits and the bank's total assets. We will use return on assets (ROA) as the main performance measure since return on equity (ROE) is affected by the capital-asset ratio of the bank, which differs substantially among the banks in the sample due to different capital structure. Furthermore, we will use total net profit after taxes (OPAT), and profits from regular banking operations before taxes (OPBT), both of them being measures of accounting profits. The reason why we use these measures is that managers can only control this part of profit being related to operations. Thus, managers are being evaluated based on these measures.

We intend to conduct multivariate analysis to indicate which kind of governance mechanisms is likely to be activated in times of low performance, and furthermore if the likelihood is homogenous or not among the different ownership types we are focusing on. One methodology that has been applied to banks before is the log-it regression which can, for instance, be used to explain the probability of a CEO departure as a function of asset and accounting returns.

5.1 The sample data

The research will be conducted based on data from the period 2000 to 2007. This is basically because the CCGR database contains data regarding the ownership structure from 2000 and on. Further, data for this period will be collected from several institutions, including Oslo stock exchange and The Norwegian Savings Banks Association. Data regarding board turnover and additional data for mergers/acquisitions will be collected by hand. At the end of 2007, The Norwegian Banks' Guarantee Fund³ had 143 members of commercial banks, PCC banks and savings bank. This included 15 commercial banks, 26 PCC banks and 102 savings banks. When it comes to the savings banks, our sample size will contain the 10 largest, 10 smallest and 10 middle-

³ The Norwegian Banks' Guarantee Fund is a fund that guarantee for bank deposits up to a quoted amount in Norwegian banks. The fund is regulated by *banksikringsloven*

sized savings banks. Adding the 30 savings banks together with 15 commercial and 26 PCC banks, the total sample size will be 497 bank/year observations.

Data about board composition are not available in the CCGR database, which means that we had to collect the data by hand. We proceeded by starting to collect all annual reports in the period 2000-2007 for our sample. Then we recorded board members for each year excluding employees' representative, thereby calculating board turnover for each bank in our sample for the period 2001-2007. We exclude employees' representative as a board member as these represent the interests of the employees and firm performance does not affect the turnover of these members as these cannot be dismissed due to bad firm performance. We also do not distinguish between insiders and outsiders sitting in the board.

A limitation of the data is that, in most cases, the cause of dismissal is not easily known. Therefore, it was difficult to eliminate those replacements which are considered "natural" from the sample, that is, those caused by retirement or death. Canyon (1996) compared cases where natural replacements were included and excluded and he did not find any significant difference between these two situations. Based on this empirical finding we are assuming here that the natural replacements are evenly distributed across the banks in all of the periods.

5.2 The logit model

In our multivariate analysis we will use a multinomial regression analysis. Multinomial logit regression is used when the dependent variable in question is nominal (a set of categories which cannot be ordered in any meaningful way) and consists of more than two categories. The nature of our dependent variable, governance interventions, makes this method appropriate when running the regression. The dependent variable will evidently reflect the governance interventions that we considered above: no intervention, board change, CEO removal and merger/acquisition. The explanatory variables that we will use are: bank performance for each of the ownership types (commercial banks,

savings banks and PCC banks) and some control variable for size. The control variable is held constant in order to assess or clarify the relationship between two other variables. In our case it is logical to use the size of the bank as a control variable. The type of data that we use is called panel data since it contains both the same dimensions as cross-sections and time series. We use a dummy variable for different types of ownership to interact with the explanatory variables. The dummy variables to be used are D_1 and D_2 , where $D_1 = 1$ if the observation belongs to PCC banks and 0 otherwise. It is the same procedure for D_2 , meaning that $D_2 = 1$ if the observation belongs to savings banks. Remark that there are only two dummy variables even though there are three different ownership structure types. This is to avoid a situation of perfect collinearity. There are no dummy for commercial banks as α_{i0} represents the intercept of commercial banks. Commercial banks are hereby the baseline.

$$\begin{aligned} \text{Governance Intervention} = & \alpha_{i0} + \alpha_{i1}D_1 + \alpha_{i2}D_2 + \beta_1\text{Performance}_i \\ & + \beta_{11}D_1\text{Performance}_i + \beta_{12}D_2\text{Performance}_i \\ & + \beta_2\text{Control variables}_i + \omega_{it} \end{aligned}$$

Where,

$$\omega_{it} = \varepsilon_i + u_{it}$$

We assume that $\varepsilon_i \sim N(0, \sigma_\varepsilon^2)$ is an idiosyncratic error term and that $u_{it} \sim N(0, \sigma_u^2)$ is an unobserved random effect that varies across banks.

By using the above regression we will expect different signs for the betas. The beta for commercial banks β_1 , is expected to be a negative coefficient for hypotheses H1 and H2 as better performance means a lower likelihood of intervention. Further, we expect a positive sign for β_{11} and β_{12} (according to our hypothesis H1 and H2). As for the hypothesis H3, we expect mergers to be the main governance intervention.

6. Empirical Analysis

6.1 The Norwegian banking system

The first Norwegian savings bank was established in 1822, followed by the first commercial bank in 1848. Regulation introduced in 1985 opened up for PCC banks, and the first such bank was founded in 1988 when a pure savings bank (non-PCC bank) chose to issue equity securities to the general public in terms of Primary Capital Certificates and became a PCC bank.

6.1.1 Different Types of Banks

The governing bodies of Norwegian savings banks are fundamentally different from those of commercial banks and PCC banks. In Norwegian savings banks, the supervisory board is the highest organ, which elects the board, and the two bodies jointly hire and fire the CEO. The supervisory board consist of representatives from three stakeholder groups: depositors, employees and public authorities. These stakeholders have no cash flow right which qualify savings banks as ownerless firms. Norwegian savings banks must retain their earnings each year, except for a certain portion that can be invested in cultural and social programs. This portion is set by law up to 25 % (Sparebanklovens § 28). In 2007 the total amount given to cultural and social programs were 4% of the savings banks total profit. These banks are designed to internalize the effect of their actions on the welfare of stakeholders.

There are three alternatives when it comes to the change of savings bank's status; that is liquidation, merger or transformation. The liquidation of savings banks is very unusual. Enebakk savings bank was liquidated in 2003 and is the only case during the last thirty years. When it comes to mergers, banks must follow the law (Sparebankloven). If the merger is taking place between a commercial bank and a savings bank, then Finance Ministry will create a committee comprised by three members in order to determine the takeover amount which is going to be used for the furtherance of savings banks operations in the municipality the takeover or merger takes place. When a merger of savings banks takes place, a common fond emerges. Transformation

means that a savings bank becomes partly stockholder oriented after issuing equity securities.

A commercial bank is the opposite of a saving bank regarding the ownership structure. In commercial banks, the stockholders have all the cash flow rights as the table 2 below illustrates. As the residual claimants they control and elect two thirds of the board and write the corporate charter.

The third type, which is called PCC bank (*grunnfondsbank*), is somewhere between savings banks and commercial banks, being partly a stockholder-oriented company and partly a stakeholder-oriented company. The holders of the PCC securities are owners, but have only partial claim on the residual cash flow corresponding to their share of the bank's equity, which varies between 10 % and 55 %. This is illustrated in table 1 where we show the average dividend of total surplus that is paid to primary capital holders. At the same time, we show the average fraction of primary capital of total equity. The numbers are collected from the 21 PCC banks in our sample and based on the annual reports from 2007.

Table 1: Average dividend of annual surplus and share of equity in PCC banks

Average cash flow and equity held by PCC owners			
	Mean	Std. dev.	Median
Cash flow of total surplus	0.29	0.17	26.14
Primary capital of total equity	0.32	0.20	28.11

This table only covers the cash flow paid to PCC security holders for 2007 and may vary for each year.

We see that the cash flow which is paid as a share of total surplus reflects the share of primary capital equity. This tends to be the common policy for PCC banks and they emphasize to maintain this dividend policy over time. In addition, the primary capital owners are given priority in any new issue of shares. Their voting right is 25 % by law, which means they elect 25 % of the committee of representatives. In every other respect, PCC securities give the same ownership rights as regular shares (Bøhren and Josefsen, 2007). However, because the PCC capital is senior to the remaining equity being

ownerless, PCC securities are less risky than the equity of an otherwise identical commercial bank.

Table 2: Control rights and cash flow rights across banks with different ownership structure

Bank Type	Control right %				Cash Flow right %
	Stockholders	Employees	Depositors	Community	
Pure Savings	0	25	37,5	37,5	Nobody
PCC	25	25	25	25	Stockholders 10-55
Commercial	67	33	0	0	Stockholders 100

This table shows the control right and cash flow right for each of the three different bank types, savings banks, PCC banks and commercial banks.

6.1.2 The Norwegian Banking Crisis (1988-1992)

Norwegian banks went through a systematic crisis in 1988-1992. In the years 1988-1990, 13 small and some regional medium-sized banks failed, mostly savings banks. The guarantee funds were involved in the handling of distressed banks, in most cases facilitating mergers with a larger and solvent bank. Large commercial banks started failing towards the end of 1990. The government established a bank insurance fund to finance distressed banks. To qualify for government support strict criteria had to be met, which sometimes involved a write-off of the existing equity. Because of the write-off of the existing equity due to the distressed situation, the three largest commercial banks came under full state ownership in 1992, but after regaining profitability in 1993 the government reduced its ownership gradually. The government policy is to keep the ownership share at 34% (Moe et al., 2004). This floor, which represents a negative majority, is partly motivated by a wish to keep head office functions and financial competence in Norway. The government has throughout stayed away from the daily running of the banks it had an ownership position in.

However, it is fair to say that the political environment in Norway has been more sceptical to domestic mergers and acquisitions (with a resultant increase in market concentration) than governments in neighbouring countries. As a result, Norwegian banks may not have been able to implement structural changes that they deemed favourable for their long-term development.

As a result of crisis restructuring, the number of savings banks decreased. The fact that Norwegian banking sector went through fewer structural changes (i.e. mergers and acquisitions) both in connection with the crisis resolution and in the years afterward, has probably contributed to Norwegian banks being somewhat less cost efficient compared to Finnish and Swedish banks (Moe et al., 2004). Less domestic consolidation in Norway is partly due to the rejection by government of some domestic structural initiatives.

Summarizing, the Norwegian banking industry consists of commercial banks and savings banks capturing both PCC banks and non-PCC banks (pure savings banks). Our sample consists of banks that operate in the same product market, are exposed to the same regulatory regime, and are monitored by the same public banking inspector (*Kredittilsynet*). The main aspect of our setting is the difference of the ownership structure among banks in our sample, and the difference of the distribution of control right and cash flow rights which is represented in Table 2 above.

6.2 Descriptive Statistics

This section presents some descriptive statistics concerning size, performance and governance intervention for the whole sample of banks and for all the ownership forms considered in this research (i.e. commercial banks, PCC banks and savings banks). Banks included in our sample manage assets worth, on average, 2.24 billion NOK and achieve 1.36 % return on those assets. Of these 0.09% comes from operating profit before taxes, while the rest is financial investments and extraordinary profits. When different banks are compared, we see that commercial banks are larger in size, but less profitable.

Savings banks are smallest in size, but at the same time they are most profitable compared to commercial and PCC banks. In our sample commercial banks are largest and this could be due to a few commercial banks being the largest in Norway (i.e. Dnb NOR, Nordea, Storebrand), pushing up the amount of total assets. This reinforces the evidence found about savings banks, stating that the absence of owners does not seem to affect the economic performance negatively.

Looking at the key variables at table 3 below, we can see that board changes occurs in 14% of the cases, CEO turnover occurs in 7.6 % of the cases, while mergers and acquisitions represent only 2 % of the total number of observations. This could be due to very few mergers finding place among banks in our sample which we will explain more deeply below. Board change is most practiced in commercial banks, while savings banks and PCC banks practice this mechanism equally frequently. The same applies to CEO turnover. When it comes to mergers /acquisitions the descriptive statistics give us somewhat surprising results because we anticipated that this mechanism would dominate in savings banks, as was the case in the research paper done in Spain (Crespi, Garcia-Cestona and Salas, 2004). The fraction of mergers is almost the same in all three types of banks even though the number of mergers differs. This is due to low number of commercial banks compared to savings banks and PCC banks. The highest mean is obtained in commercial banks, which could be a result of fewer commercial banks compared to savings and PCC banks even though there is only one merger recorded in commercial banks during our sample period, much fewer mergers than in savings and PCC banks.

To summarize we notice that the intervention is most frequent in commercial banks, while it is evenly distributed among savings banks and PCC banks.

Table 3: Descriptive statistics

Variable:	Whole sample				Savings banks			
	Obs.	Mean	Std.dev	Median	Obs.	Mean	Std.dev	Median
Total Assets	480	0.24	9.69	0.27	258	0.34	0.59	0.14
OPBT _{t-1}	358	0.16	1.72	0.08	192	0.15	0.72	0.05
ROA _{t-1}	420	1.36	0.54	1.32	225	1.50	0.50	1.40
Interventions	419	0.28	0.45		226	0.26	0.44	
Board Change	414	0.14	0.15		227	0.14	0.15	
CEO turnover	421	0.08	0.27		227	0.06	0.24	
Mergers/ Acquisitions	421	0.02	0.17		227	0.01	0.16	

Variable:	PCC banks				Commercial banks			
	Obs.	Mean	Std.dev	Median	Obs.	Mean	Std.dev	Median
Total Assets	168	1.23	1.51	0.54	54	14.40	25.80	2.77
OPBT _{t-1}	126	0.20	1.09	0.12	40	0.09	1.84	0.12
ROA _{t-1}	148	1.25	0.44	1.26	47	1.03	0.86	1.18
Interventions	146	0.27	0.45		47	0.44	0.50	
Board Change	147	0.14	0.13		47	0.19	0.20	
CEO turnover	147	0.07	0.25		47	0.17	0.38	
Mergers/ Acquisitions	147	0.01	0.08		47	0.02	0.15	

The table shows the descriptive statistics of the relevant variables. The significance level for the mean is within 5% and refers to the difference between savings banks, PCC banks and commercial banks

6.3 Multivariate analysis

Three governance interventions were considered: i) the removal of the CEO, ii) a board turnover of at least 25%, excluding the employees' representative, iii) a merger or an acquisition by another bank during a particular year. Facing the three scenarios, the variables were recorded as a "zero-nonzero" variable, where zero means no intervention has occurred, and a positive variable otherwise. On the other hand, the positive variable depends on the type of intervention. From the whole data sample, the bank-year observations are recorded and each intervention mechanism is identified. The value of 1 is assigned to the "board turnover", "CEO replacement" got the value of 2, and the value of 3 is assigned to cases when a merger or acquisition occurred.

At the end, the remaining bank-year observations correspond to non-intervention cases, and have a zero value in our measure of governance interventions.

The values assigned to every governance intervention only reflect different categories, and the ordinal value has no further meaning. Since mergers are often followed by changes in the board, for those banks that continue, changes in their board are not considered following a merger, as turnover is a natural phenomenon due to merger or acquisitions.

The explanatory variable, performance of the firm, includes alternative measures (ROA, OPAT and OPBT). All variables refer to the year before the governance intervention takes place. For instance ROA_{t-1} variable indicates then the total net profits over total assets in year t-1.

6.4 Governance Intervention and Economic Performance

In this section we want to show some preliminary evidence concerning the economic performance of banks experiencing some form of governance intervention compared to banks with no intervention. The result can be seen in Table 4, and it is interesting to see that low performance triggered intervention in both commercial banks and savings banks, but the difference in performance between the intervention case and non-intervention case is higher in commercial banks than savings banks. When it comes to the PCC banks there are no difference detected between the two samples, indicating that there is no link between performance and intervention. Those results were based on ROA.

Table 4: Average ROA by bank type and governance intervention

	Average ROA _(t-1)	
	No intervention	Intervention
Commercial Banks	1.15	0.90
PCC Banks	1.24	1.26
Savings Banks	1.53	1.47

Intervention means whether a bank has experienced a Board turnover, CEO removal or merger/acquisition. The results are significant at 5 % level which refer to the difference between intervention and no intervention

6.5 Multinomial Logit and interpretations

Table 5 below shows the result of the multinomial logit model for the whole sample. The overall results show us that we have less significant results compared to the Spanish research paper. Our results for mergers and acquisitions had no valid values, which can be explained by the relatively low number of mergers and acquisitions which has taken place in Norway the last eight years. Based on this, we cannot draw any inferences about mergers or acquisitions. In contrast, the Spanish research paper concludes that mergers have become the main governance mechanisms to solve economic inefficiencies in the case of Savings banks. However, the negative intercept for both of the cases CEO replacement and board turnover indicates a low frequency of governance intervention in Norwegian banks. Further, we have no evidence whether the likelihood of governance intervention is related to bank size as we have no significant results related to the size of the bank. We concentrate upon the performance results of ROA, and see that for interventions by CEO replacement and board turnover, commercial banks are always negatively associated with economic performance. However, the result is only significant at the 10 percent level for board turnover. Nevertheless, this indicates that $\beta_1 < 0$.

Furthermore, the explanatory variables times the dummy variables, “Performance x PCC banks” and “Performance x Savings banks”, are both positive for CEO replacement and board turnover. In this case, the relevant coefficient is the construction of β_1 added with the respective coefficient of either savings banks or PCC banks. For CEO replacement, the sum of $\beta_1 + \beta_{11}$ is 0.87 and the sum of $\beta_1 + \beta_{12}$ is 0.39. This means that in our sample, CEO replacement is not associated with economic performance for savings or PCC banks as the coefficients are positive. For Board turnover, we find similar results, where the construction of the coefficients yields 0.21 for savings banks and 0.48 for PCC banks. Thus, there is no link between economic performance and board turnover either. Finally, these results indicate support to our hypothesis that the probability of CEO replacement and Board turnover due to low performance is higher in commercial banks than PCC banks and savings banks.

If we look at the operation profit before and after tax (OPBT and OPAT), and use these as explanatory variables instead of ROA, we get positive coefficients as well. However, they are not statistically significant.

Recall that *Hypothesis 1* indicate that the CEO replacement is stronger in commercial banks than in PCC banks, and stronger in PCC banks than in savings banks. The coefficients for base case (i.e. ROA) indicate support for H1a), but the results for commercial banks are not significant. When it comes to the H1b) we have positive coefficients, but based on their values, which also are statistically significant, the hypothesis is supported. This could be interpreted as savings banks having more trust on their CEOs in bad times and not replacing them.

The coefficients based on OPBT change to some extent, but they become statistically insignificant and the final results when it comes to the hypothesis do not change from the base case. Lastly, based on OPAT we have results indicating supporting for H1a), and rejection for H1b), but again those results are not statistically significant.

Table 5. Multinomial logit regression, including: CEO replacement, board turnover and merger/acquisitions

	CEO replacement	Board Turnover	Merger/acquisitions
Intercept	-1.619** (-0.752)	-1.178** (0.628)	-4.271 (1.035)
Savings banks	-2.21** (-1.067)	-0.231 (0.761)	-13.909 (7.775)
PCC banks	-0.874 (1.06)	-1.179 (0.842)	-14.905 (7.420)
Size (total assets) (t-1)	1.712 (5.88)	3.273 (5.081)	5.985 (8.374)
Size x Savings banks	7.029 (7.138)	-3.499 (5.796)	5.955 (1.834)
Size x PCC banks	1.106 (7.357)	3.363 (5.832)	-5.134 (6.438)
ROA(t-1)	-1.593 (1.129)	-0.184* (0.547)	-0.724 (1.839)
ROA(t-1) Savings banks	2.459** (1.307)	0.392 (0.759)	2.747 (8.658)
ROA(t-1) PCC banks	1.980* (1.218)	0.663 (0.654)	0.611 (8.226)
OPBT(t-1)	-0.117 (0.094)	0.055 (0.188)	-0.130 (6.318)
OPBT(t-1) Savings banks	0.194 (0.484)	0.107 (0.292)	0.601 (13.131)
OPBT(t-1) PCC banks	0.429* (0.299)	-0.484 (0.325)	-2.266 (13.288)
OPAT(t-1)			
OPAT(t-1) Savings banks			
OPAT(t-1) PCC banks			
Log likelihood	557	552	-0.096 (4.880)
Pseudo R-square	0.050	0.063	0.484 (12.077)
OBS	358	358	-0.490 (12.497)
LR chi2	29**	37**	

* Significance level 10%

**Significance level 5%

Hypothesis 2 states the same as H1, but the governance mechanism is now board turnover instead of CEO replacement. As stated above, there is a negative relationship between performance and intervention in commercial banks. This relationship in savings banks and PCC banks is positive, but insignificant. Based on the coefficients there is indication that H2a) is supported and H2b) rejected. Coefficients produced by OPBT are not significant, but they enable us to reject H2a) and support H2b). We get exactly the same outcome when using OPAT, and unfortunately still insignificant results.

By computing the average of board turnover in our sample, we found out that commercial banks have the highest average board turnover, followed by PCC banks, which means that savings banks have the lowest average board turnover (i.e. average board turnover for commercial banks, PCC banks and savings banks is 18.62 %, 13.98 % and 12.73 % respectively). The average of all these is 15.11 %. In our analysis the boards include 5 or more members. Thus, we choose to set the board turnover limit to 25 % such that dismissals due to retirement or death do not influence the turnover numbers.

Hypothesis 3 is very difficult to say something about as our results are totally insignificant. One reason for this could be that there were very few mergers occurring during our sample period (i.e. one in commercials, four in savings banks and two in PCC banks). Four out of seven savings banks that were the smallest ones in 2000 have either merged or been acquired during our sample period.

7. Conclusion

This paper examines the exercise of governance mechanisms in the Norwegian banking sector. We have examined three different bank types with different ownership and governance structure. The differences in governance mechanisms are compared using a multinomial logit regression. Although it is reasonable to believe that the banking sector follows the same set of mechanisms as the economic sector, there is evidence that shows that these mechanisms are weaker in banking (Crespi, Garcia-Cestona and Salas 2004). One explanation could be that the banking sector is regulated. However, a research of this kind has not been conducted in Norway. In our analysis we examined three control mechanisms; CEO turnover, Board turnover and mergers/acquisitions. Our results based on descriptive statistics shows that governance interventions in banks occur with less frequency than in the similar analysis conducted in Spain (Crespi, Garcia-Cestona and Salas, 2004). It is natural to compare our analysis against the analyses performed in Spain since the banking system in Norway and Spain are similar as they both are traditionally dominated by savings banks. However, there are certain differences as PCC banks are not allowed in Spain, while in Norway they became allowed in 1985. Primary Capital Certificate (PCC), enables savings banks to raise capital in the equity market, and is the distinct difference that separates the Norwegian bank market from foreign banking market.

Our regression analyses indicate that the commercial banks tend to initiate governance mechanisms like board turnover or CEO removal when economic performance is poor. Further, savings banks and PCC banks show no supporting evidence to implement these mechanisms. However, we did not obtain the statistical significance we require to support our hypothesis for board turnover and CEO replacement. For mergers and acquisitions there were no valid statistical values to indicate a relationship between performance and intervention. This is due to the remarkable low number of mergers and takeovers within Norwegian banks. We believe this is related to the regulatory restriction that exists for mergers of banks in Norway.

Recall that our null hypothesis states that governance activity is higher in the firms where the ownership level is higher. Based on the results our data have

produced, we can conclude that the null hypothesis is supported, meaning that commercial banks practice intervention due to low performance more than PCC banks and savings banks.

At the end, we will go back to our research questions and try to give some direct answers. Poor economic performance triggers governance intervention in all types of banks at different levels. However, the level of intervention was not in exactly the same order as we suggested in our hypothesis.

8. Limitations and further work

During our research, we have discovered different limitations which are related to our regression and statistical analysis. The largest limitations are linked to the facts that in Norway there is a much skewed distribution between the number of savings banks and commercial banks. By 10th august 2009 there are 127 savings banks, where 26 of these are registered as PCC banks. Furthermore, there are only 17 registered commercial banks, where 7 of these have operated since before year 2000. Due to this, large deviation in one commercial bank would give us misleading result in the whole sample of commercial banks.

Our paper has been studying the differences between commercial, PCC and savings banks. During our study, we saw the need for a longer sample period. This will be especially useful for the merger regression because in our sample only 7 mergers are carried out. This could perhaps be the reason why we got insignificant results.

For further research we would recommend to include an even larger sample of banks, but most of all that data are gathered from a longer sample period. However, this would require a comprehensive gathering of data from all types of banks in periods where electronically data does not exist.

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