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CORPORATE GOVERNANCE, OWNERSHIP STRUCTURE AND FIRM PERFORMANCE: EVIDENCE FROM ISTANBUL STOCK EXCHANGE

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Danışman
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Yüksek Lisans Tezi olarak sunduğum "**Corporate Governance, Ownership Structure and Firm Performance: Evidence From Istanbul Stock Exchange**" adlı çalışmanın, tarafımdan, bilimsel ahlak ve geleneklere aykırı düşecek bir yardıma başvurmaksızın yazıldığını ve yararlandığım eserlerin kaynakçada gösterilenlerden oluştuğunu, bunlara atıf yapılarak yararlanılmış olduğunu belirtir ve bunu onurumla doğrularım.

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Emine Seda Demir

ABSTRACT

Master Thesis

Corporate Governance, Ownership Structure and Firm Performance: Evidence From Istanbul Stock Exchange

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Corporate governance has become an important issue recently. Investors, creditors and other related parties request better corporate governance applications from corporations.

The main purpose of this study is to analyze the relationship between ownership structure and firm performance of Turkish companies. The sample of this study consists of 236 Turkish non-financial firms that listed in the Istanbul Stock Exchange 100 Index, over the period 2005-2008. Return on assets, return on equity and Tobin's Q are dependent variables in this study while the percentage of first five largest shareholders, the percentage of foreign ownership, board size and free float rate are independent variables. Size and age are control variables.

In the first chapter, corporate governance concept is discussed. Turkish corporate governance structure is investigated in the second chapter. Literature about corporate governance and an empirical analysis on Turkish firms about the relationship between ownership structure and firm performance is investigated in the third chapter.

The findings show that board size is statistically significant and has positive relationship with ROA and ROE. Also board size is statistically significant and has negative relationship with Tobin's Q when the effect of

previous year Tobin's Q is included in the regression. Firm size is statistically significant and has positive relationship with ROE. Foreign ownership is statistically significant and has negative relationship with Tobin's Q when the effect of previous year Tobin's Q is included in the regression. Also the effect of previous year ROA, ROE and Tobin's Q are measured on dependent variables and significant positive relationship is founded in the study.

ÖZET

Tezli Yüksek Lisans Tezi

Kurumsal Yönetim, Sahiplik Yapısı ve Firma Performansı:
IMKB Örneği

Emine Seda Demir

Dokuz Eylül Üniversitesi
Sosyal Bilimler Enstitüsü
İngilizce İşletme Anabilim Dalı
İngilizce Finansman Programı

Günümüzde kurumsal yönetim çok önemli bir konu haline gelmiştir. Yatırımcılar, borç verenler ve diğer ilişkili taraflar firmalardan daha kaliteli kurumsal yönetim uygulamaları talep etmektedir.

Bu çalışmanın amacı, Türkiye'deki İMKB 100 endekside yer alan şirketlerin sahiplik yapısı ve firma performansı arasındaki ilişkiyi analiz etmektir. Örneklem finansal olmayan IMKB 100 endeksine dahil 2005-2008 yılları arasında işlem gören 236 şirketten oluşmaktadır. Toplam varlık getirisi, özsermaye getirisi ve Tobin's Q bağımlı değişkenler iken, en büyük beş hissedarın oranı, yabancı hissedarın oranı, yönetim kurulu üye sayısı, halka açıklık oranı bağımsız değişkenlerdir. Firma büyüklüğü ve firma yaşı da kontrol değişkeni olarak kullanılmıştır.

Birinci bölümde kurumsal yönetim kavramı incelenmiştir. Türkiye'deki kurumsal yönetim yapısı ikinci bölümde ele alınmıştır. Türkiye'de faaliyet gösteren işletmeler için sahiplik yapısı ve firma performansı arasındaki ilişkiyi inceleyen literatür araştırması ve ampirik uygulama üçüncü bölümde yer almaktadır

Araştırma bulgularına göre yönetim kurulu üye sayısı ile toplam varlık getirisi, özsermaye getirisi arasında istatistiksel olarak anlamlı ve pozitif bir ilişki bulunmuştur. Ayrıca Tobin's Q nun önceki yıl değeri regresyona dahil edildiğinde yönetim kurulu üye sayısı ile Tobin's Q arasında istatistiksel olarak anlamlı ve negatif bir ilişki bulunmuştur. Firma büyüklüğü ile özsermaye getirisi arasında istatistiksel olarak anlamlı ve pozitif bir ilişki bulunmuştur. Ayrıca Tobin's Q nun önceki yıl değeri regresyona dahil edildiğinde yabancı hissedarın oranı ile Tobin's Q arasında istatistiksel olarak anlamlı ve negatif bir ilişki bulunmuştur. Bunun yanı sıra toplam varlık getirisi, özsermaye getirisi ve Tobin's Q değişkenlerinin önceki yıl değerleri regresyona dahil edildiğinde bu değişkenlerin bağımlı değişkenler üzerinde istatistiksel olarak anlamlı ve pozitif bir etki yaptığı görülmüştür.

Anahtar Kelimeler: Kurumsal Yönetim, Sahiplik Yapısı, Firma Performansı, Panel Veri Analizi, İMKB

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ABBREVIATIONS

AGE	: The age of company
BOARD SIZE	: The number of board members in board
CEO	: Chief Executive Officer
CMB	: Capital Markets Board
FEM	: Fixed Effect Model
FOREIGN	: Percentage of foreign ownership
FREE FLOAT	: Free float rate
ICC	: International Chamber of Commerce
ISE	: Istanbul Stock Exchange
LROA	: The effect of previous year ROA
LROE	: The effect of previous year ROE
LTOBIN	: The effect of previous year Tobin's Q
OECD	: Organization for Economic Co-operation and Development
P	: Probability value
REM	: Random Effect Model
ROA	: Return on assets
ROE	: Return on equity
SIZE	: Firm size
SOX	: Sarbanes Oxley Act
TKYD	: Corporate Governance Association in Turkey
TOP3	: Percentage of first three largest shareholders
TOP5	: Percentage of first five largest shareholders
TÜSİAD	: Turkish Industrialists' and Businessmen's Association

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INTRODUCTION

Corporate governance has become a crucial topic due to financial crisis and collapse of huge companies such as Enron, Parmalat, Worldcom and Ahold in recent years. Corporate governance consists of a set of relationship between management, board, shareholders and other stakeholders. Corporate governance helps to define the rights and responsibilities of shareholders as well as other stakeholders and helps to create a transparent and fair management. In line with this corporate governance can be simply defined as the system by which companies are directed and controlled.

The International Chamber of Commerce (ICC) defines corporate governance in a wider perspective as *"the relationship between corporate managers, directors and the providers of equity, people and institutions who save and invest their capital to earn a return. It ensures that the board of directors is accountable for the pursuit of corporate objectives and that the corporation itself conforms to the law and regulations."*

Corporate governance is one of the key elements which improves economic efficiency and growth and also increases investor confidence. All countries in the world whether developed or developing are aware of the importance of corporate governance for well functioning markets. Turkey is also facing some developments especially in the last decade focusing on the corporate governance structures.

Capital Markets Board has established the "Corporate Governance Principles of Turkey" in 2003 and revised them in 2005, also Istanbul Stock Exchange has built "Corporate Governance Index" in 2007. These developments can be taken as evidence of increasing awareness towards governance in Turkey. According to Ararat and Yurtoğlu (2008), establishment of index by ISE has increased the foreign ownership in listed firms.

Ownership structure is one of the corporate governance mechanisms and relationship between ownership structure, corporate governance and performance has been researched in the finance literature. Parallel to these explanations the aim of the current study is to demonstrate the relationship between the ownership structure and

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firm performance. The relationship has been measured by using return on assets (ROA), return on equity (ROE), Tobin's Q and ownership structure variables.

Firstly, the aim of this thesis is to give general information about corporate governance, corporate governance in the world and Turkey. Second aim of this study is to examine the relationship between corporate governance and firm performance in Turkey.

CHAPTER I

CORPORATE GOVERNANCE

First chapter of this study is devoted to explain agency relationship and the definition of corporate governance; importance of corporate governance; main purposes and benefits of corporate governance; corporate governance principles and finally the development of corporate governance in the world.

1.1. Agency Relationship and the Definition of Corporate Governance

Companies are classified either as "partnership companies" or "equity companies" in terms of determining rights and specially obligations (Doğan, 2007:5). The founders of partnership companies are equity owners, managers and agents of companies (Doğan, 2007:1). The typical characteristic of partnership companies, which have unlimited liability, causes to develop equity companies. The typical example of equity companies is corporations, which provide facility of benefit from professional managers at business activities (Doğan, 2007:5). The main bodies of corporations prescribed by Turkish Trade Law are general assembly, board of directors and auditors. General assembly consists of shareholders. The members of boards of directors can be elected by general assembly or can be appointed according to provisions of main company contract. Auditors are also elected by the decisions of general assembly. The main task of auditors is to analyze financial reports of firms and also to control the suitability of corporate activities according to corporate main contract and decisions of general assembly (Doğan, 2007:6-7).

Fama and Jensen (1983:302) define an organization as *"the nexus of contracts, written and unwritten, among owners of factors of production and customers. These contracts or internal "rules of the game" specify the rights of each agent in the organization, performance criteria on which agents are evaluated, and the payoff functions they face."*

The separation of capital and management leads to arise agency relationship. Managers run company on behalf of shareholders. Jensen and Meckling (1976:306) define agency relationship as *"a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent."* If both parties want to maximize their benefits, it can be said that the agent will not always behave in the best interests of the principal. The principal can restrict divergences from his interest by establishing suitable incentives for the agent and by bearing monitoring costs for limiting the aberrant activities of the agent.

In some cases, it will dedicate the agent to spend resources (bonding costs) to guarantee that he will not take certain actions which would harm the principal or to guarantee that the principal will be compensated if he takes such actions. However, principal can be not sure that the agent will make optimal decision from the viewpoint of principal. In addition to this, decisions of principals can be different from agent's decisions. This difference reflects to principal as agency cost.

Jensen and Meckling (1976) define agency cost as *"the sum of the monitoring expenditures by the principal, the bonding expenditures by the agent and the residual loss"* (Jensen, Meckling, 1976:306-307). Agency cost also consists of asymmetric information (Doğan, 2007:8). The main reason of arising corporate governance is separation of ownership and control (Doğan, 2007:1). Agency problem basically occurs because of the conflict of interest between shareholders (ownership) and managers (management). For example, whereas shareholders interest with cash flows in long run, managers can interest cash flow during their business life. This situation is seen at managers who have short time remaining to retirement (Doğan, 2007:9). Another conflict of interest between shareholders and managers is having different views about risk perception. Managers can be willing to make investment to project which has low return but safety. On the other hand, risky projects which have high return can be attractive for shareholders (Doğan, 2007:9).

In finance literature, the concept of "corporate governance" emerged in the beginning of the 1990s. Corporate governance in Turkey comes into prominence after the 2001 crisis (Aysan, 2007:20; Doğan, 2007:91).

Corporate governance is defined in many different ways in finance literature. Main reason behind that is the fact that corporations must obey the specific laws and regulations of the countries in which they operate. Corporate governance regulations are also affected from quotation conditions, different commercial norms, different cultural values and socio economic traditions. Current regulations of capital markets in countries, corporate law, accounting and auditing standards, bankruptcy law, and legal sanction determine corporate governance implementations. Corporate governance is shaped by country specific conditions, development level of capital market and corporate applications (Demirbaş, Uyar, 2006:38; CMB, 2005:2; Doğan, 2007:83). According to these reasons, corporate governance regulations are different but the main principles of corporate governance, which are "transparency, accountability, fairness and responsibility", are accepted as main components of corporate governance. Therefore, it can be said that there is not a common and unique definition of corporate governance in the finance literature.

OECD (2004:11) defines corporate governance as:

"Corporate governance is one key element in improving economic efficiency and growth as well as enhancing investor confidence. Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring."

Shleifer and Vishny (1997:737), define corporate governance as *"the ways in which suppliers of finance to corporations assure themselves of getting return on their investment"*.

Dennis and McConell (2003:1) define corporate governance as *"the set of mechanisms- both institutional and market-based-that induce the self- interested controllers of a company (those that make decisions regarding how the company will be operated) to make decisions that maximize the value of the company to its owners (the suppliers of capital)."*

Cadbury (2000:11) defines corporate governance as *"corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The corporate governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society."*

Macey and O'Hara, (2003:92) names corporate governance as American corporate governance and define as *"an implicit term of the contract between shareholders and the firm is that the duty of managers and directors is to maximize firm value for shareholders. The legal manifestations of these contracts are the fiduciary duties of care and loyalty that officers and directors owe to shareholders."*

According to practice guide published by Australian National Audit Office, corporate governance generally refers to the processes by which organizations are directed, controlled and held to account. It includes authority, accountability, stewardship, leadership, direction and control exercised in the organization. According to the definition of Australian National Audit Office Better Practice Guide, the process of corporate governance provides firms maintaining their activity more efficiently and having resources easier. As a result of this, the value of shares of the firm will increase in long-run and the benefit of shareholders and managers can be maximized (Australian National Audit Office Better Practice Guide, 1999).

Corporate governance provides transparent and honest management for companies. Briefly, corporate governance can be summarized as a set of rules which regulate the relations between shareholders, managers, boards and other stakeholders. Stakeholders are person, group, or organization that have direct or indirect relation in an organization because they can affect or be affected by the

organization's actions, objectives, and policies. Stakeholders in a business organization include company's main owners, shareholders, managers, board of directors, institutional investors, foreign partners, employees, creditors, customers, directors, government and its agencies, competitors, suppliers, unions. Stakeholders can be divided in two sub-groups: these are internal and external stakeholders. For example, employees are internal stakeholders and customers are external stakeholders (Aktan, 2006:2).

1.2. Importance, Purposes and Benefits of Corporate Governance

1.2.1. Importance of Corporate Governance

The emergence of corporate governance mainly stems from the financial crisis and corporate scandals in 1990s. It can be said that corporate governance has become more popular after financial crisis and scandals. The company scandals increase the need of corporate governance. Enron and Worldcom in the USA, Parmalat in Italy, Ahold in Netherlands and Yanguangxia in China are famous corporate failures and scandals. These scandals extremely increase the need of auditing and company management (Aktan, 2006:8).

Today financial markets are integrated. Global financial crisis affect many countries and companies. The dispersion of shares or increase of creditors emerges the need of auditing and forces to apply corporate governance principles. Consequently, corporate governance strengthens the companies against the crisis (Şehirli, 1999:11-12; Aktan, 2006:8).

With the impact of globalization and increasing capital flows, investors have begun to seek more confidence and stability. At the present day, investors invest to companies in their own country as well as to companies in the other countries. They are also interested in other investment tools in foreign countries. Therefore, companies pay more attention corporate governance in order to attract capital (Şehirli, 1999:12; Aktan, 2006:8-9).

Beginning from 1980s, privatizations have become more common in the world and which further increased the importance of corporate governance concept. As well as privatizations, IPOs, mergers and acquisitions have increased the importance of corporate governance (Aktan, 2006:9).

Successful corporate governance approaches affect the corporate governance performance of companies. Corporate governance is not only a control mechanism but also a system providing transparency and accountability to companies (Shelton, 1998:2-3; Doğan 2007:45). Successful corporate governance approaches increase the performance of the manager, facilitate auditing and encourage using company resources effectively. Thus, the company's cost of capital decreases, the confidence to the company increases and investors make their investment to the company where investor protection has high levels.

1.2.2 Main Purposes and Benefits of Corporate Governance

According to the Rocca (2007:316), the aim of the corporate governance is described like this:

"The aim of corporate governance is to insure that opportunistic behavior does not occur, by mitigating and moderating agency problems that could involve an agent (manager) and various principals (shareholders, debt holders, employees, suppliers, clients etc.) or else a principal (the main entrepreneur) and various agents (managers, employees, investors etc.). Moreover, it facilitates the creation of special skill required in strategic decisions (incentive to firm-specific investment) and limit problems of asymmetric information."

The main purposes of corporate governance are listed as follows:

- Prevent utilizing arbitrarily power and authority owned by the top management.
- Protect the rights of investors
- Provide acting equally and fairly to the shareholders

- Protect and guarantee the rights of stakeholders which are related directly with the company. For example, protecting the rights of minority shareholders

- Provide transparency and give information related to financial position and corporate action on time and accurately.

- Determine the responsibility of board of directors clearly

- Ensure accountability to shareholders and other stakeholders from the top management actions and decisions

- Decrease agency costs

- Provide feedback from company earnings to shareholders and other all stakeholders in the ratio of their rights.

- Prevent expropriating minority shares from large shareholders.

- Provide confidence to institutional investors which make long-term investment; decrease cost of capital; increase the opportunities of reaching to financial resources by issuing shares. (Aktan, 2006:7-8)

- Attempt to get under control with rules the benefit (interest) conflict between equity owners who takes risk and manager who makes decision (Aktan:7-8)

- Profitability: Realizing shareholders gain at the highest level by managing firms effectively (Demirbaş, Uyar, 2006:21)

- Regain the largely lost confidence of public related to enterprises and accounting profession (Aysan, 2007:74)

Briefly, the main purpose of corporate governance is to protect the rights of all stakeholders which are directly or indirectly in relation with the company (Aktan, 2006:8).

The benefits of corporate governance can be summarized as follows:

- Low capital cost.
- Increase in financial capabilities and liquidity.
- Ability to overcome crises with less damage.

- Not being sidelined of well-managed companies from capital markets (CMB, 2005:2).
- Increase the level of shareholders protection (CMB, 2003:2; Gönençer, 2008:13).
- Have better reputation of company and country (CMB, 2005:2).
- Reduction of risks such as fraud and corruption (CMB 2003:2; Gönençer, 2008:13).
- Prevention of outflow of domestic funds (CMB, 2005:2).
- Increase in foreign capital investments (CMB, 2005:2).
- Increase the competitive power of the economy and capital markets (CMB, 2005:2).
- Efficient allocation of resources (CMB, 2005:2).
- Provide higher level of prosperity and sustainable development (CMB, 2005 p:2).
- Better operational performance (Classens, 2003:21).
- Better relations with other stakeholders including banks, labor, government (besides the principal owner and management) (Classens, 2003:21).
- Reduce corruption in business dealing (Gregory, Simms, 1999:5).

1.3. Main Principles of Corporate Governance

The main principles of corporate governance are transparency, accountability, fairness and responsibility. These four main principles of corporate governance are considered as crucial part of corporate governance principles in the world (TÜSİAD, 2002:9; CMB, 2005:2).

In 1998, Ira M. Millstein, who was the chair of OECD Business Sector Advisory Group on Corporate Governance, emphasized on "what is necessary by way of governance to attract capital." Four main principles are mentioned at the Millstein Report for attracting capital (Gregory, Simms, 1999:7).

In 1999, OECD published OECD Principles of Corporate Governance. OECD Principles of Corporate Governance in 1999 consists of five principles which are based on four main principles at the Millstein Report. The purpose of OECD principles is designed to assist corporate governance regulations in all over the world (Demirbaş, Uyar, 2006:49).

The explanations about main principles of corporate governance are made in the coming sub-headings.

1.3.1. Transparency

Transparency is defined as *"requiring timely disclosure of adequate, clear, correct and comparable information concerning corporate financial performance, corporate governance and corporate ownership"* (Gregory, Simms, 1999:7; Demirbaş, Uyar, 2006:22) The aim of transparency is to increase and to accelerate the information flow to stakeholders (Demirbaş, Uyar, 2006:23; Doğan, 2007:52; CMB, 2005:3).

This principle refers to fourth principle of OECD in 1999: "*The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company*" (Gregory, Simms, 1999:8).

1.3.2. Accountability

Accountability is defined as *"clarifying governance roles and responsibilities, and supporting voluntary efforts to ensure the alignment of managerial and shareholder interests, as monitored by boards of directors."* (Gregory, Simms, 1999:7).

CMB defines accountability as "obligation of the board of directors to give account to the company and to the shareholders" (CMB, 2005:3).

This principle refers to fifth principle of OECD in 1999: *"The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders"* (Gregory, Simms, 1999:8)

1.3.3. Fairness

Fairness is described as insuring the protection of shareholder rights (including the rights of minority and foreign shareholders) and insuring the applicability of contracts with resource providers (Gregory, Simms, 1999:7; Demirbaş, Uyar, 2006:24).

Fairness is acting equally to all shareholders and stakeholders and preventing possible conflict of interest at all activities of company management (CMB, 2005:3).

In OECD Principles, fairness is explained in two principles separately. These can be seen at first principle: *"The corporate governance framework should protect and facilitate the exercise of shareholders' rights"* and at second principle also relates to fairness: *"The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights"* (Gregory, Simms, 1999:8).

1.3.4. Responsibility

Responsibility is described as insuring corporate compliance with the other laws and regulations which reflect the respective society's values. (Gregory, Simms, 1999:7).

The principle of responsibility insures the compatibility of company to regulations which reflects social values and rules. The basic responsibilities of management are to determine correct targets about corporation and realize them (Demirbaş, Uyar, 2006:24).

This principle refers to third principle of OECD Principle: *"The corporate governance framework should recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises"* (Gregory, Simms, 1999:10).

1.4. The Development of Corporate Governance in the World

1.4.1. Cadbury Committee Report

Report of the Committee on the Financial Aspects of Corporate Governance, which is also known as Cadbury report, is the first wide-ranging regulation in the field of corporate governance. This report, that was prepared by a committee whose chair was Sir Adrian Cadbury, was issued at December 1992. The report mentions about reviewing the structure of board and responsibilities of boards of directors. It also consists of committee recommendations in a Code of Best Practice. The committee considers the role of auditors and makes recommendations about accounting profession. The rights and responsibilities of shareholders are also mentioned in this report (Cadbury Report, 1992:2.9).

1.4.2. Greenbury Committee Report

The committee, which was gathered by the name "The Study Group on Director's Remuneration" in 1995 and whose chair was Sir Richard Greenbury, was established for making arrangements about salaries paid and other benefits provided. The study of committee was issued under the title "Director's Remuneration" on 17 July 1995 (Doğan, 2007:60).

1.4.3. Hampel Report

Committee on Corporate Governance-Final Report, which is known as Hampel Report, was issued on January 1998. Cadbury Report and Greenbury report were accepted as basic documents at Hampel report. Hampel report occurred as a result of the combination and updating of Cadbury and Greenbury Report (Doğan, 2007:67).

1.4.4. OECD Principles of Corporate Governance

OECD published "OECD Principles of Corporate Governance" in 1999. The purpose of these principles is to assist corporate governance regulations in all over the world (Demirbaş, Uyar, 2006:49). OECD principles are prepared by taking into consideration the needs of public joint-stock companies fundamentally. But these principles can also be applied by non-listed companies, family-owned companies and state enterprises (Aysan, 2007:130-131).

OECD Steering Group on Corporate Governance revised corporate governance principle in 2002. Changing conditions and the continuous development of corporate governance concept requires renewal of corporate governance principles. Thus, OECD reissued corporate governance principles in 2004. The principles increased to six by adding "Ensuring the Basis for an Effective Corporate Governance Framework".

OECD Principles of Corporate Governance (2004) are explained under these titles:

- Ensuring the basis for an effective corporate governance framework
- The rights of shareholders and key ownership functions
- The equitable treatment of shareholders
- The role of stakeholders in corporate governance
- Disclosure and transparency
- The responsibilities of the board

1.4.4.1. Ensuring the Basis for an Effective Corporate Governance Framework

The principle is explained as *"The corporate governance framework should promote transparent and efficient markets, be consistent with the rule of law and clearly articulate the division of responsibilities among different supervisory, regulatory and enforcement authorities."*

For ensuring the basis for an effective corporate governance framework, country specific conditions should be considered. While creating rules and laws, it should exchange views with companies. Corporate governance principles should not conflict with existing standards and rules. It should define explicitly the distribution of responsibilities between different authoritative parties. Market functioning should be analyzed and considered by regulatory agencies. When commercial conditions change, the frame of corporate governance should be change in accordance with market. If changes need to be made, these changes should be made for having effective corporate governance practices (Demirbaş, Uyar, 2006:51).

1.4.4.2. The Rights of Shareholders and Key Ownership Functions

Shareholders rights have been regulated in the second principle as *"The corporate governance framework should protect and facilitate the exercise of shareholders' rights."* The major aim of corporate governance system is to protect rights of shareholders.

Second principle contains basic shareholder rights like secure methods of ownership registration; convey or transfer shares; obtain relevant and material information about the corporation on a timely and regular basis; participation and voting rights in general shareholder meetings; selection and removal of board members and having dividends. Shareholders should have the rights to take part in, and be sufficiently informed on, decisions about fundamental corporate changes like: amendments to the statutes, or articles of incorporation or similar governing documents of the company; the authorization of additional shares; and extraordinary transactions.

Shareholders should have the right to participate effectively and vote in general meetings. Shareholder should be informed about the rules which regulate general shareholder meetings. Shareholders should be informed about the date and the time of the general shareholders meetings on time. On the other hand, shareholders should have the opportunity to ask questions to the board, including questions related with the annual external audit and to propose resolutions. Shareholders have the right of electing board members.

Capital structures and arrangements which provide certain shareholders to obtain a disproportional control against their equity ownership should be disclosed. Markets should function in an efficient and transparent manner for providing sound corporate control. The rules and procedures governing the acquisition of corporate control in the capital markets, and extraordinary transactions like mergers, and sales of substantial portions of corporate assets, should be clearly defined and disclosed. Thus, investors can understand their rights and how the corporation is run.

1.4.4.3. The Equitable Treatment of Shareholders

Equitable treatment of shareholders has been regulated in the third principle as *"The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights"* Investors should be protected against misuse and misappropriation of corporate managers, board members or controlling shareholders.

The third principle mentions that *"all shareholders of the same series of a class should be treated equally"*. It means that all shares which are at the same class should have the same rights. Investors should be able to obtain information about the rights related to shares that they tend to purchase. Also, the protection of the minority shareholders is an important issue in the third principle. The abuse actions of the controlling shareholders should be forbidden. Insider trading and irregular self-dealings should be strictly forbidden.

1.4.4.4. The Role of Stakeholders in Corporate Governance

The role of stakeholders is mentioned in the fourth principle as *"The corporate governance framework should recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises."*

The interest of stakeholders is very important for the contribution to the long-term success of the corporation. If the rights of stakeholders are violated by someone, stakeholders should have the opportunity to obtain effective redress for violation of their rights when their interests are protected by law. Stakeholders should get timely and sufficient information in case of participating in corporate governance process.

1.4.4.5. Disclosure and Transparency

Disclosure and transparency has been regulated in the fifth principle as *"The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company."*

The elements of disclosure can be listed as:

- The financial and operating results of the company
- Objectives of company
- Voting rights and major share ownership
- Informations about board members
- Predictable risk factors
- Topics related with employees and other stakeholders
- Corporate governance structure and policies

Financial information should be prepared and disclosed according to necessary accounting standards. Also an annual audit should be applied by an independent, competent and qualified external auditor. External auditors should be responsible against the shareholders and the company.

1.4.4.6. The Responsibilities of the Board

The Responsibilities of the Board has been regulated in the sixth principle as *"the corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders. Board members should act on a*

fully informed basis, in good faith, with due diligence and care, and in the best interest of the company and the shareholders" (OECD, 2004:24). Consequently, board members are managers of the company who make important decisions that affect shareholders, stakeholders and other related parties. Thus, the board should act in a way that treats to all shareholders fairly, and should consider the interests of all stakeholders.

The main functions of board can be listed as:

- *Reviewing and guiding corporate strategy, major plans of action, risk policy, annual budgets and business plans; setting performance objectives; monitoring implementation and corporate performance; and overseeing major capital expenditures, acquisitions and divestitures.*

- *Monitoring the effectiveness of the company's governance practices and making changes as needed.*

- *Selecting, compensating, monitoring and, when necessary, replacing key executives and overseeing succession planning.*

- *Aligning key executive and board remuneration with the longer term interests of the company and its shareholders.*

- *Ensuring a formal and transparent board nomination and election process.*

- *Monitoring and managing potential conflicts of interest of management, board members and shareholders, including misuse of corporate assets and abuse in related party transactions.*

- *Ensuring the integrity of the corporation's accounting and financial reporting systems, including the independent audit, and that appropriate systems of control are in place, in particular, systems for risk management, financial and operational control, and compliance with the law and relevant standards.*

- *Overseeing the process of disclosure and communications* (OECD, 2004:24-25).

1.4.5. Sarbanes-Oxley (SOX) Act

SOX were issued at 2002 in the U.S.A after the Enron scandal. This act consists of many provisions which aim to monitor auditing of publicly-held companies, to strengthen the independence of auditors, to increase the disclosure responsibilities of top executives and to increase the quality and transparency in the financial reporting process (Doğan, 2007:77-78).

1.5. Corporate Governance Systems in the World

Corporate governance models can be classified in two models. These are: Anglo-American Model and Continental Europe Model. Anglo-American Model, which is also called as "shareholder model", is typically seen in the United States and England. Continental Europe Model, which is also called "stakeholder model", is typically seen in Germany, Japan and Latin America Countries (Doğan, 2007:83; Jacoby, 2001:2).

1.5.1. Anglo-American Corporate Governance System

One of the corporate governance systems is Anglo-American corporate governance system. The earlier introduction of Cadbury Report in England shows that Anglo American system needed corporate governance principles before other countries. (Doğan, 2007:84). The main reason of this requirement was due to dramatic increase in the amount of capital of the Anglo-American companies in comparison with the Continental Europe companies and the existence of developed capital markets in the Anglo-American countries. (Şehirli, 1999:2). Companies in Anglo-American System have very high free float ratio. Number of shareholders is too much and ownership concentration is low (Doğan, 2007:84). Corporate shares are widely held and easily traded (Jacoby, 2001:3). At Anglo-American System, transparency and disclosure are very important for providing information to the shareholders who are unable to make contact directly with the company. The role of banks is to provide funds by lending (Doğan, 2007:84). The purposes of companies in Anglo-American system is to maximize profits and increase shareholders' wealth. (Doğan, 2007:85).

Figure 1: Shareholder Model
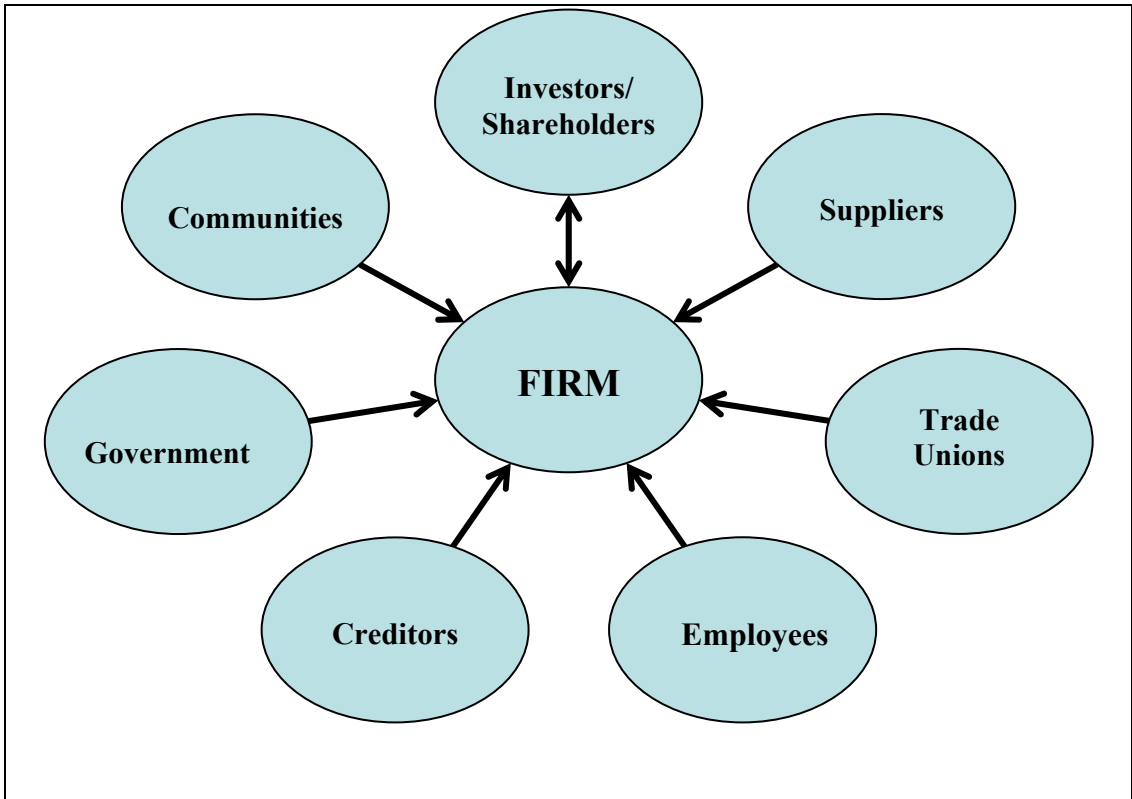
Source: (Gürbüz, Ergincan, Kurumsal Yönetim: Türkiye'deki Durumu ve Geliştirilmesine Yönelik Öneriler, 2004:11;)

Anglo-American corporate governance system gives importance to three basic components. These components are company managers, board of directors and agency problems. Anglo-American Corporate Governance System mostly focuses on company's internal structure and its decision process. This system makes regulations oriented to management. External auditing mechanism is also used predominantly by the system. This is mostly due to extreme power of executives on the company and the poor relationship between shareholders and corporate executives (Doğan, 2007:85).

1.5.2. Continental Europe Corporate Governance System

Another corporate governance system is Continental Europe Corporate Governance System. Free float ratio and number of shareholders at Continental Europe companies are less than Anglo-American companies. Direct relationship between shareholders and company managers is common. The power of shareholders is high, concentrated ownership is prevalent and majority shares are kept by few shareholders (Porta, Lopez-de-Silanes, Shleifer, 1999:501-502). Number of family firms is high. Banks play important role in this system. Companies are generally financed by huge investors and banks (Doğan, 2007:86). This system emphasizes the internal auditing at corporate governance regulations.

Figure 2: Stakeholder Model
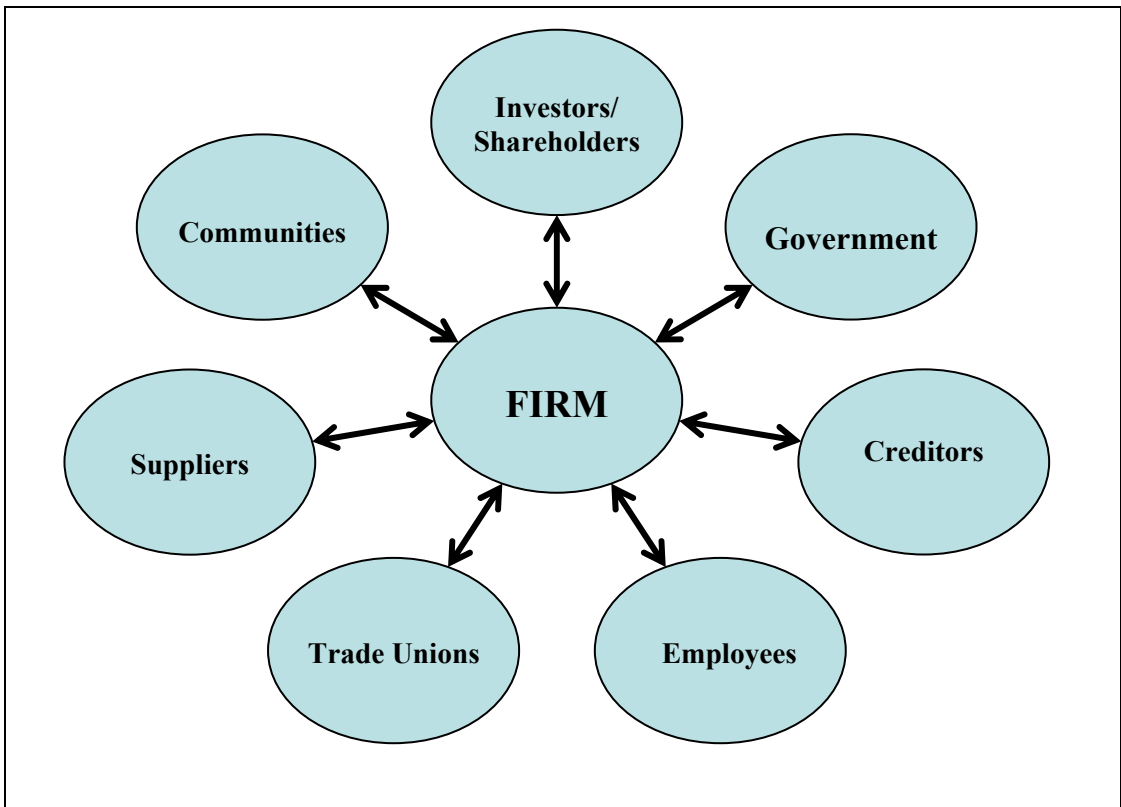
Source: (Gürbüz, Ergincan, Kurumsal Yönetim: Türkiye'deki Durumu ve Geliştirilmesine Yönelik Öneriler, 2004:11)

At Continental Europe corporate governance system, the interest of shareholders is important. In addition to this, this system also gives importance to the protection of right of shareholders, managers and other stakeholders (internal and external stakeholders) in the company (Doğan, 2007:86). Because of this reason, this system is also called stakeholder model. Thus, it can be said that corporation must be operated by considering not only the interest of shareholders but also the interest of all stakeholders. Due to stakeholders take part in the production or in the finance of company, corporation has social responsibility towards them.

CHAPTER II

CORPORATE GOVERNANCE IN TURKEY

Although corporate governance becomes an important issue for nearly all countries, the development of corporate governance varies from country to country. The intensity of small firms, state owned enterprises and family owned firms cause Turkey to fall behind from developed countries in terms of corporate governance systems and its implications (Aysan, 2007:153). When corporations in Turkey are analyzed, it is obvious that concentrated ownership structure is dominant, family-controlled companies are common and most of the companies traded in Istanbul Stock Exchange are controlled by family groups (Gürsoy, 2006: 79).

Whereas the number of large enterprises in Turkey has increased in recent years. These large enterprises open themselves to global markets and this situation leads companies to give more importance to corporate governance.

2.1. Corporate Governance Principles in Turkey

Capital Markets Board of Turkey is the regulatory and supervisory authority in charge of the securities markets in Turkey which is enacted in 1981. CMB has been making detailed regulations for organizing the markets and developing capital market instruments and institutions.

Capital Markets Board has issued the corporate governance principles in parallel with corporate governance practices in the world (CMB, 2005:3). Regulations of many countries are analyzed by CMB and special conditions of our country are considered during the preparation of corporate governance principles (CMB, 2005:4). Capital Markets Board issued corporate governance principles in June 2003 and these principles was amended and reissued in February 2005. The principles are prepared for publicly held corporations originally (CMB, 2005:4). These principles can be applied by other companies which operate in public and private sector. "Comply or explain" approach is valid for main principles. However, there are the (R) letters on the sides of some of the principles denoting that those are

recommendations only. It is not required making explanations in the case of not obeying recommendatory principles (CMB, 2005:4).

In the CMB's principles there are four main sections: shareholders, public disclosure and transparency, stakeholders and board of directors.

Another important study at the scope of corporate governance in Turkey was made by Turkish Industrialists' and Businessmen's Association (TÜSİAD). TÜSİAD issued "Corporate Governance Code of Best Practice: Composition and Functioning Board of Directors" in December 2002. This code focuses on the formation, independence and agenda, functions, responsibilities of the board (TÜSİAD, 2002:10-11).

2.1.1. Shareholders

Shareholders have a special status and are important in all corporations. In this section, the scope of shareholder's obtaining information right is extended. This right is emphasized by a recommendation on inserting a special provision in the articles of association (CMB, 2005:7). Shareholders have right to get true and fair information. In this section, right to participate in the general shareholders' meeting, right to vote, right to obtain dividend and minority rights are mentioned particularly (CMB, 2005:8). Keeping records safely related to shareholding and updating these records periodically are recommended. The free transfer and sales of shares are also mentioned (CMB, 2005:8). The effectiveness of general meeting is increased and making important decisions at general meeting is strongly recommended (CMB, 2005:8).

2.1.2. Public Disclosure and Transparency

Shareholders, stakeholders and investors of a company need to have regular access to trustable and accurate information about the management, as well as legal and financial situation of the company (CMB, 2005:20). According to the CMB the purpose of this principle is to provide shareholders, stakeholders and investors correct, complete, easy accessible at a low cost, analyzable, comprehensible

information on time. Companies should use most basic concepts and terminology, by doing so companies maintain understandability while disclosing information. Disclosed information should be neutral and free from bias. Trade secrets can be retained by the company and should be taken as the exemptions (CMB, 2005:20).

Principles and tools for public disclosure; public disclosure of relations between the company and its shareholders, the board of directors and executives; periodical financial statements and reports in public disclosure; functions of external audit; the concept of trade secret and insider trading; significant developments that must be disclosed to the public are the main titles of the public disclosure and transparency section (CMB, 2005:22-31).

2.1.3. Stakeholders

Stakeholders are described as: *"any person, entity or party, who has an interest in the operations and reaching the targets of the company" (*CMB, 2005:35*).* These interested parties should be real persons or corporations who have contractual or non-contractual relationship with the companies (CMB, 2005:32). Protection of the capital and better management practices provide benefits to stakeholders. Therefore, the implementation of the corporate governance principles is both important and essential from the stakeholders' point of view (CMB, 2005:32).

This section consists of principles which regulate the relationship between stakeholders and company (CMB, 2005:5). Company policy related with stakeholders, stakeholders' participations in the company's management, the protection of the company assets, company policy on human resources, relations with customers and suppliers, ethical rules and social responsibility are the main titles of the stakeholders section (CMB, 2005:33-36).

2.1.4. Board of Directors

Board of directors serves as an agent of the company. This authorization is given by the general board of company. The aim of the board is to maximize the market value of the company. The board should consider the balance between the

interests of the shareholders and the company's growth prospects when managing the company.

Board members should act in full good faith and should not utilize the information concerning trade secret which belongs to company to the advantage of board members, their spouses and third persons. The abilities and skills of board members affect the success of company.

The presence of the independent board members has a crucial importance for corporate governance. The large number of independent board members will affect the corporate governance in a positive way and will provide accurate and neutral corporate governance practice (CMB, 2005:37).

Fundamental functions of the board of directors; principles of activity and duties and responsibilities of the board of directors; formation and election of the board of directors; remuneration of the board of directors; number, structure and independence of committees established by the board of directors and executives are the main titles of the board of directors section (CMB, 2005:39-56).

2.2. Capital Markets Board's Publications on Corporate Governance

The role and responsibilities of CMB highlighted in the previous sections of the dissertation. In line with these responsibilities CMB conducted several studies. One of studies is corporate governance survey published on November 2004. This survey was applied to companies whose shares are traded in ISE for ensuring awareness about corporate governance principles and level of understanding. Corporate Governance Survey is sent via e-mail to 303 companies traded in Istanbul Stock Exchange at 2004 and the number of answered firms is 248.

The result of this survey is classified in four groups like shareholders, principles of disclosure, stakeholders and board of directors. In terms of shareholders, half of the companies have a department of relation between shareholders. This ratio increases to 81% in ISE-30. There is no any restrictive condition about transfer of share generally. It is seen that seventy-five percent of

companies have not dividend distribution policy to the public. It is seen that the most widely form of privilege at companies is to propose a candidate to board members.

In terms of disclosure, ninety-seven percent of companies announce disclosures with dual signature. Seventy-seven percent of companies have not a disclosure policy which is prepared by board of directors and presented to general assembly. Only thirty-one percent of companies make disclosure related to the adaptation about corporate governance in their annual reports. Eighty-four percent of companies have website but there is major deficiency of disclosure in their websites. It is not reached to desired standards in financial reports generally.

In terms of stakeholders, companies are in good levels in determining the policy and procedure which protect the rights of stakeholders. Fifty-six of companies answer "yes" to the question about supportive mechanisms concerning employees participating in company management. Eighty-two percent of companies give importance to create the education's plans and policies about increasing employees' skills and knowledge. But twenty-three percent of companies report that they are acting with social responsibility. This means that companies are not conscious about social responsibility.

In terms of board of directors, fifteen percent of companies mention required qualifications in terms of knowledge, skills, education, and experience about board of directors in their basic contracts. Ninety-six percent of companies do not reward board members according to their performance. Twenty-six percent of companies have independent directors on board in ISE-100. This ratio is 42% in ISE-30 index. Fifty-two percent of companies have risk management and internal control mechanism which is constituted by board of directors. This ratio is sixty-nine percent at firms which are traded in ISE-30 index.

Capital Markets Board made an investigation in 2005 about corporate governance compliance report on 276 companies traded at Istanbul Stock Exchange. The aim of this study is to determine the situation of companies in view of corporate governance principles and practices.

The findings show that the level of knowledge in terms of and the concept of "corporate governance" is low. At corporate governance compliance report, there is no explanation about the reason in terms of not obeying principles generally. In general, compliance level to necessary principles in terms of legislation is higher than the principles which are realized as a volunteer. Eighty-six percent of companies give information about explanation of special case. Fifty-six percent of companies utilize electronic media for informing shareholders. The largest gap which causes unenforceability of corporate governance in proper sense is "the privilege of voting rights". The privilege of voting rights is 35%. The privilege of dividends (19%) and the existence of provisions about restricting transfer of shares affect corporate governance practice in a negative way. The level of participation of partners to general assemblies is low. Generally, the numbers of firms which have independent board of directors is very low.

2.3. Corporate Governance Association in Turkey

Corporate Governance Association in Turkey (TKYD) is founded in 2003 to contribute the development in recognizing, understanding of corporate governance in Turkey. Another aim of this association is to provide implementing corporate governance with best practice. Approximately 500 board members and senior managers come together for discussing the future of corporate governance in Turkey and give direction to corresponding applications. "Specialization Programs for Board Membership" are given. These programs provide to gain perspective related to increasing responsibility in accordance with the principles of corporate governance. Another benefit of these programs is to recognize necessary knowledge and tools about determination of board's goals and enhance firm performance in the direction of goals. TKYD also makes research studies about determining strategic priorities about corporate governance in Turkey, for example, research project named as "Map of Corporate Governance in Turkey". Some of the publications of TKYD are corporate governance magazine and book series about corporate governance. TKYD also publishes "OECD Corporate Governance Principles 2004" in Turkish. This Association also continues activities with working groups like Capital Markets Work Group, Strategic Management Work Group etc… In their website, they also publish

corporate governance codes of countries and news about corporate governance. ((www.tkyd.org/tr/), 21.06.2010).

"Corporate Governance Map of Turkey" is a study which realized by Corporate Governance Association in Turkey in association with The Boston Consulting Group. The aim of the study is to determine the situation about the implication of corporate governance, the environmental condition which affects the current practices, the possible effects of corporate governance on long-term firm performance. Research process was completed in six months (September 2004 - February 2005), and a questionnaire is used. The questionnaire which is titled as "compatibility" and "performance" sent to 1000 firms. Forty-eight percent of firms included in the study are traded at Istanbul Stock Exchange.

The results about compatibility show that firms have enough knowledge about corporate governance principles but firms have not sufficient knowledge about how to apply. The rights of main shareholders are protected but this protection is low for minority shareholders. It is thought that the rights of stakeholders are very important for the success of firms but there are some deficiencies in this subject. There is a huge deficiency in disclosure and transparency and this depends on national culture and unregistered economy.

According to performance, the findings show that the role of the board is explicitly determined and understood. The participants argued that the structure and functionality of board is satisfactory and adds value to the firm but boards act according to the attitude of controlling shareholders. Participants consider "independent board of directors" as a developing trend. They also claim that the performance of independent board of directors depends on individuals. They say that board of directors is in constructive attitude and there is consistent relationship between general manager and board of directors. Board of directors has power on top management because board of directors consists of controlling shareholders.

2.4. Corporate Governance Rating

In recent years, corporate governance has become more important for companies in Turkey. By applying corporate governance principles, companies can increase their performance and their values. As a result of this, having a corporate governance score and being in corporate governance index are very important for companies.

The rating agencies or institutions determine corporate governance rating. These agencies are authorized by CMB. This rating is given as a result of evaluation corresponding company's compliance with the corporate governance principles as a whole. The rating assesses shareholder rights, corporate governance structure and the disclosure of financial and other information. Corporate governance rating is given according to the demand of firms and should be renewed or be confirmed each year (Circular; 2008/269:1). Corporate governance ratings of companies are shown at Table 1.

Table 1: Corporate Governance Ratings of Companies

	Company	Scores, Dates And Rating Institutions			
1.	**Doğan Yayın Holding**				
	Score	**8.0**	**8.5**	**9.0**	**9.0**
	Date	19 April 2006	1 August 2007	1 August 2008	30 July 2009
	Rating Institution	**ISS**	**ISS**	**ISS**	**ISS**
2.	**Vestel Elektronik**				
	Score	**7.5**	**8.5**	**8.5**	**8.5**
	Date	March 2007	February 2008	February 2009	February 2010
	Rating Institution	**ISS**	**ISS**	**ISS**	**ISS**
3.	**Y&Y Gayrimenkul Yatırım Ortaklığı**				
	Score	**7.88**	**8.16**	**8.16**	**8.27**
	Date	April 2007	18 April 2008	17 April 2009	16 April 2010
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	**SAHA**
4.	**Tofaş**				
	Score	**7.57**	**7.74**	**8.16**	**8.24**
	Date	28 May 2007	November 2007	November 2008	23 November 2009
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	**SAHA**
5.	**Türk Traktör**				
	Score	**7.52**	**7.83**	**8.12**	
	Date	August 2007	August 2008	August 2009	
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	

6.	Hürriyet				
	Score	**8.0**	**8.5**	**8.5**	
	Date	September 2007	September 2008	September 2009	
	Rating Institution	**ISS**	**ISS**	**ISS**	
7.	Tüpraş				
	Score	**7.91**	**8.20**	**8.34**	
	Date	8 October 2007	6 October 2008	6 October 2009	
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	
8.	Asya Katılım Bankası				
	Score	**7.56**	**7.82**		
	Date	2 July 2008	2 July 2009		
	Rating Institution	**SAHA**	**SAHA**		
9.	Otokar				
	Score	**7.94**	**8.12**	**8.32**	
	Date	20 March 2008	20 March 2009	19 March 2010	
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	
10.	Şekerbank				
	Score	**7.0**	**8.0**	**8.5**	
	Date	February 2008	February 2009	February 2010	
	Rating Institution	**ISS**	**ISS**	**ISS**	
11.	Dentaş Ambalaj				
	Score	**7.08**	**7.82**	**7.89**	
	Date	12 May 2008	11 May 2009	11 May 2010	
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	
12.	Anadolu Efes Biracılık ve Malt Sanayi A.Ş				
	Score	**8.10**	**8.27**	**8.40**	
	Date	11 June 2008	5 June 2009	2 June 2010	
	Rating Institution	**SAHA**	**SAHA**	**SAHA**	
13.	Yapı ve Kredi Bankası A.Ş				
	Score	**8.02**	**8.44**		
	Date	29 December 2008	28 December 2009		
	Rating Institution	**SAHA**	**SAHA**		
14.	Vakıf Yatırım Ortaklığı				
	Score	**7.81**	**8.23**		
	Date	28 January 2009	27 January 2010		
	Rating Institution	**Turk-KrediRating**	**Kobirate**		
15.	Coca Cola İçecek A.Ş				
	Score	**8.30**			
	Date	1 July 2009			
	Rating Institution	**SAHA**			
16.	Arçelik				
	Score	**8.21**			
	Date	30 July 2009			
	Rating Institution	**SAHA**			
17.	TAV				
	Score	**8.5**			
	Date	4 September 2009			
	Rating Institution	**ISS**			

No.					
18.	**Türkiye Sinai Kalkınma Bankası (TSKB)**				
	Score	**8.77**			
	Date	20 October 2009			
	Rating Institution	**SAHA**			
19.	**Doğan Şirketler Grubu Holding A.Ş.**				
	Score	**8.26**			
	Date	3 November 2009			
	Rating Institution	**SAHA**			
20.	**Petkim**				
	Score	**7.71**			
	Date	November 2009			
	Rating Institution	**Turk-Kredi Rating**			
21.	**Logo**				
	Score	**8.05**			
	Date	22 December 2009			
	Rating Institution	**SAHA**			
22.	**İş Leasing**				
	Score	**8.02**			
	Date	28 December 2009			
	Rating Institution	**SAHA**			
23.	**Türk Prysmian**				
	Score	**7.76**			
	Date	29 December 2009			
	Rating Institution	**SAHA**			
24.	**Türk Telekom**				
	Score	**8.01**			
	Date	28 December 2009			
	Rating Institution	**SAHA**			
25.	**Turcas Petrol A.Ş**				
	Score	**7.52**			
	Date	12 March 2010			
	Rating Institution	**KOBİRATE**			
26.	**Park Elektirk A.Ş.**				
	Score	**8.65**			
	Date	9 June 2010			
	Rating Institution	**SAHA**			
27.	**Tek Faktoring (non-listed)**				
	Score	**6.83**	**7.08**		
	Date	17 January 2008	29 January 2009		
	Rating Institution	**SAHA**	**SAHA**		
28.	**Lider Faktoring(non-listed)**				
	Score	**6.97**	**7,26**		
	Date	August 2008	21 May 2009		
	Rating Instutution	**SAHA**	**SAHA**		

Source: (www.tkyd.org.tr, 09.07.2010)

2.5. ISE Corporate Governance Index

ISE Corporate Governance index includes corporations which apply corporate governance principles. The purpose of this index is to measure price and return performances of corporations traded in ISE (except Watch List Companies Market) with a corporate governance rating of minimum 6 over 10. Calculation of the corporate governance index started on 31.08.2007. The initial value of this index is 48,082.17 at 29.08.2007. There are 26 firms traded in corporate governance index.

Under the circular on the ISE Corporate Governance Index, inclusion of index and removal conditions from index are mentioned. Under the specific conditions, the companies are excluded from the index. The transfer of companies to the watch list market or permanent removals of shares from the generally traded list market and the fall of rating under 6, not renewing or not confirming of corporate governance rating in one year are the some conditions of being out of index.

Figure 3: Corporate Governance Index
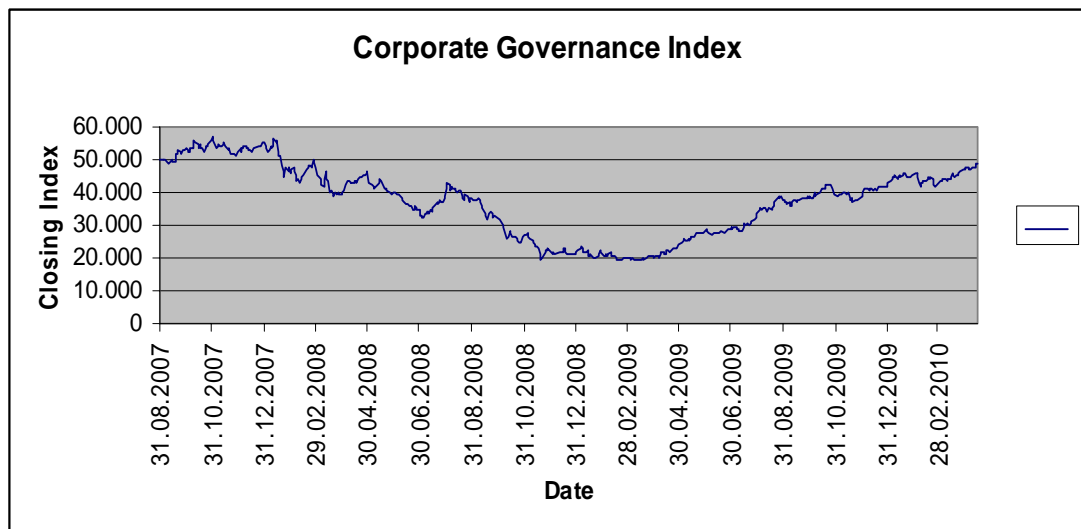
This table is constructed by using the dates and the closing value of corporate governance index. The data is obtained from ISE website. As it is seen, this index is started at 31.08.2007 and begins to decrease until the end of 2008. In 2009, the index begins and continues to increase through 2010. The sharp decrease at 2008 might be linked to 2008 crisis.

2.6. Corporate Governance Studies in Turkey

The number of research studies about corporate governance in Turkey are increasing in literature. Current part of the dissertation includes selected studies which are related with objectives of this study.

Gürbüz and Ergincan (2004) examine companies of ISE-30 companies for determining corporate governance level. The authors constitute corporate governance index. The period of this study is between the years 2000-2002. Anova test is used. The study demonstrates that companies which apply corporate governance principles in a better way, have better stock market performance (measured by cumulative adjusted return) and higher return on equity. Also, it is stated that the companies which have higher free float ratio, have better corporate governance practices. These companies provide more confidence to investors and creditors.

Durukan, Özkan and Dalkılıç (2005) used the data on the non-financial firms listed in the ISE which had a change in their CEOs during the period 1993-2003. Dependent variable is CEO turnover. Independent variables are ROA, ratio of change in earnings to total assets, sales growth. Logit regression is used. The findings show that, Turkish corporate governance system is not ineffective but this evidence cannot prove that it is effective. The CEOs in Turkey are evaluated based on the accounting based measures. They also conclude that Turkish corporate governance system is characterized by being bank-based, having concentrated ownership structure and low investor protection.

Gürsoy (2006) examines the relationship between foreign ownership and corporate governance theoretically. Foreign investors are generally the large shareholders of the companies. Foreign investors bear some level of agency costs and take additional risks abroad. They prefer to decrease the agency cost and deal with the company in a deeper way. As a result of this, foreign investors stimulate the development of corporate governance positively where they invest.

Tanriöven, Küçükkaplan, and Başçı (2006) states that ownership structure has a leading and directing role on firm performance. Authors use one way ANOVA test

to examine the relationship between ownership structure and firm performance for commercial banks listed in Istanbul Stock Exchange by using financial ratios. Banks are classified as family banks, holding banks and widely held banks. They conclude that family and holding banks' performance do not differ from those of other banks based on ownership structure but widely held banks performance are affected differently compared to other banks.

Çitak (2007) examines the relationship between ownership structure (including ownership concentration and ownership identity) of Istanbul Stock Exchange listed (ISE-100) companies and firm performance over the period 2000-2004. Panel data is used in regression model. The data consists of 79 companies. Return on equity and market to book value are indicators of measuring performance. Percentage of largest shareholders, square of the percentage share owned by the largest shareholder are used for ownership concentration and two dummy variables (dummy variable for whether the largest shareholder is a holding or not and dummy variable for whether the largest shareholder is an incorporation other than a holding or not) are used for ownership identity. In the study, it is found that ownership structure and return on equity has no statistically significant relationship. On the other hand, significant positive relationship exists between ownership concentration and market to book value of equity. These findings shows that investors take concentrated ownership into account that increased monitoring of the managers activities and decreased conflict of interest between larger shareholders and minority shareholders.

Yıldırım and Demireli (2009) examine the impacts of ownership and control structures on manufacturing-industry firms at Istanbul Stock Exchange-100. Data set consists of 44 manufacturing firms traded at ISE-100 in 2006 during the period of 2002 to 2006. Dependent variables are return on assets, return on sales, return of equity and Tobin's Q. Independent variables are the percentage of largest shareholder and the participation ratio of the largest shareholder to general assembly. Log of annual sales and leverage ratio are used as control variables. Dummy variables are used for sub-sector like food, chemistry, oil and plastic products etc. Generalized least squares method with the regression is used as an estimation

technique. The findings show that an increase in ownership and control power of largest shareholder cause a decrease on return on assets, return on sales and return on equity but an increase on Tobin's Q.

Karamustafa, Varıcı and Er (2009) examine whether there is a change in terms of performance after being subject to Corporate Governance Index. Data set consist of eight firms. These firms are Tüpraş, Hürriyet Gazetecilik, Türk Traktör, Doğan Yayın Holding, Tofaş, Vestel Elektronik, Şekerbank, Otokar. In this study, performance is measured according to eight different ratios (current ratio, asset turnover, ROA, ROE, net profit margin, operating profit margin, debt ratio, leverage) considering the 18 months before and 6 months after the Index. After all, the differences between the results are shown under the T test. As a result of this study, ROA, asset turnover and ROE, introduce significant differences between before and after to be subject to Corporate Governance Index.

Kırkulak's (2009) study sample consists of non-financial firms listed on the ISE. This study investigates the period of 2000 through 2002 in order to figure out whether the ownership structure affects firm value and operating performance. ROA and Tobin's Q are used as dependent variables. The independent variables are listed as leverage, dividend payout, firm size and concentration. Group affiliation, pre-crisis, crisis and post crisis are taken as dummy variables. Empirical findings of the study indicate that concentrated ownership is not associated with higher firm valuation or better operating performance and results do not give clear evidence that the group affiliated firms have superior performance in terms of firm value and profitability over non group-affiliated firms.

Mandacı and Gümüş (2010) investigate the impacts of ownership concentration and managerial ownership on firm performance measured by return on assets and Tobin's Q. The data set consists of 203 non-financial firms listed on Istanbul Stock Exchange in 2005. Data is obtained from monthly bulletin of the ISE, annual company reports issued by ISE and ISE website. Multiple regression analysis is used in this study. Return on assets and Tobin's Q are used for measuring performance. The total share of the largest three shareholders and managerial

ownership are used as independent variables. Investment intensity (capital expenditure/ sales), leverage, growth, size and industry dummies are control variables. They also analyzed the ownership structure of sample firms. According to the results, highly concentrated ownership is prevalent in Turkey. The highest average percentage of shares is held by unlisted holding companies. This result reinforces that individuals or families install holding companies for controlling their listed firms. Ownership concentration has significantly positive effects on ROA and Tobin's Q but managerial ownership has significantly negative effect on Tobin's Q.

CHAPTER III

AN EMPIRICAL ANALYSIS: EFFECTS OF OWNERSHIP STRUCTURE ON FIRM PERFORMANCE AT ISTANBUL STOCK EXCHANGE

Corporate governance literature examines the relationship between corporate governance and firm performance in recent years. It is claimed that corporate governance can affect firms' performance positively. In the light of this consideration we use ownership structure variables to measure the effects of corporate governance on firm performance.

First aim of this study is to find statistical evidence whether there is a relationship between ownership structure and firm performance or not. Second aim of this study is to determine the direction of this relationship.

Return on assets (ROA) and return on equity (ROE) are used as accounting performance measures. On the other hand, Tobin's Q is used as market-based performance measure. For measuring the effect of ownership structure on firm performance, ownership concentration and foreign ownership are taken into consideration in the empirical research. Board size, free float rate and the effects of previous year performance are included into analysis.

 Corporate governance is a crucial topic in literature. In recent years, it is seen that there are many studies which examine the relationship between corporate governance and firm performance. In this chapter, literature review about corporate governance and firm performance will be mentioned and then an empirical study on ISE non-financial firms will be analyzed.

3.1. Literature Review

Thomsen and Pedersen (2000) investigate the impact of ownership structure on firm performance in 435 of the largest European companies. These companies are operating in different countries such as: Austria, Belgium, Denmark, Finland, France, Germany, the United Kingdom, Italy, the Netherlands, Norway, Spain and Sweden. The time period of the study is 1990 -1995.

Company performance is measured by the market-to-book value, return on assets and sales growth. Independent variables are largest owner's share, largest owner's share squared and owner identity. Owner identity of the largest owner is classified as institutional investors, bank, non-financial companies, individual or family and government. Control variables include nation dummy, industry dummy and the debt-equity ratio.

In conclusion, the study introduces that there is a positive effect of ownership concentration on shareholder value (market-to-book value of equity) and profitability (ROA). Companies tend to have higher market to book value if their largest owner is a bank than if it is an institutional investor. Corporate, family and government ownership have significant and negative impact on market to book value compared to institutional investors. Sales growth does not depend on ownership concentration.

Furthermore the study proposes and supports the hypothesis that the identity of large owners (family, bank, institutional investors, government and other companies) has important implications for corporate strategy and performance. Financial investor ownership is found to be associated with higher shareholder value and profitability when compared to other owner identities.

Demsetz and Villalonga (2001) investigate the relation between the ownership structure and the performance of corporations. The study also investigates the interrelationships between managerial or top 5 shareholders' ownership and firm performance. The sample used in this study consist of 223-firms from all sectors of the US economy.

Firm performance (Tobin's Q) and shares owned by management are dependent variables in two different equations. In the first regression the firm performance is dependent variable, independent variables are percentage of shares owned by management, percentage of shares owned by the five largest shareholders, advertising expenditure as a fraction of sales revenues, research and development expenditures as a fraction of sales revenues, expenditures on fixed plant and equipment as a fraction of sales revenues, the value of debt as a fraction of the book value of assets. In the second regression shares owned by management is dependent

variable, independent variables are firm performance, market risk of stock, firm-specific risk, firm size as measured by book value of assets, the value of debt as a fraction of the book value of assets. OLS and 2SLS (two-stage least-squares) regression models are used in this study.

In the study, the findings show that there is no systematic relation between ownership structure and firm performance. Ownership structure has no impact on Tobin's Q, but Tobin's Q negatively impacts ownership structure using a two-stage least-squares (2SLS) method.

Chen. (2001) examines the relationship between ownership structure and corporate performance of a sample of 434 manufacturing firms listed on the Chinese stock exchange.

Tobin's Q is used for measuring corporate performance. The percentage of largest shareholders and the largest top ten shareholders together, fraction of shares owned by Bureau of State Property Management, fraction of shares owned by state wholly controlled by legal persons, fraction of shares owned by the top management, fraction of shares that can be freely traded on the stock exchange and fraction of shares owned by domestic institutions are independent variables. Age, debt/equity ratio, growth speed of the firm, firm size, stability of business environments and profitability (ROA) are control variables. OLS and robust regression techniques are employed.

The study shows that there is a positive and significant relationship between corporate performance and domestic institutional shareholding. Also management ownership variables have positive coefficients in the corporate performance regression. On the other hand, the study demonstrates that there is a significantly negative relationship between the proportion of shares traded on the market and corporate performance. According to the study, the results suggest that there is a strong association between ownership concentration and firm performance which is measured by Tobin's Q.

Jong, Gispert, Kabir and Renneboog (2002) investigate whether differences in international corporate governance systems affect firm performance. They construct a firm-level panel database from three countries: Belgium, the Netherlands and the United Kingdom. The study consists of a sample of 150 non-financial firms which are listed on Amsterdam, Brussels and London stock exchanges. These data are collected for the five-year period from 1993 to 1997.

Firm performance is measured by return on assets, Tobin's Q and stock return. Board size, the number of directors and the percentage of non-executive directors, percentages of block ownership by institutions, individuals, families and industrial corporations are independent variables. Firm size and leverage as control variables and other variables are used in panel regression.

Research finding show that the average board size and the proportion of non-executives in Belgian firms are larger than the Netherlands and the United Kingdom. Ownership concentration is the highest in Belgium and the lowest in the United Kingdom. Large board size and the fraction of external board members are positively related in each of the countries.

Governance system has an important effect on the governance-performance relation. It is found that there are significant differences among the countries. In conclusion, the authors state that empirical findings in one specific governance system cannot be generalized to other systems.

Bai, Liu, Lu, Song and Zhang (2003) investigate empirically the relationship between governance mechanisms and the market valuation of publicly listed firms in China. They construct measures of corporate governance and market valuation for all publicly listed firms on the Shanghai and Shenzhen Stock Exchanges in China between 1999 and 2001. Panel data is used.

Tobin's Q is used as dependent variable. The percentage of largest shareholders; dummy for CEO (a dummy variable that equals 1 if CEO is the chairman or a vice chairman of the board of directors and 0 otherwise) ; dummy for parent company (a dummy variable that equals 1 if a firm has a parent company and 0 otherwise); the ratio of the number of directors who are not members of the management team; the percentage of shares held by CEO, the executive vice presidents, the chairperson and the vice chairpersons of the board of directors; dummy for stock exchange; the natural logarithm of the sum of squares of the percentage points of shareholding by the second to the tenth largest shareholders and dummy variable for government (a dummy variable that equals 1 if the government is the controlling shareholder and 0 otherwise) are independent variables. Size, leverage ratio, capital to sales ratio, operating income to sales ratio, and industry dummies are control variables.

The study states that both high concentration of shareholding and share of foreign investors have statistically significant and positive effects on Tobin's Q. Also a large holding by the largest shareholder, the CEO being the chairman or vice chairman of the board of directors, and the largest shareholder being the government have statistically significant and negative effects on Tobin's Q.

Gibson (2003) examines whether corporate governance is ineffective in emerging markets by estimating the link between CEO turnover and non-financial firm performance for over 1,200 firms in eight emerging markets. Data set are obtained from Worldscope and consists of eight emerging markets which are Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan and Thailand. The regression sample covers 1993 to 1997 and estimation technique of the study is logit regression.

CEO turnover is dependent variable. Independent variables are earnings scaled by assets, the change in earnings scaled by lagged assets, stock market return and growth in sales. Year, country and industry are dummy variables.

In conclusion it is found that CEOs of emerging market firms probably lose their jobs when their firm's performance is poor. This means that corporate governance is effective in emerging markets. There is a strong relation between measures of performance based on earnings and CEO turnover and weak relation between measures based on stock market return and CEO turnover. CEOs of poorly performing firms are not more likely to lose their jobs at firms that have a large domestic shareholder. It is also stated that, there is no significant relationship between performance and CEO turnover when the presence of large shareholders exist.

Bauer, Günster and Otten (2003) examine whether good corporate governance leads to higher common stock returns and increase firm value in Europe In this study, Deminor's corporate governance ratings is used for measuring the companies' quality of governance. These ratings cover 249 and 269 firms included in the FTSE Eurotop 300 over the period 2000 to 2001. They built portfolios concerning well-governed and poorly governed companies. Data set consist of companies from U.K. and from European Monetary Union.

For measuring the relationship between corporate governance and stock returns, they constructed value-weighted corporate governance factor portfolios. The excess monthly return of the zero-investment portfolio is dependent variables. The monthly return on the market portfolio, the monthly risk-free interest rate, the monthly return on a size factor portfolio, the monthly return on a book-to-price factor-mimicking portfolio based on the book-to-market ratio, the monthly return on a momentum factor portfolio are independent variables.

For measuring the relationship between corporate governance and firm value Tobin's Q is taken as dependent variable. The logarithm of the firm's governance rating, the logarithm of the book value of assets, the logarithm of the firm's age in years, the firm's return on equity in the current and in the previous year, sectoral dummies and country dummies are independent variables.

For measuring the relationship between corporate governance and firm performance net profit margin and return on equity are used as indicators of firm performance. The firm's corporate governance ratings, the logarithm of the book-to-market ratio, sector and country dummies are independent variables. The results of the study show a positive relationship between firm value, stock returns and corporate governance and negative relationship between governance standards, ROE and net profit margin.

Pedersen and Thomsen (2003) examine the relationship between ownership structure and value of the largest European firms. The data set contains 214 companies over three years and a total of 642 firm-year observations. Database containing information on ownership structures of the largest non-financial companies in continental Europe (including Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Spain and Sweden) is used in this study. Worldscope database is used for composing the data set. Three-stage least squares simultaneous equation model is the regression model of this study.

Ownership concentration and firm value are dependent variables. Firm value (market-to-book) lagged one year, standard deviation of return on equity, standard deviation of return on equity squared, assets, ownership concentration, debt-equity-ratio, growth of sales are independent variables. Average ownership concentrations by industry, average ownership concentration by country, average firm (market-to-book) value by industry and average firm (market-to-book) value by country are also used in regressions.

In conclusion it is found that (1) when the largest owner is a financial institution or another corporation, ownership concentration (measured by the fraction of "closely held" shares) has a positive effect on firm value (market-to-book value of equity), (2) if largest owner is a family or a single individual, ownership concentration has no effect on firm value, and the effect is negative if the largest owner is a government organization, (3) firm value is found to have a positive feedback effect on ownership concentration except for governments, which hold higher stakes in low-value firms.

Chen, Guob and Mande (2003) examine the relationship between managerial ownership and Tobin's Q for 123 Japanese firms from 1987 to 1995. OLS regression is used in this study.

Tobin's Q is taken as dependent variable. Main bank ownership, the return on assets, dividend yield, managerial ownership, OWN (managerial ownership) squared, the log of total assets, leverage, research and development intensity, yearly dummy variable and other variables are used in regression.

The research states that, there is a negative relationship between Tobin's Q and managerial ownership when the managerial ownership is low. According to the result of firm fixed effects, Tobin's Q increases monotonically with managerial ownership. They suggest that when ownership increases, there is a greater alignment of managerial interests with those of shareholders

Hovey, Li and Naughton (2003) examine the relationship between firm performance and corporate governance in China. Data consist of 97 randomly selected firms listed on the Shanghai and Shenzhen stock exchanges from 1997 to 1999. Firm performance is measured by Tobin's Q, while corporate governance is determined based on ownership structure and concentration. Independent variables are top 5 shareholder and Herfindahl Index (in terms of ownership concentration), the percentage of state and legal person (in terms of ownership structure) firm size, the debt/asset ratio, and current growth rate.

The results indicate that ownership concentration has little explanatory power but ownership structure is important. Shareholdings by legal person are positively related to firm valuation.

Earle, Kucsera and Telegdy (2005) examine the impact of ownership concentration on firm performance using panel data for firms listed on the Budapest Stock Exchange between 1996 and 2000. Panel data regression model is used.

Return on equity and log of operating efficiency are dependent variables. Concentration measures are holdings of largest blockholder, largest two blockholders, largest three blockholders, second largest blockholder, third largest blockholder and all blockholders are independent variables. Previous year performance, previous employees' number, previous year effects of dependent variables and previous firm fixed effects are control variables.

The study implies that the size of the largest block increases profitability in terms of return on equity and operating efficiency but the impacts of total blockholdings are much smaller and statistically insignificant. Additional blockholders decrease the positive effect of concentration in terms of ROE and operating efficiency. The results suggest that the marginal costs of concentration may outweigh the benefits when the increased ownership concentration includes many blockholders.

Zheka (2005) examines the impacts of ownership structures and corporate governance on the Farrell measure of efficiency. Data set consists of companies listed on the main Ukrainian stock exchange in 2000–2001. OLS and Tobit estimation of model are employed.

The performance of firms is calculated by using the Farrell measure of productive efficiency and used as dependent variables. Firm's corporate governance (Corporate Governance Index), ownership structure (Ownership), industry-specific factors (Industry) are independent variables.

Ownership variables are the share of the largest foreign owner, the share of the largest individual owner, the share of the manager, the share of the largest domestic organization owner, the share of the state ownership, the share of nominal shareholder (unknown shareholder who is represented by some financial institution), private concentrated ownership and state concentrated ownership are dummy variables. Business sector variables are also used.

In conclusion, there is a significant positive effect from good corporate governance on the technical efficiency of domestic enterprises, even in these early stages of the development of the Ukrainian market economy. The increase in the share of state ownership is not associated with a decline in efficiency. Foreign firms in the sample are not found to enhance efficiency; however, they have a significant positive effect on the quality of corporate governance. According to the study, firms owned by domestic organizations are found to be the most efficient group in study's sample, and domestic organization ownership enhances technical efficiency significantly. The quality of corporate governance is found to be positively associated with the technical efficiency of domestically owned enterprises. This result confirms the necessity to implement and legally enforce generally accepted corporate governance principles in the country.

Kyereboah-Coleman and Biekpe (2006) examine the impacts of corporate governance on performance of firms in the non-traditional export (NTE) sector in Ghana. The study uses secondary data based on the financial statements of 100 NTE firms between the years 1995-2004. The governance data and variables are obtained from the administration of questionnaire and personal interview.

Corporate governance variables are board size (the number of members serving on a firm's board), board composition (the ratio of outside directors to the total number of directors), CEO duality (dummy variable which takes the value of 1, if the CEO combines as the board chairman and 0 if there are different people occupying the two positions of CEO and Board chairman), ownership structure (dummy variable which takes the value of 1, if the firm is owned by an Indigenous Ghanaian, and 0 is the firm is owned by a non-Ghanaian). Dependent variables are return on assets, return on equity and export sales growth rate. Control variables are debt portfolio by its total assets, firm age and size. Generalized least squares panel regression is used as estimation technique. Board size, board composition, and the nature of ownership have positive impact on return on assets. There is a negative relationship between CEO duality and ROA. There is a positive relationship between CEO duality and ROE. Ownership structure has positive relationship with ROE.

The results show that there is an inconclusive result regarding board size and CEO duality and the performance of firms in the NTE sector. However, the board composition and the ownership structure have positive impact on performance. The research states that firms in the NTE sector in Ghana should have indigenous ownership and must insure more non-executive directors on their boards for having efficient performance.

Krivogorsky (2006) investigates whether the composition of boards of directors and ownership structures affect firms' profitability ratios or not. Data set consists of 87 European firms. Returns on assets, return on equity and market-to-book value indicate profitability ratios. Proxies' measures for board composition are the percentage of corporate insiders, the percentage of independent directors to number of total number of directors, for measuring the presence of scholars on the board: the number of scholars to total number of directors and CEO dummy. Proxies for measuring ownership concentration variables are: the percentage of stockholding of companies' directors, a dummy variable for CEO/family ownership, percentage of stockholding by the institutions and percentage of stockholding by blockholders other than institutional investors.

Age, debt ratio, growth rate, and logarithm of total assets are used as control variables. Univariate, multivariate (OLS regression), robustness tests, piecewise linear regression and generalized least-squares regression are employed.

The results show that percentage of stockholding by the institutions is positively correlated with ROE, ROA and MTB ratio. The results of this study show a strong positive relationship between profitability ratios and the proportion of independent directors, and between profitability ratios and level of institutional ownership. However, the results do not show a strong relationship between the proportion of inside directors or level of managerial ownership and profitability.

Maury (2006) investigates how family-controlled firms perform in relation to firms with non-family controlling shareholders in Western Europe. The data set consists of 1672 non-financial firms from 13 Western European countries which are Austria (46 firms), Belgium (30), Finland (73), France (209), Germany (259), Ireland

(39), Italy (59), Norway (76), Portugal (9), Spain (58), Sweden (104), Switzerland (75), and the UK (635).

Tobin's Q and ROA are the measures of performance. Dummy variables for measuring family control and other variables are used as independent variables. Control variables are: sales growth (3 years), capital expenditures / sales, firm size (log of total assets), total debt / total capital.

According to the study, family control can increase firm performance in Western European firms. Family control provides higher profitability in terms of ROA and higher valuation in terms of Tobin's Q when compared to firms controlled by non-family owners. Active family control, in which the family holds at least one of the top two officer positions, is related with higher profitability compared to non-family firms, whereas passive family control does not affect profitability. Active family control performs better than non-family control in terms of profitability in different legal regimes. Active and passive family control is related with higher firm valuations, but the premium is mainly due to economies with high shareholder protection. The benefits from family control occur in non-majority held firms. These results suggest that family control decrease the agency problem but gives rise to conflicts between the family and minority shareholders when shareholder protection is low and control is high.

Zeitun and Tian (2007) investigate the impact of ownership structure on firm performance and default risk of a sample publicly listed 59 firms on the Amman Stock Exchange between the years 1989-2002. These companies operate in different industrial sectors like manufacturing, trade, steel and mining, utility, and real estate. The study consists of 29 failed and 30 non-failed firms.

Dependents variables are return on assets, return on equity, Tobin's Q and market to book ratio. Independent variables are largest five shareholders (C5), Herfindalh (HERF) index and fraction owned by government, by foreigner, by companies. Control variables are log of total asset, age, total debt/ total equity, long term debt/ total assets and net income\capitalization. These variables are employed in multiple regressions and also in probit and logit models.

According to the research, there is a significant relation between ownership concentration (C5) and the accounting performance measured by ROE and ROA. The Herfindalh (HERF) index is not significant at any level of significance in any measure of performance. It is also found that there is a negative significant relation between government ownership and a firm's accounting performance, while the other ownership structure mixes (fraction owned by government, by foreigner, by companies and by individuals) have significant coefficients only in Tobin's Q performance measure. Also individual shareholders have no incentive and no capability to monitor and influence the behavior of management and government ownership was found to decrease the probability of default. Therefore, the authors suggest that reducing government ownership can increase a firm's performance but it will also cause some bankruptcy. Also privatization reforms are suggested by the authors. As a result, it is proposed that, the government should provide all necessary social securities to reduce the negative social impact of a firms' liquidation.

Abor and Biekpe (2007), investigate the adoption of corporate governance structures on the performance of SME's (small to medium-sized enterprises) in Ghana over the period 1998-2003. Data set are obtained from financials statements of SME's and interviews from the management of the firms. The sample of the study consists of 120 firms with less than hundred employees from the databases of the National Board for Small Scale Industries and the Association of Ghana Industries

Return on assets is used as a measure of performance. Board size, board composition, board skill, management skill, CEO duality, inside shareholding, family and foreign ownership are used as independent variables. Size, age and debt ratio are used as control variables. Panel regression model is used. Board size, board composition, management skill, CEO duality, inside shareholding, family and foreign ownership have significantly positive effects on return on assets.

Kapopoulos and Lazaretou (2007) investigate the effects of corporate governance on firm performance in 175 Greek listed firms at the year 2000. Ordinary least squares and two-stages least squares are used in regressions. The fraction of shares (voting rights) held by a firm's shareholders who owns at least 5 per cent of

outstanding shares (important shareholding) and the fraction of shares held by a firm's management who owns at least 5 percent of outstanding shares , additional variables are used in regression. Tobin's Q is used as a measure of performance.

According to the results, managerial shareholdings and important shareholdings positively affect Tobin's Q. Empirical findings imply that more concentrated ownership structure positively relates to higher firm performance. They also find that higher firm performance requires a less diffused ownership.

Perrini, Rossi and Rovetta (2008) examine the relation between ownership structure and firm performance in Italian market. The sample consists of all publicly traded Italian 297 firms between the years 2000-2003. OLS, 2SLS and panel data analysis are used.

Dependent variable is Tobin's Q. The percentage of share held by five largest shareholders together and the percentage of managerial ownership are independent variables. Concentrated ownership dummy, multiple blockholders dummy, family ownership dummy, financial ownership dummy, return on equity, growth, debt to asset ratio, liquidity ratio, firm size, board size, market risk, industrial dummy, financial dummy and year dummy are used as control variables.

According to the research, it is found that the ownership concentration of the five largest shareholders leads to higher firm valuation in Italian Market but managerial ownership is not beneficial in concentrated firms.

Garay and González (2008) examine the relationship between corporate governance and firm value in Venezuela. They construct corporate governance index which consists of four sub indexes namely as: disclosure, composition and performance of the board of directors, ethics and conflicts of interest and shareholders rights.

The dividend payout ratio, Tobin's Q and the price-to-book ratio are dependent variables. Corporate governance index is independent variable. Company

size, return on assets and leverage are control variables. OLS regression is used in this study.

According to this study, there is a strong and positive relation between corporate governance index and market valuation variables. An increase of 1 percent in the CGI results in an average increase of 11.3 percent in dividend payouts, 9.9 percent in price-to-book, and 2.7 percent in Tobin's Q. Also the authors suggest two proposals based on their study. First, managers in weak investor protection environments could differentiate their firms by adopting corporate policies to improve their governance structure. Secondly, this study provides investors to evaluate governance practices about Venezuelan firms.

Lee (2008) investigates the impact of equity ownership structure on firm financial performance in South Korea between the years 2000-2006. The sample consists of 579 firms listed in the Korea Stock Exchange. Ownership structure is analyzed in two dimensions: ownership concentration and identity of owners.

For ownership concentration, shares owned by the largest shareholders and for identity of owners, the percentage of share held by foreign investors and institutional investors are used as independent variables. Dependent variables are net income to total assets ratio and ordinary income to total assets ratio. Control variables are size, leverage, liquidity, risk, business cycle and industry dummies. Panel data is used in this study.

According to this study, there is a positive relationship between ownership concentration and firm performance. Foreign ownership and institutional ownership have no significance on firm performance. It is also found that there is a hump-shaped relationship between ownership concentration and firm performance. It means that when ownership concentration increases, the positive monitoring effect of concentrated ownership first prevails but then the negative effects of concentrated ownership are seen.

Pham, Suchard and Zein (2008) investigate the relationship between firm performance (measured by Tobin's Q and Stern Stewart's EVA) and corporate governance. The study uses a sample of the top 150 Australian firms by market capitalization from 1994 to 2003. Fixed effect panel regression model and OLS regression are used in this study.

Tobin's Q and economic value added / total assets are dependent variables. The number of independent non-executive directors over the total number of directors, board size and the proportion of shares held by corporate insiders and its square, percentage ownership of institutional block shareholders and percentage ownership of non-institutional block shareholders are used in regression as independent variables. The ratio of capital expenditures to total assets, total liabilities over total assets, tangible long term assets (property, plant and equipment) over total assets and standard deviation of weekly stock returns for each calendar year are control variables.

In conclusion in the study, the authors do not find a significant relationship between either of the performance measures and corporate governance and the results suggest that similar to Tobin's Q, EVA is too noisy as a performance measure to register any impact of governance mechanisms.

Omran, Bolbol and Fatheldin (2008) examine the effect of ownership concentration on firms' performance and market measures. The data set consists of 304 firms from different sectors of the economy, and from a representative group of Arab countries (Egypt, Jordan, Oman and Tunisia). The time period for this study cover the period 2000-2002. Panel data and OLS regression are used.

For measuring the determinants of ownership concentration, these dependent and independent variables are chosen. Ownership concentration is dependent variables and measured by the percentage of the largest three blockholders. Firm-level variables, country-level variables and fixed-year effects are independent variables. Size and sectoral dummies are used as firm-level variables for firms. Economic freedom index, rule of law index and the ratio of value of shares traded to GDP are used as country-level variables. In conclusion, it is found that the impact of

size on concentration is negative. It means that there is a negative relation between firm size and ownership concentration. The effect of rule of law index on ownership concentration is negative and significant. This result suggests that ownership concentration is response to poor legal protection.

For measuring the impact of ownership concentration on firm performance, two-stage least squares regression is used. Return on assets, return on equity and Tobin's Q are used for measuring firm performance variables. Ownership concentration, firm-level variables and country-level variables are independent variables. In conclusion, it is found that ownership concentration does not really matter in determining firms' accounting performance measures, whereas its impact on firm value is unanimously positive and highly significant.

For measuring the relation between ownership identity and firm performance, they divide concentrated ownership structure as: domestic institutional investors, individual investors, government and foreign investors. Two-stage least squares regression is used. In conclusion, it is found that concentrated foreign ownership improves firm value (Tobin's Q). Foreign investors bring better governance and monitoring practices, in addition to more valuable technology transfer and know-how. Individual ownership concentration has a significantly negative impact on ROA and ROE. Concentrated government ownership has positive impact on ROE. The authors did not found any significant impact of local institution and foreign investors on firm performance in terms of accounting values.

Singh and Gaur (2009) examine how business group affiliation, within firm governance and external governance environment affect firm performance in emerging economies. The sample consists of 813 firms (400 Indian firms and 413 Chinese firms).

Return on assets (ROA) is for measuring performance but return on equity (ROE) and return on sales (ROS) are used as alternative measures. Business group affiliation, ownership concentration and board independence are independent variables. Business group affiliation is measured by an indicator variable, which takes a value of one, if the firm belonged to a business group, and zero otherwise.

The paper measures ownership concentration by the percentage of ownership held by the largest shareholder. The study measures board independence by taking a natural logarithm of the number of independent directors in the board. Firm age, firm size, level of diversification, board size, and country membership are control variables. Hierarchical moderated regression analysis is employed.

Group affiliated firms performed worse than unaffiliated firms. Ownership concentration has a positive effect on firm performance. Board independence had a negative impact on firm performance. The study states that it is not easy for emerging economy firms to get the services of qualified independent directors because of the limited availability of such directors.

3.2. Research Design

3.2.1. Sample Selection

The sample of this study consists of 236 Turkish non-financial firms that listed in Istanbul Stock Exchange 100 Index, over the period 2005-2008. The period of this sample started from 2005 because the International Financial Reporting Standards have been applied since 2005 in Turkey. With the application of these standards, companies are obligated to apply these standards and have to prepare more detailed annual reports. (Mandacı, Gümüş, 2010:60)

3.2.2. Data Description

The dataset consists of detailed financial information about non-financial companies. Data for calculating return on assets (ROA), return on equity (ROE) and Tobin's Q are obtained from balance sheets and income statements of the sample firms in ISE official website. Data for the percentage of first five largest shareholders, the percentage of foreign ownership, board size, free float rate, size and age are obtained from year book of companies, independent auditor's reports, annual report and the official web sites of the firms and the magazines of Ekonomist.

Return on assets (ROA), return on equity (ROE) and Tobin's Q are used as dependent variables. The percentage of first five largest shareholders, the percentage

of foreign ownership, board size, free float rate, the effect of previous year return on assets, the effect of previous year return on equity and the effect of previous year Tobin's Q are used as independent variables. Size and age are used as control variables.

3.2.3. Dependent Variables

Return on assets (ROA), return on equity (ROE) and Tobin's Q are used as dependent variables in this study. The explanations about these ratios are shown as follows:

Return on assets measures the firm's overall effectiveness in generating profits with its available assets (Gitman, 2000:144). ROA shows the management efficiency at using its assets to generate earnings. Zeitun, Tian (2007) and Mandacı, Gümüş (2010) used this indicator as measure of performance in their study. ROA is calculated as follows:

ROA = Net Income / Total Assets

Return on equity measures the return earned on the owners' investment in the firm (Gitman, 2000:144). Zeitun, Tian (2007) used return on equity as an indicator of accounting performance measure in their study. Return on equity measures a corporation's profitability and shows how much profit a company generates with the money shareholders have invested. ROE is calculated as follows:

ROE = Net Income / Total Equity

Tobin's Q was developed by James Tobin in 1969 and it is used for measuring firm value in the literature. Higher Tobin's Q value means higher firm value. There are different types of measuring Tobin's Q. Zeitun, Tian (2007) and Mandacı, Gümüş (2010) describe Tobin's Q formula as:

Tobin's Q = (Market value of equity + book value of debt) / book value of assets

3.2.4. Independent Variables

The percentage of the first five largest shareholders, the percentage of foreign ownership, board size and free float rate are used as proxies of corporate governance in the empirical analysis.

Independent variables are regressed in equations as follows:

TOP5: The percentage of the first five largest shareholders in the firm (Zeitun, Tian 2007:70). The first five largest shareholders could have significant effects on firm's performance because they can be more interested with the company. They have a huge voting power in board of directors and management decisions.

Foreign Ownership (FOREIGN): The sum of percentage of shares held by foreigners. It is said that foreigners actively monitor the actions of management. The existence of foreign institutional ownership leads to decrease agency costs (Abor, Biekpe 2007: 292).

Board size (BOARD SIZE): The number of board members (Abor, Biekpe 2007:293). There is a view that larger boards are better for corporate performance because they have a range of expertise to help make better decisions. On the other hand, Jensen (1993), and Lipton and Lorsch (1992) argue that large boards are less effective. When a board gets too big, it becomes difficult to co-ordinate and often creates problems.

Free float rate (FREE FLOAT): The percentage of shares held by public. Companies, which have high free float rate, implement corporate governance practices better than the other companies (Gürbüz, Engincan 2004:75)

3.2.5. Measuring Control Variables

Control variables are regressed in equations as follows:

Size (SIZE): Logarithm of total assets Abor, Biekpe (2007) and Mandacı, Gümüş (2010) use size as control variable. They assume that size can have an impact on firm performance.

Age (AGE): The number of years between the observation year and the firm's year of incorporation (Abor, Biekpe: 293). Age variable is transformed into natural logarithmic form (ln_age) in the analysis.

3.3. Methodology

Panel data is conducted via econometric program, *"EViews 6"*. Random effect regression model is used for analyzing each independent variables effect on dependent variables such as ROA, ROE and Tobin's Q.

Panel data analysis involves analysis with a spatial and temporal dimension and facilitates identification of effects that are simply not detectable in pure cross-section or pure time series studies. (Bokpin, Arko, 2009:249) Panel regression models are based on panel data. Gujarati states that *"Panel data consist of observations on the same cross-sectional or individual, units over several time periods."* The advantages of panel data can be summarized as:

- They increase the sample size considerably
- By studying repeated cross-section observations, panel data are suitable for studying the dynamics of change
- Panel data enable us to study more complicated behavioral models (Gujarati, 2003:652)

There are some estimation techniques for panel data. These are the fixed effects model (FEM), the random effects model (REM). The Hausman (Hausman, 1978: 1276) test can be used to decide applying estimation with FEM or REM. The term "fixed effects" is related to how particular coefficients in a model are treated - as fixed or random values. Approach to choose depends on both the nature of the data and the objective of the study http://www.statistics.com/resources/glossary/f/fixedeffect.php, (21.06.2010).

3.3.1 Specification of the Empirical Model

In the study; there are six models. First three models are pure models, remaining models follow auto regressive process, put another way previous years performance measures are included into three models.

$$ROA = \alpha_0 + \beta_1 * TOP5 + \beta_2 * FOREIGN + \beta_3 * BOARD\ SIZE + \beta_4 * FREE\ FLOAT + \beta_5 * AGE + \varepsilon$$

$$ROE = \alpha_0 + \beta_1 * TOP5 + \beta_2 * FOREIGN + \beta_3 * BOARD\ SIZE + \beta_4 * FREE\ FLOAT + \beta_5 * AGE + \beta_6 * SIZE + \varepsilon$$

$$TOBIN'S\ Q = \alpha_0 + \beta_1 * TOP5 + \beta_2 * FOREIGN + \beta_3 * BOARD\ SIZE + \beta_4 * FREE\ FLOAT + \beta_5 * AGE + \varepsilon$$

To examine the effect of previous year, we add the previous year ROA (LROA), the previous year ROE (LROE) and the previous year Tobin's Q (LTOBIN) in models.

$$ROA = \alpha_0 + \beta_1 * LROA + \beta_2 * TOP5 + \beta_3 * FOREIGN + \beta_4 * BOARD\ SIZE + \beta_5 * FREE\ FLOAT + \beta_6 * AGE + \varepsilon$$

$$ROE = \alpha_0 + \beta_1 * LROE + \beta_2 * TOP5 + \beta_3 * FOREIGN + \beta_4 * BOARD\ SIZE + \beta_5 * FREE\ FLOAT + \beta_6 * AGE + \beta_7 * SIZE + \varepsilon$$

$$TOBIN'S\ Q = \alpha_0 + \beta_1 * LTOBIN + \beta_2 * TOP5 + \beta_3 * FOREIGN + \beta_4 * BOARD\ SIZE + \beta_5 * FREE\ FLOAT + \beta_6 * AGE + \varepsilon$$

β_1, β_2, β_3, β_4, β_5, β_6 and β_7 are corresponding coefficients of the variables. They show the direction of the relationship and the ratio of the relationship. "ε" is a error term. Regression results are interpreted at least 10% significance level.

Total assets are used in the formulas of ROA and Tobin's Q. Size is calculated as log of total assets. Therefore, in the ROA and Tobin's Q regressions size is not used as control variable.

3.4. Empirical Results: Ownership Structure and Firm Performance

Empirical results of this study are shown as follows. Firstly, descriptive statistics of sample are given. Secondly, empirical results are analyzed.

3.4.1. Descriptive Statistics

Table 2: Descriptive Statistics

	TOP5(%)	FOREIGN(%)	BOARD SIZE	FREE FLOAT(%)	AGE	SIZE (TL)
Mean	64.54	11.53	6.22	32.51	34.64	639,211,913
Median	66.31	0.00	6.00	30.63	35.00	160,396,273
Maximum	99.36	97.80	15.00	92.87	97.00	12,659,446,000
Minimum	5.81	0.00	3.00	0.64	5.00	2,877,495
Std. Dev.	18.22	24.67	1.96	17.82	13.97	1,530,427,654
Observations	870	870	870	870	870	870

The mean of the first five largest shareholders (TOP5) is 64.54%. The maximum value of TOP5 is 99.36% and the minimum value of TOP5 is 5.81%. Its standard deviation is 18.22 %.

The mean of foreign ownership is 11.53%. The maximum value of foreign ownership is 97.80% and the minimum value of foreign ownership is 0%. Its standard deviation is 24.67 %.

The mean of board size for non-financial companies is about 6. The minimum number of directors in board is 3 and the maximum number of directors in board is 15. Its standard deviation is 1.96.

The mean of free float rate is 32.51% and the maximum value of free float rate is 92.87% and the minimum value of free float rate is 0.64%. The standard deviation of free float rate is 17.82%.

The mean of age is 34.64. The maximum value for age is 97 and the minimum age is 5. Its standard deviation is 13.97.

The mean of total assets is 639,211,913TL. The maximum value of total assets is 12,659,446,000 TL and the minimum value of total assets is 2,877,495TL. The standard deviation is 1,530,427,654.

3.4.2. The Correlation Matrix

Table 3 presents the correlation matrix of the independent variables in the study.

Table 3: Correlation Matrix

	TOP5	FOREIGN	BOARDSIZE	FREE FLOAT	AGE	SIZE
TOP5	1.00					

FOREIGN	0.409438	1.00				
	0.0000	-----				
BOARD SIZE	0.188135	0.133493	1.00			
	0.0000	0.0001	-----			
FREE FLOAT	-0.935512	-0.364474	-0.214448	1.00		
	0.0000	0.0000	0.0000	-----		
AGE	0.231188	0.106217	0.149388	-0.229639	1.00	
	0.0000	0.0017	0.0000	0.0000	-----	
SIZE	0.261377	0.151627	0.538879	-0.264874	0.230979	1.00
	0.0000	0.0000	0.0000	0.0000	0.0000	-----

It is seen that correlation between all variables are significant. The highest correlation which is -0.93 is seen among top five largest shareholders and free float ratio. The second highest correlation is seen among board size and size. There is negative relationship among free float and other variables. There are positive relations among all variables except free float.

3.4.3. Panel Regression Results

3.4.3.1. Return on Assets (ROA)

The regression results are shown in Table 4. The estimated equation in the regression is as follows:

$$ROA = -0.235770 + 0.000396*TOP5 + 2.81E\text{-}05*FOREIGN + 0.025255*BOARD\ SIZE + 0.000250*FREE\ FLOAT + 0.014970*AGE + \varepsilon$$

Table 4: Regression Results: ROA as the Dependent Variable

Correlated Random Effects - Hausman Test				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.103429	5	0.9998
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Cross-sections included: 236				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.235770	0.122648	-1.922330	0.0549
TOP5	0.000396	0.001116	0.354651	0.7229
FOREIGN	2.81E-05	0.000312	0.090035	0.9283
BOARD SIZE	0.025255	0.003724	6.781305	0.000*
FREE FLOAT	0.000250	0.001132	0.220555	0.8255
AGE	0.014970	0.016042	0.933212	0.3510
R-squared	0.119030	**F-statistic**		1.454147
Adjusted R-squared	0.110844	**Prob(F-statistic)**		0.000000
Durbin-Watson stat	1.241897			

As it is seen in Table 4, only board size has significant and positive relationship with ROA.

The effect of TOP3 shareholders on return on assets is also analyzed. The regression result is the similar with these results which are reported in Appendix 1.

According to the correlation matrix there is a high correlation between the TOP5 and free float rate. At this point, we removed separately TOP5 and free float out of the regression. In both cases, considering all variables only board size is still significant and positive. Correlation does not affect the regression results. The results are shown in Appendix 7 and Appendix 8.

3.4.3.2. Return on Equity (ROE)

The regression results are shown in Table 5. The estimated equation in the regression is as follows:

ROE = -1.289.691 - 0.000828*TOP5 - 0.001820*FOREIGN + 0.039606 *BOARD SIZE + 0.000238*FREE FLOAT + 0.004934*AGE + 0.055255*SIZE + ε

Table 5: Regression Results: ROE as the Dependent Variable

Correlated Random Effects - Hausman Test			
Test period random effects			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Period random	0.322066	6	0.9994
Dependent Variable: ROE			
Method: Panel Least Squares			
Sample: 870			
Cross-sections included: 236			
Total panel (unbalanced) observations: 870			
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-1.289691	0.556313	-2.318284	0.0207
TOP5	-0.000828	0.004217	-0.196266	0.8444
FOREIGN	-0.001820	0.001175	-1.549890	0.1215
BOARD SIZE	0.039606	0.016319	2.426984	0.0154*
FREE FLOAT	0.000238	0.004265	0.055750	0.9556
AGE	0.004934	0.059825	0.082467	0.9343
SIZE	0.055255	0.021560	2.562894	0.0105*
R-squared	0.051341	**F-statistic**		5.171387
Adjusted R-squared	0.041413	**Prob(F-statistic)**		0.000001
Durbin-Watson stat	2.002343			

Probability (p) values of TOP5, foreign ownership, free float and age are not statistically significant at 10% significance level. On the other hand, p values of board size and size indicate statistically significance at 10% level. Therefore, there is a positive relationship between board size, size and ROE. Increase in board size and size result in increase in ROE.

The effect of TOP3 shareholders on return on equity is also analyzed. According to the regression results, board size and size are still positively significant but foreign ownership is negatively significant. The result is shown in Appendix 2.

According to the correlation matrix, there is a high correlation between the TOP5 and free float along with board size and size. At this point, we removed separately TOP5, free float, board size and size out of the regression. In all cases, considering all variables only board size and size variables are still significant and positive. Correlation between these variables does not affect the regression results. The results are shown in Appendix 9, Appendix 10, Appendix 11 and Appendix 12.

3.4.3.3. Tobin's Q

The regression results are shown in Table 6. The estimated equation in the regression is as follows:

TOBIN'S Q = 1.424314 + 0.006582*TOP5 + 0.003566*FOREIGN - 0.022865*BOARD SIZE + 0.006087*FREE FLOAT - 0.148468*AGE + ε

Table 6: Regression Results: Tobin's Q as the Dependent Variable

Correlated Random Effects - Hausman Test			
Test period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	0.310939	5	0.9974

Dependent Variable: TOBIN_Q
Method: Panel Least Squares
Sample: 870
Cross-sections included: 236
Total panel (unbalanced) observations: 870

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.424314	1.325385	1.074642	0.2828
TOP5	0.006582	0.012205	0.539277	0.5898
FOREIGN	0.003566	0.003412	1.045223	0.2962
BOARD SIZE	-0.022865	0.041440	-0.551747	0.5813
FREE FLOAT	0.006087	0.012282	0.495583	0.6203
AGE	-0.148468	0.175941	-0.843852	0.3990

R-squared	0.030518	F-statistic	3.387859
Adjusted R-squared	0.021510	Prob(F-statistic)	0.000772
Durbin-Watson stat	0.239142		

P values of TOP5, foreign ownership, board size, free float and age denote that none of the coefficients are statistically significant at 10% level. It means that these variables are statistically insignificant.

The effect of TOP3 shareholders on Tobin's Q is also analyzed. The regression result is the similar with these results which are reported in Appendix 3.

According to the correlation matrix, there is a high correlation between the TOP5 and free float. At this point, we removed separately TOP5 and free float out of the regression. In both cases, all variables are statistically insignificant. Correlation between these variables does not affect the regression results. The results are shown in Appendix 13 and Appendix 14.

3.4.4. Panel Regression Results with Previous Year Performance Variables

Hu and Izumida (2008), Berger, Clarke, Cull, Klapper and Udell (2005) and Earle, Kucsera and Telegdy (2005) use one year lagged variables for measuring the effects of previous years performance of the variables. By considering these articles, in the analysis one year lagged dependent variables are used to capture the previous year effect.

3.4.4.1. ROA with Previous Year Effect

The regression results are shown in Table 7. The estimated equation in the regression is as follows:

$ROA = -0.190151 + 0.474061*LROA + 7.76E-05*TOP5 - 1.63E-05*FOREIGN + 0.019780*BOARD SIZE + 0.000388*FREE FLOAT + 0.012381*AGE + \varepsilon$

Table 7: Regression Results: ROA with Previous Year Effect

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	6	1.000
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.190151	0.116092	-1.637925	0.1019
LROA	0.474061	0.048725	9.729331	0.0000*
TOP5	7.76E-05	0.001079	0.071938	0.9427
FOREIGN	-1.63E-05	0.000273	-0.059761	0.9524
BOARD SIZE	0.019780	0.003572	5.538260	0.0000*
FREE FLOAT	0.000388	0.001087	0.356618	0.7215
AGE	0.012381	0.013752	0.900361	0.3683
R-squared	0.223246	F-statistic		2.245387
Adjusted R-squared	0.213304	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.290305			

P values of TOP5, foreign ownership, free float and age are statistically insignificant at 10% level. On the other hand, p values of LROA and board size are significant at 1% level. Therefore, there is a positive relationship between LROA, board size and ROA. Increase in LROA and board size result in increase in ROA.

The effect of TOP3 shareholders on return on assets is also analyzed. The regression result is the similar with this results which are reported in Appendix 4.

According to the correlation matrix, there is a high correlation between the TOP5 and free float. At this point, we removed separately TOP5 and free float out of the regression. In both cases, considering all variables only LROA and board size are still significant and positive. Correlation between these variables does not affect the regression results which are shown in Appendix 15 and Appendix 16.

3.4.4.2. ROE with Previous Year Effect

The regression results are shown in Table 8. The estimated equation in the regression is as follows:

ROE = -1.423335 + 0.058740*LROE - 0.003464*TOP5 - 0.001918*FOREIGN + 0.039558*BOARD SIZE - 0.001803*FREE FLOAT + 0.018676*AGE + 0.070419 *SIZE + ε

Table 8: Regression Results: ROE with Previous Year Effect

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	7	1.000
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.423335	0.688049	-2.068654	0.0390
LROE	0.058740	0.029845	1.968172	0.0495*
TOP5	-0.003464	0.005479	-0.632157	0.5275
FOREIGN	-0.001918	0.001411	-1.359085	0.1746
BOARDSIZE	0.039558	0.020255	1.952983	0.0513*
FREE FLOAT	-0.001803	0.005491	-0.328388	0.7427
AGE	0.018676	0.071538	0.261067	0.7941
SIZE	0.070419	0.025234	2.790608	0.0054*
R-squared	0.054834	F-statistic		4.022362
Adjusted R-squared	0.041201	Prob(F-statistic)		0.000051
Durbin-Watson stat	1.706447			

P values of TOP5, foreign ownership, free float and age are statistically insignificant at 10% level. On the other hand, p values of LROE, board size and size are significant at least 10 percent level. Therefore, there is a positive relationship between LROE, board size, size and ROE. Increase in LROE, board size and size result in increase in ROE.

The effect of TOP3 shareholders on return on equity is also analyzed. According to the regression results, board size and size are still positively significant but foreign ownership is negatively significant. The results are shown in Appendix 5.

According to the correlation matrix there is a high correlation between the TOP5 and free float, board size and size. At this point, we removed separately TOP5, free float, board size and size out of the regression. In all cases, considering all variables only LROE, board size and size variables are still significant and positive. Correlation between these variables does not affect the regression results. The results are shown in Appendix 17, Appendix 18, Appendix 19 and Appendix 20.

3.4.4.3. Tobin's Q with Previous Year Effect

The regression results are shown in Table 9. The estimated equation in the regression is as follows:

TOBIN'S Q = 0.256359 + 0.897279*LTOBIN - 0.001490*TOP5 - 0.002677*FOREIGN - 0.032121*BOARD SIZE - 0.001715*FREE FLOAT + 0.030104*AGE + ε

Table 9: Regression Results: Tobin's Q with Previous Years Effect

Correlated Random Effects - Hausman Test			
Test period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	0.057292	6	1.000
Dependent Variable: TOBIN_Q			
Method: Panel Least Squares			
Sample: 870			
Cross-sections included: 221			
Total panel (unbalanced) observations: 634			

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.256359	0.448540	0.571540	0.5678
LTOBIN	0.897279	0.019692	4.556614	0.0000*
TOP5	-0.001490	0.004193	-0.355420	0.7224
FOREIGN	-0.002677	0.001131	-2.366247	0.0183*
BOARDSIZE	-0.032121	0.013538	-2.372535	0.0180*
FREE FLOAT	-0.001715	0.004204	-0.408076	0.6834
AGE	0.030104	0.055621	0.541230	0.5885

R-squared	0.744506	F-statistic	2.276548
Adjusted R-squared	0.741235	Prob(F-statistic)	0.000000
Durbin-Watson stat	2.402651		

P values of TOP5, free float and age are statistically insignificant at 10% level. On the other hand, p value of LTOBIN, foreign ownership and board size are significant at 5% level. Therefore, there is a positive relationship between LTOBIN and Tobin's Q. Increase in LTOBIN results in increase in Tobin's Q. But there is a negative relationship between foreign ownership, board size and Tobin's Q. Increase in foreign ownership and board size result in decrease in Tobin's Q.

The effect of TOP3 shareholders on Tobin's Q is also analyzed. The regression result is similar with these results which are reported in Appendix 6.

According to the correlation matrix there is a high correlation between the TOP5 and free float. At this point we removed separately TOP5 and free float out of the regression. In both cases considering all variables TOP5, age and free float are statistically insignificant. Correlation between these variables does not affect the regression results. The regression results are shown in Appendix 21 and Appendix 22.

CONCLUSION

Corporate governance has become a crucial topic due to financial crisis and collapse of huge companies such as Enron, Parmalat, Worldcom and Ahold in recent years. Corporate governance is one of key element which improves economic efficiency and growth as well as increasing investor confidence.

Capital Markets Board has issued the "Corporate Governance Principles of Turkey" in 2003 and revised them in 2005, also Istanbul Stock Exchange has built "Corporate Governance Index" in 2007. These developments are can be taken as evidence of increasing awareness towards governance in our country.

Effective corporate governance provides transparent and honest management for companies. Therefore, it is important to determine the relationship between firm performance and corporate governance. For measuring this relationship, ownership structure variables, free float, board size, size, age and firm performance variables are used. ROA, ROE, Tobin's Q are used for measuring performance.

As a result of regression analysis, board size is statistically significant and has positive relationship with ROA and ROE. Also board size is statistically significant and has negative relationship with Tobin's Q when previous year's Tobin's Q included in the regression. Abor and Biekpe (2007) state that larger boards are better for corporate performance because they have a range of expertise to help make better decisions and are harder for a powerful CEO to dominate. According their empirical study there is significant and positive relationship between board size and ROA. On the other hand Jensen (1993), and Lipton and Lorsch (1992) states that large boards are less effective. It can be also stated that when a board gets too big, it becomes difficult to co-ordinate and often creates problems.

As a result of regression analysis, firm size is statistically significant and has positive relationship with ROE. Lee (2008) measures the relationship between firm size and firm performance and according to his empirical study; there is a positive effect of firm size on firm performance. Lee (2008) also states that big firms show

higher performance. Omran, Bolbol and Fatheldin (2008) find that large-size firms are more likely to achieve better performance due to monopoly power, reforms of product markets and competition policy.

As a result of regression analysis, previous year's ROA is statistically significant and has positive relationship with ROA. Previous year's ROE is statistically significant and has positive relationship with ROE. Previous year's Tobin's Q is statistically significant and has positive relationship with Tobin's Q. Hu and Izumida (2008) state that there is positive and significant relationship between lagged ROA and ROA.

As a result of regression analysis, foreign ownership is statistically significant and has negative relationship with Tobin's Q when previous year's Tobin's Q included in the regression. Bai, Liu, Lu, Song and Zhang (2003) find that foreign ownership have statistically significant and positive effects on Tobin's Q.

There are limitations in this study. Financial tables of the financial sector firms are fundamentally different than non-financial ones thus; non-financial firms are included in the study due to comparability concerns. The period of this study covers the period of 2005-2008 as a result of implementation of International Financial Reporting Standards. By targeting this period it is ensured that all accounting variables taken are computed by applying same basis. The limitations are as explained above primarily stems from comparability concerns but this study can be expanded by adding new data in future studies.

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APPENDIXES

Appendix 1: Regression Results: ROA with Top 3 Shareholders

Correlated Random Effects - Hausman Test				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.118796	5	0.9998
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.282656	0.089398	-3.161783	0.0016
TOP3	0.001026	0.000762	1.346308	0.1786
FOREIGN	-5.66E-05	0.000313	-0.180559	0.8568
BOARDSIZE	0.025296	0.003704	6.828589	0.0000*
FREE FLOAT	0.000753	0.000789	0.954549	0.3401
AGE	0.013030	0.016044	0.812157	0.4169
R-squared	0.122131	Durbin-Watson stat		1.247298
Adjusted R-squared	0.113974	Prob(F-statistic)		0.000000
F-statistic	1.497304			

Appendix 2: Regression Results: ROE with Top 3 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.338978	6	0.9993
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.582936	0.455122	-3.478048	0.0005
TOP3	0.003218	0.002860	1.125415	0.2607
FOREIGN	-0.002202	0.001184	-1.860288	0.0632*
BOARD SIZE	0.041231	0.016279	2.532683	0.0115*
FREE FLOAT	0.003705	0.002940	1.260010	0.2080
AGE	-0.001317	0.059844	-0.021999	0.9825
SIZE	0.052295	0.021615	2.419316	0.0158*
R-squared	0.052808	F-statistic		5.327444
Adjusted R-squared	0.042896	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.005327			

Appendix 3: Regression Results: Tobin's Q with Top 3 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.593256	6	0.9965
Period random effects test equation:				
Dependent Variable: TOBIN_Q				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.375426	1.304973	2.586586	0.0099
TOP3	0.009833	0.008317	1.182226	0.2374
FOREIGN	0.003168	0.003416	0.927216	0.3541
BOARD SIZE	0.029813	0.047364	0.629449	0.5292
FREE FLOAT	0.006909	0.008529	0.809992	0.4182
AGE	-0.108600	0.177011	-0.613523	0.5397
R-squared	0.043616	F-statistic		4.357794
Adjusted R-squared	0.033607	Prob(F-statistic)		0.000014
Durbin-Watson stat	0.237394			

Appendix 4: Regression Results: ROA with Previous Year Effect and Top 3 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	7	1.000
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.505817	0.109047	-4.638516	0.0000
LROA	0.436497	0.048960	8.915288	0.0000*
TOP3	0.000525	0.000699	0.751574	0.4526
FOREIGN	-0.000101	0.000276	-0.367842	0.7131
BOARDSIZE	0.013554	0.003987	3.399336	0.0007*
FREE FLOAT	0.000910	0.000716	1.271064	0.2042
AGE	0.003760	0.013948	0.269563	0.7876
R-squared	0.239550	F-statistic		2.184074
Adjusted R-squared	0.228582	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.246235			

Appendix 5: Regression Results: ROE with Previous Year Effect and Top 3 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Period random		0.000000	7	1.000
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 1 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-1.920890	0.539728	-3.558993	0.0004
LROE	0.058804	0.029859	1.969376	0.0494*
TOP3	0.002669	0.003553	0.751303	0.4528
FOREIGN	-0.002376	0.001424	-1.669422	0.0955*
BOARD SIZE	0.041376	0.020276	2.040593	0.0417*
FREE FLOAT	0.003667	0.003633	1.009163	0.3133
AGE	0.011977	0.071691	0.167060	0.8674
SIZE	0.067614	0.025388	2.663233	0.0079*
R-squared	0.055042	**F-statistic**		4.038536
Adjusted R-squared	0.041413	**Prob(F-statistic)**		0.000048
Durbin-Watson stat	1.707174			

Appendix 6: Regression Results: Tobin's Q with Previous Year Effect and Top 3 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.078089	7	10.000
Period random effects test equation:				
Dependent Variable: TOBIN_Q				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.026443	0.420243	-0.062924	0.9498
LTOBIN	0.899544	0.019796	4.543956	0.0000*
TOP3	-0.001586	0.002744	-0.578063	0.5634
FOREIGN	-0.002653	0.001139	-2.329804	0.0201*
BOAR DSIZE	-0.038986	0.015597	-2.499600	0.0127*
FREE FLOAT	-0.001523	0.002793	-0.545375	0.5857
AGE	0.024814	0.056300	0.440756	0.6595
R-squared	0.744761	F-statistic		2.023072
Adjusted R-squared	0.741079	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.413863			

Appendix 7: Regression Results: ROA without Top 5 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.103115	4	0.9987
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.199023	0.063750	-3.121950	0.0019
FOREIGN	5.13E-05	0.000305	0.168488	0.8662
BOARDSIZE	0.025185	0.003714	6.781135	0.0000*
FREE FLOAT	-0.000117	0.000446	-0.262928	0.7927
AGE	0.015234	0.016023	0.950721	0.3420
R-squared	0.118805	F-statistic		1.660249
Adjusted R-squared	0.111649	Prob(F-statistic)		0.000000
Durbin-Watson stat	1.241529			

Appendix 8: Regression Results: ROA without Free Float

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.103018	4	0.9987
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.212039	0.058258	-3.639671	0.0003
TOP5	0.000167	0.000440	0.380214	0.7039
FOREIGN	3.26E-05	0.000311	0.104775	0.9166
BOARD SIZE	0.025165	0.003692	6.816651	0.0000*
AGE	0.014873	0.016023	0.928254	0.3535
R-squared	0.118942	F-statistic		1.662411
Adjusted R-squared	0.111787	Prob(F-statistic)		0.000000
Durbin-Watson stat	1.241776			

Appendix 9: Regression Results: ROE without Top 5 Shareholders and Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.163336	4	0.9968
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.509634	0.237744	-2.143622	0.0323
FOREIGN	-0.001769	0.001160	-1.525156	0.1276
BOARD SIZE	0.060872	0.014205	4.285203	0.0000*
FREE FLOAT	0.000437	0.001673	0.261176	0.7940
AGE	0.027032	0.059956	0.450861	0.6522
R-squared	0.043281	F-statistic		5.570808
Adjusted R-squared	0.035511	Prob(F-statistic)		0.000003
Durbin-Watson stat	1.989502			

Appendix 10: Regression Results: ROE without Top 5 Shareholders and Board Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Period random		0.255584	4	0.9925
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 1 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-1.618315	0.401215	-4.033532	0.0001
FOREIGN	-0.001772	0.001158	-1.529435	0.1265
FREE FLOAT	0.000726	0.001682	0.431640	0.6661
AGE	0.006715	0.060371	0.111232	0.9115
SIZE	0.081534	0.018775	4.342747	0.0000*
R-squared	0.043989	**F-statistic**		5.666217
Adjusted R-squared	0.036226	**Prob(F-statistic)**		0.000002
Durbin-Watson stat	1.987727			

Appendix 11: Regression Results: ROE without Free Float and Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Period random		0.189911	4	0.9958
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.466881	0.216786	-2.153655	0.0315
TOP5	-0.000439	0.001651	-0.266141	0.7902
FOREIGN	-0.001751	0.001185	-1.477832	0.1398
BOARD SIZE	0.060754	0.014131	4.299263	0.0000*
AGE	0.027127	0.059946	0.452521	0.6510
R-squared	0.043283	**F-statistic**		5.571064
Adjusted R-squared	0.035513	**Prob(F-statistic)**		0.000003
Durbin-Watson stat	1.989473			

Appendix 12: Regression Results: ROE without Free Float and Board Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.271061	4	0.9916
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.546758	0.364861	-4.239311	0.0000
TOP5	-0.000909	0.001666	-0.545942	0.5852
FOREIGN	-0.001693	0.001182	-1.432812	0.1523
AGE	0.007871	0.060326	0.130472	0.8962
SIZE	0.081843	0.018745	4.366195	0.0000*
R-squared	0.044121	F-statistic		5.684022
Adjusted R-squared	0.036359	Prob(F-statistic)		0.000002
Durbin-Watson stat	1.987865			

Appendix 13: Regression Results: Tobin' Q without Top 5 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.195503	4	0.9955
Period random effects test equation:				
Dependent Variable: TOBIN_Q				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.035186	0.693049	2.936568	0.0034
FOREIGN	0.003953	0.003341	1.183139	0.2371
BOARD SIZE	-0.024033	0.041422	-0.580199	0.5619
FREE FLOAT	-1.40E-05	0.004687	-0.002979	0.9976
AGE	-0.144090	0.175730	-0.819948	0.4125
R-squared	0.029834	F-statistic		3.786871
Adjusted R-squared	0.021956	Prob(F-statistic)		0.000467
Durbin-Watson stat	0.238899			

Appendix 14: Regression Results: Tobin's Q without Free Float

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.246021	4	0.9930
Period random effects test equation:				
Dependent Variable: TOBIN_Q				
Method: Panel Least Squares				
Sample: 870				
Periods included: 4				
Cross-sections included: 236				
Total panel (unbalanced) observations: 870				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.002648	0.626490	3.196615	0.0014
TOP5	0.001007	0.004655	0.216268	0.8288
FOREIGN	0.003677	0.003403	1.080559	0.2802
BOARDSIZE	-0.025062	0.041252	-0.607540	0.5437
AGE	-0.150842	0.175740	-0.858325	0.3910
R-squared	0.029940	F-statistic		3.800720
Adjusted R-squared	0.022063	Prob(F-statistic)		0.000449
Durbin-Watson stat	0.238633			

Appendix 15: Regression Results: ROA with Previous Year Effect without Top 5 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	5	1.000
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.182947	0.055603	-3.290258	0.0011
LROA	0.474116	0.048709	9.733589	0.0000*
FOREIGN	-1.20E-05	0.000266	-0.044958	0.9642
BOARD SIZE	0.019768	0.003563	5.548596	0.0000*
FREE FLOAT	0.000316	0.000390	0.808243	0.4193
AGE	0.012434	0.013735	0.905280	0.3657
R-squared	0.223240	F-statistic		2.570166
Adjusted R-squared	0.214554	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.290369			

Appendix 16: Regression Results: ROA with Previous Year Effect without Free Float

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	5	1.000
Period random effects test equation:				
Dependent Variable: ROA				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.153167	0.050512	-3.032284	0.0025
LROA	0.473911	0.048686	9.734116	0.0000*
TOP5	-0.000282	0.000387	-0.728495	0.4666
FOREIGN	-8.50E-06	0.000272	-0.031272	0.9751
BOARD SIZE	0.019667	0.003550	5.539515	0.0000*
AGE	0.012249	0.013733	0.891931	0.3728
R-squared	0.223084	F-statistic		2.567849
Adjusted R-squared	0.214396	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.289539			

Appendix 17: Regression Results: ROE with Previous Year Effect without Top 5 Shareholders and Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	5	1.000
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.664133	0.283796	-2.340181	0.0196
LROE	0.068386	0.029844	2.291482	0.0223*
FOREIGN	-0.001943	0.001391	-1.396444	0.1631
BOARD SIZE	0.067110	0.017812	3.767617	0.0002*
FREE FLOAT	0.000776	0.001989	0.390443	0.6963
AGE	0.048158	0.071405	0.674436	0.5003
R-squared	0.043780	F-statistic		4.094483
Adjusted R-squared	0.033088	Prob(F-statistic)		0.000208
Durbin-Watson stat	1.706592			

Appendix 18: Regression Results: ROE with Previous Year Effect without Top 5 Shareholders and Board Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	5	1.000
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.965119	0.465725	-4.219485	0.0000
LROE	0.068335	0.029615	2.307465	0.0214*
FOREIGN	-0.002037	0.001379	-1.476824	0.1402
FREE FLOAT	0.001121	0.001977	0.566793	0.5711
AGE	0.019418	0.071483	0.271652	0.7860
SIZE	0.094937	0.022000	4.315293	0.0000*
R-squared	0.048597	F-statistic		4.567928
Adjusted R-squared	0.037958	Prob(F-statistic)		0.000055
Durbin-Watson stat	1.718846			

Appendix 19: Regression Results: ROE with Previous Year Effect without Free Float and Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	5	1.000
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.578050	0.255516	-2.262286	0.0240
LROE	0.068311	0.029873	2.286723	0.0225*
TOP5	-0.001123	0.001981	-0.566723	0.5711
FOREIGN	-0.001819	0.001419	-1.281859	0.2004
BOARD SIZE	0.067302	0.017754	3.790778	0.0002*
AGE	0.050829	0.071388	0.712013	0.4767
R-squared	0.044012	F-statistic		4.117134
Adjusted R-squared	0.033322	Prob(F-statistic)		0.000195
Durbin-Watson stat	1.706544			

Appendix 20: Regression Results: ROE with Previous Year Effect without Free Float and Board Size

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.000000	5	1.000
Period random effects test equation:				
Dependent Variable: ROE				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.853021	0.425292	-4.357057	0.0000
LROE	0.068103	0.029657	2.296394	0.0220*
TOP5	-0.001608	0.001975	-0.814147	0.4159
FOREIGN	-0.001865	0.001405	-1.327142	0.1849
AGE	0.022744	0.071420	0.318462	0.7502
SIZE	0.095723	0.021983	4.354309	0.0000*
R-squared	0.049057	F-statistic		4.613379
Adjusted R-squared	0.038423	Prob(F-statistic)		0.000048
Durbin-Watson stat	1.718.800			

Appendix 21: Regression Results: Tobin' Q with Previous Year Effect without Top 5 Shareholders

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.056066	5	1.000
Period random effects test equation:				
Dependent Variable: TOBIN_Q				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.118594	0.224583	0.528064	0.5976
LTOBIN	0.897081	0.019676	4.559316	0.0000*
FOREIGN	-0.002760	0.001106	-2.494696	0.0129*
BOARD SIZE	-0.031923	0.013522	-2.360778	0.0185*
FREE FLOAT	-0.000333	0.001533	-0.217029	0.8283
AGE	0.029037	0.055518	0.523030	0.6011
R-squared	0.744468	F-statistic		260.5417
Adjusted R-squared	0.741611	Prob(F-statistic)		0.000000
Durbin-Watson stat	2.401962			

Appendix 22: Regression Results: Tobin's Q with Previous Year Effect without Free Float

Correlated Random Effects - Hausman Test				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		0.052180	5	1.000
Period random effects test equation:				
Dependent Variable: TOBIN_Q				
Method: Panel Least Squares				
Sample: 870				
Periods included: 3				
Cross-sections included: 221				
Total panel (unbalanced) observations: 634				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.092811	0.200979	0.461796	0.6444
LTOBIN	0.897152	0.019685	4.557505	0.0000*
TOP5	0.000103	0.001530	0.067187	0.9465
FOREIGN	-0.002711	0.001128	-2.404136	0.0165*
BOARD SIZE	-0.031607	0.013484	-2.343936	0.0194*
AGE	0.030674	0.055599	0.551702	0.5813
R-squared	0.744456	**F-statistic**		2.605249
Adjusted R-squared	0.741598	**Prob(F-statistic)**		0.000000
Durbin-Watson stat	2.402444			