Corporate Governance and Valuable Innovation: Final Report

This is a report summarizing the project *Corporate Governance and Valuable Innovation*, which was funded by NFR as project 154949/150 over the period 2003-2005. The purpose of the report is to clarify the key issues analyzed in the project, summarize the major findings, and document how our findings have been disseminated within the research community and to the general public.

To set the stage, we start by quoting the project summary as specified in our project application in 2002.[1]

> The research program "Corporate governance and valuable innovation" consists of six empirical projects. The project "Owner patience and value creation" analyzes the impact of long-term vs. short-term owners (patient vs. impatient investors) on the firms' ability to innovate in a profitable way. "Corporate governance, investment, and growth" explores how corporate governance mechanisms interact with the firm's investment and growth processes rather than its economic performance as such. The project "Board composition and corporate performance" considers how board characteristics interact with value creation. "Ownership breadth and value creation" is a study of how reduced breadth of ownership (i.e., increased ownership concentration) increases the cost of capital and in turn lowers a firm's ability to innovate in the most efficient way. Using the same cost of capital and investment perspective, the project "Ownership concentration and market liquidity" analyzes how the financing cost of new investments is influenced by the trading liquidity of the firm's ownership rights. In order to carry out the above analyses, we will construct an integrated database which will be exceptionally rich and accurate by international standards, building on an existing data set of corporate governance mechanisms.

Because our project has been organized into these six sub–projects, the project summary in section 1 below is structured in a corresponding way. Section 2 provides a full listing of the project's publications and also related student theses written under the project participants' supervision. We document how we have presented our work to the academic community in Section 3.1. Section 3.2 summarizes our dissemination efforts to the general public.

[1] An unexpected, substantial reduction in funding from NFR forced us to reorganize the project and cut back on planned activities. In late 2004 we were warned that the NFR would probably reduce the project funding for 2005. This warning later materialized as a reduced funding for our project of NOK 760 000. In addition, we lost NOK 250 000, which we had transferred from 2003 to 2005 to fund a Post Doc position. Besides forcing us to reduce project activity in general, the loss of a Post Doc position in the final project year, when the database was up and running, had a significantly negative impact on our ability to produce according to initial plans. While all sub-projects have been completed, and most of the goals specified in the initial application have been met, some of the ambitions of the subprojects have had to be scaled back.

1 The subprojects

1.1 The data base

Participant: *Bernt Arne Ødegaard.*

The other subprojects all depend critically on an extremely detailed database on the Norwegian equity market and the corporate governance mechanisms of Norwegian listed companies over the period 1989-1999. To simplify the presentation of the other subprojects and also to provide potentially useful information to other researchers who may use the data later, this section provides some detail about the data base, which consists of six major components.

The first component is daily prices for all securities traded at the Oslo Stock Exchange. The source is data from the Oslo Stock Exchange purchased by the Norwegian School of Management BI.

Also using data from this source, the second component of our data base is complete financial accounts (balance sheets and profits and loss statements) on an annual basis per firm as well as complete records of company announcements.

The third component and also the biggest single data base built up specifically for this project contains data from the Norwegian National Security Registry (Verdipapirsentralen; VPS). From this source we have purchased extracts of the holdings of all equity owners at the Oslo Stock Exchange. This data set has annual records for the period 1989–1992 and monthly records from 1993 on. A prime challenge of this database is that due to its sheer size,[2] using it requires considerable data handling skills and IT knowledge. A good deal of time has therefore been spent writing programs which can access and use these data for academic purposes. Once this hurdle had been surpassed, this database provides an internationally unique opportunity to link data on ownership with data on financial markets. The centralization of ownership records in VPS and the fact that all owners are accounted for individually is a unique feature of the Norwegian data. In almost all other countries, including the US, record-keeping of equity ownership is decentralized, and it is virtually impossible to build up a complete picture. Data for Norway can therefore provide a data set which is mostly impossible to achieve elsewhere. This uniqueness offers opportunities for international research publications.

The fourth component of our data base builds on public announcements of equity trades by investors classified as insiders according to the security law. A complete list of such trades allows us to estimate the fraction of a company owned by inside investors (such as the firm's officers and directors).

The subproject on boards (see section 1.3) is the major user of the fifth component of the data base, which was purchased from Brønnøysundregistrene. This data contains annual records of board membership by providing information about a director's position (chairman, regular member, employee representative), age, and gender. Part of the data base had to be supplemented by hand-collected data, such as the director's entry date into the board.

The sixth component is microstructure data for trading at the Oslo Stock Exchange. This

[2] The database contains between 1 and 2 million equity positions for every month.

data is provided by the market survey department at the Exchange. Such data has only been made available to selected academic researchers through personal contracts with the Exchange. This is also an internationally unique resource, containing complete records of all orders and actual trades in the automated trading system for a five-year period. This data allows the researcher to build minute-by-minute snapshots of supply and demand schedules for the equity market at the Oslo Stock Exchange.

The financial markets data and the associated software we have developed is a resource for future research. It is a goal of the project leader that this resource can be made as widely available as possible. In particular, we hope to channel these data into the proposed Financial Markets Data Center, which is a a joint venture between the Norwegian School of Management BI and the Norwegian School of Economics and Business Administration (NHH). The purpose of the center is to collect and organize data from financial markets for use by academic researchers. While the public access to programs and software is unproblematic from this perspective, and in fact some of the software has already been released under an open license, the challenge is the data itself. The data has been bought from data providers that have imposed strong restrictions on their use. Take for example the VPS data on equity ownership. This data set contains potentially sensitive information. Although all records are anonymized, one could potentially use data from other sources to identify individual owners. Part of the agreement with VPS is that the data should not be used in such a manner. Also, published results from projects using the data should not allow any company or individual to be identified. Thus, all results should be aggregated. The current project leader is responsible for these conditions being met. Under these conditions the data can not be made available to other researchers. Similar restrictions apply to some of the other components of our data base, such as the microstructure data and the stock market data. Before any of the data can be made available to a joint data center, it will be necessary to negotiate with the different data providers to clarify whether, and under what conditions, this is possible. Until such clarification occurs, the use of the data is limited to researchers connected to BI's research program in corporate governance.

The data base has already been of considerable use in a number of projects not directly connected to the current project. In particular, data from the ownership database was used in part of Johannes Skjeltorp's doctoral thesis, entitled *Trading in equity markets: A study of individual, institutional and corporate trading decisions*. This thesis was defended at the Norwegian School of Management BI in August 2004. Extracts from the ownership data have also been used in numerous Siviløkonom and Master of Science theses at the Norwegian School of Management BI supervised by the project participants (see section 2.4).

1.2 Owner patience and value creation

Participants: *Øyvind Bøhren*, *Richard Priestley* and *Bernt Arne Ødegard.*

The contribution of this project is to provide the first comprehensive empirical analysis of the economics of ownership duration. We estimate the actual duration of large equity positions, how it varies with owner type, what factors determine its length, and how ownership duration relates to firm performance. We do this by using a data set which allows us to observe the entire ownership structure of every Norwegian listed firm over the eleven year period 1989-1999. Using the econometric technique of duration analysis, we describe the ownership duration for the firm's five largest owners and show that the probability of terminating the equity stake, measured by the hazard function, is time varying. We find two types of owners in our sample. The impatient type has a a very high probability of leaving within the first year, and high, but falling, probability of leaving as the duration increases to two, three and four years. Once this hurdle is passed, however, the conditional probability of exit falls markedly, producing the second group of very patient investors who do not terminate their holdings.

The average duration for the firm's largest owner is less than three years, but there is substantial variation across owner types. The most impatient owners are foreigners and financial institutions, whereas the most patient ones are industrial firms and individuals (families).[3] Also, ownership duration grows as the fraction held increases. In addition, firms with long-term investment projects keep their owners the longest. This latter finding suggests that ownership duration matches the duration of the firm's real investments. We also test whether owners vote with their feet as a reaction to unfavorable news and find no support for this hypothesis.

After having analyzed the length and the determinants of ownership duration, we assess whether ownership duration matters for firm performance. When we look at all owner types as a group, ownership duration and performance are always negatively related. However, given the substantial differences in ownership duration across owner types, the possibility that different owner types may have different corporate governance roles, and that they may be differently informed, it is natural to ask if ownership type matters for performance. We find that it does. Notably, the relationship between ownership duration and performance remains negative for industrial and financial owners, but is positive for individuals and foreigners. These findings are consistent with the hypothesis that direct monitoring has higher quality than indirect (delegated) monitoring.

In addition to estimating how ownership duration relates to performance within the same time period, we find that current ownership duration is systematically related to subsequent performance. Moreover, the estimates are consistent with our findings on the contemporaneous relationship between ownership duration and performance. In contrast, we find no convincing evidence that current performance drives subsequent duration.

In terms of policy implications, it has become quite popular to argue that owners are too impatient, and that their tendency to vote with their feet by selling under-performing stocks forces management to over-invest in projects with short payback in order to keep current earnings high. Similarly, owners are accused of being restless, lacking the commitment, competence, and persistence needed to monitor and support the management team as an integral part of good corporate governance. According to this view, short-term investors are bad owners, long-term ones are good, and economic welfare is thought to suffer because ownership duration is too short. Our results suggest that conventional wisdom is inconsistent with reality on most of these issues, and particularly that the unconditional praise of the long-term owner is misplaced.

[3]The state is actually the investor with the longest duration. However, we pay little attention to state owners, since their objectives may differ from those of owners who invest to maximize wealth.

1.3 Board composition and corporate performance

Participants: *Øyvind Bøhren* and *Øystein Strøm.*

How should shareholders and regulators design the board of directors to enhance profitable innovation and growth? According to theory and existing evidence, the three fundamental concerns are to align the interests of principals and agents, provide information for monitoring and support, and to foster decisiveness, i.e., decision-making effectiveness. This project addresses this question empirically by analyzing how the profitability of Norwegian listed firms relates to a wide set of board design mechanisms, such as director equity ownership, board independence, director network, age and gender diversity, board size, and the use of employee directors.

Earlier research has focused on just one or a few of these mechanisms, such as insider ownership, board independence, director networks, and board size. However, boards have multiple functions, such as hiring and firing the CEO, monitoring the investment and financing projects, and setting the corporate strategy. This multidimensional task may not be successfully solved with just one board mechanism, such as insider ownership alone or the director network alone. Also, since board mechanisms may be internally related, the effect of any one of them cannot be validly analyzed without simultaneously accounting for the others. We also introduce new and more comprehensive empirical proxies for board independence and director network.

We find that outside and inside ownership concentration is low, and that insider ownership by the CEO and by the directors are complements rather than substitutes. The CEO is a director in the firm he runs in less than one third of the cases, and those who are sit on other listed firms' boards more often than other CEOs. The average board has six members, female directors are rare, average director age per board varies by almost fifty years, and there is often large age heterogeneity. Less than half the firms have employee directors.

Corporate performance is significantly higher when insider ownership is high, directors are dependent of the CEO, the CEO is a director on his firm's board but not elsewhere, when outside CEOs are absent, non-CEO directors have outside directorships, boards are small, gender diversity is low and age diversity high, and when the firm has no employee directors. These results are robust to alternatively specifications of our panel data model, and also quite insensitive to potential endogeneity of the board design mechanisms.

In terms of policy implications, however, several results run counter to current regulation and conventional wisdom. First, well-functioning boards are dependent rather than independent of its CEO. Second, overlapping directorships produce information networks whose value more than offsets the potential cost of having busy directors. Third, increased diversity in terms of more gender heterogeneity, larger board size, and the use of employee directors is associated with weaker rather than stronger performance.

1.4 Ownership breadth and value creation

Participants: *Richard Priestley* and *Bernt Arne Ødegaard.*

There has been considerable interest in the notion that when there are short selling constraints on investors negative information about a stock will be unable to be reflected in the market price, simply because investors cannot short the stock. Therefore, prices will only contain information from the optimistic investors and will become biased upwards. As the so-called breadth of the stock (the number of shareholders holding the stock relative to the total number of shareholders) falls more investors have negative information and hence in the future stock prices must fall to reflect this. If short selling was allowed this information could be immediately imparted into prices.

This hypothesis has been the subject of a limited number of empirical studies using US data. This subproject revisits US results which shows that the breadth of ownership, measured as the number of mutual fund owners of a firm, predicts next period's return and is important for the crossection of asset returns. The American results are justified as implications of short sales constraints. Our Norwegian setting allows us to reexamine this result using a better suited data set, which covers monthly observations of the complete ownership structure over fourteen years from 1989 to 2003. Our data set also allows us to investigate alternative breadth measures, not just the mutual fund holdings used in the US study. Our results show that the American results are really about mutual funds trading. Quarterly mutual funds trades predict next quarter's returns. However, broader breadth measures, such as the change in equity holdings by individual (personal) owners do not predict next quarters results. We show evidence that the channel through which the effects happen is by the mutual funds selling to (new) individual investors, and not by an increase in ownership concentration. This quarterly effect is not observed on a monthly horizon. We hypothesize that this may be due to short term effects from the mutual fund's actual trading, since we observe a strong contemporaneous link between asset returns and mutual fund trading.

The results of this project points to the importance of information and institutional impediments on trading on the efficiency of trading. The observed return differences are reflected in the cost of capital for firms that raise equity at the Oslo Stock Exchange, making the hurdle rate for financing new innovative projects higher than necessary.

1.5 Corporate governance, investment, and growth

Participants: *Øyvind Bøhren*, *Ilan Cooper* and *Richard Priestley.*

The only determinant of the firm's optimal investment decision in frictionless markets is its growth opportunities as measured by Tobin's marginal q. However, empirical research has repeatedly refuted this first best solution predicted by the q theory. This evidence suggests observed investment behavior may be explained by market imperfections such as information asymmetry and agency conflicts. Still, the existing literature mostly ignores agency problems by assuming no conflicts of interest between managers and current owners. Instead, it focuses on how asymmetric information between the firm and new financiers produces financial constraints that influence the investment decision. Thus, in a more comprehensive and realistic framework, management can be thought of as making real investment decisions that deviate more from the first best solution of the q theory the higher the information costs and the more serious the agency conflict. Existing empirical research has not yet addressed real investments in such a perspective.

This subproject makes four contributions to the literature. First, we address the agency problem by asking the novel question of how corporate governance influences the firm's real investment decisions. We do this by examining the relationship between the quality of the firm's real investments and the quality of its corporate governance mechanisms. In particular, while allowing for the role of financial constraints from the classic approach, we analyze how corporate governance quality influences the responsiveness of the investment decision to the firm's growth opportunities. This is a new approach in the real investment literature.

Our second contribution is to show in what way investment quality improves with better governance quality. Several possibilities exist, which all relate to whether management invests too much (over-invest), too little (under-invest) or generally misinvest (either overinvest or underinvest) relative to the first best solution from the q theory. Third, we reinterpret the findings in the existing real investment literature, which studies how asymmetric information creates financial constraints by establishing a wedge between the cost of internal and external funds. One possible reason why the empirical evidence on this issue is inconclusive and debated is that its empirical proxy for growth opportunities (the market to book ratio) is misleading when market prices deviate substantially from fundamentals. We introduce a new measure of growth opportunities that avoids this problem. Moreover, the financial constraint approach ignores the role of corporate governance as a determinant of investment behavior. We add the agency perspective to the financial constraint approach by examining whether the sensitivity of investments to financial constraints depends on the quality of the firm's corporate governance mechanisms. This approach will also clarify whether the effect of governance on investment is an independent contribution or just driven by the ability of good governance to reduce the under-investment effect of financial constraints.

Finally, a growing body of corporate governance research shows that a firm's governance mechanisms are systematically related to the firm's economic performance. However, the channel through which governance affects performance remains under-explored, as the governance literature does not tell clearly why well-governed firms produce superior returns. Since real investments determine the firm's ability to produce output, investment is a key intermediate variable between governance and performance. Also, although earlier research has found governance quality and performance to be positively associated, this does not imply that better governance improves the allocation of resources. This will only be true if better governance improves investment efficiency. However, managers of well governed firms may not be better than others at allocating real assets, but only at creating barriers to entry for potential competitors or at negotiating with labor unions. Thus, to understand whether governance drives the firm's market value by way of efficiency rather than rent extraction, the key is not the link between governance and market value. Rather, the critical question is whether the governance mechanisms relate systematically to the way management allocates the firm's resources. This subproject tries to shed light on that question by linking governance quality to investment efficiency.

Analyzing a broad sample of US manufacturing firms from 1990 to 2003, our overall finding is that the higher the firm's corporate governance quality as measured by the Gompers et al[4] index, the more the firm behaves in line with the q theory. Three empirical regularities in our sample support this conclusion that better governance increases the efficiency

[4]P. Gompers, J. Ishii, and A. Metrick. Corporate governance and equity prices. *Quarterly Journal of Economics*, 118(1), pp. 107-155, 2003.

of real investments. First, investment decisions by well governed firms are substantially more sensitive to growth opportunities and less sensitive to financial constraints than investments by badly governed firms. This finding shows that traditional real investment equations can be improved upon by recognizing the role of agency conflicts when firms allocate real resources.

Second, improved governance primarily mitigates the under-investment problem. Regardless of their growth opportunities, firms invest more the higher their governance quality. Thus, better governance unconditionally reduces potential under-investment. In contrast, it holds for any governance quality that a firm invests more the better its growth opportunities. Thus, badly governed firms do not over-investment more than others. This pattern of under- and over-investment is consistent with a recent finding by Bertrand and Mullainathan[5] that less monitoring by owners makes managers invest less rather than more in order to enjoy the quiet life. Empire building is not the typical managerial response to lax governance.

Third, we find that when financial constraints are measured by a comprehensive measure developed by Kaplan and Zingales[6] rather than the simpler cash flow proxy dominating the investment literature, there is no relationship between financial constraints and investments. This result suggests the link between governance quality and investment quality is not driven by how governance influences the effect of financial constraints. Rather, governance is an independent determinant of investment behavior. This impression is strengthened by our finding that when we orthogonalize our governance quality measure relative to the Kaplan and Zingales measure, the relationship between governance quality and investment quality remains unaltered.

These results constitute a first piece of evidence on how the well-known positive relationship between governance quality and economic performance is partially explained by how governance quality works through real investments quality as an intermediate variable. In particular, our results show that governance drives the firm's market value by way of efficiency and not just by increased rent extraction. Policywise, this suggests that because better governance increases economic efficiency by improved allocation of resources within a firm, regulatory measures encouraging good governance is a socially useful endeavor.

1.6 Liquid ownership and the cost of capital

Participants: *Randi Næs* and *Bernt Arne Ødegaard.*

This subproject is concerned with the branch of financial economics called market microstructure, which is the study of the process and outcomes of exchanging assets under explicit trading rules. Of concern is how information is incorporated into prices through the operation of the market, and how institutional arrangements impact market efficiency. A key finding in this field is that the liquidity of the securities market impacts the firm's cost of capital. For example, US results show that the annual expected return of Nas-

[5]M Bertrand and S Mullainathan. Enjoying the quiet life: Corporate governance and managerial preferences. *Journal of Political Economy*, 111, pp. 1043-1075, 2003.

[6]S. N. Kaplan and L. Zingales. Do investment-cash flow sensitivities provide useful measures of financing constraints? *Quarterly Journal of Economics*, 112, pp. 169-215, 1997.

daq stocks decreases by 3.5 percentage points when liquidity increases by one standard deviation. Other evidence from the U.S. shows that ownership characteristics such as the fraction of insider ownership, institutional holdings, and ownership concentration are strongly related to ownership liquidity. The policy implication of such results is that decisions which enhance the liquidity of ownership rights increase the probability that value–increasing innovation will take place, since the cost of capital for such projects will fall.

The purpose of this subproject is to explore these relationships in the Norwegian equity market. We use microstructure data on trading interest and trading activity to describe and characterize the liquidity of the trading of ownership rights at the Oslo Stock Exchange. The main focus is the link between ownership structure and stock market liquidity, using several alternative empirical proxies of liquidity.

Our sample contains detailed transactions data from a limit order driven stock market. Moreover, we have a full specification of company ownership into five distinct owner types as well as outside ownership concentration and insider holdings. In line with theoretical predictions, we find ownership concentration to matter for liquidity, both measured by the spread and the adverse selection component of the spread measured by Kyle's lambda. A somewhat weaker relation is found between spreads and insider holdings. No strong relationship can be documented between liquidity and institutional ownership. Ownership variables which affect spreads do not in general jointly affect depth in the predicted way, suggesting that spread and depth measure different dimensions of liquidity. Finally, a one-way Granger causality relation from ownership structure to liquidity is hard to document.

The microstructure data from the Oslo Stock Exchange, together with the data generated by this subproject, has been a impetus for the creation of an internationally recognized group of researchers in the area of market microstructure at BI Norwegian School of Management and Norges Bank. Randi Næs (Norges Bank), Johannes Skjeltorp (Norges Bank) and Bernt Arne Ødegaard, (BI and Norges Bank) have all published papers using microstructure data from equity markets. Geir Bjønnes (BI) and Dagfinn Rime (Norges Bank) have published papers using microstructure data in currency markets. A number of the current PhD students at BI have also oriented themselves toward this research area.

In order to build international recognition for the group, and also to mark the end of this subproject, we sponsored an international conference organized jointly with Norges Bank. The conference, entitled *The Microstructure of Equity and Currency Markets* was held on 9-10 September of 2005.[7] The international reputation of the group was recently confirmed by the fact that the organizing committee of the Oslo conference has been asked by the Central Bank of Canada to participate in organizing a conference by the same title and a similar structure. The intention is to make this conference into an annual event.

[7] Details of the conference, including the speech by Svein Gjedrem, the Central Bank Governor, can be found at `http://www.norges-bank.no/english/conferences/2005-09-09`.

2 Publications

2.1 Working papers

1. *The duration of equity ownership*, by Øyvind Bøhren, Richard Priestley and Bernt Arne Ødegaard. Working paper, BI Norwegian School of Management, April 2006

2. *Corporate governance and real investment decisions*, by Øyvind Bøhren, Richard Priestley and Ilan Cooper. Working paper, BI Norwegian School of Management, March, 2006

3. *Aligned, informed, and decisive: Characteristics of value-creating boards*, by Øyvind Bøhren and Øystein Strøm. Working paper, BI Norwegian School of Management, February, 2006

4. *Another look at breadth of ownership*, by Richard Priestley and Bernt Arne Ødegaard. Working paper, BI Norwegian School of Management, December 2005

5. *Ownership structure and stock market liquidity*, by Randi Næs, Norges Bank Research Department. Norges Bank Working paper 2004/6. Also published as part of her doctoral dissertation *Essays on the microstructure of stock markets: Empirical evidence from trading arrangements without dealer intermediation*, which was defended at the Norwegian School of Economics and Business Administration (NHH) in August 2004

6. *Price differences between equity classes. Corporate control, foreign ownership or liquidity?*, by Bernt Arne Ødegaard. Working paper, BI Norwegian School of Management, 2003

2.2 Published papers

1. *Governance and performance revisited*, by Øyvind Bøhren and Bernt Arne Ødegaard. In P. U. Ali and G. Gregouriu, (eds), International Corporate Governance after Sarbanes-Oxley. Wiley, February 2006

2. *Managing earnings with intercorporate investments*, by Øyvind Bøhren and Jørgen Haug. Forthcoming, Journal of Business Finance and Accounting, 2006

3. *Eierskap og lønnsomhet* (Ownership and value creation), by Øyvind Bøhren. Økonomisk Forum 59 (5), 2005, 4-14

4. *Tvangsinnløsning av minoritetseiere: Rettsøkonomien i norske skjønnssaker gjennom 25 år* (Minority buyouts: Law and economics in Norwegian courts over 25 years), by Øyvind Bøhren and Nils Erik Krosvik. Tidsskrift for Rettsvitenskap 118 (1-2), 2005, 122-152

5. *Eierstyring i store norske selskaper: Oppsigelse av toppleder* (Corporate governance in Norwegian firms: Dismissing the CEO), by Øyvind Bøhren, Samir Sharma og Tonje Vegarud. In PricewaterhouseCoopers (ed), Corporate governance i et norsk perspektiv, Abstract Forlag, 2004

6. *Norsk eierskap: Særtrekk og sære trekk* (Ownership structures in Norway: Characteristics and peculiarities), by Øyvind Bøhren and Bernt Arne Ødegaard. Praktisk økonomi og finans 20, 2003, 3-17

2.3 Research reports

1. *The duration of equity ownership at the Oslo Stock Exchange 1989–1999*, by Øyvind Bøhren, Richard Priestley and Bernt Arne Ødegaard. Research report no. 2/2006, BI Norwegian School of Management, January 2006, 430 pages

2. *The value-creating board: Theory and evidence*, by Øyvind Bøhren and Øystein Strøm. Research report no. 8/2005, BI Norwegian School of Management, October 2005, 76 pages

2.4 Student theses

1. *Firm performance after CEO dismissal*, by Andreas Furuheim, Ole Bache Marthinsen and Trond Stenstrøm. Siviløkonom thesis, BI Norwegian School of Management, September 2005

2. *The Bid-ask spread around earnings announcements*, by Morten Eriksen, Cato Rognli and Aksel Sand. Siviløkonom thesis, BI Norwegian School of Management, September 2005.

3. *CEO dismissal and subsequent chairman replacement*, by Dag Billit, Bjørn Kjetil Wålberg, Ulrika Nystrøm. Siviløkonom thesis, BI Norwegian School of Management, September 2005

4. *Board composition after CEO dismissal*, by Sameah Dar, Kristian Dekke Løberg and Stian Aaserud. Siviløkonom thesis, BI Norwegian School of Management, September 2005

5. *An index of corporate governance quality for Norwegian firms*, by Ole Fredrik Ingier, Christian Kjeksli and Per Erik Sandersen. Siviløkonom thesis, BI Norwegian School of Management, September 2005

6. *Corporate Governance and Financial Performance*, by Kristine Vergli and Ulrik Heger. Siviløkonom thesis, BI Norwegian School of Management, September 2004.

7. *Does insider-ownership affect the performance of Norwegian unlisted firms?*, by Christine Ryste, Eirik Christensen Arnø and Joakim Gjersøe. Siviløkonom thesis, BI Norwegian School of Management, September 2004

8. *Ownership structure and performance in Norwegian unlisted firms*, by Tommy Andresen, Anders Aksnes and Amund Mehli. Siviløkonom thesis, BI Norwegian School of Management, September 2004

9. *Debt characteristics of listed vs. non-listed Norwegian firms*, by Espen Austad, Are Berentsen and Laila C. Walle. Siviløkonom thesis, BI Norwegian School of Management, September 2004
10. *Busy directors*, by Erik C. Askvig, Jan-Øyvind Lorgen and Jan K. Skaug. Siviløkonom thesis, BI Norwegian School of Management, May 2004
11. *Closing prices at Oslo Stock Exchange*, by Martin Heiberg. Masters thesis, BI Norwegian School of Management, September 2003.
12. *Capital structure of private and public firms*, by Samran Haider. Masters thesis, BI Norwegian School of Management, September 2003.
13. *CEO dismissal, firm performance, ownership structure and entrenchment*, by Yassir Butt, Samir Sharma and Tonje Vegarud, Siviløkonom thesis, BI Norwegian School of Management, September 2003

3 Dissemination

The most important channel for disseminating our work has been a project homepage on the internet, where publications and results have been regularly updated. The homepage has the address

`http://finance.bi.no/~governance`

3.1 Dissemination to the academic community

3.1.1 Paper presentations

1. *The duration of equity ownership*
   (a) Universidade Nova de Lisboa (February, 2006; Ødegaard)
   (b) The European Finance Association meetings in Moscow, Russia (August, 2005; Ødegaard)
   (c) The Graduate School of Finance, joint between Helsinki School of Economics and the Swedish School of Economics and Business Administration (Hanken), in Helsinki, Finland (January, 2005; Ødegaard)
   (d) The Norwegian Association of Economists' Meetings (January 2005; Bøhren)
   (e) The joint BI/Norges Bank Symposium on Corporate Governance in Banking, Oslo, Norway (May 2004; Bøhren)
   (f) Universitat Autonòma de Barcelona, Spain (April 2004, Bøhren)
   (g) Universidad Carlos III de Madrid, Spain (April 2004, Bøhren)
   (h) Norwegian School of Economics and Business Administration, Bergen, Norway (November 2004, Bøhren)
   (i) Statistics Norway, Oslo, Norway (November 2004, Bøhren)

(j) 5th European Workshop in Corporate Governance and Investments, University of Vienna, Vienna, Austria (December, 2003; Bøhren)

2. *Aligned, informed, and decisive: Characteristics of value-creating boards*

    (a) Institute of Social Research (Institutt for samfunnsforskning) in Oslo, Norway (December 2005; Strøm)

    (b) 6th International Workshop on Corporate Governance and Investment in Mallorca, Spain (March 2005; Strøm)

3. *Another look at breadth of ownership*

    (a) The FIBE conference, Bergen, Norway (January 2006; Ødegaard)

    (b) The 2005 AFFI (French Finance Association) conference in Paris, France (July 2005; Ødegaard)

    (c) Instituto de Impresa Business School, Madrid, Spain (April 2005; Ødegaard)

    (d) The Ministry of Finance (Finansdepartementet), Oslo, Norway. (April 2005; Ødegaard)

    (e) The Norwegian School of Economics and Business Administration, Bergen, Norway (December, 2004; Ødegaard)

4. *Corporate governance, investment, and growth*

    (a) 7th International Workshop on Corporate Governance and Investment in Jønkøping, Sweden (April, 2006; Cooper)

5. *Ownership structure and stock market liquidity*

    (a) Det nasjonale forskermøtet i samfunnsøkonomi, 2005; (Næs).

3.1.2 Conferences hosted

1. The project sponsored an international conference organized jointly with Norges Bank. The conference, entitled *The Microstructure of Equity and Currency Markets* was held on September 9-10, 2005.
   Conference homepage:

   `http://www.norges-bank.no/english/conferences/2005-09-09`

2. Along with Norges Bank, the project cohosted a one-day symposium called *Corporate Governance in Banking* on May 11 2004. There was contribution and participation by national and international researchers, banking practitioners, and banking regulators.
   Conference homepage:

   `http://finance.bi.no/~governance/conferences/GB2004`

3.2 Dissemination to the general public

3.2.1 Regulators

1. "Eierskap og verdiskaping i Norge." Presentation for The Finance Committee of the Norwegian Parliament (Stortingets finanskomite) (February 2006; Bøhren)

2. "Eierskap og lønnsomhet: Økonomens ideer og norsk virkelighet." For the political party SV in the Norwegian Parliament (March 2005; Bøhren)

3. "Minoritetsvernets betydning: Bør eiere beskyttes mot hverandre?" Seminar organized by the Oslo Stock Exchange/Norwegian Lawyers' Association (February, 2004; Bøhren)

4. "Samfunnsøkonomi, eierskap og minoritetsvern." For the Norwegian Supreme Court on the minority freezeout case in Norway Seafoods (May 2003; Bøhren)

3.2.2 The business community

1. "Det gode styret." Den nasjonale styredagen (October 2005; Strøm)

2. "Svak eierstyring og sterk lønnsomhet. Orkla-paradokset under Heyerdahl-regimet." Seminar organized by BI's Department of business history on the publication of their "Brytningstider: Storselskapet Orkla 1654-2004" (January 2005; Bøhren)

3. "Sentrale funn i forskningsprogrammet om corporate governance." Presentation for the editor and business journalists of MandagMorgen (December 2004; Bøhren)

4. "Langsiktig eierskap: Meninger og realiteter." Den nasjonale styredagen (October 2004; Bøhren)

5. "Hvorfor sparkes toppleder: Corporate governance i Norge." Conference organized by PwC (May 2004; Bøhren)

6. "Skapende eiere eller eiere i skapet?" The 10 years anniversary of SND Invest (March 2003; Bøhren)

3.2.3 Articles and interviews in the media

1. "Skarpere diagnose og bedre medisin." Dagens Næringsliv (November 18, 2005; Bøhren, Strøm)

2. "Like barn leker best." Dagens Næringsliv (October 16, 2005; Bøhren, Strøm)

3. "Myter og fakta om norske styrer." Dagens Næringsliv (October 13, 2005; Bøhren, Strøm)

   This article on our findings from the board subproject (see section 1.3) generated considerable activity and controversy in the media. Dagens Næringsliv used three full pages (including the front page) to publish reactions from the business community, focusing on those of our findings which were politically incorrect. Many news media followed up for weeks, commenting primarily on the relationship between female directors and economic performance. We were particularly proud by being the subject of board room jokes in the weekly radio program "Hallo i Uken".

4. "Retten som økonom." Dagens Næringsliv (May 03, 2005; Bøhren, Nils Erik Krosvik)
5. "Nådeløst i toppen." Interview with Dagens Næringsliv (February 24, 2005)
6. "Har noen sett eierne?" Interview with MandagMorgen (February 21, 2005)
7. "Sjabloner om eierskap, Steensnæs?" Dagens Næringsliv (November 08, 2004; Bøhren, Priestley, Ødegaard)
8. "Langsiktige eiere lønner seg ikke." Interview with Økonomisk Rapport (October 28, 2004; Bøhren)
9. "Godt langsiktig eierskap?" Dagens Næringsliv (October 28, 2004; Bøhren, Priestley, Ødegaard)
10. "Oppskrytt eierskap." Dagens Næringsliv (October 14, 2004; Bøhren, Priestley, Ødegaard)
11. "Ut av sjefsstolen." Interview with Økonomisk Rapport (June 17, 2004; Bøhren)
12. "Corporate governance og eierstyring i Orkla." Interview with NRK Økonominytt (May 19, 2004; Bøhren)
13. "Skal aksjeeiernes ønske om fortjeneste styre samfunnsutviklingen?" Discussion in Verdibørsen, NRK P2 (November 20, 2003; Bøhren)
14. "Gode nyheter for Norge." Dagens Næringsliv (June 19, 2003; Bøhren).
15. "Eiere i skapet?" Dagens Næringsliv (February 10, 2003; Bøhren)

Oslo, 3 May 2006

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