REITS IN TURKEY:
THE IMPACT OF THE DEVIATIONS FROM THE GLOBAL SYSTEMS

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ABSTRACT

REITS IN TURKEY:
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This dissertation aims to evaluate the impacts of divergence of Turkish Real Estate Investment Trust (REIT) sector/industry from the global REIT markets. Turkish REITs do not have to pay out any certain level of income to shareholders and have a sponsored ownership structure, governed by regulations different from the global REITs, while they are still tax-exempted. The dissertation investigates the tax arbitrage, impacts of corporate governance issues such as board composition and sponsor ownership on the corporate financial performance of Turkish REITs. I find a significant market value increase for lead stakeholders around REIT IPOs highly likely due to tax arbitrage. Tax arbitrage arises from the tax exemption without any mandatory payout rule. I also find that REITs with larger board size, more independent members and higher non-sponsor ownership exhibit better financial performance. There is also a nonlinear relation between lead stakeholder ownership and operating performance. Additionally, operating performance worsens if the lead stakeholder is government-backed corporation or a bank. Depending on the findings of this dissertation, I make policy implications such as implementing mandatory payout rule and limiting the business relation between the lead stakeholders and the REITs.

Keywords: REITs, Real Estate Finance, Tax-Exemption, Tax Arbitrage Corporate Governance

ÖZ

TÜRKIYE'DE GYO'LAR:
GLOBAL SİSTEMLERDEN FARKLILIKLARIN ETKİLERİ

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Bu çalışma, Türkiye'deki Gayrimenkul Yatırım Ortaklığı (GYO) sisteminin global GYO sistemlerinden farklılıklarının etkilerini incelemektedir. Vergi muafiyeti olmasına rağmen, küresel GYO'lardan farklı olarak, Türkiye'de GYO'lar gelirlerinin belirli bir oranını dağıtmak zorunda değillerdir ve sponsorlu bir sahiplik yapısına sahiplerdir. Bu tez; vergi arbitrajını, yönetim kurulu dağılımı, sponsor sahipliği gibi kurumsal yönetim konularının kurumsal finansal performansa etkilerini araştırmaktadır. Yüksek ihtimalle vergi avantajından dolayı, istatistiksel anlamlı olarak lider sermayedarların piyasa değerinin GYO halkaarzları zamanında arttığını göstermekteyim. Vergi arbitrajı, zorunlu karpayı dağıtımı olmadan tanınan vergi muafiyetinden ortaya çıkmaktadır. Ek olarak, daha büyük ve daha fazla bağımsız üyeye sahip yönetim kurulları olan, sponsor olmayan sahipliği yüksek olan GYO'lar daha iyi performans göstermektedir. Ayrıca, lider sermayedar sahipliği ve finansal performans arasında doğrusal olmayan ilişki bulunmuştur. İşletme performansı, lider sermayedarın banka yada devlet destekli kurumlar olması durumlarında kötüleşmektedir. Tezde bulunan sonuçlara dayanarak, zorunlu karpayı dağıtılması, lider sermayedar ile GYO arasındaki iş ilişkilerine sınırlama getirilmesi gibi politika tavsiyeleri yapılmaktadır.

Anahtar Kelimeler: GYO'lar, Gayrimenkul Finansmanı, Vergi Muafiyeti, Vergi Arbitrajı, Kurumsal Yönetim

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INTRODUCTION

Investors aim to maximize their returns and minimize the risks associated with their investments. Alternative to stocks and bonds, real estate helps investors to diversify their portfolios and thereby decrease the risks their portfolios are exposed to. The attention of pension funds to real estate has increased during the last two decades as the real estate experts develop and introduce new investment vehicles. Andonov, Eichholtz and Kok (2013) document the interest of pension funds, as real estate has become the largest alternative type of investment in their portfolios.

According to National Association of Real Estate Investment Trusts (NAREIT) in the United States (US), throughout the period from 1978 to 2010, the returns of the US equity Real Estate Investment Trusts (REITs) is higher than equity market index by more than one percent.[1] As real estate plays a diversifier role in investors' portfolios, they also decrease the risk of the portfolio.

However, beyond risk and return, investors also consider the liquidity and size of their investments. Throughout the centuries, direct real estate investment has been the major type of property investments. However, real estate investments are capital-intensive and illiquid. For instance, a household who would like to buy a real estate should pay a high amount of money and when s/he wants to dispose it, s/he has to wait until there is a buyer. On the other hand, real estate contracts also distort liquidity and it takes time for real estate prices to adjust. In addition to all of these, real estate is a local business and needs expertise.

[1] For details, please visit http://www.reit.com.

Indirect or securitized real estate such as REIT equities is an important alternative to direct real estate investment dealing with these issues. If an investor owns REIT shares, then, for instance, s/he does not have to invest in an office building directly and cover the costs of the total value of the building. Instead, by owning the shares of a REIT, an investor can obtain a share in a building owned by that REIT. This way, the investor can benefit from the expertise and information of the REIT managers and does not have to wait until the building is sold as s/he can immediately dispose ownership by selling the shares of the REIT.

REITs are property companies mostly listed in the stock exchanges. Most countries have REIT systems. Table 1.1 presents information of REIT markets by selected countries. The information is obtained from EPRA (2011). As it is seen in the table, the US is the first introducer of a REIT system and the largest REIT market globally consisting of 179 companies with a total market capitalization of €313.3 billions, as of 2011. Australia also introduces a REIT system earlier in 1985. There are 57 Australian REITs and their total market capitalization is €56.4 billions, as of 2011. In Europe, France and the United Kingdom (UK) introduce REIT systems in 2003 and 2007 with €50.3 and €30.9 billions, as of 2011, respectively. On the other hand, Japan and Singapore also have REIT systems since 1999 and 2000, respectively. The total market capitalization of Japanese REITs is €29.5 billions while Singaporean REITs have a total market capitalization of €11.3 billions, as of 2011.

Table 1.1 REIT Markets by Country

Country	Introduction Year	# of Companies	Market Cap. €billions	Payout Rule	Ownership Rule
Turkey	1995	19	2.0	None	Largest>20%
United States	1960	179	313.3	90%	Largest 5<50%
United Kingdom	2007	18	30.9	90%	Any<10%
France	2003	43	50.3	85%	Any<60%
Australia	1985	57	56.4	100%	None
Singapore	1999	24	11.3	90%	None
Japan	2000	34	29.5	90%	None

Notes: Data as of 2011 are obtained from EPRA Global REIT Survey 2011.

Interestingly, Turkey is also one of the early introducers having a REIT system since 1995. There are 19 REITs with a total market capitalization of €2 billions, as of 2011. The number of REITs in Turkey has increased to 31.
Major REITs are listed property companies exempted from corporate income tax. However, in order to have the tax-exemption, they have to obey certain set of rules. Mostly, the rules are common globally. They have to pay out 85 to 100 percent of their income to their shareholders in general, though there are minor differences as shown in Table 1-1 except Turkey. Turkish REITs do not have to pay out a certain amount of their income by regulations.

Ownership is also restricted for most of the REIT systems. In the US, the largest 5 shareholders cannot hold more than 50% of the existing shares and there must be at least 100 shareholders. In the UK, any shareholder cannot hold more than 10 percent of outstanding shares. The rule is more flexible in France as a shareholder cannot hold more than 60 percent of outstanding shares. In Japan and Singapore, there are no certain limitations on an individual shareholder. In Turkey, the ownership rule is conversely designed. There must be a lead entrepreneur or, as I sometimes call, a sponsor and the sponsor must hold *at least* 20 percent of the outstanding shares. The 20 percent is recently removed by an amendment in the 2013 REIT communiqué. This rule creates a concentrated ownership similar to Asian countries like Singapore and Japan where there is no upper bound for shareholders' ownership. This concentrated structure is different from the US, where there is a diversified ownership structure. In addition to payout and ownership rules, there are also certain restrictions globally on income and asset structures mostly limiting these companies to real estate.

I concentrate on two aspects of global REIT systems and Turkish REIT system. Firstly, the unique and restricted legal environment surrounding REITs globally enables researchers to investigate the impact of strict regulations on corporate governance needs and practices. There has been an ongoing research on REITs'

corporate governance. Secondly, Turkish REIT system has differences from the global REIT systems. The regulatory structure differentiates Turkish REITs from global REITs and makes corporate governance a very important issue.

Corporate governance is one of the major topics in finance. The traditional firm theory states that firms maximize profits and value using inputs and producing output. However, it ignores that the decisions in the firm are taken by individuals. According to Smith (1776), the directors of the firm manages other individuals' money who own the firm rather than their own money. Their utility function can be different from the firm's or owners' utility function and their decisions might diverge from the utility function of the firm or profit maximization equilibrium.

Jensen and Meckling (1976) develop an "agency theory" for firms where the owner is the principle and the managers are the agents. The owners that are the principles have the money but do not have the expertise, while the managers that are the agents do not have enough money to operate a firm using their expertise so the principle hires the agent in order to run the business. The agent makes decisions on behalf of the principle. However, the agent might make decisions that can harm the principle's utility and firm value if his interests do not align with the principle.

The question here is how to prevent managers from having such activities destroying firm value. Owners can put some limitations on managers or create incentives for them. They can limit managers by the contractual terms but there are still residual claims creating a residual loss to the owners. The owner can monitor the managers or give compensations or bonuses to them incurring costs. All of these costs are the agency costs arising from the principal-agent problem.

Agency costs are more severe when high levels of discretionary cash is available to the managers (Jensen 1986). If managers have discretionary cash, they can invest in projects harming firm value but bringing financial or non-financial benefits to themselves instead of distributing dividends. Jensen (1986) calls the problem as the

free cash flow problem. Limiting available cash to managers can diminish agency conflicts arising from the free cash flow problem. Debt can also create a monitoring mechanism. The lenders such as banks or financial institutions monitor the firm and the managers closely can diminish the agency costs.

The level of ownership of the principals (shareholders) is also important. Voting rights are the key power for the shareholders. If shareholders have enough voting rights, they can change the managers or threaten them with their voting power. If there are large shareholders in a company, they can have the power with their voting rights and pursue the activities of managers. However, the interests of large stakeholders can conflict the interest of minority shareholders. If they have enough power, they can put pressure on the managers and have them make decisions for their own benefits, which can harm the corporate value and minority shareholders. The key factor is the voting power. The closely held shares, which give more voting power to their holders than ordinary shares, can contribute to the power of large shareholders if they hold that type of shares.

The agency costs bring the need for corporate governance. Better corporate governance practices can diminish agency costs and accordingly enhance firm performance. In their well-cited paper, Gompers, Ishii and Metrick (2003) create a corporate governance index and document that better corporate governance improves financial performance. The governance index that the authors create is broader index covering categories such as voting rights, takeover defenses, etc. Their analysis has further been evaluated by Bebchuk, Cohen and Ferrel (2009). They find similar results simplifying the corprate governance index created Gompers, Ishii and Metrick (2003).

Legal environment surrounding firms can also affect agency costs. La Porta et al. (2000) find that in a better legal environment firms pay more dividends. According to the authors, strong legal setting enables shareholders to force managers to distribute cash. This way, shareholders can prevent managers from misusing

discreationary cash destroing value. Later, La Porta et al. (2002) evaluate the relation between legal protection and corporate value. They find that there is a positive association between legal protection and corporate value. This finding indicates that strict legal rules limit managers to make value-destroying activities, enhancing financial performance.

The authors also evaluate the impact of controlling shareholder ownership on financial performance. They find that higher ownership aligns their interests with minority shareholders but if it increases more and more, they can expropriate in expense of minority shareholders. Claessens et al. (2002) differentiate voting rights from rights on income and find that higher voting rights so higher power worsens financial performance while rights from income enhances performance. Cornett et al. (2007) find that the positive impact of institutional ownership only holds for the firms not having direct business relation with the firm of which they hold stocks. Having business relations can create agency conflicts.

Board composition is also important for corporate governance quality. The evidence in finance literature generally shows that board size improves financial performance due to an increased efficiency in smaller boards (Yermack 1996). However, Coles, Daniel and Naveen (2008) find that this relation does not hold all the time. They document that there is an opposite relation for firms that are more diversified, larger and have higher leverage. Kiel and Nicholson (2003) also find a positive relation for Australian firms indicating that more people increase monitoring. In most studies, the fraction of outside directors has a positive impact on firm performance (Brickley and Terry 1994; Coles, Daniel and Naveen 2008; Cornett et al. 2007; Kiel and Nicholson 2003; Rosenstein and Wyatt 1990). Outside directors can better monitor the firm and the managers.

As REITs operate in a restricted legal environment, especially, with the mandatory payout rule, researchers on corporate governance show interest in those companies. Bauer, Eichholtz and Kok (2010) explain that the strict legal environment diminish

the need for corporate governance as they do not find any significant relation between corporate governance quality and REIT operating performance. Ghosh and Sirmans (2003) show that independent members improves financial performance for the US REITs. They also find that affiliated blockholder and institutional ownership enhances financial performance in a dispersed ownership structure. The literature on Asian REITs is limited on corporate governance. Lecomte and Ooi (2013) document that governance quality related to board structure has a significantly positive relation with stock performance.

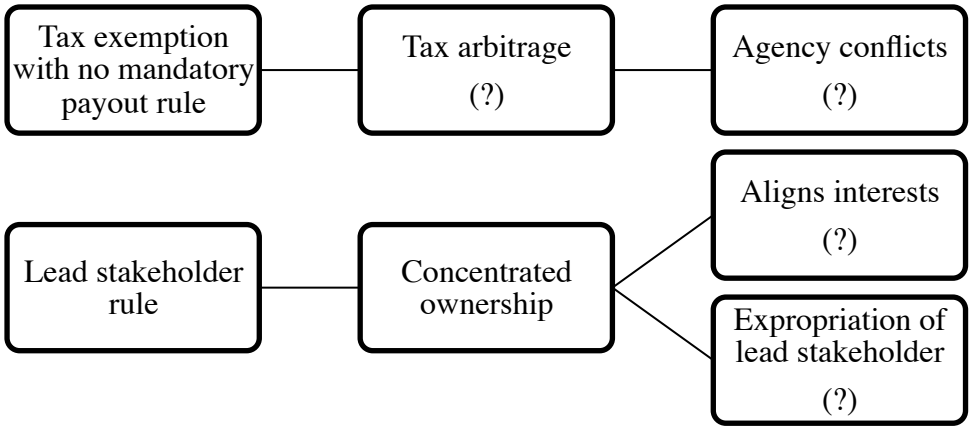

Figure 1.1 Legal Rules in Turkish REIT System and Agency Costs

Corporate governance is a very important phenomenon for REITs due to the uniqueness of REIT legal structures. There has been no research on Turkish REIT system especially, considering corporate governance. The Turkish REIT structure also has legal differences from global REIT systems and offers even a more unique case. Similar to global REIT systems, there is tax exemption but there is no mandatory payout rule in Turkey. This type of setting is unique and makes the Turkish REIT market very relevant for corporate governance.

Based on the finance and REIT literature on corporate governance, Figure 1.1 summarizes possible agency problems arising form the legal environment in Turkey. Firstly, tax exemption without the mandatory payout rule can create benefits from a tax arbitrage issue. Consider that the lead stakeholder has properties. As the company is the owner, the company does not pay any rents and the properties only appear in the balance sheet but have no impact on the income statement. When the company decides to set up a REIT, the lead stakeholder transfers those properties to the REIT. Now the lead stakeholder becomes a tenant and the REIT becomes the owner of the properties. The rents to the properties become costs for the lead stakeholder and are deductible from the corporate tax income so the lead stakeholder earns a tax arbitrage.

On the other hand, as the REIT becomes the owner, the rents are income for the REIT. However, REITs are exempted from the corporate tax so the REIT does not pay any tax on the income as soon as they retain the income in the company. If they distribute dividends, there is no withholding tax but the lead stakeholder should pay corporate tax on the dividend income. Since there is no mandatory payout rule, the lead stakeholder can protect the tax arbitrage as soon as the REIT does not distribute income.

The tax arbitrage can create agency conflicts between lead stakeholders and minority shareholders since the benefits from tax arbitrage are unique to the lead stakeholders. If unique stakeholder has power on the directors of the REIT, they can force managers to forego a positive net present value (NPV) project and have them invest in properties that the REIT will rent to the lead stakeholder. The existence of tax arbitrage and agency conflicts potentially arising form it is an empirical question.

Secondly, the lead stakeholder rule putting a minimum 25 percent ownership requirement for the lead stakeholders creates a concentrated ownership structure.[2] As I discuss above, finance literature suggests that higher ownership can align interest with minority shareholders. On the other hand, if the lead stakeholder has business with the REIT such as the tenant-owner relation that I propose, then the positive impact on financial performance might distort. Furthermore, the benefits from tax arbitrage can encourage the lead stakeholder to expropriate in expense for minority shareholders. In addition to these, lead stakeholders have more voting power than their rights on income as they hold closely held shares giving higher voting power to their holders.

This dissertation investigates these aspects of Turkish REIT structure. The main contribution of this dissertation is to investigate how a tax advantage given to firms can create agency conflicts using the unique legal structure of Turkish REITs. It is also a test of the impact of mandatory payout rule on REIT corporate governance. This dissertation is also the first study dealing with the impact of corporate governance on Turkish REITs and among few papers investigating this relation for REIT systems in emerging markets. The findings on Turkish REITs in this dissertation have lessons for the Asian REIT markets, as they also have a concentrated ownership structure.

Overall, I find evidence for tax arbitrage. I evaluate the cumulative abnormal returns (CARs) for lead stakeholders and their affiliates around REIT initial public offerings (IPOs). I document that the shares of lead stakeholders and their affiliates significantly generate CARs of 5.16-6.81 percent. The CARs for banks and holders of REIT shares stabilize around 20 percent three months after the event window. The results show that the lead stakeholders and their affiliates enjoy the benefits from tax arbitrage and the investors adjust their valuation for those companies around REIT IPOs. The significant tax arbitrage can also create agency conflicts.

[2] Although it is removed by the 2003 communiqué, most REITs are set up under the previous regulations.

I later evaluate the relation between board composition, ownership structure and financial performance. I document that larger boards with more independent members enhance operating performance. However, they do not generate abnormal returns, as most likely investors are aware of the benefits.

I also investigate the impact of lead stakeholder ownership. I significantly find a nonlinear relation between lead stakeholder ownership and operating performance. There is a negative relation below 50 percent ownership threshold probably due to the agency conflicts arising from the legal structure. However, above 50 percent, the relation turns out to be positive as in the literature. I also document that non-sponsor ownership enhances operating and stock performance, which indicates that investors do not incorporate the benefits of non-sponsor owners. I also evaluate bank ownership. Banks are real estate intensive firms and there are 7 banks owning a REIT in Turkey. The benefits from tax arbitrage are very relevant for banks as they have branches and need real estate. My evidence shows that bank-owned REITs have significantly lower Tobin's Q by 0.52. I find similar underperformance for government-backed REITs. They also generate significantly negative abnormal returns and have lower market betas.

In the final part of the dissertation, I propose policy implications based on my findings. Preventing lead stakeholders from having business relation such as owner-tenant case, implementing a mandatory payout rule or putting corporate tax on the undistributed income could improve REIT performances and strengthen the REIT structure. Encouraging REITs to improve corporate governance within the REITs such as having larger boards with more independent members can also mitigate the agency conflicts. I also evaluate market reaction to major legal changes in Turkey. Investors react negatively to relaxing legal rules on REITs such as lowering the upper bound for real estate assets or decreasing free float as REIT stocks generate negative abnormal returns around the announcement of the 2004 amendments to the REIT communiqué. On the other hand, investors react positively to the amendments in 2013 removing the lead stakeholder rule and introducing new types of real estate securities, which is in line with my findings in this dissertation.

This dissertation contributes to the existing literature from different aspects. First of all, the specific rules such as tax exemption, mandatory payout and ownership requirements in REIT structures make REIT systems important in order to research corporate governance. Especially, the US REITs are evaluated intensively but there is not much evidence from REITs in other countries. Turkish REIT system also has differences from other REIT systems, which allows me to test unique questions such as the tax arbitrage problem. Turkish REIT system is the only REIT system offering tax exemption without any mandatory payout rule. My analysis sheds light on the necessity of the mandatory payout rule when there is corporate tax exemption, as tax exemption without payout rule can create tax arbitrage for the owners of REITs.

I also contribute to the political economy literature. My findings on tax arbitrage show how a regulation, specifically, a specific tax treatment implemented can create benefits for certain entities, potentially in expense for others. Additionally, this dissertation is the first study evaluating corporate governance on Turkish REITs and one of the few studies for non-US REITs. This dissertation compares the findings for the US REITs with non-US REITs, specifically Turkish REITs and to see whether those findings on the US system hold for the Turkish REITs discussing the divergence of regulations in Turkish REITs system.

The structure of the dissertation is as follows: Chapter 2 summarizes the corporate governance and REIT literature. I also explain global REIT systems in selected countries and in Turkey and discuss the relevance of legal rules to corporate governance. In Chapter 3, I test whether there is any value increase for lead stakeholders and their affiliates arising from the tax arbitrage issue. Chapter 4 investigates and provides the empirical evidence for the relationship between governance quality and financial performance of Turkish REITs. In Chapter 5, I propose policy implications based on my findings. Finally, I conclude and discuss further research in Chapter 6.

CHAPTER 2

LITERATURE REVIEW AND THE TURKISH REIT SYSTEM

REITs are regulated under more restricted than other types of corporations. The strict legal structure makes REITs very important with respect to corporate governance offering a laboratory environment. In this chapter, I first discuss the finance literature on corporate governance concentrating on potential agency costs that firms and investors face with. Then, I review the literature on the relation between corporate governance and financial performance. As REITs are unique with their legal structures, there has also a bunch of research on their corporate governance practices. Later in the chapter, I also summarize the corporate governance literature for REITs.

Although REIT structures are more restricted globally, there are also differences across countries. I discuss those differences such as ownership structures, tax regimes, payout regulations, etc. based on their connection with corporate governance. Specifically, I also discuss Turkish REIT legal system. There have also been differences within Turkey across years. I summarize the REIT communiqués in Turkey and amendments to them. Finally, I discuss the differences from the global REIT systems and changes in the Turkish REIT system considering their impact on corporate governance.

2.1 Literature on Corporate Governance

In economics, the theory of the firm mainly concentrates on the profit and value maximization of the firm, itself. The firm satisfies marginal conditions defined as in

the theories using inputs to produce outputs in order to maximize profits. However, it is unknown in these theories how firms are operated by "human-beings" in order to utilize the conditions. Those theories in economics define firms as the principal agent in specified markets.

Smith (1776) points the directors of the firm managing other individuals' money that are the owners of the firm rather than their own money. So managers may not have to directly maximize the utility function of the firm or the owners but also diverge from the utility function of the firm towards an alternative function considering his own wealth. Accordingly, finance literature has moved to a different set of theories considering human-beings' – managers' and owners' – behavior when dealing with the theory of the firm. These theories do not always give similar results with economic theories of the firm based on profit maximization.

2.1.1 Agency Cost of Equity and Debt

Jensen and Meckling (1976) have proposed an "agency theory" for firms after which alternative fields of finance literature have grown based on the agency theory. The agency relationship can be applied in different fields in economics and finance. Principal-agent relationship is a contractual agreement where the principal assigns an agent to give services on behalf of the principal. An example of this kind of relationship is a real estate agent serving a household who would like to buy a house. Alternatively, a lawyer serving a client in a trial at a court is another example. This relationship is also applicable to organizations such as universities, foundations, governmental institutions, etc. As in these examples, the principal sometimes gives the agent the authority to make decisions on behalf of themselves.

When it comes to the firm, there are owners (or a single owner) and directors in the firm. In this case, the owner becomes the principal and the directors become the agent. If we directly relate this relationship to the theory of the firm in economics, the owner gives the director the authority to maximize the profits of the firm. Owners need directors in a sense that the directors have the expertise to perform the operations while owners do not have enough. On the other hand, directors do not have enough capital to run the business, where the owner supplies it. The question can be raised here is whether the directors always make decisions in order to maximize the profits or value of the firm. Or does the utility function of the managers always coincide with the utility function of the firm or the owner?

The directors that are the agents might make divergent decisions to the utility maximization of the firm. The directors might try to maximize his own wealth whenever he is able to. Or the managers can aim to make the company bigger and bigger in order to develop a better personal reputation with investing in unprofitable or value-destructing projects. The examples can be extended for different situations or industries. So a director's utility function is dependent not only on his direct financial benefits from the firm such as the salary but also on some non-financial benefits such as personal relations like respect or enlarging network, involving in social activities, or reputation.

These non-financial benefits might not have to have direct impact on the utility function of the firm and its owners, and sometimes they might contradict with their interests, in expense for their utilities. An example to a direct negative impact could be that managers can try to take the cash out by selling the output of their own company to the company that they manage. Those managerial opportunisms or at least, the managerial freedom to do so make investors reluctant to supply capital to the firm (Grossman and Hart 1986; Shleifer and Vishny 1997; Williamson 1988).

While all of these possibilities ignored in most theories of the firm in economics, the problem here is how to limit the managers to make such decisions harming the

owners that are the principals. As we define the relationship as a contractual agreement between the principal and the agent, some of those value-destructing decisions are prevented by the contract between the owners and the managers. The owner can put limitations to the directors by creating incentives to maximize profits of the firm, monitoring the directors, etc. The incentive creation includes some compensation or bonuses to the managers, which are costs incurred by the owners. However, all of these activities to prevent directors from making such decisions incur costs to the owners/principals. Still, the owners most likely may not be able to fully align the interests of the managers with theirs, leaving some "residual losses". All of these costs can be brought together under "agency costs" defined by Jensen and Meckling (1976). The authors create three categories under the agency costs of equity:

1. The monitoring cost of the owner
2. The costs incurred by the owners for the compensation of the directors
3. The residual loss that cannot be ignored by the contracts

This agency problem not only fits to a private company but also can be applied to publicly listed companies in stock exchange markets. There are individual shareholders, large stockholders such as families or financial institutions including hedge funds, pension funds as the principal owners of the company and the directors as the agents. The "separation of ownership and control" and accordingly, "residual losses" that cannot be prevented by the contracts are even more severe for those publicly listed companies as there are diversified number of owners and as these firms are very large firms in value. The agency costs incurred in order to incentivize directors can also be in very large amounts.

The seminal work by Modigliani and Miller (1958) mainly states that the value of firm is independent of the company's capital mix of equity and debt with the assumptions of no taxes and bankruptcy costs. Without those assumptions, tax exemption of interest payments creates tax shield for debt increasing the value of

firm with increase in debt. However, debt also increases the probability of bankruptcy accordingly increasing expected bankruptcy costs. There is an optimal capital mix for a firm depending on these counter effects. Relaxing the assumptions of Modigliani and Miller (1958), Jensen and Meckling (1976) indicate that without agency costs, this line of story is incomplete and the agency cost theory they develop can help in determining the optimal capital mix.

Giving a quick thinking, one can claim that in order to avoid agency costs arising from the separation of ownership and control, there must only be one owner and whenever the sole owner would like to expand the company and needs external capital, the owner can borrow. This way, the agency costs we have defined could be avoided since there is no separation of ownership and control.

In real life, this is not the usual case. We barely observe that firms use 100 percent debt whenever they need capital. Let's think about a special case and assume that the firm uses 100 percent debt. The lenders or debtholders have priority in the claims of the company over the owners so the owner should first pay the interest and principal of the debt to the lender. In this case, the owner can go for very risky investments with very high payoffs and very low probability of success in the expense of the debtholders. If the project is successful, the owner will receive very large share of the profits. On the other hand, the lender will bear the cost of the project since the project is mainly financed by debt. Overall, high levels of debt create the overinvestment problem, which is an agency cost of debt this time.

In order to avoid such behavior of the managers and monitor them, there are covenants of the bonds, which put restrictions on the managers' choices and actions. These covenants are costly reducing the return of the bondholders and could also be suboptimal since it limits the capability of the managers maybe preventing them from making the optimal investment decisions, as well.

Finally, we can talk about the bankruptcy costs. Claims on debt have priority over equity claims. Firms should first pay the debt. If the company cannot meet the obligations to debtholders, the firm will go bankrupt and the equityholders or the owners will loose their claims on the firm. In corporations, there is limited liability where the owners' personal wealth is independent of the claims on the company. If the market value of the firm is less than the value of obligations will be in the expense of the debtholders. The event of bankruptcy is an area of courts and also there are costs associated with the court trial, as well.

Overall, when we talk about the agency costs of debt, we can summarize them as follows as also in Jensen and Meckling (1976):

1. Costs associated with overinvestment problem
2. Costs associated with monitoring and covenants of debt
3. Bankruptcy costs

Agency costs of debt, as well as agency costs of equity help to explain the optimal capital mix. In order to develop a theory of firm these agency costs could not be ignored. In order to make investments and expand, companies need external capital, either equity or debt, which are exposed to agency costs.

In the next subsections, I will discuss how these agency costs arise and could be mitigated. I will first talk about free cash flow problem. Then, I will continue with the separation of ownership and control and accordingly the role of large shareholders.

2.1.2 Free Cash Flow Problem

I above discuss the agency costs arising form the relationship between the principals that are the shareholders and the agents that are the managers. I also propose residual claims, which cannot be controlled contractually, following Jensen and Meckling (1976).

Managers' residual claims and freedom in their decision-making is also dependent on the discretionary cash in their hands. Free cash flow is the discretionary cash after the capital expenditures spent in order to make positive net present value projects and net working capital. Jensen (1986) states that the agency costs are severe when the free cash flow under the control of managers is at high levels. If this is the case, the managers can use the discretionary cash for their own interest rather than the interest of the shareholders or the owners. They can waste the free cash flow and go for negative net present value projects.

Jensen (1986) explains the role of free cash flow for the agency conflicts between shareholders and managers. He develops a free cash flow theory where he evaluates the impact of dividend payouts and debt. Dividend payouts to shareholders decrease the discretionary cash in managers' hands out of the free cash flows. Accordingly, payouts diminish the residual claims and managers' freedom to use the cash in value-destroying projects. The well-known pecking order theory states that for their investments, firms first use internal funding that is the available cash in hand, then they use debt and finally they approach capital markets for equity.

When firms do not have enough internal funding, they prefer to use debt as pecking order theory suggests. Jensen (1986) develops the control hypothesis that explains the benefits of debt as opposed to the agency costs of debt I state above. When firms announce dividend payments they can take it back. According to Jensen (1986), even they announce permanent dividend increase, they have the chance to

take it back although the dividends are sticky and difficult for managers to decrease but there is at least no legal obligation not to take it back.

When firms issue bonds, similar to dividend payments, they promise to pay out cash to bondholders but this time they cannot take their promise back and have to pay out the cash until they pay all the principal and interest to bondholders. Otherwise, the bondholders can take the firm to court for bankruptcy. Thus, debt diminishes the discretionary cash available to managers. Jensen (1986) also indicates that the threat arising from the possibility of bankruptcy, which also has huge reputational costs to the managers, motivates the managers to behave in a more efficient manner. At the optimal level of debt, the marginal benefits of debt are equal to marginal costs of debt.

Jensen's free cash flow theory predicts that instead of distributing dividends, managers can make acquisitions or mergers, which are mostly value-destroying. An example to value-destroying acquisitions could be diversified takeovers. He gives supporting evidence from oil, tobacco and food industries in which firms have large cash flows but lower growth opportunities.

Jensen (1986) also points out that the control hypothesis is more effective for firms that can generate high cash flows and have low growth opportunities such as REITs. I will come to this point when I discuss agency costs and REITs and explain how this is solved in global REIT systems and how it is in Turkey.

2.1.3 Benefits and Agency Costs of Large Shareholders

Corporations have shareholders, small or large, who are the owners of the company. When a corporation goes public, it sells shares of the company to many small or large shareholders. As I mention above, the relation between owners

(shareholders) and managers is a contractual agreement. The most important right of shareholders is their voting rights. The voting rights cover voting for an important corporate decision such as an important investment decision and election of board of directors. Such voting rights give some monitoring power to the owners or shareholders. Though, securing voting rights can be a difficult issue in most developing countries. Shleifer and Vishny (1997) give examples from Russia and Italy where some illegalities can be observed at that time.

There can also be different classes of shares giving different levels of voting rights to different classes of shares. For instance, according to an article at Forbes in 2014, Facebook has only sold Class A shares during its public offering in 2012. The CEO of Facebook has owned 18 percent of the company holding Class B shares giving him 57 percent of the voting shares. This type of shares is called closely held shares.

The voting right of a small investor does not mostly constitute a big threat against the managers preventing them from expropriation. Shareholders can only use their voting rights more effectively if they become large shareholders or are able to act collectively than in a case where there are many small shareholders whose voting rights are split to many of them. Small number of shareholders with many shares also could also solve the freeriding problem of large number of shareholders to monitor the management. The large shareholders also create monitoring mechanisms protecting small-scale shareholders, as well.

While in the United States, institutional investors such as pension funds decrease the concentration in the ownership, in Europe and Turkey, we see majority ownership of shareholders such as families or large banks. As in the United States, majority ownership is not very often observed, there can also be experienced a "hostile" takeover. Hostile takeover is an event occurring when a large shareholder or a group of shareholders purchases shares from small shareholders in a tender offer, they can take the control of the management in a "hostile" or forced manner.

The threat of such type of takeovers creates a monitoring power over the managers. Such shareholders mostly target firms with large cash holdings since there is a bigger free cash flow problem possibly creating inefficiencies in the management of the firm. With a hostile takeover, they can improve management quality and increase the value of the firm.

Large creditors can also put into this category of large investors in the firm like large shareholders. Such banks or bondholders also invest capital in the firm and they also create a control mechanism like the large shareholders. This relates to the Jensen's free cash flow theory and the role of debt and lenders. If the lenders are large enough, they will also have bigger power over the management team. Besides the benefits, there can also be agency costs related to those shareholders. The interests of large shareholders do not have to be aligned with the interests of small shareholders.

According to Shleifer and Vishny (1997), those large shareholders might be inclined to redistribute wealth in expense of other shareholders and managers. This could happen if they have large voting rights or maybe hold closely held shares increasing their voting rights (Grossman and Hart 1988; Harris and Raviv 1988). As an example of such expropriation, large shareholders can push managers of the company of which they hold shares to do business with their own companies. This could be value-destroying for the small shareholders. The evidence by Morck, Schleifer and Vishny (1988) shows that the profitability increases when the ownership of largest shareholder is between 0 and 5 percent but decreases thereafter. According to Weinstein and Yafeh (1998), firms affiliated with main banks in Japan pay higher average interest rates than their peers.

The agency costs could also be in expense of different investor groups like shareholders and bondholders. If the large investor is a shareholder, they can push managers to go for risky projects with low probability of success in expense of bondholders who would mostly cover the risks. Or if there is a large bondholder,

they can force the managers to forego a positive net present value project in expense of shareholders since the bondholder mostly covers the costs.

Overall, agency costs can have different forms but mostly harm the small shareholders. Large shareholders or large bondholders might also affect other groups of investors in a good way by creating monitoring mechanisms or in a bad way by creating agency costs. The existence of agency costs brings out the need for "corporate governance". Shleifer and Vishny (1997) define corporate governance as a mechanism dealing with how suppliers of capital to the firm can guarantee themselves to get their return from their investments in the firm. Some of the benefits of different ownership and capital structures or managerial compensation that I discuss above automatically create governance mechanisms. Legal structures or different contractual terms between owners and managers can also contribute to corporate governance. In the next section, I will shortly summarize the literature on corporate governance mechanisms and their impact on the firm financial performance.

2.2 Corporate Governance and Firm Performance

The agency costs I discuss in the previous sections harm the value of the firm. This brings an empirical question whether these agency costs and corporate governance practices in order to prevent them affect corporate financial performance. The main issue in investigating the relationship between corporate governance and firm financial performance is how to measure corporate governance. The most notable attempt in order to rank firms' corporate governance has first been made by Gompers, Ishii and Metrick (2003). They collect data on the listings of corporate governance provisions for individual firms from the Investor Responsibility Research Center.

In the database, there are provisions from corporate bylaws and charters, proxy statements, annual reports, 10-K and 10-Q SEC filings. In total there are 24 provisions covering categories of tactics for delaying hostile bidders, voting rights, director protection, other takeover defenses and state laws. Mostly, these provisions are related to shareholder rights and each can be categorized as a pro (con) for shareholder rights (managerial power). Based on these 24 provisions, Gompers, Ishii and Metrick create an index for each individual firm, which gets one from each provision if it increases managerial power so the higher the index, the worse is the corporate governance practice for a firm. This way, they can rank the corporate governance structure of the firms.

I shortly give some examples of those provisions. Supermajority provision requires supermajority of the votes for approval of mergers. For instance, if a bidder sees potential for improvement in the management, they might make a bid for a merger and if it is accepted they can increase the efficiency of the firm and accordingly the value by synergies and improving the management. However, if there is such supermajority provision in act, it is more difficult for the bidder to complete the merger. This indicates higher managerial power. If this provision is in act for an individual firm, the index value increases by one.

The unequal voting provision is also very relevant for REITs in Turkey, which I will discuss it later in this chapter. Unequal voting rights limit voting rights of some shareholders and increase voting rights of others. Closely held shares are an example. Firms can issue different classes of shares. One of the classes can be publicly traded while some class of shares are not publicly traded and closely held like in a private company. The closely held shares generally have higher voting rights than the publicly traded shares. This way, the owners of closely held shares can protect their voting power.

As an example, Facebook Inc. has Class A and Class B shares. Class B shares are closely held shares which are not publicly traded. The CEO of Facebook only owns

18 percent of the outstanding shares while his Class A share ownership give him the right to have 57 percent of the voting shares during the period of IPO of Facebook Inc. (Forbes 2014). The existence of unequal voting provision increases managerial power so is a plus one to the governance index.

There are other common provisions such as poison pills, which gives special rights to its holders in an event like hostile takeover bid. Golden parachutes also provide large compensations to the senior executives in case of termination of their contract or resignation following a change in control.

The authors first create two main portfolios, democracy and dictatorship, based on the governance index. The democracy portfolio consist of firms having governance index value lower than 6 while the dictatorship portfolio consist of firms having governance index larger than 13. Both portfolios are updated regularly based on the changes in the governance index. Gompers, Ishii and Metrick find that a one-dollar investment in the democracy portfolio and dictatorship portfolio in 1990 becomes $7.07 and $3.39. The authors also calculate the abnormal return of a difference portfolio (democracy-dictatorship) is about 8.5 percent for the same period.

These findings relate to the market efficiency hypothesis. If the markets are efficient and use all of the available information also related to agency costs and the quality of corporate governance, then, the authors should not find any abnormal or firm-specific returns. However, investors might ignore the quality of corporate governance or they might also underestimate the agency costs if the markets are not perfectly efficient.

If in either way, corporate governance quality contributes to the financial performance, then, companies with better governance practices should generate positive abnormal returns. On the other hand, if the investors realize that corporate governance enhances financial performance, then, they will start to buy the stocks of firms with better governance quality more and sell the stocks of firms with worse

governance practices. In the end, once realized, that is the markets become more efficient, companies with better governance practices should not generate any abnormal returns. The findings of Gompers, Ishii and Metrick can be explained by the underestimation of agency costs. These findings are also in line with the inefficiency of the financial markets and their ignorance of corporate governance practices given the time period.

The authors also evaluate the relation between corporate governance index and operating performance. They measure operating performance by Tobin's Q, net profit margin, ROE and sales growth. In the Tobin's Q regressions, overall they find that one unit increase in the governance index, decreases Tobin's Q by 0.043. This finding indicates that as the manager gets more power, the operating performance of the firm worsens.

In a latter work, Bebchuk, Cohen and Ferrel (2009) revisit the governance index and modify it. They evaluate the impact of each provision on financial performance and end up with six of them, which have significant impact on the financial performance. Based on those six provisions, they create the entrenchment index. These six provisions consist of three supermajority requirements, poison pills, golden parachutes and staggered board. Among those, when the firm has a staggered board, directors are divided into different classes. Only one class of directors can be reelected each year.

They follow similar analysis as in Gompers, Ishii and Metrick (2003). They find strongly negative relation between entrenchment index and financial performance. They also jointly investigate the impact of each level of entrenchment index and they find a monotonically decreasing impact of levels of entrenchment index on the financial performance. Their findings both hold for stock and operating performance with different specifications.

Core, Guay and Rusticus (2006) concentrate on the stock underperformance of worse governed companies documented by Gompers, Ishii and Metrick (2003). They find the stock underperformance surprising, as there shouldn't be any relation between governance quality and stock performance. The negative relation should be with operating performance (Core, Holthausen and Larcker 1999).

Then, the authors expect that if there is any stock underperformance, it should surprise the investors. For this purpose, they examine the relation between governance quality measured by the governance index created by Gompers, Ishii and Metrick (2003) and analyst forecast errors. They also test whether there is any impact of governance on the earnings announcement returns. If the investors ignore the impact of corporate governance quality on future cash flow, then when they observe the relatively low realized earnings to the forecasts by the worse governed firms, they must be surprised. If analysts also optimistically forecast earnings of weakly governed firms, realized earnings should be lower than their forecasts.

In both tests, Core, Guay and Rusticus do not find any surprise impact. Additionally, they investigate the relation between corporate governance quality and operating performance in the following period to Gompers, Ishii and Metrick's study and find that there is still poor operating performance by weakly governed companies. Overall, their findings indicate that the impact of weak governance is observed in poor operating performance. If investors anticipate and incorporate weak governance in their valuation, then there will be no stock underperformance by weakly governed companies indicating the efficiency in the financial markets.

The legal environment can influence corporate financial performance not only directly but also indirectly through interacting with the dividend payout structure and firm-specific corporate governance. The strength of legal protection can influence the payout strategy and the corporate governance practices developed by the firms. It may also influence the perception and risk taking of the investors supplying capital to the financial markets. The strength of legal environment affects

the corporate policies for dividend payout and may mitigate the need for higher payout levels.

As I discuss above, La Porta et al. (2000) also points out that dividend payouts can diminish the inefficiency in the marginal investments and any divergence from the investors' incentives by limiting the available discretionary cash to the managers. They develop an outcome agency model of dividends, as they call.

According to the model, the dividend payments are an outcome of a stronger legal environment. The shareholders can force the managers to payout the available cash with the legal force provided by the law and are able to prevent managerial expropriation. If managers exploit and misuse the available cash, they will be under riskier conditions with a better legal system so the strength of the legal protection dissuades the managers from doing such value-destroying activities. The model predicts that with a stronger legal environment protecting shareholders, the companies pay out more dividends. The model also suggests that in a well-protecting legal environment, investors allow companies to distribute less if they have better growth opportunities but this is not the case in a weak legal environment. They find support for the outcome agency model.

Comparing common law and civil law countries and also using a measure of legal protection, the authors document that in a better legal environment, companies pay more dividends. Companies with better growth opportunities pay lower levels of dividends as investors foresee that those companies can use the available cash for positive net present value projects considering the growth opportunities. In weak legal environments, the investors seek for dividends more and try to get as much as they can from the firm.

The authors later investigate the impact of legal protection on the corporate valuation (La Porta et al. 2002). In a legal environment where laws protect investors' rights well, the investors' willingness to supply capital in terms of equity

and debt goes up and accordingly, the financial markets enlarge and become more valuable. Better legal protection limiting managerial expropriation makes them more confident that the returns to their investment will come back in terms of interest and dividends. This will increase the number of investors participating in the financial markets.

The authors use an international data set from 27 countries. They evaluate how investor protection by laws affects firm value measured by Tobin's Q. As a measure of legal protection they use the origin of a country's laws and an index of legal rules related to investor protection. Their findings indicate that legal protection has a positive relation with corporate value. This indicates that if the legal rules limit the expropriation of managers, the corporate value will go up.

The authors also examine the effect of ownership of the controlling shareholder. They measure the ownership of the controlling shareholder as the percentage of the cash flow rights. They document that the increase in the cash flow rights is associated with an increase in corporate value. They also discuss the opposing impact of control or voting rights. Higher ownership aligns the interests but more and more ownership of the controlling shareholder can create expropriation harming the corporate value (Claessens et al. 2002). Since voting rights are highly correlated with cash flow rights, it is difficult to disentangle them. Claessens et al. (2002) evaluate the two rights separately for the East Asian countries and document that stronger control of the entrepreneur harms the value while cash flow ownership influences it positively.

Klapper and Love (2004) investigate the relation between firm-specific corporate governance and financial performance under different country-specific legal structures using an international data set. There are different dimensions in the relationship. If the legal structure is weak, firms might want to improve the lack of legal structure by implementing better corporate governance practices.

The other possibility for firms with weak legal structure is that those firms can exploit the weakness in the legal environment and also have weak firm-specific governance practices. Additionally, within a given legal structure, firms in need of financing in the future might have improved governance quality as greater investor protection increases investors' willingness to supply capital to those firms. The interaction of firm-specific governance with legal structure might also matter. One possibility is that improvements in the corporate governance quality would not matter as the weak legal system might make them ineffective. Or in weak legal environments, even a small improvement would have a big impact, as there is low protection for investors.

Klapper and Love apply CLSA reports containing corporate governance rankings on 495 companies from 25 countries. In the database, there is a questionnaire with 57 binary questions. The questionnaire evaluates firms with different categories such as transparency, independence, fairness, etc. Based on each answer to the binary questions, they create a governance index. They use judicial efficiency measure from Country Risk Guide and anti-director rights measure from La Porta et al. (1999) as the country level legal structure measure.

Overall, they find that the legal protection measures are positively related to the firm-specific governance index. This indicates that companies with legal protection has worse corporate governance quality. They also document that better firm-specific governance quality associates with better financial performance using the international data. Finally, they show that the interaction term between firm-specific governance quality and legal protection measure has a significantly negative coefficient. This finding supports the hypothesis that firm-specific governance matters more in countries with overall weak legal systems.

Besides the general governance indices and legal environment, researchers also evaluate the impact of board and ownership structures directly. There is a bunch of literature on the impact of board size and independence of the board on firm

performance. Jensen (1993) raises the issue that as the group of people becomes larger, there will be an efficiency loss and the group will become less effective since it becomes more difficult to coordinate people in a group. He states that this applies to the board of companies. Yermack (1996) tests the effect of board size on the financial performance. In line with the logic by Jensen (1993), the author finds that, as board becomes larger, Tobin's Q declines. In his data set, the mean of board size is around 12 and the board size mostly varies from 6 to 24. These findings are also confirmed by some other papers (Cornett et al. 2007; Eisenberg, Sundgren and Wells 1998; Mak and Kusnadi 2005).

On the other hand, there is also a debate on the relation between board size and firm performance. Coles, Daniel and Naveen (2008) raise the question whether this negative relation holds for all firms. They hypothesize that if firms need more advice, then, larger boards could be better for those firms because as they argue, larger boards can give better advice. They divide firms into two as complex firms and simple firms. They measure complexity with respect to the extent the firms need advise. They state that firms as more complex if firms are more diversified, larger and have higher leverage. Those complex firms in need of more advice can perform better with larger boards.

They also propose a concave relation between board size and Tobin's Q where the board size is larger for complex firms at the peak. The positive relation between board size and firm performance is not necessarily observed since they may coincide with very small board size such as three where firms mostly choose a larger number. Because of this, they claim that mostly the negative portion of the relation is observed. The average board size in their sample is around 10. Overall, the authors document that there is a positive relation between board size and firm performance for the complex firms.

Kiel and Nicholson (2003) predict a positive relation for Australian firms with a similar logic as in Coles, Daniel and Naveen (2008). In their sample, the average

board size is around 6.6. They point the significantly lower mean of their sample and expect a concave relation where their sample lies on the portion below the peak. They also support the idea that more people in the board increase the monitoring power of the board as more people review the firm decisions. They indeed show that there is a positive relation for the Australian firms.

In most studies, the fraction of outside directors is found to be positively related to the firm performance (Brickley and Terry 1994; Coles, Daniel and Naveen 2008; Cornett et al. 2007; Kiel and Nicholson 2003; Rosenstein and Wyatt 1990). The intuition behind the relation is that outside directors are in a better position to monitor the firm and the managers and to advice them. They are also experienced managers in most cases and use their expertise in firm decision-making process.

I argue two opposing impact of institutional investors in the previous section. Institutional investors monitor the managers and might prevent them from expropriation. On the other hand, institutional investors can expropriate themselves and use their strength for their own benefits in expense of minority shareholders. In the literature, institutional ownership attracts interest and many papers evaluate the relation between institutional ownership and corporate financial performance. The direct effect of institutional ownership has been evaluated in the literature and it is evidenced that institutional ownership enhances corporate financial performance (Del Guarcio and Hawkins 1999; McConnell and Servaes 1990; Nesbitt 1994; Smith 1996).

Some papers separate some institutional investors doing business with the firm of which they own shares (Almazan, Hartzell and Starks 2008; Chen, Harford and Li 2007). For instance, for those firms, in order to continue the business, they might put less pressure on the managers. Cornett et al. (2007) test the impact of ownership of such institutions having business relation with the firm and those not having, separately on the financial performance. They actually find that the positive impact

of institutional ownership only holds for those firms who do not have any direct business relation with the firm of which they hold stocks.

In another study, Miguel, Pindado and de la Torre (2004) investigate the relation between institutional ownership and firm performance for Spanish firms. They find a concave relation where at low levels of institutional ownership, there is a positive relation. As the percentage of institutional ownership increases after some threshold, institutions exploit their power and the relation becomes negative.

REITs have specific legal structures all around the world and these restrictions for REITs make them very relevant for corporate governance practices. Being more operated in more strict legal environments, REITs have attracted researchers in the field of corporate governance. Before discussing legal differences in REIT systems across countries, I will review REIT literature on corporate governance and discuss their importance for corporate governance research in the next section.

2.3 REIT Corporate Governance

In general, REITs operate in a more restricted legal environment. Despite the small differences across countries, REITs are tax-exempted that is they do not pay corporate tax if they distribute dividends above a predefined ratio.[3] In the US, REITs have to distribute 90 percent of their net income as dividends in order to keep the tax-exemption. There are also other legal restrictions such as 5-50 rule in the US. REITs must have at least 100 shareholders and the largest five cannot hold more than 50 percent of the shares. This creates a diversified ownership structure. They also have to generate 75 percent of their income from real estate or real estate related assets.

[3] In this section, I concentrate mostly on the US REIT system and discuss differences across countries in the next section.

Especially, the 90 percent payout rule has attracted researchers to evaluate the impact of this strict rule on the corporate governance practices. In a well-cited paper, Bauer, Eichholtz and Kok (2010) examine whether this strict legal rule replaces firm-specific corporate governance practices or at least reduces the need for them. As I mention above, managers have more freedom to expropriate if they have enough discretionary cash. Paying out dividends is one of the solutions proposed as in the literature. Considering that REITs have to pay out 90 percent of their income, the legal environment surrounding REITs can create a mechanism protecting minority shareholders.

Actually, as Bauer, Eichholtz and Kok (2010) point out, countries like Brazil, Chile and Ecuador apply such a pay out rule often in order to cover for the weak legal environment. Bauer, Eichholtz and Kok (2010) test whether legal restrictions of REITs substitute for firm-specific corporate governance and whether the expected positive impact of corporate governance on firm financial performance disappears for the US REITs.

An opposing hypothesis developed by the authors is related to the ownership rule. The 5-50 rule creating a dispersed ownership structure makes it difficult to have large shareholders for the US REITs. Eichholtz and Kok (2008) document that there are very rare hostile takeovers for the US REITs. The lack of monitoring by large shareholders can increase the agency cost problems and firm-specific corporate governance mechanisms can still be relevant for the US REITs.

Additionally, the income and asset restrictions on REITs can also create agency problems for REITs (Feng, Ghosh and Sirmans 2005). The rules suggest that REITs have to generate 75 percent of their income from real estate and 75 percent of their holdings should be in cash and equivalents, real estate related assets. These rules decrease the likelihood of making mergers with companies from other industries

and accordingly limit the takeover threat. As a result, managers have less takeover pressure and are more likely to use the available cash in their will.

In order to perform the empirical analysis, the authors collect data from Institutional Shareholder Services (ISS). The data set contains the Corporate Governance Quotient (CGQ) index and also indices for subcategories of corporate governance. Bauer, Eichholtz and Kok (2010) document that the CGQ index has no significant impact on REIT financial performance. They replicate the same analysis for the general corporations and in line with the previous literature; they indeed find a positive relation. The authors explain the insignificance of the relation for the US REITs as the REIT effect possibly arising from the strict legal rules specifically for REITs.

In a follow up paper, Eichholtz, Kok and Yönder (2011) revisit the relation for the US REITs comparing the real estate boom period and the financial crisis period for the US REITs. The authors investigate the impact of CGQ index and subcategories of corporate governance on the stock performance. In line with Bauer, Eichholtz and Kok (2010), they document that there is no relation between corporate governance and stock performance but when the crisis hits, the relationship becomes significantly positive for corporate governance quality related to the board structure and auditing. Their intuition is that corporate governance becomes more important as the managers are more prone to expropriate during bad times as their expected returns which are based on financial performance go down during a recession.

In a similar study, Bianco, Ghosh and Sirmans (2007) test the effect of governance index created by Gompers, Ishii and Metrick (2003) on operating performance of REITs. Although they find a positive relation between the governance index and operating performance in 2004, the relation disappears in 2006. According to their findings, there is no consistent impact of corporate governance on financial performance, which is in line with the REIT effect explained by Bauer, Eichholtz

and Kok (2010). The authors explain the governance index as an index for external governance mechanism. Their findings suggest that internal governance mechanisms are more related to the US REITs.

The relation between board composition and REIT financial performance for the US market has also been examined. Ghosh and Sirmans (2003) investigate the relation between outside directors and financial performance and conclude that outside directors enhance operating performance measured by ROE. Based on the literature, Feng, Ghosh and Sirmans (2005) create a simple board index. The index value gets one from each if the board has less than 8 directors, more than 60 percent outside directors and the CEO is not the chair of the board. They document a significantly positive impact of the board index on return on assets as a measure of operating performance.

Ghosh and Sirmans (2003) also evaluate ownership and board structure for US REITs. They test whether affiliated blockholder ownership, non-affiliated blockholder ownership and institutional ownership affect operating performance. They find that affiliated blockholder and institutional ownership improves financial performance. Surprisingly, their findings show that non-affiliated blockholder ownership weakens performance. Hartzell, Sun and Titman (2006) show that institutional ownership is important for investments and REITs with higher institutional ownership seek more for investment opportunities. Investigating the relationship between insider ownership and financial performance, Han (2006) documents that insider ownership has a positive impact on Tobin's Q in the presence of high levels of institutional ownership. According to Han, high levels of institutional ownership help the alignment of interests between the insiders and shareholders by reducing the agency costs.

Among the emerging economies, most Asian countries have a REIT system with a sponsored ownership structure. Most of the Asian countries have introduced their REIT structures within the last decade such as Singapore (1999), Japan (2000),

South Korea (2001) and Hong Kong (2003). The REIT system increased the corporate governance quality of real estate companies in these countries (Ooi, Newell and Sing 2006).

However, the impact of corporate governance in Asian REIT markets has not been extensively investigated in the literature. The REIT system increased the corporate governance quality of real estate companies in these countries (Ooi, Newell and Sing 2006). Lecomte and Ooi (2013) study the effect of corporate governance on financial performance of Singaporan REITs. They evaluate the relationship with a broader measure of corporate governance and find that better corporate governance enhances stock performance but not operating performance.

Among sub-categories of corporate governance, governance quality related to board structure has a significantly positive impact on stock performance. On the other hand, Wong, Ong and Ooi (2013) evaluate the role of sponsors over the Asian REIT IPOs. The authors define Asian REITs as captive REITs. They find that there is a positive relationship between sponsor ownership and IPO underpricing.

2.4 Global REIT Systems

Although REIT systems are similar all around the world, there are still some differences in the legal restrictions across countries. REITs are tax-exempted all around the world. They are also subject to asset rules, payout rules and ownership rules. While the pinciples behind these rules are similar, there are small deviations across different countries.

In Europe, almost all REIT-like structures bring tax-exemption for the REITs. There are a few minor differences. For instance, in France there is no direct tax-exemption but qualifying properties are not included under the tax basis. Any other

non-qualifying activities are taxed at 33 percent. There is a similar system in Belgium like in France. In the United States and South Korea, the income distributed as dividends are tax deductable. Since in both countries, the mandatory distribution rule states that 90 percent of income should be distributed to the shareholders, they are also assumed to have tax-exemption in the real estate literature. Either putting a tax burden on the undistributed part of income or the dividend tax on the distributed income guarantee the tax authorities to collect taxes in both instances but eliminate double taxation. Overall, the tax exemption at corporate level prevents double taxation for REITs all around the world.

Table 2.1 REIT Tax Regimes for Selected Countries

Country	Tax Exemption
The United States	Dividends paid to shareholders are exempted from corporate tax. Any undistributed taxable income is subject to corporate tax.
Australia	No tax-exemption.
Canada	Any undistributed taxable income is subject to corporate tax.
Belgium	Income from qualifying properties is tax-exempted.
France	Income from qualifying properties is tax-exempted.
Germany	Exempted from corporate tax.
The United Kingdom	Tax-exempted from rental income earned.
Hong Kong	Tax-exempted from profit tax but rental income subject to property tax.
Japan	Dividends paid (min. 90%) to shareholders are exempted from tax under additional conditions.
Singapore	Income is tax-exempted but unitholders are taxed from distributed income. Any undistributed taxable income is subject to tax.
South Korea	Dividends paid (min. 90%) to shareholders are exempted from tax. Any undistributed taxable income is subject to tax.

Source: PWC Report 2013, Eichholtz and Kok (2007)

In most countries, there is also mandatory payout requirement. The payout rule requires REIT to pay a certain percentage of their income as dividends to the shareholders. The rule ranges from 80 percent to 100 percent across countries. There are a few deviations like Greece, where the REITs are required to distribute 35 percent of their net profits. Across Europe, Belgium REITs have to distribute 80 percent of their taxable earnings. In Germany, Bulgaria and the UK, REITs have to distribute 90 percent of their income. In the Netherlands, the payout rule requires 100 percent of income to be distributed. In Australia, the percentage is 100 percent, while in the US, Singapore, Japan and South Korea, it is 90 percent.

Table 2.2 Payout Requirements for Selected Countries

Country	Minimum Payout Requirement
The United States	90% of taxable income
Australia	100% dividend distribution in general because 46.5% income tax for undistributed portion.
Canada	No requirement but undistributed income is taxed.
Belgium	80% of its corrected net result as defined in the Royal Decree
France	85% of net rental income
Germany	90% of net income
The United Kingdom	90% of income profits on property rental business
Hong Kong	90% of its audited annual net income after tax
Japan	90% of its distributable profits to be exempted from corporate tax
Singapore	90% of taxable income to be exempted from corporate tax
South Korea	90% of its distributable income.

Source: PWC Report 2013, Eichholtz and Kok (2007)

REIT regulations also bring ownership requirements. In the US, five largest shareholders cannot hold more than 50 percent of the shares outstanding. There must also be at least 100 shareholders. In France, a single owner cannot hold more than 60 percent of the shares. In Japan, the lead investor cannot hold more than 75 percent of the shares. There must be at least 1000 shareholders in Japan. In South Korea, at least 35 percent of the shares should be publicly traded. One shareholder cannot hold more than 30-40 percent of the shares depencing on the type of a REIT. Overall, in most countries, the regulations put an upper bound on the percentage of ownership for a single investor and require a minimum number of investors.

Table 2.3 Ownership Rules for Selected Countries

Country	Ownership Rules
The United States	5 largest cannot hold more than 50% of shares. At least 100 shareholders.
Australia	No requirement.
Canada	At least 150 unitholders in order to qualify as an MFT.
Belgium	At least 30% of shares should be traded publicly.
France	At least 15% of shares should be traded publicly. Each cannot hold more than 2%. Individuals and holdings cannot hold more than 60%.
Germany	At least 15% of shares should be traded publicly. Each cannot hold more than 3%. A single owner of closely held shares cannot hold more than 10%.
The United Kingdom	At least 35% of shares should be traded publicly.
Hong Kong	No requirement.
Japan	The lead investor cannot hold more than 75% at listing. At least 1000 investors.
Singapore	At least 25% of the units must be held by at least 500 public shareholders.
South Korea	At least 35% of shares should be offered publicly. One shareholder cannot hold more than 30% (40%) of shares issued by K-REIT (P-REIT).

Source: PWC Report 2013, Eichholtz and Kok (2007)

REITs are also required to hold real estate or generate income from real estate with a lower bound. In the US, at least 75 percent of the income should be from real estate or real estate related assets. Additionally, 75 percent of their assets should be real estate. In Australia, Germany, the UK and Singapore, REITs also generate at least 75 percent of their income from real estate. In South Korea, the minimum bound is 70 percent while in Hong kong, the lower bound is 90 percent. In France, income from other activities are subject to corporate tax encouraging real estate investments. In Belgium, although there is no strict restriction in the asset composition, the REITs (SCAFIs) are established as a collection of real estate investments.

Table 2.4 Restritions on Asset Composition for Selected Countries

Country	Asset Composition Restrictions
The United States	At least 75% of taxable income must be from real estate.
Australia	No strict regulation.
Canada	At least 75% of revenues must be from real estate related activities.
Belgium	In principle, a REIT (SCAFI) is established as a collection of real estate.
France	Income from these activities is subject to corporate income tax.
Germany	At least 75% of the assets and earnings must be real estate related.
The United Kingdom	At least 75% of profits and assets must be related to rental activities.
Hong Kong	The REIT are only allowed to invest in real estate. At least 90% of the assets must be real estate.
Japan	95% of the assets should be real estate.
Singapore	At least 75% of the investments should be real estate generating income.
South Korea	At least 70% of the assets should be real estate.

Source: PWC Report 2013, Eichholtz and Kok (2007)

REITs are exempted from withholding tax in most countries such as the US, Australia, Canada, Hong Kong and Singapore for domestic investors. In other countries, it ranges from 7 percent to 25 percent. In Japan, France and Belgium, the rate of withholding tax is differentiated across different types of investors.

Table 2.5 Withholding Tax for Selected Countries

Country	Withholding Tax
The United States	None
Australia	None
Canada	None
Belgium	Subject to 15%-25% withholding tax
France	25% for corporations owning more than 25% of shares
Germany	15% withholding tax
The United Kingdom	22% withholding tax
Hong Kong	None
Japan	10.147% for individual investors holding less than 3% 20.42% for individual investors holding more than 3% 7.147% for corporate investors
Singapore	None
South Korea	15.4% withholding tax.

Source: PWC Report 2013, Eichholtz and Kok (2007)
Notes: The tax rates are for domestic investors.

2.5 Legal REIT System in Turkey

Turkey is one of the first countries in the world, which implement a REIT system. The Capital Market Board of Turkey has designed the structure of the Turkish

REIT system in the "Principles Communiqué Pertaining to Real Estate Investment Trusts" published on July 22, 1995. There have been several amendments to the communiqué the final of which has been implemented on May 12, 2012. The major amendment has been made in November 8, 1998. In fact, the initial communiqué has been removed and replaced by the 1998 communiqué. The following amendments include minor changes to the 1998 communiqué mostly based on the changes regarding ownership and asset structures. On May 28, 2013, the 1998 communiqué completely removed and replaced with a new communiqué, though most of the main principles are remained the same. In this section, I explain the 1998 communiqué and amendments to it and conclude the section with the changes brought by the new 2013 communiqué.

2.5.1 The 1998 Communiqué and Amendments

REITs are corporations that are publicly traded in Borsa Istanbul (formerly Istanbul Stock Exchange). Different from other corporations listed in Borsa Istanbul, they are obliged to operate under the Communiqué on the Real Estate Investment Trusts. As in global REIT systems, Turkish REITs are exempted from corporate tax unlike any other corporation listed in Borsa Istanbul. Additionally, different from any other type of corporation, REITs have had to trade a minimum 49 percent of their shares publicly. The minimum 49 percent rule has been intended to have a more diversified ownership structure in order to diminish the control of the founder and large stakeholders. However, in the 2009 amendment this 49 percent has decreased to 25 percent.

By the 1998 communiqué, REITs are defined as capital market entities, which can invest in real estate, real estate related capital market instruments, real estate projects being regulated under the communiqué. Under the 1998 communiqué, REITs can be founded in different types, which underperform a project in a certain

period of time, or invest in certain areas in a certain or unlimited period of time or operate without any restriction on the interest and time. These types are mostly borrowed from global REIT systems. For instance, in the US, REITs can be specialized in property type or geographic location. Despite the CMB proposes three different types, none of the Turkish REITs are set up with the first two types. The Turkish REITs are not specialized in a geographic region or property type at least not officially.

There are also restrictions on the initial capital of Turkish REITs by the communiqué and the amendments. REITs can only be founded with a minimum capital of TL20 million proposed by the 2009 amendment. At least 10 percent (TL5 million) of the initial capital should be in cash if the initial capital is below (above) TL50 million. The required cash rule is implemented since real estate is a capital-intensive industry and illiquid compared to other types of assets. The rule guarantees a certain level of liquidity at the time of foundation.

2.5.1.1 ***Lead Stakeholder and Board of Directors***

Every REIT also has to have a lead stakeholder by the communiqué. The lead stakeholder has required holding a minimum of 25 percent of the outstanding shares. This minimum ownership rule for the lead stakeholder has later been diminished to 10 percent by the 2008 amendment. The initial shares corresponding to the 10 percent ownership of the lead blockholder cannot be transferred or sold to any other entity or person for two years. Additionally, the communiqué allows the lead blockholder to hold closely held shares, which give a higher level of voting rights compared to ordinary shares.

In contrast to the requirement of offering 25 percent (formerly 49 percent) of shares publicly, the minimum lead stakeholder ownership creates a concentrated ownership structure. If the lead stakeholder is an individual (group of individuals), they must own real estate assets with a minimum value of TL 10 million (TL20 million). If the lead stakeholder is a legal entity, the legal entity has to have a history of minimum three years. For a legal entity, there are also additional capital requirements under the communiqué and relevant amendments.

The communiqué also regulates the structure of the board. The 1998 communiqué requires the general manager, board members and founders to hold an undergraduate degree and have an experience in the fields of law, construction and finance of at least five years. This requirement has later been softened by the 2009 amendment. The "majority" of the board members should have an undergraduate degree and the minimum years of experience in the fields of law, construction and finance have been diminished to three years. However, the members of committees to be established should have an undergraduate degree. By the 1998 communiqué, one-third of the board members must be independent. This requirement has been unique for the REITs listed in Borsa Istanbul but expanded for all public firms by the "Principles for Corporate Governance" communiqué issued on December 31, 2011.

2.5.1.2 ***REIT Operating Activities and Portfolio Management***

By the 1998 communiqué, REITs can manage their own portfolios as well as they are also allowed to have external service by specialized firms in the real estate industry or consultants. The consultant firms are required to hold a license given by the CMB in order to consult. This rule allows Turkish REITs to internally or externally manage their property portfolios. The CMB can limit the commissions of the consultants by the communiqué.

The communiqué and the amendments also underlie and restrict the scope of activities of Turkish REITs. REITs can operate in order to

- Set up and modify the portfolio of the trust,
- Diversify to decrease the risk of the portfolio,
- Monitor the changes in the markets for real estate, real estate related assets and capital market instruments and
- Evaluate the markets to improve the portfolio of the trust.

They are also required to prepare valuation reports for the assets held by the company. They are not allowed to collect deposits and operate based on the deposits. Additionally, the fields that they can invest and their holdings for capital market instruments are also restricted by the communiqué. Lastly, they are not allowed to construct properties but should assign contractors.

The 1998 communiqué puts restrictions on the asset composition. 75 percent of the assets have had to be in real estate and real estate related assets. This percentage is diminished to 51 percent by the amendment on May 18, 2004. Accordingly, REITs can hold up to 49 percent of their assets in capital market securities. However, their deposit or participation accounts cannot exceed 10 percent of the total holdings of the company. Additionally, REITs' ownership of the land on which they do not develop any projects within five years cannot exceed 20 percent.

The 2004 amendment to the communiqué enables REITs to manage their properties. Property management includes services given to the tenants such as maintenance, cleaning and administration. They are also allowed to have these services from a third party. REITs have been allowed to borrow up to twice as their equity by the 1998 communiqué, then this ratio is increased to three times by the 2004 amendment and later on to five times by the 2011 amendment.

REITs are required to value the following properties by a licensed appraisal firm for the transactions that they are involved:

- The properties that are purchases or sold in their portfolio
- The properties that are rented out in their portfolio
- The properties in case of renewal or extension of rental contracts
- The properties that are used as collateral
- The real estate related projects in order to start a construction process[4]

Since REITs are publicly listed firms and regulated by the CMB, they have to disclose their information. The selected disclosure requirements are as follows:

- Real estate appraisal reports
- Acquisition or disposition of real estate assets, projects or real estate related rights.
- Portfolio tables[5]

The most attractive rule for the REITs is the tax exemption. REITs are exempt from the corporate tax. Additionally, they are also exempted from the withholding tax, which normally accounts for 15 percent of the dividend payments. On the other hand, they are required to pay VAT, which is 18 percent for real estate transactions. The VAT decreases competitiveness of Turkish REITs as opposed to individual real estate investors as those investors are exempted from VAT (Aydinoglu 2004).

The shareholders are subject to income tax for their dividend income. Similar to the shareholders of regular publicly listed corporations, individual shareholders are required to pay income tax ranging from 20 percent to 45 percent of one half of their income. If the shareholder is a corporation, the income tax is determined to be 30 percent. Individual shareholders are exempted from capital gains tax if they hold

[4] Additional conditions can be found in the communiqué.
[5] This requirement has been removed by the 2011 amendment to the communiqué.

REIT shares for a certain period of time. The corporations holding REIT shares are subject to capital gains tax of 30 percent (Aydinoglu 2004).

2.5.2 The New 2013 Communiqué

With the new communiqué issued on May 28, 2013, the CMB has removed the 1998 communiqué. Although there are not many major changes, the communiqué for REITs has been updated with the new technological and financial changes. On the other hand, there are a few changes, which are important for the industry. Importantly, the new 2013 communiqué removes the concept and terminology of lead stakeholder requirement. With the new communiqué, REITs are no longer required to have a lead stakeholder. The new communiqué defines rules for stakeholders owning more than 20 percent of the shares though it is not required to have any.

Additionally, following the developments in the international real estate markets, REITs are allowed to issue securitized real estate instruments. They are allowed to issue real estate certificates. The real estate certificates give rights to holders to own a share of a property or unit and increases liquidity of real estate. With holding the real estate certificate, the holders do not have to pay whole value of a unit but can hold a share of a unit, which creates flexibility and liquidity. Additionally, they are allowed to issue mortgage-backed securities, as well. The two financial instruments allow REITs to reach a wider range of suppliers of capital and accordingly increase access to capital for them. One of the minor changes is related to the restriction on the initial capital. With the new communiqué, REITs can be founded with a minimum initial capital of TL30 million (increased from TL20 million). They are also required to hold at least 10 percent of the initial capital in cash if the initial capital is below TL60 million (formerly TL50 million).

The table summarizes the main rules in the 1998 communiqué and the amendments that have been made to those rules in different years. The minimum percentage of shares publicly traded has been dropped to 25 percent from 49 percent with the 2009 amendments. That is the major change in the 2006 amendments. The minimum percentage of ownership by the lead stakeholder has been decreases from 25 percent to 10 percent in the 2008 amendments. The rule is completely removed by the new 2013 communiqué.

Table 2.6 Changes in the REIT Communiqué and Amendments

Rules	**The Communiqué and Amendments**					
	1998	**2004**	**2008**	**2009**	**2011**	**2013**
Shares publicly traded (min. %)	49%			25%		
Lead stakeholder Ownership (min. %)	25%		10%			0%
Asset Rule (min. percentage of real estate assets)	75%	51%				
Property management	Not allowed	Allowed				
Borrowing (max. ratio to equity)	Twice the Equity	Three Times			Five Times	
Property Portfolio Tables Disclosure	Required				Removed	
Issuing Real Estate Certificates & MBS	Not implemented					Allowed
Dividend Payout Rule (min. percentage)	No requirement					

Source: The REIT Communiqués by CMB

The minimum percentage of real estate or real estate related assets has been declined from 75 percent to 50 percent in the 2004 amendments. Property management by REITs is only allowed in the 2004 amendment. Maximum borrowing ratio to equity has increased from twice the equity to three times the

equity in the 2004 amendments and to five times the equity in the 2011 amendment. Additionally, the disclosure requirement for property portfolio tables has been removed with the 2011 amendments. It seems that the 2004 and 2011 amendments bring more flexibility to the Turkish REITs. The payout rule has never been implemented for the Turkish REITs.

2.5.3 Discussion of Turkish REIT Structure and Corporate Governance

Although Turkey is one of the first countries, which have implemented a REIT system, there have been various amendments to the regulations until recently. The other issue is that although the system is being modified periodically, there are major differences from the global REIT systems, which have remained the same. These differences are important especially with respect to firm-level corporate governance practices.

One of the major differences is that Turkish REITs are not subject to a minimum dividend payout rule. The payout rule states that REITs have to pay out around 85-90% of their income to the shareholders, as I have discussed in the previous sections. This rule is very important for corporate governance and decreases the free cash flow problem (Jensen, 1986) and mitigates the need for governance mechanisms (Bauer, Eichholtz and Kok, 2011) for the US REITs. Since there is no payout rule in Turkey, corporate governance practices are very relevant and important for Turkey. The impact of corporate governance has been extensively evaluated for the US REIT system.

Although the Turkish REIT system is unique with the tax exemption but without any payout requirement, the impact of internal and external corporate governance has not been investigated for the Turkish market. The relation between board composition and financial performance has been evaluated in the literature for

public firms and for the US REITs. In Chapter 3, I evaluate the impact of board size and board independence on the financial performance of Turkish REITs.

Additionally, the rule stating that one-third of the board members should be independent has only been implemented to the REITs in Turkey but not to all public firms listed in Borsa Istanbul until the end of 2011. My analysis on the board independence is also a very important test for the publicly traded firms in Turkey. I expect that board independence should have a positive impact on the financial performance. The final effect of board size on financial performance is an empirical question.

The US system has a dispersed ownership structure due to the 5-50 rule. The largest five shareholders cannot hold more than 50 percent of the shares. This rule makes it difficult for the shareholders to become large stakeholders. On the other hand, the lead stakeholder rule in Turkey creates a concentrated ownership structure for the Turkish REITs. The lead stakeholder should have at least 20-25 percent ownership in the Turkish REIT system. However, this rule has been removed by the new 2013 communiqué.

The lead stakeholder rule brings a laboratory environment to test the impact of the concentrated ownership structure on the firm performance. As I have discussed the corporate governance literature in the previous sections, there are two opposing possible effects. One effect is that since the lead stakeholder holds a large number of shares, if the stock price declines, they will also be negatively affected intensively. This can align the interest of the large stakeholder and the minor shareholders so there can be a positive relation between the ownership of the lead stakeholder and firm performance.

The opposite effect occurs from a possible entrenchment of the lead stakeholder. The lead stakeholder can force the managers to operate the company in their interests, which can harm the value of the REIT. The final outcome is an empirical

question. The type and industry of lead stakeholder can also be important in this relationship. Firms from different industries and types can influence the directors in different ways. I create the relevant hypotheses and test them in Chapter 3.

REITs are exempted from the corporate tax as I have mentioned above. On the other hand, corporations holding shares of a REIT are subject to dividend tax of 30 percent of their dividend income. However, different from the global REIT systems, since Turkish REITs do not have to pay out dividends, this creates a tax arbitrage for the corporations who own REIT shares. The lead stakeholder rule also encourages corporations to set up a REIT. Accordingly, the lead stakeholders setting up a REIT can have a tax arbitrage, which should increase the value of those corporations. In Chapter 4, I evaluate the tax arbitrage problem. The tax arbitrage issue can create an incentive for corporations such as banks to set up a REIT and this can deviate the interests of the lead stakeholder from the minority shareholders. As a result, the tax arbitrage problem unique to the Turkish REITs is also important for corporate governance issues in the Turkish REIT system.

Finally, the amendments to the REIT communiqué in Turkey are also relevant to corporate governance issues. Most of the amendments are related to the asset composition, the ownership of lead stakeholder and access to capital markets. These changes also impact the governance quality of the firms if they are binding. In Chapter 5, I will evaluate the market reaction to these amendments. I will also discuss my findings on corporate governance issues and propose some policy implications based on those findings.

CHAPTER 3

THE TAX ARBITRAGE

3.1 Introduction

The REITs are globally exempted from corporate tax as I summarize and compare global REIT systems in Chapter 2. In addition to this common rule, Turkish REITs must have a lead stakeholder by the 1998 communiqué. Although the rule is removed by the 2013 communiqué, most REITs are set up according to the previous regulation. Additionally, lead stakeholders have been required to hold at least 25 percent of the outstanding share, which has created a concentrated ownership structure.

In Turkey, most of the lead stakeholders are domestically large corporations including banks and family holding companies. There are also some REITs owned by individuals or family members. Six Turkish REITs are either owned or sponsored indirectly by banks. The family holdings and banks are in general real estate-intensive firms. It seems that the corporate tax-exemption creates a tendency for real estate-intensive firms to set up a REIT.

Modigliani and Miller (1958) evaluate the tax shield and show that in a simple economy, higher debt level improves the tax shield of a firm and accordingly increases the value of a firm by the net present value of the tax shield capitalized times the corporate tax rate. The tax shield story of Modigliani and Miller is very relevant for the REITs and the lead stakeholder in Turkey. Possible deductions in tax payments can increase firm value.

Consider a firm intensively owning real estate. Since the firm owns the buildings, the buildings appear in the firm's balance sheet as fixed assets and do not appear in the income statement. Now assume that the firm sponsors and sets up a REIT. The firm transfers the buildings to the REIT. The firm becomes the tenant of the buildings and the REIT becomes the owner generating a rental income from those buildings. Figure 3.1 summarizes the change in the balance sheet. The change in the firm's balance sheet is that the fixed assets are diminished by the total value of the buildings transferred to the REIT.

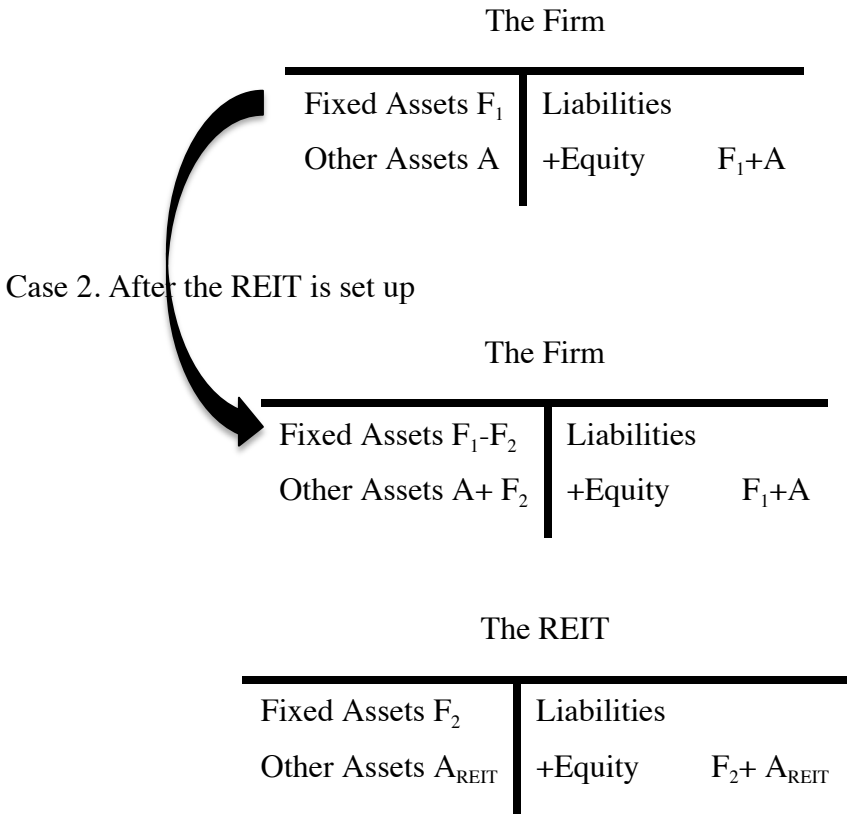

Figure 3.1 Balance Sheet Change

However, in the income statement, the costs increase by the amount of rental payments that the firm is supposed to pay to the REIT. Since the rents are costs to

the bank as a tenant now, they are deductible from the income tax. The value of the firm will go up by the savings from tax deductions. On the other hand, the REIT generates rental income from the firm. For regular corporations, rental income is subject to corporate tax but since REITs are tax-exempted, the REIT does not pay tax on the rental income. When the REIT distributes dividends, they do not pay withholding tax as they are also exempted from the withholding tax.

Overall, by setting up a REIT, the firm creates a tax arbitrage. Simply, if one sums up the total value of the firm and the REIT, the summation should be larger than the initial value of the firm before setting up the REIT by the tax arbitrage value minus the transaction costs. The present value of the tax arbitrage arising from the introduction of the REIT should overweigh the transaction costs due to the set up of a REIT. As soon as the income is retained in the REIT, the lead stakeholder benefits from the tax arbitrage. The tax arbitrage is simply summarized in Figure 3.2.

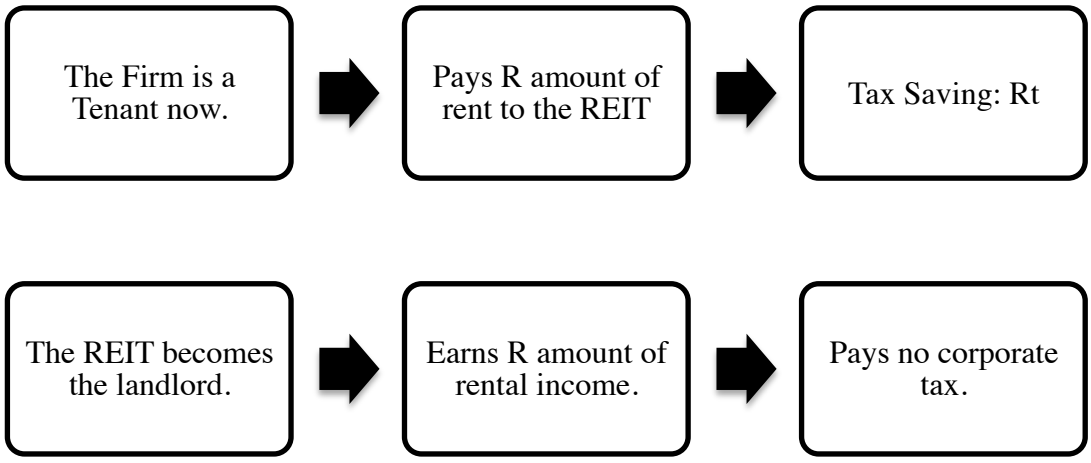

Figure 3.2 The Tax Arbitrage

The benefits from tax arbitrage for the lead stakeholder and their subsidiaries depend on whether the REIT retains income in the company and do not distribute dividends. When the REIT distributes dividends, the dividends will appear as income for the lead stakeholders. Then, they have to pay income tax on the dividend income at an amount of Rt if fully distributed, which will mitigate or even reset the tax arbitrage benefits. The benefits from tax arbitrage are conditional on the owner-tenant relation between the REIT and lead stakeholders and the amount of dividends distributed.

I test the tax arbitrage problem empirically by an event study. The idea is that when a firm as the lead stakeholder announces an IPO of a REIT, the investors can foresee the increase in the value of the firm arising from the tax arbitrage issue. As the news that the REIT will be publicly offered spreads, the investors will buy the shares of the lead stakeholder driving up the prices around the announcement. For this analysis, I limit my sample to the lead stakeholders and their affiliates that are publicly listed in Borsa Istanbul.

The critical issue in the empirical analysis is the choice of the date of the announcement. The foundation of the REIT is not a critical date as previous REIT introductions show that foundation of a REIT by a parent company does not guarantee that the IPO of the REIT will be complete. Additionally, there is no certain process after the foundation as it can take years to complete the IPO for some firms.

The first official date about the IPO of the REIT is the prospectus approval of the REIT IPO by the Capital Markets Board of Turkey. It is still not the first date that the news starts to spread. In order to get the prospectus approval, the REIT makes an application to the Capital Markets Board. The timetable for a standard IPO created by the Capital Markets board shows that the prospectus approval is given after a month (20 working days) after the application of a company. In my analysis, I take the prospectus approval as the event date, t. However, in order to calculate

the cumulative abnormal returns (CARs) for the listed lead stakeholders and their affiliates, I take the period between t-20 and t+1. I expect that the CAR(t-20, t+1) should be significantly positive. I will explain the model in details later in this chapter.

The tax arbitrage problem is confirmed by the empirical analyses. The firms enjoy a significant stock price increase from the introduction of a REIT and positive CARs around the IPO of the REIT. The cumulative abnormal returns around the prospectus date are 5.16 percent for all firms linked to a REIT including lead stakeholders and their affiliates. If the lead stakeholder is a bank, their shares generate abnormal returns of 6.81 percent. The owners of REIT shares have CARs of 5.71 percent. Overall, my findings show that the market value of lead stakeholders go up when they set up a REIT indicating that they enjoy a tax arbitrage.

The tax arbitrage can create an intensive for the lead stakeholder to set up a REIT as it can potentially increase the value of the firm. This incentive can also create agency problems. Consider that the lead stakeholder is in need of real estate assets. Due to the tax arbitrage, they might have the REIT buy the property. Also assume that alternatively there is a positive net-present-value project, which will increase the value of the REIT.

With the pressure of the lead stakeholder, the directors of the REIT might forego the positive NPV project and invest in the real estate asset that the lead stakeholder needs. In this case, while the lead stakeholder enjoys the tax arbitrage alone, the minority shareholders looses as the REIT foregoes the positive-NPV project. On the other hand, if the REIT invests in the positive-NPV project, the lead stakeholder should share the return with other shareholders. Although I do not test whether tax arbitrage creates agency costs explicitly, I evaluate the impact of lead stakeholder ownership on financial performance in the next chapter.

The chapter continues as follows. In the next section, I explain the data. I later develop my hypothesis and model in the following section and show my findings. The last section will conclude the chapter.

3.2 Data

In order to evaluate the reaction of investors to the potential value increase arising from the tax arbitrage, I first collect information about the lead stakeholders for each REIT. I also determine the affiliates of each lead stakeholder for any potential spillover effects. There is a possibility that the buildings owned by the affiliates can be transferred to the REIT, as well.

Once the list of lead stakeholder and their affiliates is prepared, I filter the data. The filter depends on two conditions. The first condition is that the lead stakeholder companies and their affiliates should be listed publicly at Borsa Istanbul. Secondly, the listing of the lead stakeholder companies and their affiliates should be earlier than the REIT that they have a connection. This way, I can evaluate the stock price of the lead stakeholder companies and their affiliates around the IPO of the REITs. The data for being listed and IPO dates are collected from Datastream.

The final data consist of 25 companies listed at Borsa Istanbul. Table 3.1 summarizes the list of companies. REIT IPOs are well dispersed across time in my sample. Out of 10 REIT IPOs, there are mostly two IPOs in the same year, which also occur twice. The REIT IPOs start in 1997 and the last REIT IPO (Halk GYO) is in 2013. For one REIT, there are mostly four listed companies associated with a REIT IPO. This holds for Dogus GYO and Saglam GYO.

Table 3.1 IPO Dates of REITs and Companies Associated

Company	REIT	Company IPO	REIT IPO
Alarko Holding	Alarko GYO	May 24, 1989	February 12, 1997
Alarko Carrier	Alarko GYO	January 27, 1992	February 12, 1997
Vakif Finansal Kiralama	Vakif GYO	April 24, 1991	March 11, 1997
Vakif Yatirim Ort	Vakif GYO	August 28, 1991	March 11, 1997
Garanti Banki	Dogus GYO	June 6, 1990	March 26, 1998
Garanti Yatirim	Dogus GYO	March 26, 1997	March 26, 1998
Garanti Faktoring	Dogus GYO	December 17, 1993	March 26, 1998
Yapi Kredi Finansal Kiralama	Yapi Kredi Koray GYO	April 11, 1994	June 18, 1998
Yapi Kredi Sigorta	Yapi Kredi Koray GYO	December 16, 1994	June 18, 1998
Yapi Kredi Yatirim	Yapi Kredi Koray GYO	April 16, 1996	June 18, 1998
Yapi ve Kredi Banki	Yapi Kredi Koray GYO	January 8, 1988	June 18, 1998
Is Bankasi	Is GYO	August 19, 1991	January 4, 2000
Anadolu Anonim Turk	Is GYO	October 22, 1993	January 4, 2000
Is Yatırım Ortakligi	Is GYO	April 16, 1996	January 4, 2000
Aksa Akrilik Kimya	Akmerkez GYO	February 2, 1988	April 15, 2005
Akenerji Elektrik Uretim	Akmerkez GYO	June 27, 2000	April 15, 2005
Fon Finansal Kiralama	Saglam GYO	November 9, 2006	March 2, 2007
Kerevit Gida	Saglam GYO	June 20, 1994	March 2, 2007
Makine Takim Endustrisi	Saglam GYO	January 6, 1988	March 2, 2007
Ulker Biskuvi	Saglam GYO	February 23, 2004	March 2, 2007
Reysas Logistics	Reysaş GYO	February 10, 2006	July 12, 2010
Marti Otel	Martı GYO	February 9, 1990	September 24, 2010
Akfen Holding	Akfen GYO	May 14, 2010	May 11, 2011
Tav Havalimanlari Holding	Akfen GYO	February 23, 2007	May 11, 2011
Halkbank	Halk GYO		

Source: Datastream

Table 3.2 shows type of the companies and their connection with the REIT associated. Seven companies own stocks of REITs. There are nine parent companies.[6] Out of those, Akfen Holding, Alarko Holding, Reysas Logistics and Marti Otel are family companies/holdings. The rest 16 companies are affiliates of the lead stakeholders.

[6] Garanti Bankasi and Ulker Biskuvi are assumed to be parent companies considering their size.

Only Anadolu Yatirim owns shares of Is GYO among the affiliate firms. I also report banks separately as they are real estate-intensive firms as they have branches so they are specifically important in my analysis. There are four banks in my sample.[7] 15 companies are also categorized as other affiliates of parent companies.

Table 3.2 Type of Connection with REITs

Company	Ownership	Parent	Bank	Other Affiliates
Akfen Holding	1	1	0	0
Tav Havalimanlari Holding	0	0	0	1
Aksa Akrilik Kimya	0	0	0	1
Akenerji Elektrik Uretim	0	0	0	1
Alarko Holding	1	1	0	0
Alarko Carrier	0	0	0	1
Garanti Bankasi	0	1	1	0
Garanti Yatirim	0	0	0	1
Garanti Faktoring	0	0	0	1
Is Bankasi	1	1	1	0
Anadolu Anonim Turk	1	0	0	0
İş Yatirim Ortakligi	0	0	0	1
Marti Otel	0	1	0	0
Reysas Logistics	1	1	0	0
Fon Finansal Kiralama	0	0	0	1
Kerevitas Gida	0	0	0	1
Makine Takim Endustrisi	0	0	0	1
Ulker Biskuvi	0	1	0	0
Vakif Finansal Kiralama	0	0	0	1
Vakif Yatirim Ort	0	0	0	1
Yapi Kredi Finansal Kiralama	0	0	0	1
Yapi Kredi Sigorta	0	0	0	1
Yapi Kredi Yatirim	0	0	0	1
Yapi ve Kredi Bankasi	1	1	1	0
Halkbank	1	1	1	0

Source: Company websites

[7] There are three additional banks owning a REIT in Turkey. They are excluded because they do not meet the sample criteria. Vakifbank is listed after the IPO of Vakif GYO. Kuveyt Turk is not listed. Additionally, Denizbank is excluded from the analysis as Deniz GYO is converted into a REIT from a securities trust, which is also exempted from corporate tax.

Table 3.3 Changes in Fixed Assets Ratio around REIT IPOs

Company	Fixed Assets/Total Assets				
	At t-2	At t-1	At t	Difference from t-2 to t	Percentage Change from t-2 to t
			Parent		
Akfen Holding	9.37%	14.74%	17.60%	8.23%	87.84%
Alarko Holding	.	0.11%	0.19%	0.08%	76.51%
Reysas Logistics	64.78%	13.94%	9.02%	-55.76%	-86.08%
Marti Otel	34.11%	60.09%	58.13%	24.02%	70.43%
Ulker Biskuvi	24.64%	27.31%	20.37%	-4.27%	-17.32%
			Banks		
Garanti Bankasi	5.15%	3.89%	4.84%	-0.31%	-6.16%
Is Bankasi	3.97%	4.50%	3.64%	-0.33%	-8.44%
Yapi ve Kredi Bankasi	6.20%	5.88%	5.96%	-0.24%	-3.97%
Halkbank	1.43%	1.39%	1.03%	-0.40%	-27.60%
Mean of Difference (Banks)				-0.32%***	-11.54%***
			Other Affiliates		
Tav Havalimanlari	6.29%	8.65%	8.95%	2.66%	42.32%
Aksa Akrilik Kimya	50.91%	48.63%	50.03%	-0.88%	-1.73%
Akenerji Elektrik	28.85%	34.08%	57.57%	28.72%	99.52%
Garanti Faktoring	0.43%	0.18%	0.32%	-0.11%	-27.08%
Anadolu Anonim Turk	.	0.37%	0.32%	-0.05%	-13.32%
Fon Finansal Kiralama	0.49%	1.04%	2.70%	2.21%	449.20%
Kerevitas Gida	46.02%	38.17%	35.47%	-10.55%	-22.93%
Makine Takim Endustrisi	13.35%	11.20%	11.07%	-2.28%	-17.12%
Yapi Kredi Sigorta	9.26%	7.73%	7.41%	-1.85%	-19.98%

Source: Datastream

Lead stakeholders and their affiliates enjoy the tax arbitrage benefits if they have an owner-tenant business relation. The market value of those firms might increase not only there exists such a business relation but also go up if the investors anticipates the lead stakeholder and the REIT will develop such a relation in the future.

In order to evaluate the existence of the business relation that I propose, I concentrate on the changes in the fixed assets holdings of lead stakeholders and

their affiliates around the year when a REIT is introduced. Table 3.3 shows the fixed assets to total assets ratio in the years t-2, t-1 and t. I am interested in the changes from year t-2 to year t as the parent companies can transfer some of their real estate assets in year t-1, one year before the IPO of a REIT.

Among the parent companies, I do not observe a clear pattern or decline in fixed assets ratio measured as fixed assets divided by total assets. One possible explanation is that as those parent companies are mostly large holdings with various affiliates from different industries. The net change in fixed assets ratio might be noisy for them, as fixed assets not only include property but also plant and equipments. In this univariate analysis, I mostly interested in banks, as that type of firms are more relevant for the relation that I propose. The four banks in my sample have all decreased their fixed assets ratio from year t-2 to year t. The last column of the table shows the percentage change in fixed asset ratio. The percentage decline in fixed assets for banks varies from 4 percent to 28 percent in two years period. The mean of the difference for banks is significantly negative at one percent level. This finding indicates that these banks decrease their real estate holdings, which is in line with my expectations.

Other affiliates of lead stakeholders also mostly decline their fixed assets ratio with some exceptions. The exceptions include firms such as TAV Havalimanlari from the airport industry, Akenerji Elektrik from the electricity industry and Fon Finansal Kiralama from leasing industry, which are highly fixed assets dependent firms. They might increase their holdings in fixed assets other than real estate.

3.3 The Model and Empirical Findings

The exemption from the corporate tax and withholding tax might create benefits from tax arbitrage for the lead stakeholder and their affiliates as I explain in the previous sections. I create the following hypothesis, accordingly:
Hypothesis 3.1: The market value of lead stakeholders and their affiliates goes up around the announcement of a REIT introduction.

In the empirical analysis, the choice of the announcement date is critical. Borsa Istanbul suggests firms planning to offer their shares publicly to make the necessary steps and prepare all of the documents before an application. The preparation includes writing or revising the scope of the firm in accordance with the REIT communiqué. It can either be a foundation or a conversion. However, founding or converting the firm into a REIT on paper does not guarantee that the REIT will be offered publicly in a short period of time. Although a real estate company is founded with a purpose of being publicly traded as a REIT, it might not complete the process, which will end up with the IPO of the REIT. The foundation or conversion date could be a potential event date but since it does not guarantee the completion of the process, the market reaction to this event is possibly weak. For instance, Akfen GYO is founded in 2007 but goes public in 2011.

A second potential date could be the agreement with an underwriter. However, this information does not appear publicly in the news or announced, so it is difficult to determine the date of an agreement with an underwriter. Still, it is a very important date because REITs are very likely to be listed publicly a few months after the agreement. Investors who are monitoring these firms closely and who have access to private information can use this information. Around the days of the agreement, there is a potential increase in the stock price of the lead stakeholders and their affiliates according to my hypothesis. If there is such a leakage of information and investors take it into account, this is against my hypothesis and creates a downward

bias. If I still find significantly positive CARs, the CARs are potentially underestimated.

The first official announcement, which normally guarantees the completion of a REIT IPO is the prospectus date. Table 3.4 shows the dates of prospectus approvals for each REIT. I collect the dates by searching the internet and finding the prospectuses for each REIT IPO.

Table 3.4 Prospectus Approval Dates

REIT Name	Prospectus Approval Date	IPO Date
Akfen GYO	April 28, 2011	May 11, 2011
Akmerkez GYO	April 1, 2005	April 15, 2005
Alarko GYO	July 31, 1996	February 12, 1997
Dogus GE GYO	March 19, 1998	March 26, 1998
Is GYO	November 25, 1999	January 4, 2000
Marti GYO	September 7, 2010	September 24, 2010
Reysas GYO	May 14, 2010	July 12, 2010
Saglam GYO	February 12, 2007	March 2, 2007
Vakıf GYO	December 24, 1996	March 11, 1997
Yapi Kredi Koray GYO	June 11, 1998	June 18, 1998
Halk GYO	February 8, 2013	February 22, 2013

Source: Datastream and company websites

As Table 3.5 shows, Borsa Istanbul summarizes the timetable of a potential IPO in their website. The disclosure of the prospectus is by the end of the fourth week after the application to Borsa Istanbul. As a result, I choose the date of the approval of the prospectus as the event date. However, as I expect that information start to leak by the date of application, I evaluate cumulative abnormal returns between t-20, the potential application date and t+1, one day after the date of prospectus approval.

Table 3.5 Timetable of an IPO Process

Time	Event
Week 1	Application to Borsa Istanbul and the CMB
Week 2-3	Investigations of the CMB and Borsa İstanbul
End of Week 3	Decision of the Borsa İstanbul Board
Week 4	The CMB prospectus approval
End of Week 4	Disclosure of the prospectus and the sales announcement to the account owners
Week 5	Public offering materialized.
End of Week 5	Sales results are reported to Borsa İstanbul
Week 6	Trading begins

Source: Borsa Istanbul

I collect the stock price data for each company from Datastream. The market index is the BIST100 index. As the risk free asset, I use debt securities market (DSM) performance index with a maturity of 91 days, which is created by Borsa Istanbul.[8] In my analysis I use daily data. I calculate daily returns for each stock and market index. As I use returns in my analysis, where I take the first difference, the return series becomes stationary.

In order to calculate cumulative abnormal returns, I first estimate the CAPM model in Equation 3-1 during the period between t-139 and t-21 in order to obtain the coefficients (MacKinlay 1997). Some alternative models used in finance literature could be three factor model proposed by Fama and French (1993) and four factor model proposed by Carhart (1997). However, these models are developed for the US data and do not necessarily hold for the Turkish data. The discussion of the choice of the asset-pricing model is beyond the scope of this paper. In this dissertation, I apply CAPM as it is widely used in asset pricing models for the data sets from developing countries. I estimate the CAPM using ordinary least squares. Alternatively, I also apply nonlinear autoregressive conditional heteroskedasticity

[8] The DSM performance index (91 days) is available from 2001 onwards. For the data before 2001, I use raw returns in my analysis.

(ARCH) model and generalized autoregressive conditional heteroskedasticity GARCH) model in the robustness analysis of this chapter.

Once I estimate the CAPM for each lead stakeholder and their affiliates, I calculate abnormal returns as in Equation 3-2. I sum abnormal returns for the time period between at t-20 and t+1 in order to have CARs for each company in my sample.[9]

$$R_{it}=\alpha_i+\beta_i R_{mt}+\varepsilon_{it} \quad (3\text{-}1)$$

$$AR_{it}=R_{it}-\hat{\alpha}_i-\hat{\beta}_i R_{mt} \quad (3\text{-}2)$$

$$CAR_i(t\text{-}20,t+1)=\sum_{t-20}^{t+1} AR_{it} \quad (3\text{-}3)$$

Finally, I calculate the mean of CARs and test whether it is significantly larger than zero. I adjust Hypothesis 3.1 as follows:

Hypothesis 3.1': The mean of CARs of lead stakeholders and their affiliates from t-20 to t+1 is greater than zero.

The CARs are shown in Table 3.6. The highest CAR is 47.22 percent for Yapi Kredi Finansal Kiralama, which is an affiliate of the lead stakeholder of Yapi Kredi Koray GYO. The lowest CAR is for Yapi Kredi Sigorta, which is another affiliate company. Among family holdings, Akfen has a CAR of 16.61 percent. On the other hand, Reysas Logistics has a negative CAR of -6.69 percent. All of the four banks have a positive CAR ranging from 3.53 percent to 10.20 percent.

[9] The regression results and CARs for each company are shown in the Appendix.

Table 3.6 CARs by Companies

Company	CAR(t-20,t+1)
Akfen Holding	16.61%
Tav Havalimanlari Holding	-0.04%
Aksa Akrilik Kimya Sanayi	-6.09%
Akenerji Elektrik Uretim	-0.68%
Alarko Holding	-0.39%
Alarko Carrier	21.01%
Garanti Bankasi	10.20%
Garanti Yatirim	-5.25%
Garanti Faktoring	39.92%
Is Bankasi	7.14%
Anadolu Anonim	13.50%
Is Yatırım Ort	14.44%
Marti Otel Isletmeleri	1.55%
Reysas Logistics	-6.69%
Fon Finansal Kiralama	-20.19%
Kerevitas Gida	-0.28%
Makine Takim Endustrisi	2.54%
Ulker Biskuvi	14.36%
Vakif Finansal Kiralama	-12.36%
Vakif Yatirim Ort	14.33%
Yapi Kredi Finansal Kiralama	47.22%
Yapi Kredi Sigorta	-30.72%
Yapi Kredi Yatirim	-0.96%
Yapi ve Kredi Bankasi	6.40%
Halkbank	3.52%

Table 3.7 shows the results for the mean test for the CARs. The mean of CARs between t-20 and t+1 for all companies including the lead stakeholders and their affiliates is 5.16 percent and significant at 10 percent significance level. If I restrict the sample to the companies holding REIT stocks, the mean of CAR increases to 5.73 percent. Banks significantly generate CARs of 6.81 percent at one percent level. Parent companies have a CAR of 5.85 percent at five percent significance level during the event window. The CAR for other affiliates is 4.19 percent on average but statistically insignificant. My findings show that investors adjust their

valuation for the lead stakeholders and their affiliates and increase their valuation possibly due to the tax arbitrage created by the tax exemption.

Table 3.7 Univariate Tests for CARs

CAR(t-20,t+1)	Obs.	Mean	Std. Err.
All Companies	25	5.16%*	3.29%
Owners	7	5.73%*	3.00%
Banks	4	6.81%***	1.37%
Parent Companies	9	5.85%**	2.44%
Other Affiliates	15	4.19%	5.34%

Figure 3.3 evaluates the CARs in a three month-window after the prospectus approval. The graph shows the average CARs for the four categories. Overall, the graph shows that companies enjoy the value increase arising from the tax arbitrage independent of the category. It seems that after the IPO of the REITs, there is a decline in CARs but in three months, the CARs are preserved to be positive. If an investor buys shares of owner of a REIT or a bank sponsoring a REIT around the application to the CMB for a REIT IPO and holds the shares three months after the prospectus approval, he can earn CARs of around 20 percent. The CARs are around 5 percent for all firms associated with a REIT IPO and for parent companies. The graph shows a value shift for all firms in the sample in three months. As the CARs stabilize. The owners and banks generate higher CARs as both lines are above the lines for all firms and parent companies.

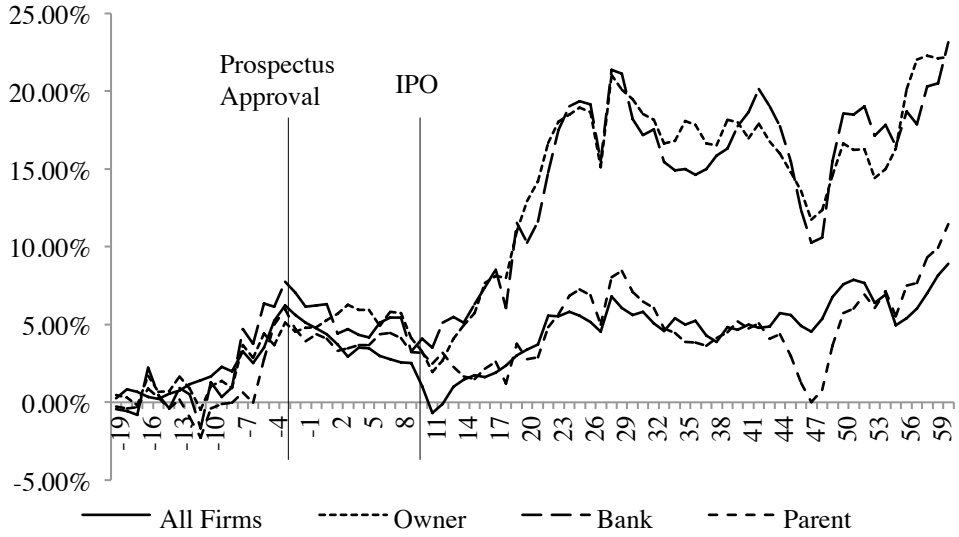

Figure 3.3 Time Series of CARs

3.4 Robustness Analyses

3.4.1 CARs for Parent Companies around the IPOs of Non-REIT Affiliates

In the previous section, I document that the CARs of lead stakeholders are significantly positive around the IPOs of REITs. My main explanation for this finding is that there is a possibility of tax arbitrage arising from an owner-tenant relation between the REITs and the lead stakeholders. Additionally, the significant decline in fixed assets ratios around REIT IPOs signals that there is especially such a relation between banks and their REITs.

On the other hand, those lead stakeholders and parent companies might enjoy such significant CARs around the IPOs of REITs not due to tax arbitrage but due to some synergies created from the introduction an affiliate. In order to evaluate any synergies created by introducing an affiliate can be test by evaluating the CARs of

those parent companies during IPOs of other types of affiliates. In my sample, I identify 8 other IPOs of affiliates from different industries by four lead stakeholders of REITs. Out of those four lead stakeholders, three of them are banks for which I expect and find that the tax arbitrage benefits are stronger.

I apply OLS estimation of CAPM for those companies in a similar fashion. I first determine prospectus approval date for those companies and calculate CARs from 20 days before the prospectus approval date and 1 day after. I test whether those CARs are significantly different from zero. I also compare CARs around the IPOs of non-REIT affiliates and REIT affiliates. Table 3.8 shows the findings.

Table 3.8 Univariate Tests for CARs around non-REIT Affiliate IPOs

Affiliate Type	**Obs.**	**Mean**	**Std. Err.**
		CAR(t-20,t+1)	
Non-REIT Affiliates	8	-10.71%**	4.62%
REITs	4	5.83%**	2.23%

I document that the mean of CARs of parent companies around non-REIT affiliates is significantly lower than zero. The mean of CARs around REIT IPOs for those four parent companies is significantly positive at 5 percent level. This finding indicates that the positive CARs around REIT IPOs is not due to benefits from introducing an affiliate but due to some REIT-specific aspects, possibly tax arbitrage.

Table 3.9 shows CARs for each IPO. Around 6 non-REIT IPOs out of 8, the CARs of parent companies are negative while in all cases, CARs are positive for REIT IPOs. For each parent company I calculate the difference of CARs for non-REIT IPOs and the corresponding REIT IPO specifically for each affiliate group. Except Is Yatirim Ortakligi, the REIT IPO generates higher CARs than non-REIT IPOs.

The mean of the difference is significantly 17.40 percent at 1 percent level, indicating that on average, REIT IPOs 17.40 percent larger CARs than other affiliates for parent companies. My findings show that the positive CARs around REIT IPOs is not due to any benefits and synergies from any affiliate IPO.

Table 3.9 Individual CARs of Parent Companies around Affiliate IPOs

Affiliate	Parent	CAR(t-20,t+1)		CAR(t-21,t+2)	
		Raw CAR	REIT-(Non-REIT)	Raw CAR	REIT-(Non-REIT)
Alarko Carrier	Alarko H.ding	-26.27%	25.88%	-21.65%	21.14%
Alarko GYO	Alarko H.ding	-0.39%	.	-0.50%	.
Garanti Yatirim	Garanti Bank.	-0.95%	11.15%	-2.74%	17.09%
Garanti Faktoring	Garanti Bank.	-25.21%	35.41%	-28.93%	43.28%
Dogus GYO	Garanti Bank.	10.20%	.	14.35%	.
Yapi Kredi Finansal Kiralama	Yapi ve Kredi	-20.89%	27.29%	-22.40%	26.36%
Yapi Kredi Sigorta	Yapi ve Kredi	-9.50%	15.90%	-10.43%	14.39%
Yapi Kredi Yatirim	Yapi ve Kredi	3.76%	2.64%	3.58%	0.39%
Yapi Kredi Koray GYO	Yapi ve Kredi	6.40%	.	3.96%	.
Anadolu Anonim Turk	Is Bankasi	-13.91%	21.05%	-8.43%	12.89%
Is Yatırım Ortakligi	Is Bankasi	7.27%	-0.14%	5.69%	-1.22%
Is GYO	Is Bankasi	7.14%	.	4.46%	.
Mean of REIT-(Non-REIT)			17.40%***		16.79%***

3.4.2 Non-Linear ARCH/GARCH Estimation of CAPM

Heteroskedasticity, where the expected value of the error term is assumed to be the same across each point observation, is an issue with the OLS estimation. In OLS estimations, the coefficients are unbiased but the standard errors might give wrong t-statistics. In finance literature, as the coefficients from OLS are ubiased, OLS is widely used and the standard errors are generally corrected for heteroskedasticity.

However, volatility of stock returns is an important issue in finance, ARCH/GARCH models are also applied as they model the volatility, as well. Using ARCH/GARCH models volatility can also be predicted.

Although in my analysis, my main interest is not to model volatility, the ARCH/GARCH model can give different coefficient estimates. In this section, I aim to obtain CARs from ARCH/GARCH model estimation and test whether my findings are still robust to the estimation method. In ARCH/GARCH estimation, the volatility is also estimated using Equation 3-4. The model is respresented as GARCH(p,q) where p represents p lags of σ and q lags of the error term, ε from the main regression. The squared residuals from the main model as in Equation 3-1 can be estimated by an autoregressive moving average process with p lags of the autoregressive terms and q lags of the moving average terms.

$$\sigma_{it}^2=\theta_{i0}+\theta_{i1}\sigma_{it-1}^2+\ldots+\theta_{ip}\sigma_{it-p}^2+\delta_{i1}\varepsilon_{it-1}^2+\ldots+\delta_{iq}\varepsilon_{it-q}^2+\vartheta_{it} \quad (3\text{-}4)$$

Alternative to OLS, Engle (2001) suggests GARCH(1,1) orders for financial data but also proposes GARCH(2,2) as an alternative. In my analysis, I search for the best model fit using akaike criterion up to two lags for each term. Table 3-10 shows p and q values for each regression. The table also shows CARs obtained from ARCH/GARCH estimation. In most cases, CARs are similar to the CARs from OLS estimation. Largest differences of CARs are between -20.19 percent from OLS and -3.82 percent from GARCH for Fon Finansal Kiralama and 6.40 percent from OLS and 17.02 percent from GARCH estimation for Yapi ve Kredi Bankasi. In most cases GARCH(1,1) gives the best model fit as Engle (2001) suggests.

Table 3.10 CARs and GARCH Lags for GARCH Estimation of CAPM

Company	ARCH Lags	GARCH Lags	CAR(t-20,t+1)
Akfen Holding	1	0	17.22%
Tav Havalimanlari Holding	0	0	-0.04%
Aksa Akrilik Kimya Sanayi	2	1	-5.77%
Akenerji Elektrik Uretim	2	0	-0.23%
Alarko Holding	1	1	-1.85%
Alarko Carrier	1	0	21.05%
Garanti Bankasi	1	1	10.55%
Garanti Yatirim	1	0	-4.76%
Garanti Faktoring	0	0	39.92%
Is Bankasi	1	2	6.43%
Anadolu Anonim	1	1	13.39%
Is Yatırım Ort	0	0	14.44%
Marti Otel Isletmeleri	1	1	2.00%
Reysas Logistics	1	0	-7.22%
Fon Finansal Kiralama	2	1	-3.82%
Kerevitas Gida	2	0	2.79%
Makine Takim Endustrisi	1	2	1.93%
Ulker Biskuvi	2	1	14.66%
Vakif Finansal Kiralama	0	0	-12.87%
Vakif Yatirim Ort	1	1	14.74%
Yapi Kredi Finansal Kiralama	1	1	47.22%
Yapi Kredi Sigorta	1	2	-26.11%
Yapi Kredi Yatirim	1	1	1.89%
Yapi ve Kredi Bankasi	1	1	17.02%
Halkbank	1	2	4.69%

Table 3.11 shows the mean of CARs across different categories of lead stakeholders and their affiliates. The table shows that my findings are robust to estimation methodology. The mean of CARs rises from 5.16 percent to a significant 6.69 percent for all firms when GARCH model is applied. The mean of CARs for banks increases from 6.81 percent to 9.67 percent and is significant at 5 percent level with GARCH estimation. The mean of CARs is significantly 7.10 percent for owners and 7.06 percent for parent companies at 5 percent levels. The mean of

CARs is also positive but insignificant for other affiliates of lead stakeholders. Overall, my findings are robust as CARs increase with GARCH estimation.

Table 3.11 Average CARs from GARCH Estimations

CAR(t-20,t+1)	Obs.	Mean	Std. Err.
All Companies	25	6.69%**	3.09%
Owners	7	7.10%**	3.56%
Banks	4	9.67%**	2.74%
Parent Companies	9	7.06%**	2.86%
Other Affiliates	15	6.03%	4.92%

3.5 Concluding Remarks

Turkish REITs are exempted from corporate tax. They are not subject to any mandatory dividend payout rule. When they distribute dividends, they are also not subject to withholding tax. The REIT communiqué encourages stakeholder ownership and requires REITs to be established by a lead stakeholder with a minimum ownership requirement. In most REITs, lead stakeholders are family holdings and banks. Those lead stakeholders enjoy the corporate and withholding tax exemptions. This creates an incentive for those companies to transfer their buildings that they own to REITs. They become tenants paying rents to REITs. They pay less tax, as rents are costs for the lead stakeholders. REITs do not pay any tax for the rental income, as they are exempted from corporate tax. Overall, lead stakeholders may enjoy tax arbitrage with the tenant-landlord relation with REITs, as soon as the REITs retain cash. If transaction cost for setting up a REIT is negligible, then there should be an increase in the value of those lead stakeholders by the present value of all future tax arbitrage benefits.

I empirically test whether the potential benefits from the tax arbitrage enhance the market value of the lead stakeholders and their affiliates. I estimate abnormal returns for the lead stakeholders and their affiliates around the announcement of REIT IPOs. The event date that I choose is the announcement of prospectus approval by the CMB. I calculate CARs between 20 working days before the prospectus approval and one day after the prospectus approval. I calculate CARs from t-20 because Borsa Istanbul states that the prospectus is approved 20 days later than the application. I expect that the information starts to leak by the application for a REIT IPO.

My empirical findings show that the mean of CARs for lead stakeholders and their affiliates is significantly positive indicating that their market value goes up. If an investor invests in lead stakeholders or their affiliates, on average, he can generate CARs of 5.16 percent during the event window. If one invests in a bank setting up a REIT around the REIT IPO, the CAR is 6.81 percent on average. The shares of the companies owning REIT shares and parent companies generate CARs of 5.73 percent and 5.85 percent, respectively. I also document that in 60 working days period after the prospectus date, the CARs stabilize around 20 percent for banks and owners.

I also evaluate CARs of parent companies around the IPOs of non-REIT affiliates. The mean of CARs around REIT IPOs is significantly 17.40 percent larger than CARs around non-REIT IPOs at 1 percent level. The CARs from non-REIT IPOs are mostly negative as opposed to positive CARs around REIT IPOs. This finding shows that the positive CARs are not from the benefits or synergies of introducing an affiliate but due to a REIT-specific effect highly likely to tax arbitrage. My findings are also robust to estimation methodology. GARCH estimation of CAPM generates even larger CARs around REIT IPOs.

CHAPTER 4

CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE

4.1 Introduction

Klapper and Love (2004) find that firm-level corporate governance matters more in countries with weak legal systems. Bianco, Ghosh and Sirmans (2007) supplement this point with evidence that the strict legal rules on payout, ownership and asset structure make REITs more attractive with governance perspectives. This chapter aims to provide empirical evidence on corporate governance from Turkey, which exhibits currently a relatively weak legal environment for REITs. Although Turkish REIT market was established and REIT stocks have been traded in advance of their counterparts in Singapore, Japan, the UK, and France, the weak legal environment helps to encourage their births and to foster their developments.

REITs in Turkey operate as publicly listed companies in the Borsa Istanbul (formerly Istanbul Stock Exchange, shortly BIST). Some rules governing REITs are, however, distinguished from those for regular corporations listed on the same exchange and from REITs in other countries. Different from the regular corporations in the BIST, REITs are tax-exempted at the corporate level, which is common in the REIT systems globally.

The main difference of the Turkish REIT structure from that of the global REIT structures is that there is no dividend payout rule for Turkish REITs. The US REITs, for example, have to pay out 90% of their taxable income and this rule is common for most REIT systems around the world. In the US, because of the payout

rule, the discretionary cash available to the managers is diminished, which also should decrease their agency costs. The free cash flow problem is mitigated in the US, as the payout rule restricts the opportunities for managerial entrenchment (Jensen 1986).[10]

The favorable tax shelter with total managerial freedom on dividend payouts removes the tax benefits, reduces the monitoring effectiveness of debt financing in Turkey (Erol and Tirtiroglu 2010; Jensen 1986) and establishes the need for the presence of a strong corporate governance structure.[11]

Additionally, at least one of the founders of a REIT must be a lead stakeholder (I also call as "the sponsor" in this chapter), who holds a minimum of 10 percent (25 percent, previously) ownership in that REIT's equity. This rule intends to bring credibility for these REITs. On the one hand, it can induce a higher ownership for the founders and managers, which might align the interests of shareholders and founders. On the other hand, it may also cause entrenchment of managers and also prevent takeover threat. They seem to benefit from tax arbitrage, which is unique for them and this could also increase agency conflicts between lead stakeholders and minority shareholders, as the evidence in the previous chapter supports the tax arbitrage hypothesis.

According to Wong, Ong and Ooi (2013), Asian REITs are captive REITs owned by a sponsor, similar to Turkish REIT structure. Conversely, US REITs are structured with a more diversified ownership. As to regulate ownership structure, there is 5-50 rule in the US system, which states that the 5 largest shareholders cannot hold more than 50% and also there must be at least 100 shareholders.

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[10] There is evidence that the need for corporate governance is less of a concern for US REITs (Bauer et al., 2010). Bianco et al. (2007) find a weak effect of corporate governance, as per the G-Index, on the performance of US REITs in 2004 and 2006.

[11] Total debt to total assets ratio of Turkish (US) REITs was 16-18% (55%) in 2007 (Erol and Tirtiroglu 2010; Eichholtz et. al 2011). The 90% payout rule forces US REITs to go to capital markets to raise debt financing in spite of no tax shield advantage for debt.

Both in the US and Turkish REIT markets, the hostile takeovers have rarely been observed due to lower possibility of blockholder ownership arising from these restrictions. In the US setup, the limitation on the level of ownership prevent block-holders from appearing and in the Turkish setup, the sponsors seem to be strong enough to confront hostile takeovers. Bianco, Ghosh and Sirmans (2007) state that in the absence of hostile takeover threats, REIT managers feel that their positions are safe, creating an internal governance problem.

Overall, the higher ownership ratio of the sponsors (concentrated ownership), lower dividend payout, and the visibly low(er) debt ratios are the consequences of the differences in the Turkish REIT system from the US and global REIT markets. These differences might contribute to the agency costs and make the quality of corporate governance more important in Turkey relative to the US and other REIT markets with strong(er) legal frameworks and enforcement.

My contribution to the existing REIT literature lies in evaluating the impact of these structural differences on the financial performance of companies and my empirical findings provide evidence that would be useful for the Asian REIT markets, which have a similar sponsored ownership structure. In particular, I seek answers for whether internally and externally motivated corporate governance structures have been in place to offset the potentially adverse consequences of the weak legal framework, which also houses incentives for weak corporate governance structures. Focusing on the corporate governance of Turkish REITs should reveal empirically and comparatively the effects of differences in REIT regulations between Turkey and at least some other countries – both developed or emerging - with a REIT market. Such evidence should be a very useful piece of information for investors, policymakers and REITs themselves. The evidence on the relation between corporate governance and financial performance might also indicate that tax arbitrage arising from the tax incentives given o REITs can increase agency costs and accordingly, harm financial performance.

Specifically, I investigate the impact of board structure on the operating and stock performance of Turkish REITs, evaluating the joint impact of the corporate tax exemption and no payout rule:

The tax exemption decreases the debt level, diminishing the monitoring impact of debt financing on the board and the omission of the payout rule possibly remaining a bigger free cash flow problem and managerial discretion. I find evidence that there is a significantly positive impact of board size and the share of independent members in the board on operating and stock performance. The findings on stock performance indicate that investors are not aware of the positive impact of the board size and independence. I also find that REITs with larger boards and more independent board members have lower market betas.

I additionally investigate the impact of sponsor and non-sponsor institutional ownership, as the ownership setup in Turkey completely has a different approach than the US diversified ownership structure and similarities to the Asian REIT systems. I find that sponsor ownership has a significantly nonlinear relation with operating performance. Higher non-sponsor ownership significantly increases operating performance and decreases market risk. Higher non-sponsor ownership also generates significant abnormal returns indicating that the investors do not incorporate its positive impact on operating performance in their valuations. However, investors are aware of the relation between sponsor ownership and operating performance, as there is no significant alpha.

When I separately evaluate the impact of having a bank or government-backed lead stakeholder, I document that those REITs with bank or government-backed sponsors underperform their peers. The findings on bank sponsors is important because those REITs are most likely to be the ones creating tax arbitrage and having higher agency conflicts because banks are real estate intensive companies. The rest of the chapter is as follows: I explain data and methodology in Section 4.2. The following section shows the empirical findings. In the final section, I conclude.

4.2 Data and Methodology

I use semi-annual data of 23 Turkish REITs between 2003 and 2011 and build an unbalanced panel data set. I collect data for governance and financials from the legally required company filings to the Capital Markets Board of Turkey. For governance measures, I apply two groups of variables. The first group is related to the board structure covering the logarithm of board size and the share of independent members within the board. The second group is related to the ownership structure including sponsor and non-sponsor institutional ownership.

In order to investigate the impact of governance on stock performance, I first regress the CAPM model following Jensen (1968) to obtain abnormal returns and market risk. The model is regressed using OLS estimation, as in the previous chapter.

$$(\boldsymbol{r_{il} - r_{fl}}) = \alpha_{it} + \beta_{it}(\boldsymbol{r_{ml} - r_{fl}}) + \varepsilon_{il} \quad (4\text{-}1)$$

where l is a semi-annual time variable and $l = 1 \ldots t$. The model is regressed recursively for $t, t+1, \ldots, T$. r_i is the return of return index for REIT i and r_m is the return of ISE100 index. α_{it} and β_{it} are the abnormal return and market risk for REIT i at time t, respectively.

I use semi-annual returns for REIT stock return index and ISE100 index obtained from Datastream. I follow a recursive procedure starting the regressions using the first four available observations for each REIT and add 1 observation for each semi-annual observation. This way, I obtain a data set of estimated recursive alphas and betas for each REIT and available semi-annual observation.

Table 4.1 summarizes the descriptive statistics. The mean of operating performance measured by Tobin's Q, which is the ratio of market value of total assets (total

assets plus market capitalization minus common equity) to the book value of total assets is 1.15. On average, REITs generate negative abnormal returns with a mean of minus one percent and have a market beta of 0.93.

An average REIT has approximately 6 board members, 26 percent of which are independent members. The average sponsor ownership is 45 percent. The non-sponsor institutional ownership is very low at 4 percent. 10 and 15 percent of REIT shares are held by government-backed sponsors and banks throughout my sample, respectively.

Table 4.1 Descriptive Statistics

VARIABLE	Obs.	Mean	Std. Dev.
Financial Performance			
Tobin's Q	196	1.15	1.17
Recursive Alpha	163	-0.01	0.10
Recursive Beta	163	0.94	0.30
Corporate Governance Indicators			
Board Size	190	6.42	1.89
Independent (fraction)	190	0.26	0.13
Sponsor	196	0.45	0.19
Non-Sponsor	196	0.04	0.07
Government-Backed	196	0.10	0.21
Bank-Sponsor	196	0.15	0.23
Non-Bank/Non-Gov. Sponsor	195	0.28	0.27
Financial Controls			
Total Assets (in million TLs)	196	260.82	369.76
Debt Ratio	196	0.09	0.22
Cash Stock	196	0.08	0.09
Developer	196	0.78	0.41

Notes: The table shows the descriptive statistics. *Tobin's Q* is calculated as the ratio of book value of total assets plus market capitalization minus common equity to book value of total assets. Alphas and betas are obtained from a recursive estimation of CAPM model. The independent members are calculated as a fraction of board size. The ownerships of the sponsor, the non-sponsor institution, the government-backed and bank sponsors are calculated as ratios. Firm size is measured by total assets. Cash stock is the ratio of cash and equivalents to total assets. Debt ratio is the ratio of total debt to total assets.

The value of total assets of an average Turkish REIT is 261 million TLs. Their leverage ratio is only 9 percent and very low compared to the US REITs with an average more than 50 percent. This low debt ratio is probably due to no payout rule so REITs in Turkey do not have to look very frequently for external financing. Their cash stock also supports this explanation as it is 8 percent way higher than the average of US REITs. 78 percent of Turkish REITs do development activities in my sample.

As a review of univariate analysis, I present correlation matrix of performance and governance measures in Table 4.2. Overall, Tobin's Q has a significantly positive correlation with board size and non-sponsor institutional ownership and a negative correlation with sponsor ownership and the decomposed government-backed and bank sponsorships. Recursive alpha has a similar pattern with Tobin's Q except it has a positive correlation with sponsor ownership. The correlation of non-bank and non-government-backed sponsor ownership is the only significant governance measure with recursive betas and it is negative.

Table 4.2 Correlation Matrix

VARIABLES	Tobin's Q	Recursive Alpha	Recursive Beta
log(Board)	0.24***	-0.07	-0.03
Independent	0.11	0.14**	0.06
Sponsor	-0.22***	0.14*	0.06
Non-Sponsor	0.21***	-0.04	-0.09
Government-Backed	-0.18**	-0.14*	-0.12
Bank-Sponsor	-0.24***	-0.16**	-0.12
Non-Bank/Non-Gov. Sponsor	0.07	0.23***	0.14*

Notes: The table shows the correlation matrix. *Tobin's Q* is calculated as the ratio of book value of total assets plus market capitalization minus common equity to book value of total assets. Alphas and betas are obtained from a recursive estimation of CAPM model. The independent members are calculated as a fraction of board size. The ownerships of the sponsor, the non-sponsor institution, the government-backed and bank sponsors are calculated as ratios. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

I also evaluate the relationship with multivariate analyses. In all of my regressions, the financial controls are lagged. I control for the logarithm of total assets, the ratio of total debt to total assets, the ratio of cash and equivalents to total assets, a dummy indicating whether a REIT operates as a developer and year fixed effects. The model for financial performance is as follows:

$$Financial\ Performance_{it}=\theta_0+\theta_1 Governance_{it}+\sum_k \theta_k Z_{ki,t-1}+\varepsilon_{it} \quad (4\text{-}2)$$

where the dependent variable is either Tobin's Q, recursive alphas and betas. Governance control variables are the logarithm of board size, the ratio of the number of independent members to the board size, sponsor ownership and non-sponsor institutional ownership. Z is a vector of controls including financial variables, developer dummy and time dummies. I apply OLS estimation and the standard errors in all regressions are corrected for heteroskedasticity (White 1980). In the robustness analysis, I also correct standard errors for autocorrelation. Additionally, I apply autoregressive random effects model.

Endogeneity is intensively discussed in the corporate governance literature. While better governance may enhance performance, better performing companies may also improve their governance quality. In the REIT literature, while OLS estimation is applied commonly, two-staged least squares (2SLS) estimation is also used in order to have robustness with relevant instruments (Ghosh and Sirmans 2003; Han 2006). The difficulty with 2SLS is to find analytically and economically good performing instruments.[12] In this chapter, I use a difference-in difference (diff-in-diff) approach in order to deal with endogeneity issues. The model is shown in the following equation. I address the impact of the change in governance related variables on the change in financial performance.

[12] In unreported regressions, I apply generalized method of moments estimation proposed by Arellano and Bond (1991). However, the identifying restrictions are statistically not satisfied.

$$\Delta(Financial\ Performance_{it}) = \theta_0 + \theta_1 \Delta(Governance_{it}) + \sum_k \theta_k \Delta Z_{ki,t-1} + \varepsilon_{it} \quad (4\text{-}3)$$

There are two opposing effects of board size. Smaller boards are believed to be more efficient and to enhance financial performance. On the other hand, in an emerging economy and with a concentrated ownership structure, larger boards may also be more balancing and decrease agency costs. Similarly, more independent members are also expected to mitigate agency costs, therefore to improve the financial performance (Feng, Ghosh and Sirmans 2005).

Sponsor ownership is critical for REIT performance for a number of reasons. First, stronger sponsor ownership aligns the interest of the sponsor and shareholders and might enhance performance. Second, according to Wong, Ong and Ooi (2013), there can be a conflict of interest between the sponsor and the shareholders whenever the sponsor is involved in daily operations of the REIT. Second, the REITs are exempted from corporate tax while the sponsor is not. The sponsor usually transfers the management of some of its real assets to the REIT, creating an agency conflict between the two entities. In Turkey, this conflict is strengthened, as there is no mandatory payout rule in Turkey.

My evidence in the previous chapter also supports this argument. I expect that sponsor ownership has two opposing impacts on financial performance the final impact depends on which overweighs the other. The final impact might also depend on the type of sponsor. For instance, banks in Turkey set up REITs for their favorable tax status and those REITs with bank sponsors might have worse performance. Finally, similar to the literature (Ghosh and Sirmans 2003), I expect that non-sponsor institutional ownership enhances financial performance.

4.3 Empirical Findings

4.3.1 Governance Quality and Operating Performance

I present the regression results of operating performance on the board composition variables in Table 4.3. I address a possible endogeneity issue by applying a diff-in-diff approach, as it is a possible concern for corporate governance analyses. The intuition is that continuously better performing companies may have the financial flexibility to invest in costly corporate governance practices. The fixed effects arising from persistent good financial performance can be removed by using a difference-in-difference approach.

I significantly find that REITs with larger boards have better operating performance. A 10 percent increase in board size enhances Tobin's Q by 0.05 indicating that market value of assets becomes 5 percent higher than the book value, which measures the costs of those assets. However, diff-in-diff regression shows that the impact becomes insignificant. This finding is different from the finance and REIT literature in general ((Feng, Ghosh and Sirmans 2005; Yermack 1996). While the literature suggests that there is a negative relation between board size and firm performance, there are also papers indicating opposite relation. Our findings supports the idea that different types of firms might need different board size raised by Coles, Daniel and Naveen (2008) and in line with the findings of Kiel and Nicholson (2003) for Australian firms. The average board size is small in their sample such as ours. The authors explain that more people in the board can increase the monitoring power. This explanation also holds for the Turkish REIT data and my findings.

Table 4.3 Board Structure and Operating Performance

	(1)		(2)
VARIABLES	Tobin's Q	VARIABLES	ΔTobin's Q
log(Board)	0.536***	*Δlog(Board)*	-0.432
	[0.203]		[0.376]
Independent	2.142***	*ΔIndependent*	1.525**
(Fraction of Board)	[0.706]		[0.735]
log(Size)	-0.212**	*Δlog(Size)*	-0.033
(lagged)	[0.086]	*(lagged)*	[0.082]
Debt Ratio	0.895**	*ΔDebt Ratio*	0.094
(lagged)	[0.361]	*(lagged)*	[0.215]
Cash Stock	-0.430	*ΔCash Stock*	0.468
(lagged)	[0.865]	*(lagged)*	[0.482]
Developer	-0.889***		
	[0.295]		
Constant	Y	Constant	Y
Time Dummies	Y	Time Dummies	N
Observations	190	Observations	163
Adj. R-squared	0.31	Adj. R-squared	0.03

Notes: The table shows the regression of operating performance. *Tobin's Q* is calculated as the ratio of book value of total assets plus market capitalization minus common equity to book value of total assets. The independent members are calculated as a fraction of board size. Heteroskedasticity robust and firm-clustered standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

I also document that the fraction of independent members in the board significantly have a positive impact on only Tobin's Q. If the fraction increases by 10 percent, Tobin's Q increases by 0.21. The impact remains significant with the difference approach at 5 percent level. Overall, the results show a strongly positive relationship between the fraction of independent members and operating performance. The impact of board size on operating performance is also significantly positive in level regressions but weakens with a diff-in-diff approach probably as there is lower variation due to the stability of board size across time. This finding is in line with finance and REIT literatures. Increase in the fraction of independent members enhance financial performance (Brickley and Terry 1994; Coles, Daniel and Naveen 2008; Cornett et al. 2007; Kiel and Nicholson 2003;

Rosenstein and Wyatt 1990). Ghosh and Sirmans (2003) also confirm the relation for the US REITs. The benefits from independent members hold for the Turkish REITs, as my findings indicate.

Among financial controls, I find that firm size has a negative impact on Tobin's Q. Debt ratio has a positive relation with Tobin's Q. As the debt capacity is high for REITs due to high tangibility, higher debt ratio probably indicates more active REIT investments and better Tobin's Q. I additionally find that if a REIT is a developer, Tobin's Q declines by 0.89 at one percent significance level.

Table 4.4 Ownership Concentration and Operating Performance

	(1)	(2)		(3)	(4)
VARIABLES	Tobin's Q	Tobin's Q		ΔTobin's Q	ΔTobin's Q
Sponsor	-13.468***		*ΔSponsor*	1.612***	
(ratio)	[2.227]			[0.471]	
Squared Sponsor	13.296***				
(ratio)	[2.390]				
Non-Sponsor		2.381**	*ΔNon-Sponsor*		-0.045
(ratio)		[1.012]			[1.203]
log(Size)	-0.038	-0.161**	*Δlog(Size)*	-0.037	-0.074
(lagged)	[0.069]	[0.077]	*(lagged)*	[0.142]	[0.145]
Debt Ratio	0.174	0.752**	*ΔDebt Ratio*	0.433	0.439
(lagged)	[0.322]	[0.367]	*(lagged)*	[0.344]	[0.349]
Cash Stock	0.855	0.451	*ΔCash Stock*	0.644	0.650
(lagged)	[0.724]	[0.777]	*(lagged)*	[0.575]	[0.583]
Developer	-0.674***	-0.926***			
	[0.199]	[0.298]			
Constant	Y	Y	Constant	Y	Y
Time Dummies	Y	Y	Time Dummies	N	N
Observations	196	196	Observations	174	174
Adj. R-squared	0.44	0.25	Adj. R-squared	0.18	0.16

Notes: The table shows the regression of operating performance. *Tobin's Q* is calculated as the ratio of book value of total assets plus market capitalization minus common equity to book value of total assets. The ownerships of the sponsor and the non-sponsor institution are calculated as ratios. Firm size is measured by total assets. Cash stock is the ratio of cash and equivalents to total assets. Debt ratio is the ratio of total debt to total assets. Developer dummy gets one if a REIT also makes real estate developments. Heteroskedasticity robust and firm-clustered standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

In Table 4.4, I present the results of the operating performance regressions on sponsor and non-sponsor institutional ownership. I significantly find a nonlinear relation between sponsor ownership and operating performance. Figure 3.1 shows the relation between sponsor ownership and Tobin's Q. Up to 50 percent sponsor ownership, there is a negative relation between sponsor ownership and Tobin's Q. However, as sponsor ownership goes up the marginal decline in Tobin's Q decreases and becomes positive above the 50 percent threshold. In the difference-in-difference approach, the findings show that if sponsor ownership increases, Tobin's Q also increases. Considering that the mean of sponsor ownership is 45 percent, the changes in sponsor ownership are in the increasing portion of the graph.

The non-sponsor ownership has a significantly negative relation with Tobin's Q in Model 2 but the effect disappears in Model 4 in the difference-in-difference approach. The result from Model 2 and 4 might indicate that presence of a non-sponsor owner increases Tobin's Q but an increase in the level of ownership do not add value. In unreported regressions, a dummy indicating whether there is a non-sponsor owner enhances Tobin's Q.

Finance literature suggests that institutional ownership increases financial performance (Del Guarcio and Hawkins 1999; McConnell and Servaes 1990; Nesbitt 1994; Smith 1996). However, if the firm has business relation with the institutional investor, this positive relation disappears, according to Cornett et al. (2007). Findings on non-sponsor owners are in line with the findings in the finance literature. On the other hand, Miguel, Pindado and de la Torre (2004) find that up to a threshold there is a positive relation but above the threshold the relation becomes negative. My findings show an opposite relation. In the Turkish REITs case, the lead stakeholders have business relation with the REIT, which might cause the negative relation below the threshold. As the ownership increases, the interests of lead stakeholders with minority shareholders start to align.

Ghosh and Sirmans (2003) also evaluate the impact of affiliated and non-affiliated blockholder ownership for the US REITs. They document that non-affiliated owners worsen performance affiliated owners enhance performance. My findings are different from theirs. The opposite relation of the affiliated and non-affiliated owners with performance for the US REITs and Turkish REITs might arise from the different ownership structures. In the US, there is a diversified ownership structure, where higher affiliated ownership aligns interests. In Turkey, there is a concentrated ownership structure, where higher "affiliated" or sponsor ownership can harm REIT performance as they are potentially entrenched.

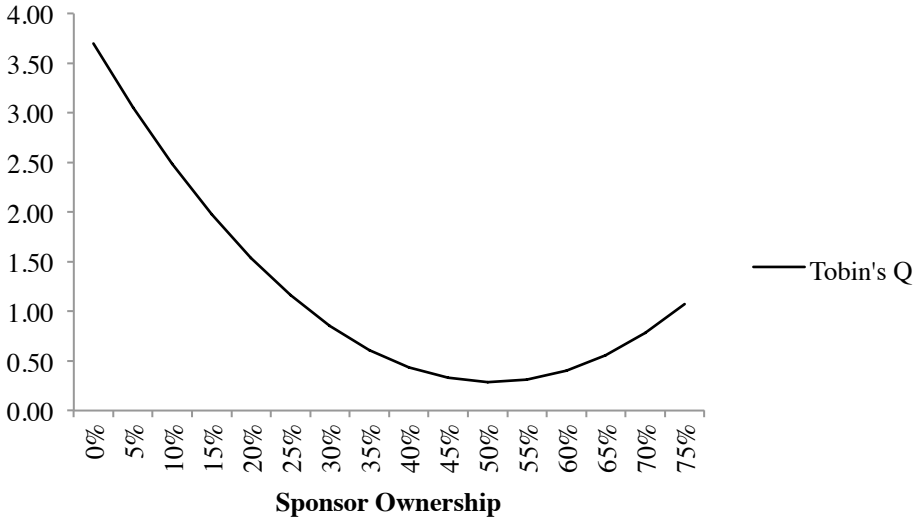

Figure 4.1 The Relation between Sponsor Ownership and Tobin's Q

4.3.2 Governance Quality and Stock Performance

In addition to operating performance, I also evaluate the relationship between governance quality and stock performance. I first estimate CAPM model recursively for each REIT in order to obtain semi-annual series of alphas and betas

by REIT. In the second stage I regress recursive alphas and betas on governance quality measures and financial controls. I use two types of estimation methods. I use value weighted least squares (WLS) besides ordinary least square estimation (OLS). Since in the second stage the dependent variables, alphas and betas, are estimated beforehand, I adjust the variance-covariance matrix by the standard errors of alphas and betas from the first stage. WLS estimation adjusts the variance-covariance matrix taking the significance of estimated dependent variables into account.

Table 4.5 Board Composition and Stock Performance

VARIABLES	(1) Recursive Alphas	(2) Recursive Betas	(3) Recursive Alphas	(4) Recursive Betas
	OLS		*WLS*	
log(Board)	0.016	-0.121***	0.030	-0.046
	[0.016]	[0.038]	[0.018]	[0.041]
Independent	0.062	-0.111	0.150**	0.035
	[0.072]	[0.119]	[0.063]	[0.134]
log(Size)	-0.005	0.082***	-0.009	0.044***
(lagged)	[0.004]	[0.027]	[0.006]	[0.015]
Debt Ratio	-0.077***	0.153*	-0.054	0.203***
(lagged)	[0.024]	[0.089]	[0.034]	[0.074]
Cash Stock	0.129***	0.205	0.207***	0.120
(lagged)	[0.037]	[0.130]	[0.060]	[0.111]
Market-to-Book	-0.001	-0.099***	-0.003	-0.106***
log(Size)	[0.005]	[0.023]	[0.008]	[0.026]
Developer	-0.014	-0.186***	-0.017	-0.180***
	[0.015]	[0.048]	[0.021]	[0.065]
Constant	Y	Y	Y	Y
Time Dummies	Y	Y	Y	Y
Observations	161	161	161	161
Adj. R-squared	0.39	0.33	.	.

Notes: The table shows the regression recursive alphas and betas. Alphas and betas are obtained from a recursive estimation of CAPM model. The independent members are calculated as a fraction of board size. Firm size is measured by total assets. Cash stock is the ratio of cash and equivalents to total assets. Debt ratio is the ratio of total debt to total assets. Developer dummy gets one if a REIT also makes real estate developments. Heteroskedasticity robust and firm-clustered standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

In Table 4.5, I show the regression results of recursive alphas betas on board composition. I do not find any significant impact of board composition variables on recursive alphas with OLS estimation. However, in Model 3, I find that REITs with more independent board members significantly have better abnormal returns. For instance, a 10 percent increase in the fraction of independent members generate more semi-annual abnormal returns by 150 basis points, respectively. Overall, the findings indicate that investors are aware of the positive impact of board composition on operating performance and incorporate their valuations, accordingly so board composition variables do not generate any abnormal returns. Beta regressions show weak evidence. Only in Model 2, higher board size is negatively related to market beta. However, the result does not hold in weighted least squares approach.

Panel A of Table 4.6 presents the regression results of recursive alphas on the sponsor and non-sponsor institutional ownership. Overall, both OLS and WLS results show that sponsor ownership has no impact on abnormal returns. Additionally, my findings indicate that REITs with higher non-sponsor institutional ownership generate better abnormal returns. A 10 percent increase in non-sponsor ownership enhances semi-annual abnormal returns by 1.7-2.4 percent.

I also evaluate the impact of ownership concentration on market risk. The recursive beta regressions are shown in Panel B of Table 4.6. There is no significant impact of sponsor ownership on market beta. On the other hand, 10 percent increase in non-sponsor ownership decreases market risk by 3.7-5.4 basis points.

Table 4.6 Ownership Concentration and Stock Performance

Panel A – Recursive Alpha Regressions				
VARIABLES	(1) Recursive Alphas	(2) Recursive Alphas	(3) Recursive Alphas	(4) Recursive Alphas
Sponsor	0.042		0.085	
(ratio)	[0.163]		[0.239]	
Squared Sponsor	0.003		-0.055	
(ratio)	[0.164]		[0.276]	
Non-Sponsor		0.166***		0.240***
(ratio)		[0.055]		[0.091]
log(Size)	-0.004	-0.002	0.001	0.003
(lagged)	[0.007]	[0.006]	[0.006]	[0.006]
Debt Ratio	-0.129**	-0.140**	-0.063*	-0.078**
(lagged)	[0.054]	[0.056]	[0.035]	[0.033]
Cash Stock	0.196***	0.206***	0.259***	0.266***
(lagged)	[0.069]	[0.066]	[0.059]	[0.059]
Market-to-Book	0.008	0.002	0.007	-0.001
	[0.007]	[0.005]	[0.009]	[0.007]
Developer	-0.019*	-0.024**	-0.019	-0.019
	[0.012]	[0.012]	[0.020]	[0.020]
Constant	Y	Y	Y	Y
Time Dummies	Y	Y	Y	Y
Observations	163	163	163	163
Adj. R-squared	0.26	0.27	.	.

Panel B – Recursive Beta Regressions				
VARIABLES	(1) Recursive Betas	(2) Recursive Betas	(3) Recursive Betas	(4) Recursive Betas
Sponsor	0.734		0.254	
(ratio)	[0.569]		[0.239]	
Squared Sponsor	-0.745		-0.327	
(ratio)	[0.644]		[0.276]	
Non-Sponsor		-0.543***		-0.371***
(ratio)		[0.174]		[0.091]
log(Size)	0.066**	0.067**	0.046***	0.045***
(lagged)	[0.032]	[0.029]	[0.006]	[0.006]
Debt Ratio	0.087	0.070	0.141***	0.154***
(lagged)	[0.102]	[0.101]	[0.035]	[0.033]
Cash Stock	0.132	0.174	0.223***	0.224***
(lagged)	[0.195]	[0.176]	[0.059]	[0.059]
Market-to-Book	-0.083***	-0.092***	-0.101***	-0.097***
	[0.021]	[0.019]	[0.009]	[0.007]
Developer	-0.147***	-0.144**	-0.122***	-0.120***
	[0.055]	[0.056]	[0.020]	[0.020]
Constant	Y	Y	Y	Y
Time Dummies	Y	Y	Y	Y
Observations	163	163	163	163
Adj. R-squared	0.27	0.28	.	.

Notes: Heteroskedasticity robust and firm-clustered standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

In sum, my findings show important implications for REIT investors. I find evidence that investors incorporate the better operating performance of REITs with larger and more independent boards. They are also aware of the nonlinear relation between sponsor ownership and operating performance. My findings might indicate that REITs with larger boards, more independent board members increase the democracy within the board and align interest with shareholders. Similarly, with higher levels of ownership, the sponsor gets more harmed with worse stock performance aligning the interest of the sponsor and the shareholders. Higher institutional ownership also decreases agency costs.

4.3.3 Government-Backed and Bank Sponsors

There are 4 banks and 3 government-backed institutions sponsoring Turkish REITs in my sample.[13] Addressing the type of owners of these REITs is important because the riskiness and efficiency of the management for these REITs might be different from others. Since government-backed institutions are less risky, there might be a discount in the risk for REITs sponsored by these entities. Banks are also financially strong institutions and their ownership level might affect the riskiness of a REIT, similarly. However, the alignment of interest for REITs with government-backed sponsors might be weaker and there might be less pressure on the management team.

Banks also show interest in establishing a REIT because they own real estate throughout the country for their branches. REITs are legally corporate tax-exempted and this structure also creates a tendency for banks to set up a REIT. However, their interests might harm the interests of the shareholders possibly creating an agency cost. The evidence on tax arbitrage in the previous chapter

[13] In addition to these, Atakule GYO has been sponsored by Vakifbank, a government-backed bank but Vakifbank does not hold shares from 2009 onwards.

supports this logic. The banks significantly decrease their fixed asset holdings around REIT introductions indicating the business relation that I propose.

Table 4.7 Ownership Type and Operating Performance

VARIABLES	(1) Tobin's Q	(2) Tobin's Q
Levels		
Bank Dummy	-0.515***	
	[0.123]	
Gov.-Backed Dummy		-0.294**
		[0.148]
log(Size)	-0.072	-0.138**
(lagged)	[0.064]	[0.068]
Debt Ratio	0.521	0.657*
(lagged)	[0.348]	[0.368]
Cash Stock	-0.068	0.068
(lagged)	[0.441]	[0.462]
Developer	-0.953***	-0.849***
	[0.294]	[0.309]
Constant	Y	Y
Time Dummies	Y	Y
Observations	232	232
Adj. R-squared	0.25	0.22

Notes: The table shows the regressions on the government-backed and bank sponsor dummies. *Tobin's Q* is calculated as the ratio of book value of total assets plus market capitalization minus common equity to book value of total assets. The government-backed and bank sponsor dummies get one if the type of owner is government-backed and bank sponsor, respectively. Firm size is measured by total assets. Cash stock is the ratio of cash and equivalents to total assets. Debt ratio is the ratio of total debt to total assets. Developer dummy gets one if a REIT also makes real estate developments. Heteroskedasticity robust and firm-clustered standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

I investigate the effect of ownership type considering government-backed sponsors and banks on Tobin's Q in Table 4.7. The results show that if the lead stakeholder is a bank, Tobin's Q significantly decreases by 0.52 at one percent level. REITs with government backed lead stakeholders significantly have lower Tobin's Q by 0.29. These results support the idea that REITs with bank sponsors might have higher agency conflicts harming the operating performance. One explanation could be the benefits of tax arbitrage for real estate intensive banks.

In Table 4.8, I regress recursive alphas and betas on government-backed sponsor and bank dummies. In Panel A, there is no significant impact of having a bank lead stakeholder. It indicates that investors price in the potential agency conflicts and worse operating performance efficiently. This also supports the findings on tax arbitrage, as investors are aware of the potential benefits of tax arbitrage. It seems that investors do not price the worse operating performance of REITs with government-backed sponsors. Panel B shows the beta regression results. The beta is significantly lower for bank sponsors with OLS estimation but the coefficient of bank dummy becomes in significant with weighted least squares estimation. The coefficient of the dummy for government-backed sponsors is significantly negative in both specifications. If the REIT has a government-backed sponsor, the market beta declines by 0.18-0.20. These findings are in line with my expectations.

In sum, lead stakeholders that are banks or government-backed worsen the operating performance of REITs due to potential agency conflicts. Investors incorporate the negative impact of bank sponsors on operating performance of REITs but ignore the worse performance for government-backed sponsored REITs as those REITs have negative abnormal returns relative to their counterparts. However, having a government-backed lead stakeholder decreases their exposure to market risk.

Table 4.8 Ownership Type and Stock Performance

Panel A – Recursive Alphas				
VARIABLES	(1) Recursive Alphas	(2) Recursive Alphas	(3) Recursive Alphas	(4) Recursive Alphas
	OLS		WLS	
Bank Dummy	-0.023		-0.003	
	[0.014]		[0.012]	
Gov.-Backed Dummy		-0.090***		-0.056***
		[0.021]		[0.018]
log(Size) (lagged)	-0.009	-0.018**	-0.002	-0.009*
	[0.006]	[0.007]	[0.005]	[0.005]
Debt Ratio (lagged)	-0.132***	-0.153***	-0.064**	-0.085**
	[0.045]	[0.050]	[0.032]	[0.033]
Cash Stock (lagged)	0.034	0.004	0.155***	0.123***
	[0.076]	[0.077]	[0.040]	[0.039]
Market-to-Book (lagged)	0.002	0.004	0.004	0.004
	[0.006]	[0.006]	[0.007]	[0.007]
Developer	-0.013	0.009	-0.011	-0.000
	[0.012]	[0.012]	[0.020]	[0.019]
Constant	Y	Y	Y	Y
Time Dummies	Y	Y	Y	Y
Observations	200	200	200	200
Adj. R-squared	0.19	0.24	.	.

Panel B – Recursive Betas				
VARIABLES	(1) Recursive Betas	(2) Recursive Betas	(3) Recursive Betas	(4) Recursive Betas
	OLS		WLS	
Bank Dummy	-0.089*		-0.013	
	[0.046]		[0.012]	
Gov.-Backed Dummy		-0.204***		-0.179***
		[0.047]		[0.018]
log(Size) (lagged)	0.048*	0.022	0.027***	0.004
	[0.027]	[0.027]	[0.005]	[0.005]
Debt Ratio (lagged)	0.082	0.045	0.154***	0.088***
	[0.109]	[0.107]	[0.032]	[0.033]
Cash Stock (lagged)	-0.111	-0.163	0.060	-0.040
	[0.182]	[0.182]	[0.040]	[0.039]
Market-to-Book (lagged)	-0.117***	-0.106***	-0.106***	-0.106***
	[0.020]	[0.018]	[0.007]	[0.007]
Developer	-0.189***	-0.125**	-0.116***	-0.081***
	[0.052]	[0.053]	[0.020]	[0.019]
Constant	Y	Y	Y	Y
Time Dummies	Y	Y	Y	Y
Observations	200	200	200	200
Adj. R-squared	0.20	0.22	.	.

Notes: Heteroskedasticity robust and firm-clustered standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

4.4 Robustness Checks

4.4.1 Correction for Autocorrelation and Cross-Sectional Dependence

Table 4.9 Tobin's Q Regressions with Driscoll-Kraay Standard Errors

VARIABLES	(1) Tobin's Q	(2) Tobin's Q	(3) Tobin's Q	(4) Tobin's Q	(5) Tobin's Q
log(Board)	0.536***				
	[0.111]				
Independent	2.142***				
(Fraction of Board)	[0.670]				
Sponsor		-13.468***			
(ratio)		[1.400]			
Squared Sponsor		13.296***			
(ratio)		[0.988]			
Non-Sponsor			2.381***		
(ratio)			[0.609]		
Bank Dummy				-0.515***	
				[0.068]	
Gov.-Backed Dummy					-0.294**
					[0.117]
log(Size)	-0.212**	-0.038	-0.161**	-0.072	-0.138*
(lagged)	[0.076]	[0.067]	[0.066]	[0.081]	[0.074]
Debt Ratio	0.895**	0.174	0.752**	0.521*	0.657**
(lagged)	[0.407]	[0.245]	[0.267]	[0.267]	[0.272]
Cash Stock	-0.430	0.855	0.451	-0.068	0.068
(lagged)	[0.846]	[0.551]	[1.150]	[0.506]	[0.554]
Developer	-0.889***	-0.674***	-0.926***	-0.953***	-0.849***
	[0.175]	[0.183]	[0.226]	[0.234]	[0.222]
Constant	Y	Y	Y	Y	Y
Time Dummies	Y	Y	Y	Y	Y
Observations	190	196	196	232	232
Adj. R-squared	0.31	0.44	0.25	0.25	0.22
Number of Groups	23	22	22	23	23

Notes: Driscoll-Kraay standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

In this section, I check whether the standard errors in the Tobin's Q regressions obtained using pooled OLS estimation are robust to autocorrelation and cross-sectional dependence in addition to heteroskedasticity. In order to have robust test

statistics, I use standard errors proposed by Driscoll and Kraay (1998). Hoechle (2007) suggests that Driscoll-Kraay standard errors are similar to Newey-West standard errors (Newey and West 1987) and additionally corrected for cross-sectional correlation. The regression results are shown in Table 4.9.

The first column of Table 4.9 shows the board composition regressions. The second and third columns show sponsor and non-sponsor ownership regressions and the final two columns show the regressions for bank and government-backed sponsor dummies. In all regressions, the governance variables are still significant at one percent level. The findings in this section show that the test statistics are robust to heteroskedasticity, autocorrelation and cross-sectional correlation. The coefficients do not change as I estimate applying pooled OLS and as the coefficients from pooled OLS are unbiased.

4.4.2 Panel Data Regression Analysis

I estimate Tobin's Q regressions using random effects panel data estimation. I apply random effects model but not fixed effects because the governance measures are very stable across years for a given firm. Fixed effects model is more suitable when analyzing the impact of variables that vary over time. On the other hand, random effects model is more applicable when cross-sectional differences are expected to have influence on the dependent variable. As the variation in the governance measures mainly arises from cross-sectional differences, I apply random effects model. I also allow for autocorrelation in the residuals. Table 4.10 shows the regression results from autoregressive random effects model with one lag of residuals.

Table 4.10 Tobin's Q Regressions with Autoregressive Random Effects Model

VARIABLES	(1) Tobin's Q	(2) Tobin's Q	(3) Tobin's Q	(4) Tobin's Q	(5) Tobin's Q
log(Board)	0.202				
	[0.357]				
Independent	1.231**				
(Fraction of Board)	[0.624]				
Sponsor		-6.089**			
(ratio)		[2.504]			
Squared Sponsor		6.537***			
(ratio)		[2.480]			
Non-Sponsor			-0.070		
(ratio)			[0.986]		
Bank Dummy				-0.455	
				[0.438]	
Gov.-Backed Dummy					-0.314
					[0.584]
log(Size)	-0.100	-0.106	-0.113	-0.084	-0.095
(lagged)	[0.075]	[0.073]	[0.076]	[0.069]	[0.069]
Debt Ratio	0.565*	0.597**	0.673**	0.540**	0.558**
(lagged)	[0.299]	[0.298]	[0.293]	[0.272]	[0.272]
Cash Stock	0.103	0.220	0.395	-0.097	-0.093
(lagged)	[0.536]	[0.542]	[0.530]	[0.395]	[0.394]
Developer	-0.425	-0.410	-0.454	-0.331	-0.315
	[0.400]	[0.357]	[0.438]	[0.407]	[0.430]
Constant	Y	Y	Y	Y	Y
Time Dummies	N	N	N	N	N
Observations	190	196	196	232	232
R-squared	0.22	0.32	0.13	0.13	0.11
Number of Groups	23	22	22	23	23

Notes: * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Although the significance of my findings weakens, I document that fraction of independent members significantly enhance operating performance. The nonlinear relation between sponsor ownership and Tobin's Q still holds significantly. The logarithm of board size has a positive impact similar to pooled OLS estimation but the coefficient turns out to be insignificant with autoregressive random effects estimation. The coefficients of non-sponsor ownership, bank and government-backed sponsor dummies loose significance with random effects model. These findings suggest that the significant impacts of board size, non-sponsor ownership, bank and government-backed sponsor dummies in the pooled OLS regressions

should be interpreted cautiously, although they are shown to be robust to heteroskedasticity, autocorrelation and cross-sectional dependence. More emphasis can be given to the findings on board independence and sponsor ownership, as they seem to be very robust.

4.5 Concluding Remarks

The legal environment surrounding Turkish REITs differs from those REIT systems in the US and other countries. Although there exists the corporate tax-exemption for Turkish REITs, they do not have pay out majority of their income to shareholders like REITs in other countries. In the US, there is the 5-50 ownership rule creating a diversified ownership structure while in Turkey there is the sponsorship structure creating a strong influence of the sponsor over the REIT and a concentrated ownership structure. The evidence on the benefits from tax arbitrage might also make agency conflicts more severe.

The strict legal structure of REITs takes attention of the researchers in the field of corporate governance. The divergence of the Turkish REIT system from the REIT systems in other countries such as the US make Turkish REITs interesting for corporate governance practices and provide us a laboratory environment to test the validity of such rules in a corporate environment such as in the US, where there is corporate tax-exemption and restricted ownership structure. Additionally, Asian REITs have a similar sponsored REIT structure. The results also provide evidence and lessons for those markets.

I address corporate governance issues by investigating the impact of board composition measures and sponsor and institutional ownership structure on both operating and stock performance. Overall, the findings show that REITs with larger

boards and more independent board members have better operating performance. 10 percent increase in board size and the fraction of independent members increases Tobin's Q by 0.05 and 0.21, respectively. In the finance literature, smaller boards are shown to be more efficient and improve corporate performance. My findings might indicate that with a concentrated ownership structure, larger boards and more independent members increase the democracy within the board and diminish the agency costs arising from the influence of the sponsor.

I find a nonlinear relation between the percentage of ownership of lead stakeholders and operating performance. Up to a threshold around 50 percent of sponsor ownership, the percentage of sponsor ownership has a negative impact on operating performance. Above the threshold, the relation turns out to be positive indicating that at very high levels of sponsor ownership, the stock price declines become more important aligning interests. This is also supported in the difference-in-difference approach. An increase in sponsor ownership is positively associated with the change in Tobin's Q. The evidence also shows that there is a positive relation between non-sponsor ownership and operating performance. The negative impact of sponsor ownership diverges from the findings of Ghosh and Sirmans (2003) on the US REITs. There is dispersed ownership structure in the US and possibly higher ownership of affiliated blockholders align interests. On the other hand, there is a concentrated ownerhip structure in Turkey, which increases the possibility of entrenchement of sponsors.

Results on recursive abnormal returns show that investors incorporate the impact of board composition on operating performance in three of four specifications. Only, if the fraction of independent members increases by 10 percent, semi-annual abnormal returns increase by 150 basis points. Sponsor ownership does not have any impact on stock performance so the markets are efficient with respect to sponsor ownership, as the worse operating performance arising from higher sponsor ownership does not generate any abnormal returns. Among all, non-sponsor ownership significantly decreases market betas so REITs with higher non-sponsor

ownership are less exposed to market risk. In one specification, board size also decreases market beta significantly.

I finally concentrate on the types of lead stakeholders. Especially, banks needs more focus, as they are real estate intensive firms. Benefits from tax arbitrage potentially increase agency conflicts for those REITs with bank or real estate intensive sponsors. I find that bank-sponsored REITs have worse operating performance than their peers. I also document similar results for government-backed sponsored REITs. The stock performance regressions show that investors are aware of those agency conflicts. Additionally, I show that REITs with government-backed sponsors significantly generate negative abnormal returns and have lower market betas.

The findings from pooled OLS regressions are robust to heteroskedasticity, autocorrelation and cross-sectional dependence. However, the results for board size, non-sponsor ownership and type of ownership weaken and loose significance with autoregressive panel data estimation. Those findings should be interpreted cautiously.

With the corporate tax-exemption, no payout threshold and sponsored ownership structure, corporate governance practices become more important and effective. For instance, diverging from the US REITs having a diversified ownership structure due to 5-50 rule, Turkish REITs seem to suffer from concentrated ownership structure and tax-exemption without any mandatory payout rule. Although evidence shows that the strong legal environment mitigates the impact of corporate governance practices in the US (Bauer, Eichholtz and Kok 2010), REIT investors should focus on the corporate governance quality more closely in the countries with sponsored REIT structures such as Turkey and the Asian countries.

CHAPTER 5

POLICY IMPLICATIONS

In the first part of this chapter, I propose some policy implications based on my findings on tax arbitrage and corporate governance. I first summarize my findings and relate those to policy options of the regulators. Later, I propose some policy changes in order to mitigate the impact of tax arbitrage on agency conflicts between lead stakeholders and minority shareholders. In the second part of the chapter, I evaluate existing policy changes implemented by the regulatory authorities. I first evaluate possible impacts of those changes with respect to tax arbitrage and agency conflicts and develop hypotheses based on the changes. Then, I test the change in the market value of REITs calculating CARs around the announcement of the regulation changes.

5.1 Policy Implications on Tax Arbitrage and Corporate Governance

5.1.1 Legal Differences between the Turkish and Global REIT Systems

Most countries have a REIT or REIT-like system all around the world. REIT systems across countries more or less have similar principles as I have discussed in the previous chapters. The most common rule is the corporate tax exemption. Almost all REIT systems bring corporate tax exemption completely or incompletely, for instance exempting from corporate tax on income from real estate assets or dividends paid. The main reason for corporate tax exemption is to remove double taxation. Normally, firms pay corporate tax and when they distribute income to shareholders, they are subject to withholding tax.

The most relevant example to the removal of double taxation is the US REIT system. The tax exemption is also similar in South Korea. Figure 5.1 shows the taxation of REITs in the US. REITs generate income. They have to distribute 90 percent of taxable income to shareholders. The distributed income is exempted from the corporate tax. However, the dividends are subject to dividend income tax so the distributed part of income is not subject to double taxation but only dividend income tax. On the other hand, REITs are allowed to retain mostly 10 percent of their income at the company. If they retain any income, then, the undistributed income is subject to corporate tax so any income generated is subject to any type of taxation once but not twice.

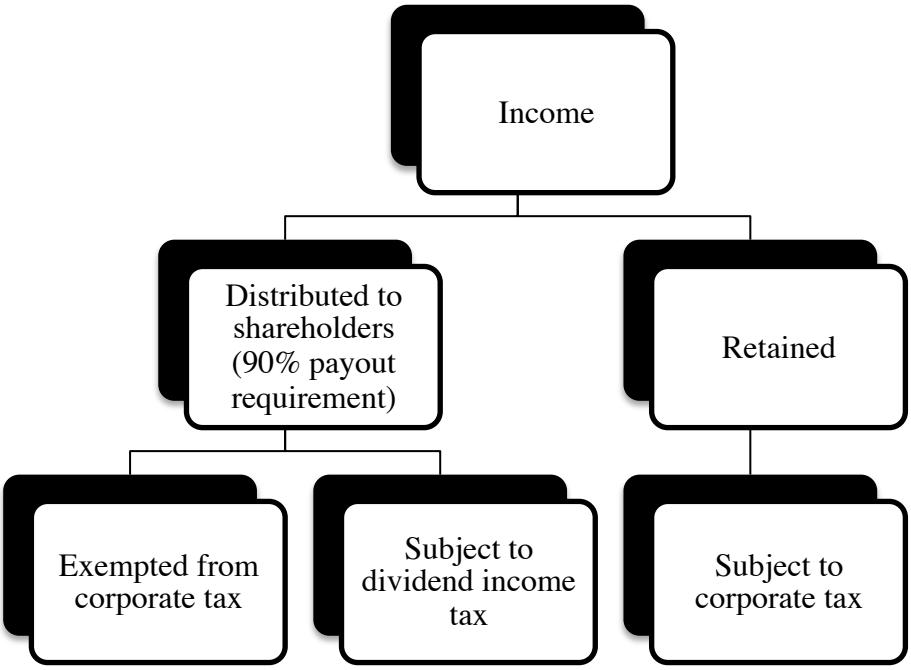

Figure 5.1 Taxation of the US REITs at Corporate Level

In Turkey, the taxation of REITs deviates from the US system or other countries having REIT systems. Turkish REITs are exempted from corporate tax. However, there is no payout rule implemented for Turkish REITs. As in the US example, the tax exemption is brought for the dividends distributed and they have to distribute at least 90 percent their income. In an extreme case, if they distribute zero income and retain all income in the company, they do not pay any corporate tax.

If Turkish REITs distribute dividends to shareholders, they are exempted from withholding tax. Figure 5.2 summarizes the taxation of REIT income. Whether the income is distributed or not, REIT owners which are corporations are not subject to corporate tax after the REIT generates income.

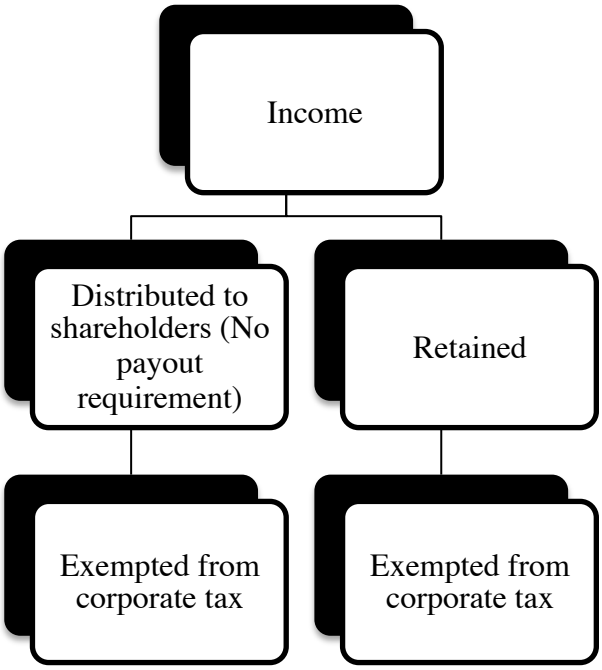

Figure 5.2 Taxation of the Turkish REITs at Corporate Level

In Turkey, corporations can benefit from setting up a REIT because of the tax arbitrage issue. I explain the complete mechanism and discuss the tax arbitrage problem in Chapter 3. Eventually, my findings confirm that tax arbitrage increases corporate value for those corporations establishing a REIT. My results also indicate that investors are aware of the benefits of tax arbitrage.
In most countries, there is no binding ownership rule. On the other hand, in the United States, there is a dispersed ownership structure. Five largest shareholders cannot hold more than 50 percent of the shares. In South Korea, there is a similar restriction. One shareholder cannot hold more than 30 (40) percent of the K-REIT (P-REIT) shares.

In Turkey, the lead stakeholder has been required to hold at least 25 percent of the shares outstanding by the 1998 communiqué, then, it has been decreased to 10 percent. Although, the 2003 communiqué completely removes this rule, most REITs are established under the lead stakeholder rule. This rule creates a concentrated ownership structure for the Turkish REITs. In Chapter 4, the sample statistics show that the lead stakeholders own 45 percent of the shares on average.

The regulations also allow the corporations to have closely held shares of Turkish REITs, which give higher voting rights to the owners. The publicly traded shares have less voting rights so minority shareholders do not have enough power to elect the directors of the REIT so one can claim that the corporation as the lead stakeholder can choose the managers of the REIT.

If the corporation uses their voting power and influence the managers' investment decision, then, they can direct the managers for investments benefiting the corporation and potentially harm the minority shareholders. Such a possible investment decision could be that the REIT can invest in a property and rent it to the corporation, the lead stakeholder, possibly under the market capital rates. This type of investment gives additional benefits to the corporation because of the tax arbitrage, as soon as the REITs retain cash in the company. However, minority

shareholders can be harmed if there is another investment opportunity, which is positive-NPV or has a capital rate at the market equilibrium or above it. Overall, if the REIT chooses the investment where they rent to the lead stakeholder but not the positive NPV project, the lead stakeholder can increase value in expense of minority shareholders.

In Chapter 4, I evaluate the impact of this potential agency cost and concentrated ownership structure on financial performance. As corporate governance measures, I use board structure and the ownership of lead stakeholders. My findings show that boards with more independent members and that are larger increase are positively associated with operating performance. Smaller boards with less independent members are likely to be more influenced by the leader stakeholders. In line with Chapter 3, there is no significant relation between board structure and stock performance. This indicates that the investors are aware of the impact of board independence and size on operating performance so they incorporate those to their stock valuation.

When I evaluate the impact of lead stakeholder ownership, my analysis shows that there is a nonlinear impact of the percentage of ownership on operating performance. The corporate governance literature also suggests that ownership of stakeholders aligns their interests with minority shareholders' if their percentage of ownership becomes high enough, above a 50 percent threshold in my analysis. However, below the threshold, the sponsor ownership harms operating performance.

When I separate banks and government-related REIT owners, I document that REITs owned by family holdings or individuals outperform their counterparts owned by banks and those government-related entities. Finding on banks might indicate that tax arbitrage increases agency conflicts and harm financial performance. Overall, the corporate governance analyses indicate that there is a

potential agency cost due to tax arbitrage problem and/or concentrated ownership structure.

The REIT system helps to decrease the transparency in real estate markets as REITs are regulated by the stock market authorities and have to disclose information. Real estate companies can be attracted by the corporate tax exemption and become REITs. In most countries, the corporate tax exemption is coupled with the payout rule so the tax authorities can guarantee tax collection but prevent double taxation. However, the tax arbitrage for lead stakeholders that is evidenced in my analysis is unique to Turkish REITs, as there is no mandatory payout rule. My further investigation on the board structure and ownership concentration also shows that the tax arbitrage and the lead stakeholder rule can also create incentive problems.

5.1.2 Policy Implications

The potential incentive problem of lead stakeholders can be diminished by some policy changes. First of all, tax arbitrage arises from the business relation between lead stakeholders and the REITs. In cases where the lead stakeholder is a tenant and the REIT is the owner, the lead stakeholder can enjoy the tax arbitrage. Any regulation breaking this connection can eliminate tax arbitrage and diminish the agency conflicts between lead stakeholders and minority shareholders. A potential solution could be implementing corporate tax on the undistributed income as in the US and South Korea. An alternative could be that requiring specific disclosure for such transactions between lead stakeholders and REITs. If investors are more aware of such transactions, they can price such connections better.

Even though the current tax system and accordingly the tax arbitrage are present, better governance mechanisms can help to diminish the agency conflicts arising from tax arbitrage and ownership structure. On the one hand, the lead stakeholder

rule creates a concentrated ownership and possibly aligns interests, as the lead stakeholder will be harmed more by the stock price declines of the REIT with higher ownership. On the other hand, lead stakeholders can get entrenched and have REIT managers to go for value-destroying activities, for instance, in order to benefit from tax arbitrage. My findings show that below 50 percent ownership, entrenchment effect dominates alignment of interests.

The removal of such rule might mitigate the power of lead stakeholders and agency costs, accordingly. The evidence shows that the ownership of banks, which are real estate-intensive, decreases operating performance. The rule is removed by the 2013 communiqué but it is not binding for the existing REITs. However, the removal of the lead stakeholder rule can lead to foundation of REITs with different and more dispersed ownership structures in the future. Additionally, at least 25 percent of shares are required to be offered publicly. Increasing publicly offered shares might also lead to establishment of blockholders, which can potentially monitor the REIT closely.

Balancing voting rights can also diminish the influence of lead stakeholders. The lead stakeholders, in general, own closely held shares giving higher voting rights. Removing such classes of shares or putting upper bounds on the voting rights of those closely held shares could also diminish the influence of the lead stakeholders on the REIT managers. Changing the tax regime could also be another solution. The authorities should keep the tax exemption at corporate level, as it is common in most countries. However, the exemption from withholding tax can be removed.

Due to the payout rule in the US, REITs need more external capital and have leverage ratios above 50 percent on average (Eichholtz, Kok and Yönder 2011). Jensen (1986) explains that lenders monitor the firm so debt can decrease agency costs. Higher debt ratios for the US REITs potentially increase monitoring and decrease agency costs.

On the other hand, since there is no payout requirement in Turkey, firms do not need to borrow as much because they can retain income. Additionally, the tax exemptions decrease the importance of tax shield of debt. In Chapter 4, the sample statistics show that the mean of debt ratio for Turkish REITs is only around 9 percent. Putting a payout requirement can improve the monitoring of the firm by the banks and lenders. Additionally, some REITs are set up by banks, which can also diminish the monitoring of the firm by lenders as most likely those REITs borrow from their stakeholders. The worse operating performance of REITs owned by banks might also arise because of the lack of lenders' monitoring. Overall, a combination of a higher withholding tax for corporations and payout requirement potentially improves the corporate governance quality of REITs and diminishes agency conflicts.

5.2 Amendments to the REIT Communiqué and Market Reaction

Some legal rules of Turkish REIT system have been different from global REIT systems. There have also been changes within the Turkish REIT system. After the 1998 communiqué, almost every year, the regulations have been revised with minor or major changes. In Chapter 2, I discuss those changes. In this chapter, I concentrate on the years, when the communiqué has major changes with respect to the rules on real estate composition, ownership and real estate instruments. Among those, the 2004 amendments and the new 2013 communiqué have major changes that could impact the tax arbitrage problem and the agency conflicts between lead stakeholders and minority shareholders. In the next subsection, I first develop hypothesis based on tax arbitrage and agency conflicts for each year and test whether market shows a significant reaction to those legal changes.

5.2.1 Legal Changes and Hypothesis Development

In the 2004 amendment, the new regulations bring more flexibility in the asset composition, ownership and borrowing to REITs. On the other hand, the new 2013 communiqué removes the lead stakeholder rule and allows REITs to have different types of real estate securities, which potentially increase their access to capital. In this section, I concentrate on those two years. Table 5.1 summarizes the major changes in those years.

With the 2004 amendment, the minimum percentage of shares that REITs are required to offer publicly is diminished to 25 percent from 49 percent. If the number of shares publicly traded goes down, it will be more difficult for minority shareholders to set up blockholders. The lower minimum percentage for publicly traded shares leaves more room for lead stakeholders to increase their holdings in the REITs. According to the literature and my findings, more holdings increase their power and influence over the REIT managers so I expect this change should have a negative impact on the value of REITs.

Table 5.1 Amendments to the REIT Communiqué in 2004 and 2013

Rule	Initial Requirement	2004 Amendment	May 28, 2013 Communiqué
Shares publicly traded (min. %)	49%	25%	
Leader Stakeholder Ownership (min. %)	10%		0%
Asset Rule (min. percentage of real estate assets)	75%	51%	
Property management	Not allowed	Allowed	
Borrowing (max. ratio to equity)	Twice the Equity	Three Times the Equity	
Issuing Real Estate Certificates & MBS	Not implemented		Allowed

Additionally, in the 2004 amendment, the minimum requirement for real estate holdings is decreased from 75 percent to 51 percent. I expect this change can also negatively influence value of REITs. This rule gives more flexibility to REIT managers to hold more of other assets and securities that are not real estate related. This change enables REIT managers to invest in assets that they are less specialized in.

More borrowing is also allowed for REITs with the amendment to the communiqué. According to the amendment, REITs are allowed to borrow 75 percent of their total assets. This gives more flexibility in financing, as well. One the hand, this upper bound on borrowing seems to be too high and increase cost of debt if REITs borrow close to the upper bound. For instance, in the US, the average leverage ratio is around 50 percent, way higher the average leverage ratio in Turkey, which is 9 percent. On the other hand, it is possibly not binding since the mean leverage ratio in Turkey is only 9 percent. If there is any effect of borrowing cap rate on the market value of REITs, I expect the net effect is either insignificant or negative as higher leverage ratios could drive up the cost of debt.

Lastly, REITs are allowed for property management, which has not been the case before the amendment. My expectations are not clear with this change. On net combining all potential effects, I expect that the market should react negatively to the 2004 amendments. I develop the following hypothesis:

Hypothesis 5.1: Market has a negative reaction to the 2004 amendments.

With the new communiqué in 2013, there is a major change in the regulations for Turkish REITs. The lead stakeholder rule is removed from the communiqué. This change is very relevant to this dissertation. According to my findings, lead stakeholders might enjoy tax arbitrage and this can increase agency conflict between lead stakeholders and minority shareholders. I expect that the removal of the rule could increase the demand for REITs and increase their value.

Importantly, the 2013 communiqué also introduces real estate securities such as real estate certificates and mortgage-backed securities. This increases their access to capital and might enable more capital to flow to the REIT market. With the increased capital, REITs can go for more positive NPV projects. I also expect that these changes on securitized real estate should increase REITs' value. Overall, my expectation is that the 2013 communiqué has a positive impact on the market value of REITs. I develop Hypothesis 5.2 as follows:

Hypothesis 5.2: Market has a positive reaction to the new 2013 communiqué.

The new 2013 communiqué also includes the removal of lead stakeholder rule. According to my findings the lead stakeholder rule can increase the lead stakeholder's power as it puts a minimum ownership limit, which supports higher ownership of lead stakeholders. As it is removed by the regulation change, I expect that the market value of bank-owned REITs should go up more than the other REITs. Additionally, bank-owned REITs are more likely to develop real estate related securities than other REITs as their owners have more expertise in finance. This can also increase the market value of bank-owned REITs than other REITs more. The relevant hypothesis is as follows:

Hypothesis 5.3: The increase in the market value of bank-owned REITs around announcement of the new 2013 communiqué is larger than the increase in the market value of non-bank-owned REITs.

5.2.2 Empirical Model and Findings

In order to analyze market reaction to the amendments, I calculate CARs around the announcement of the legal changes. For the legal change analyses, I keep the event

window smaller as there is no clear information about the leakage of the legal changes. I first estimate Equation 5.1 for the sample period between t-139 and t-1 using excess returns for REIT shares as the dependent variable. As I regress CAPM, excess market return is the independent variable.

$$R_{it}=\alpha_{it}+\beta_{it}R_{mt}+\varepsilon_{it} \quad (5\text{-}1)$$

$$AR_{it}=R_{it}-\widehat{\alpha_{it}}-\widehat{\beta_{it}}R_{mt} \quad (5\text{-}2)$$

$$CAR_i(t\text{-}1,t+1)=\sum_{t-1}^{t+1} AR_{it} \quad (5\text{-}3)$$

As in Chapter 3, the stock price data adjusted for dividends for each company are obtained from Datastream. I use the BIST100 index as the market index. I calculate the risk free rate using DSM performance index with a maturity of 91 days. I collect DSM performance index data from Borsa Istanbul. I use daily frequency in my analysis.

I calculate abnormal returns using Equation 5.2. Lastly, I calculate CARs for the period between t-1 and t+1. As a robustness test, I also evaluate CARs between t-2 and t+2.

Following my discussion in the previous subsection, my first event is the 2004 amendments. The event date t is the announcement of the 2004 amendments, May 18, 2004. There are 12 REITs listed when the regulation change is implemented. If the market reacts negatively to the 2004 amendments, the mean of CARs should be significantly smaller than zero. I adjust Hypothesis 5.1, accordingly, as follows:

Hypothesis 5.1': The mean of cumulative abnormal returns for REIT shares around the announcement of the 2004 amendment is negative.

Table 5.2 CARs around the Announcement of the 2004 Amendments

Variable	Obs.	Mean	Std. Err.
CAR(t-1, t+1)	12	-4.28%***	1.12%
CAR(t-2, t+2)	12	-2.44%***	1.62%

Table 5.2 and Figure 5.3 summarize the empirical findings. In Table 5.2, the mean of CARs between t-1 and t-2 is -4.28 percent and significantly smaller than zero. The mean of CARs between t-2 and t+2 is also significantly -2.44 percent. The findings show that the market value of REITs declines significantly around the announcement of the 2004 amendment so we do not reject Hypothesis 5.1'. Figure 5.3 also shows daily abnormal returns around the announcement. On average, REITs generate negative abnormal returns on each day around the announcement.

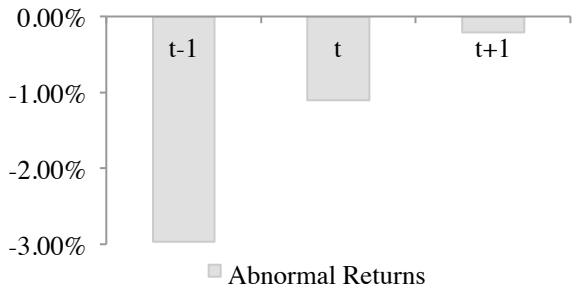

Figure 5.3 Abnormal Returns around the Announcement of the 2004 Amendments

On the other hand, my expectation is that the market should react positively to the 2013 communiqué. There are 23 REITs listed when the new communiqué is announced. Then, the mean of CARs should significantly be larger than zero. I rewrite Hypothesis 5.2 as follows:

Hypothesis 5.2': The mean of cumulative abnormal returns for REIT shares around the announcement of the new 2013 communiqué is positive.

Table 5.3 CARs around the Announcement of the 2013 Communiqué

Variable	Obs.	Mean	Std. Err.
CAR(t-1, t+1)	23	4.63%***	1.42%
CAR(t-2, t+2)	23	4.62%***	1.35%

I present the results in Table 5.3 and Figure 5.4. The mean of CARs of REITs around the announcement in the period between t-1 and t+1 is significantly 4.63 percent. The results are robust for the period between t-2 and t+2 as the mean of CARs is 4.62 percent and significantly different from zero. On the other hand, Figure 5.4 shows abnormal returns on the days around the announcement. It seems that the market overshoots at t-1 and t and adjusts at t+1 as the abnormal return is positive in t+1.

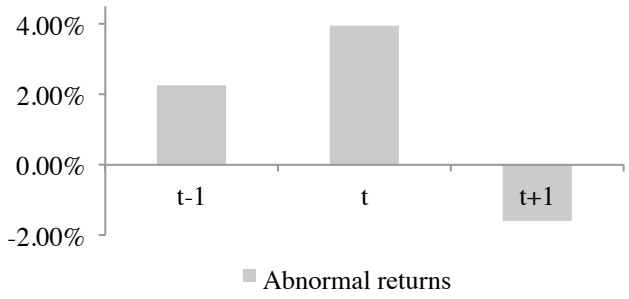

Figure 5.4 Abnormal Returns around the Announcement of the 2013 Communiqué

Finally, the CARs of bank-owned REITs should be larger than non-bank-owned REITs around the announcement as they are more capable of issuing real estate related financial instruments than other REITs and more likely to have higher agency costs due to the tax arbitrage. The adjustment to Hypothesis 5.3 is below.

Hypothesis 5.3': The mean of CARs for bank-owned REIT shares around the announcement of the new 2013 communiqué is larger than the mean of CARs for non-bank-owned REITs.

The findings on the test of Hypothesis 5.3' is presented in Table 5.4. The average CAR of bank-owned REITs is 12.79 percent and significant at 10 percent level. The mean of CARs for other REITs is 2.91 percent and significantly different from zero at one percent level. The difference between the two subsamples is significantly larger than zero. Overall bank-owned REITs generate 9.88 percent more CARs than non-bank-owned REITs. I do not reject Hypothesis 5.3'.

Table 5.4 Difference of CARs for Bank-Owned REITs and Other REITs

	Obs.	Mean	Std. Err.
Bank-owned REITs	4	12.79%*	7.07%
Other REITs	19	2.91%***	0.54%
Difference		9.88%***	3.17%

5.3 Final Comments on Policy Implications

REIT regulations should concentrate on decreasing agency conflicts between lead stakeholders and minority shareholders. The benefits from the tax arbitrage that I evidence in this dissertation might increase agency conflicts between the two

agents. The policies on REIT regulations should mitigate those benefits unique to lead stakeholders and even completely remove. Table 5.4 summarizes the policy implications based on the findings of this dissertation.

As I propose in this chapter, breaking the landlord-tenant connection between lead stakeholders and REITs and implementing a higher withholding tax for corporations are some possible policies potentially mitigate the agency conflicts arising from tax arbitrage.

Table 5.5 Policy Implications based on the Findings

Policy Implication	**Potential Outcome based on the Findings**
Any regulation preventing owner-tenant relation	Diminishes the tax arbitrage problem.
Corporate tax on undistributed cash	Diminishes the tax arbitrage problem.
Mandatory payout rule	Diminishes the tax arbitrage problem.
Mandatory disclosure for business relation between the lead stakeholder and the REIT	Diminishes the tax arbitrage problem.
Removal of lead stakeholder ownership rule	Diminishes agency costs.
Any regulation encouraging larger boards with more independent members	Diminishes agency costs.
More real estate concentration	Diminishes agency costs.
Encouraging real estate related financial instruments	Increases access to capital.

The evidence on the US REITs show that the mandatory payout rule diminishes agency costs for REITs and the need for corporate governance mechanisms (Bauer, Eichholtz and Kok 2010). In Turkey, there is no such mandatory payout rule but there is the tax exemption. The lead stakeholder rule also brings a concentrated ownership structure as opposed to dispersed ownership structure supported by the 5-50 rule in the US. It is an empirical question whether corporate mechanisms matter for the Turkish REIT system based on these legal differences. The benefits

of tax arbitrage unique to lead stakeholders even make the relation between corporate governance quality and financial performance more important.

My findings in Chapter 4 indicate that REITs with larger boards with more independent members outperform their peers possibly decreasing managerial power and the influence of lead stakeholders. Additionally, my findings show that as the ownership of banks goes up, the financial performance of those bank-owned REITs worsens. Overall, decreasing the managerial power and the ownership of lead stakeholders especially for bank-owned REITs and government supported REITs could diminish agency costs. Supporting larger boards, more independent members by policy helps those REITs to decrease agency conflicts and improve their financial performance.

These policy implications are also supported by the empirical analyses of regulation changes. With the 2004 amendments to the REIT communiqué, REITs are given more flexibility with respect to ownership composition and borrowing. Additionally, the amendments allow REITs to hold more non-real estate assets moving away from global REITs and systems. As expected, market reacts negatively to these changes around the announcement. The findings show that Turkish REIT system should be similar to global REIT systems and Turkish REITs should more concentrate and specialize in real estate.

The 2013 communiqué removes the lead stakeholder requirement and allows REITs to issue different real estate related securities. The market reacts positively to these changes in line with my expectations. Although it is not possible to decompose the possible sources of the market reactions, this finding might support the removal of lead stakeholder rule, which increases the likelihood of tax arbitrage benefits to occur and agency conflicts between lead stakeholders and minority shareholders. Additionally, in line with the findings on 2004 amendments, investors might want REITs to concentrate on real estate assets or real estate related securities. The findings on the bank-owned REITs support this argument more.

CHAPTER 6

CONCLUDING REMARKS AND FUTURE RESEARCH

This dissertation evaluates the impact of legal rules specific to REIT regulations in Turkey concentrating on corporate governance. The REIT communiqué requires a lead stakeholder and puts a lower bound on the ownership of lead stakeholder. As in the global REIT systems, the REITs in Turkey are exempted from corporate tax.

The difference from the global REIT systems is that there is no mandatory payout rule in Turkey. This creates an incentive for the lead stakeholders to transfer their properties to REITs. They become tenants and pay rents to REITs. The rents are costs for the lead stakeholders and tax deductible so they can enjoy a tax arbitrage from this transaction. Meanwhile, REITs generate the rental income but do not pay any corporate tax for the income. Overall, lead stakeholders may benefit from tax arbitrage with the tenant-owner relation with REITs. Considering the transaction costs for setting up a REIT are negligible, then there should be an increase in the value of those lead stakeholders by the present value of all future tax arbitrage benefits.

I empirically test whether the potential tax arbitrage increases the value of the lead stakeholders and their affiliates estimating cumulative abnormal returns for the lead stakeholders and their affiliates around the announcement of REIT IPOs. The event date is the announcement of prospectus approval by the CMB, which is the first official announcement of an IPO process. The event window is the period between 20 working days before the prospectus approval and one day after the prospectus approval. The event window starts from t-20 because Borsa Istanbul states that the prospectus is approved 20 days later than the application.

I find that the mean of CARs for lead stakeholders and their affiliates is significantly positive indicating that there is an increase in the value of lead

stakeholders and their affiliates. The CARs generated from an equally weighted portfolio of lead stakeholders and their affiliates are 5.16 percent during the event window. Investing in a bank setting up a REIT around the REIT IPO, the CAR turns out to be 6.81 percent on average. The shares of the companies holding REIT shares and parent companies have CARs of 5.73 percent and 5.85 percent around REIT IPOs, respectively. If an investor holds those stocks of banks and owners for 60 working days period after the prospectus date, the CARs stabilize around 20 percent. The findings are robust to the estimation methods. I additionally document that parent companies significantly generate 17.40 percent more CARs around REIT IPOs than non-REIT affiliate IPOs. These findings are the first evidence in REIT literature on the impact of tax exemption on the value of REIT blockholders. Turkish REIT system offers a unique case where there is tax exemption without mandatory payout rule.

I also evaluate the relation between corporate governance and financial performance measuring corporate governance by board composition and level of ownership. I find that REITs with larger boards and more independent board members have better financial performance. 10 percent increase in board size and the fraction of independent members enhance Tobin's Q by 0.05 and 0.21, respectively. Although the finance literature in general documents smaller boards are shown to be more efficient and improve corporate performance, my results indicate that with a concentrated ownership structure, larger boards increase the democracy within the board and diminish the agency costs arising from the influence of the lead stakeholder.

The literature on REITs and general corporations suggest a negative relation with board size and firm performance (Feng, Ghosh and Sirmans 2005; Yermack 1996). On the other hand, my findings indicate a positive relation. Coles, Daniel and Naveen (2008) document that firms from different industries might need different sizes of board. For instance, Kiel and Nicholson (2003) find similar results to this dissertation. Their interpretation that more people in the board might increase

monitoring power supports my findings, as well. The findings on the fraction of independent members are consistent with the existing literature on both REITs (Ghosh and Sirmans 2003) and general corporations (Brickley and Terry 1994; Coles, Daniel and Naveen 2008; Cornett et al. 2007; Kiel and Nicholson 2003; Rosenstein and Wyatt 1990).

There is a significant nonlinear relation between sponsor ownership and operating performance. Up to a threshold around 50 percent of sponsor ownership, I find a negative relation but above the threshold, the relation becomes positive. The nonlinear relation indicates that at very high levels of sponsor ownership, the interests of lead stakeholders and minority shareholders align. Additionally, difference-indifference approach shows that the change in sponsor ownership has a positive relation with the change in Tobin's Q. I also find that non-sponsor ownership is positively associated with financial performance. Cornett et al. (2007) document that there is a positive relation between institutional investors but the impact disappears if there is a business relation between the institutional investor and the company. My findings are in line with the literature as I find that sponsor ownership having a potential business relation with the REIT has a negative impact on financial performance but if the institutional owner is non-sponsor, there is some evidence that there is a positive impact of ownership. On the other hand, Ghosh and Sirmans (2003) find opposite impacts for affiliated and non-affiliated blockholders. The divergence between my findings and theirs possibly lies on the different ownership structures in both countries. The US REITs have a dispersed ownership structure and higher ownership aligns interests. In Turkey, there is a concentrated ownership structure, possibly encouraging entrenchment of lead stakeholders.

The nonlinear relation between sponsor ownership and REIT performance is also diverges from the existing literature. Miguel, Pindado and de la Torre (2004) find that there is a positive relation between institutional ownership and firm performance below a threshold. Above the threshold, the relation turns out to be negative. The concentrated ownership structure encouraged by the lead stakeholder

rule potentially creates an incentive problem for the lead stakeholders harming financial performance below a threshold different from the findings of Miguel, Pindado and de la Torre (2004). As ownership increases, their interests align with minority shareholders.

Investors incorporate the impact of board composition and sponsor ownership on operating performance, as I document that they do not generate significant abnormal returns. Moreover, non-sponsor ownership significantly has a negative impact on market betas so REITs with higher non-sponsor ownership are less exposed to market risk.

I also focus on bank-sponsored REITs, as their lead stakeholders are real estate intensive firms. Tax arbitrage potentially worsens agency conflicts. My findings show that bank-sponsored REITs underperform their peers. A similar relationship holds for government-backed sponsored REITs. Regressions on recursive alphas show that investors incorporate those agency conflicts. Furthermore, REITs with government-backed sponsors significantly negative abnormal returns and conversely, lower market betas.

Figure 6-1 summarizes the findings of this dissertation. Turkish REIT system uniquely offers a combination of tax exemption and no mandatory payout rule. The evidence shows that it brings benefits from tax arbitrage to the lead stakeholders, potentially worsening agency conflicts. Lead stakeholder rule also leads to expropriation of lead stakeholders below a 50 percent ownership threshold and only aligns interests above the threshold.

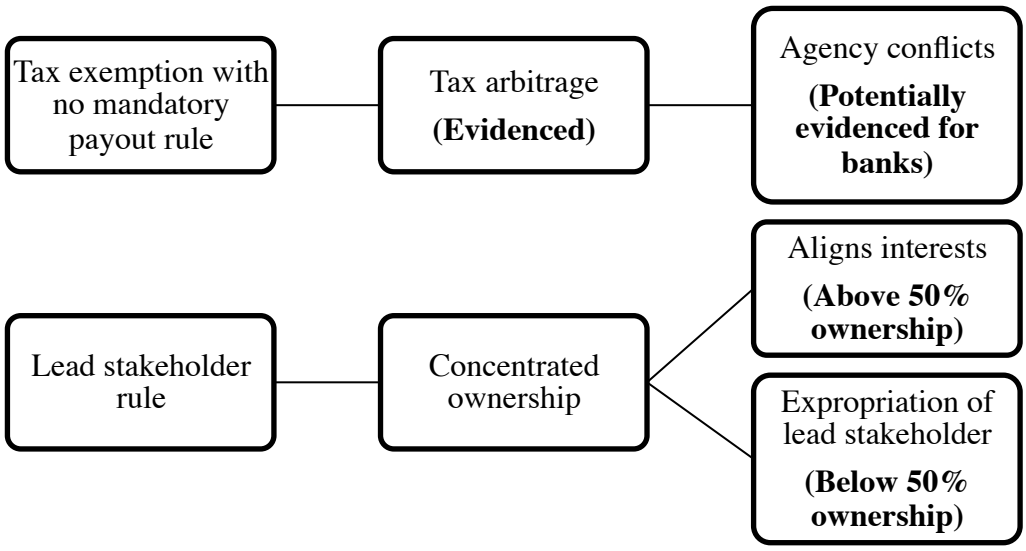

Figure 6.1 Summary of Main Findings

Based on my findings in this dissertation, some policy implications could be suggested. Limiting managerial power and the ownership of lead stakeholders especially for bank-owned REITs and government supported REITs could mitigate agency conflicts. Encouraging larger boards with more independent members by policy could also increase democracy within the board and protect minority shareholders

The negative market reaction to the 2004 amendments to the REIT communiqué such as decreasing free float, allowing non-real estate activities more indicates that Turkish REIT system should converge to global REIT systems. Turkish REITs should be directed to concentrate and specialize in real estate.

The investors react positively to the 2013 communiqué removing the lead stakeholder rule introducing new real estate related securities. The market reacts positively to these changes in line with my expectations. This is also in line with the

findings in the previous chapters, as it is evidenced that the lead stakeholder rule harms financial performance.

The findings of this dissertation encourage further research. The analyses can be extended by concentrating on the investments of REITs and evaluating those at asset level. The REITs following tenant-owner strategy creating the tax arbitrage can be identified and investigated in details. Additionally, this type of investment strategy benefitting the lead stakeholders but not minority shareholders can cause an underinvestment problem for those REITs, as they are likely to forego profitable investments.

The results also show the importance of the board composition. The networks and relations of REIT managers with the lead stakeholders need closer attention. For instance, REIT directors with a history of lead stakeholders can worsen agency conflicts. The independent members should also be tracked whether they are connected with the lead stakeholders in the past. The networks of board members are potentially the source of agency conflicts and determinant on the influence of the lead stakeholders on the board and the REITs' investment decisions.

Independent board members are shown to improve financial performance. By regulation, REITs have been the only type of companies to be required to have a minimum number of independent members. In 2011, by a corporate governance communiqué, this requirement for independent members is enlarged and implemented for all publicly listed firms in Borsa Istanbul. This has been a shock to the governance quality of the public firms in Turkey. My findings suggest further research on the publicly listed firms and how this regulatory shock improves their board structure and financial performance, accordingly. The key issue here is how the independent members are effectively independent.

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APPENDICES

A. CAPM ESTIMATION RESULTS

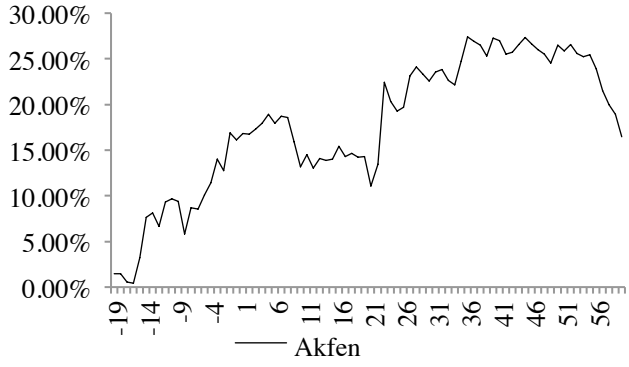
Appendix A-1

Panel A - CAPM Model around REIT IPO for Akfen Holding

	(1)
VARIABLES	REIT R-Rf
BIST100	0.551***
	[0.093]
Constant	-0.002
	[0.001]
Observations	119
R-squared	0.229

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Akfen Holding



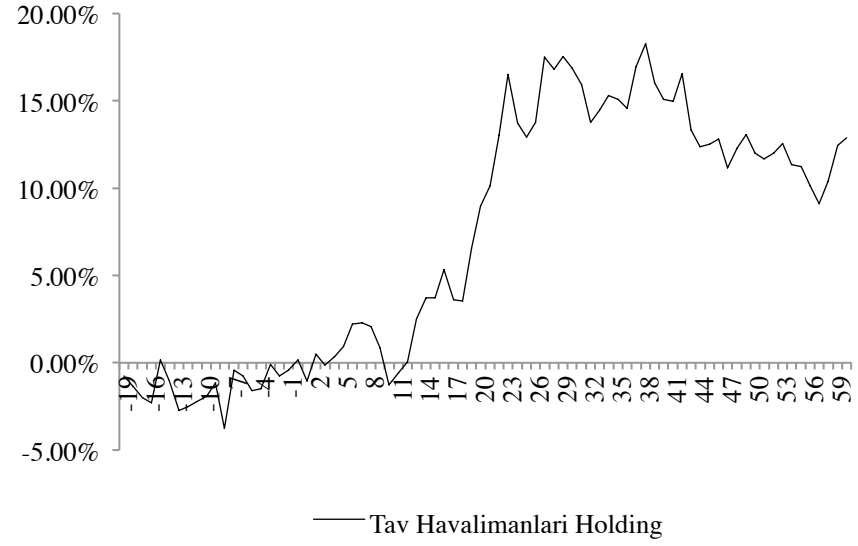
Appendix A-2

Panel A - CAPM Model around REIT IPO for Tav Havalimanlari Holding

VARIABLES	(1) REIT R-Rf
BIST100	0.784***
	[0.096]
Constant	-0.000
	[0.001]
Observations	119
R-squared	0.362

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Tav Havalimanlari Holding



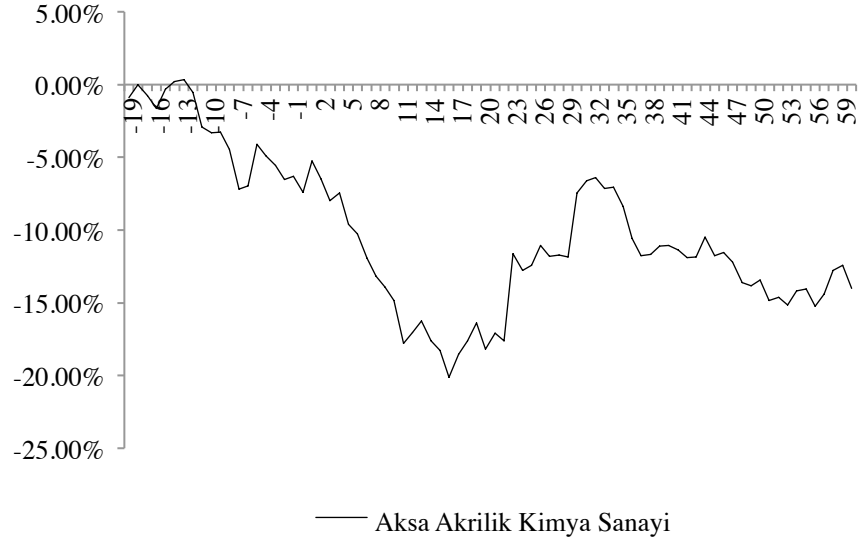
Appendix A-3

Panel A - CAPM Model around REIT IPO for Aksa Akrilik Kimya

VARIABLES	(1) REIT R-Rf
BIST100	0.531***
	[0.062]
Constant	-0.001
	[0.001]
Observations	119
R-squared	0.388

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Aksa Akrilik Kimya



Appendix A-4

Panel A - CAPM Model around REIT IPO for Akenerji Elektrik

VARIABLES	(1) REIT R-Rf
BIST100	0.767***
	[0.113]
Constant	-0.001
	[0.002]
Observations	119
R-squared	0.283

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Akenerji Elektrik

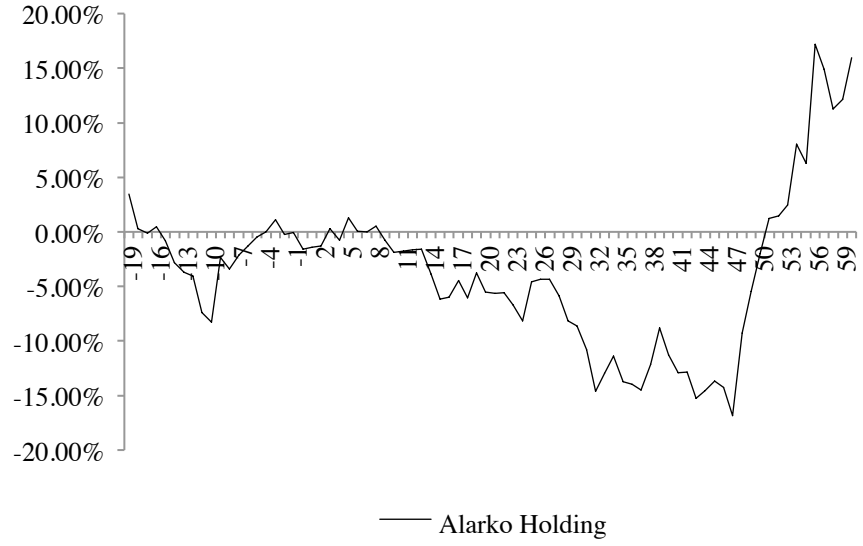
Appendix A-5

Panel A - CAPM Model around REIT IPO for Alarko Holding

VARIABLES	(1) REIT R-Rf
BIST100	0.356**
	[0.150]
Constant	-0.001
	[0.003]
Observations	119
R-squared	0.046

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Alarko Holding



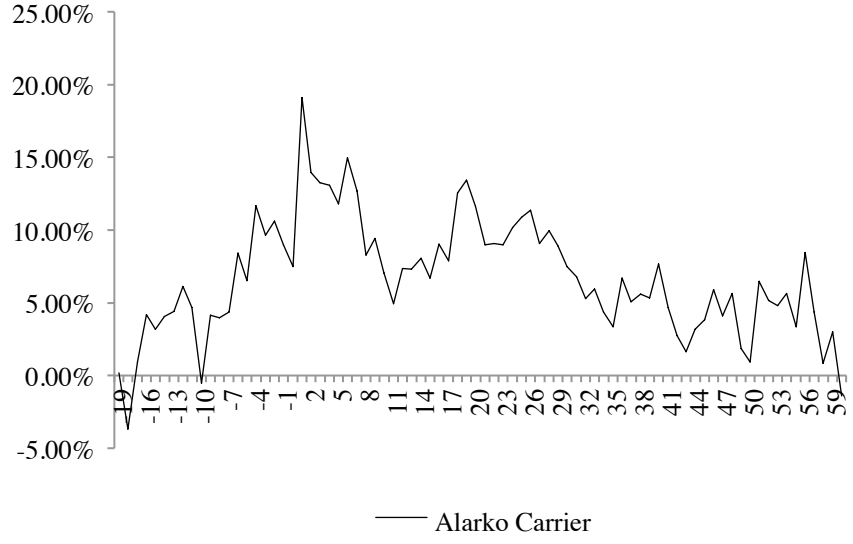
Appendix A-6

Panel A - CAPM Model around REIT IPO for Alarko Carrier

VARIABLES	(1) REIT R-Rf
BIST100	0.973***
	[0.141]
Constant	-0.001
	[0.003]
Observations	119
R-squared	0.290

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Alarko Carrier



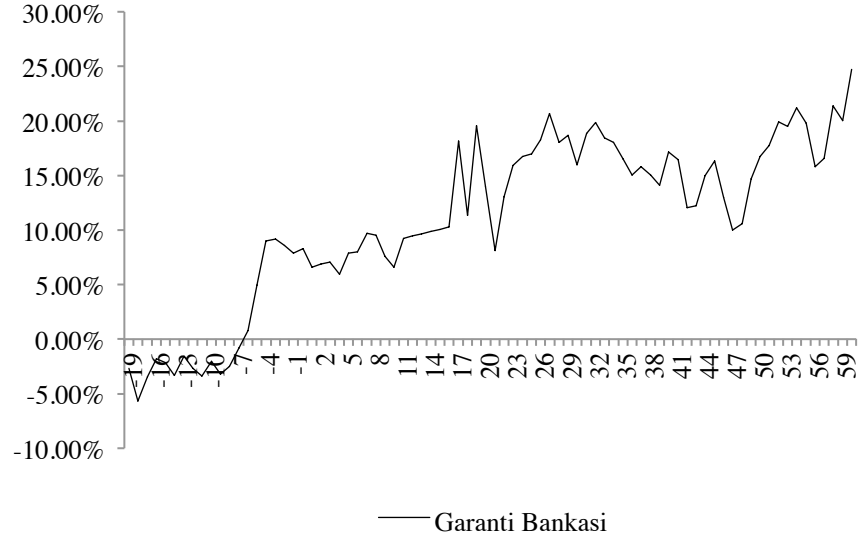
Appendix A-7

Panel A - CAPM Model around REIT IPO for Garanti Bankasi

VARIABLES	(1) REIT R-Rf
BIST100	1.287***
	[0.101]
Constant	-0.002
	[0.003]
Observations	119
R-squared	0.581

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Garanti Bankasi



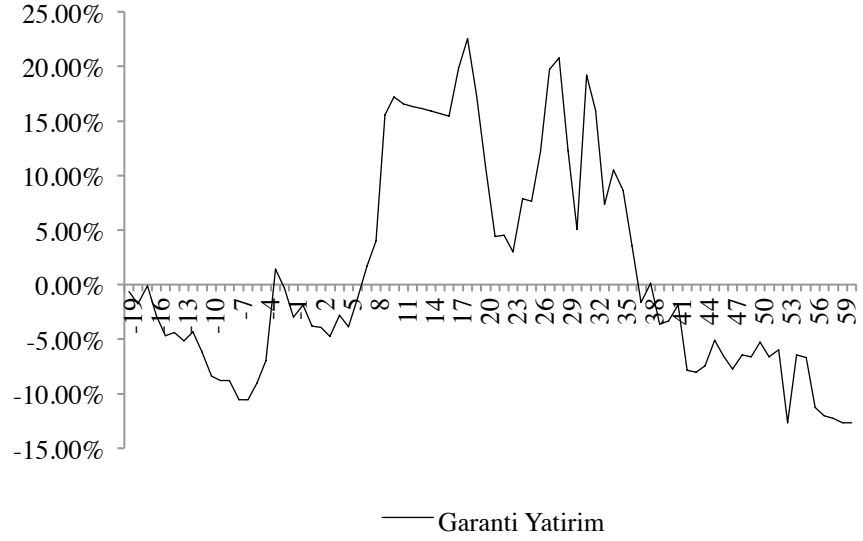
Appendix A-8

Panel A - CAPM Model around REIT IPO for Garanti Yatirim

VARIABLES	(1) REIT R-Rf
BIST100	0.765***
	[0.108]
Constant	0.002
	[0.004]
Observations	119
R-squared	0.301

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Garanti Yatirim



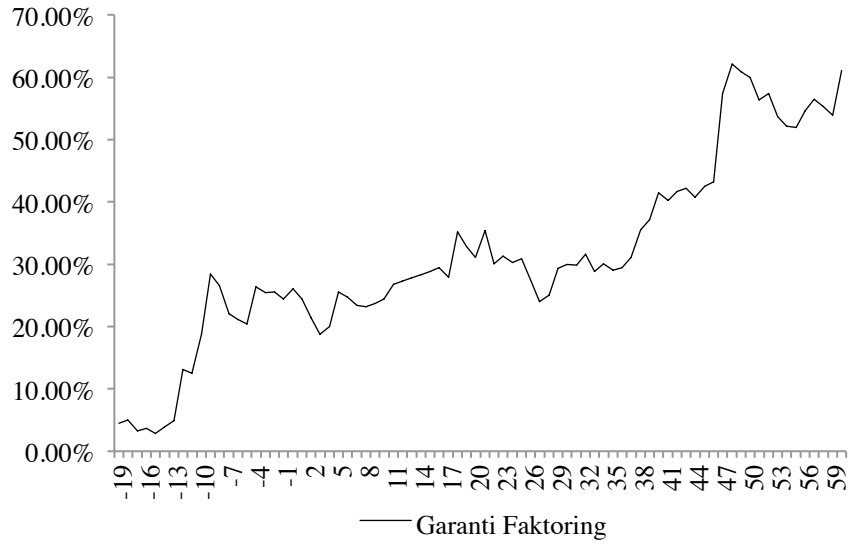
Appendix A-9

Panel A - CAPM Model around REIT IPO for Garanti Faktoring

VARIABLES	(1) REIT R-Rf
BIST100	0.647***
	[0.071]
Constant	-0.005**
	[0.002]
Observations	119
R-squared	0.415

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Garanti Faktoring



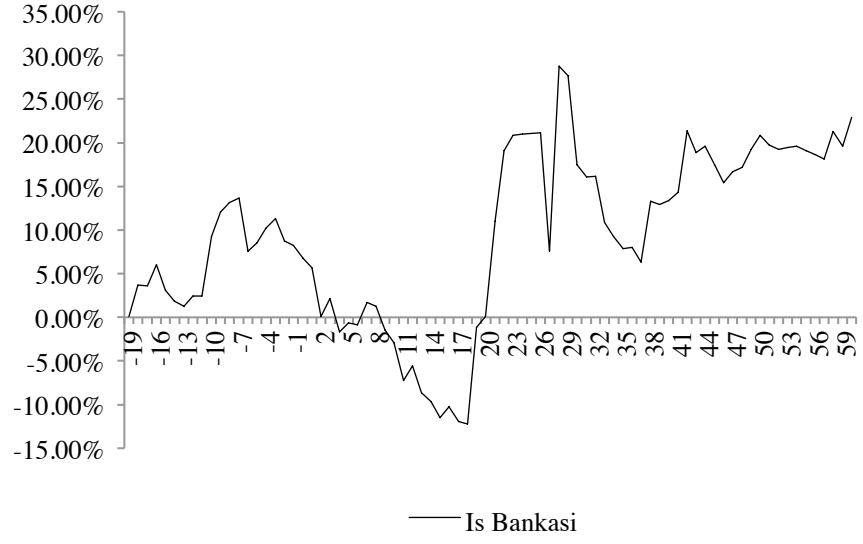
Appendix A-10

Panel A - CAPM Model around REIT IPO for Is Bankasi

VARIABLES	(1) REIT R-Rf
BIST100	1.045***
	[0.047]
Constant	-0.001
	[0.001]
Observations	119
R-squared	0.808

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Is Bankasi



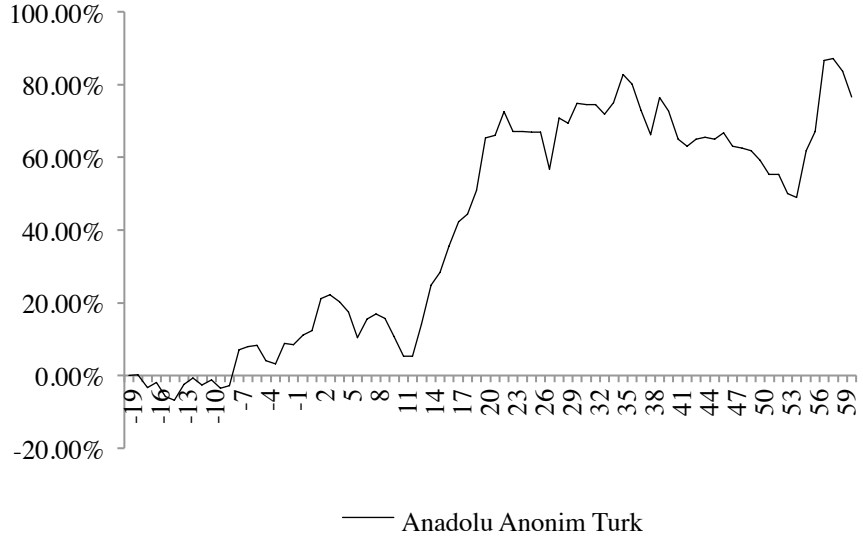
Appendix A-11

Panel A - CAPM Model around REIT IPO for Anadolu Anonim

VARIABLES	(1) REIT R-Rf
BIST100	0.779***
	[0.104]
Constant	0.001
	[0.003]
Observations	119
R-squared	0.322

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Anadolu Anonim



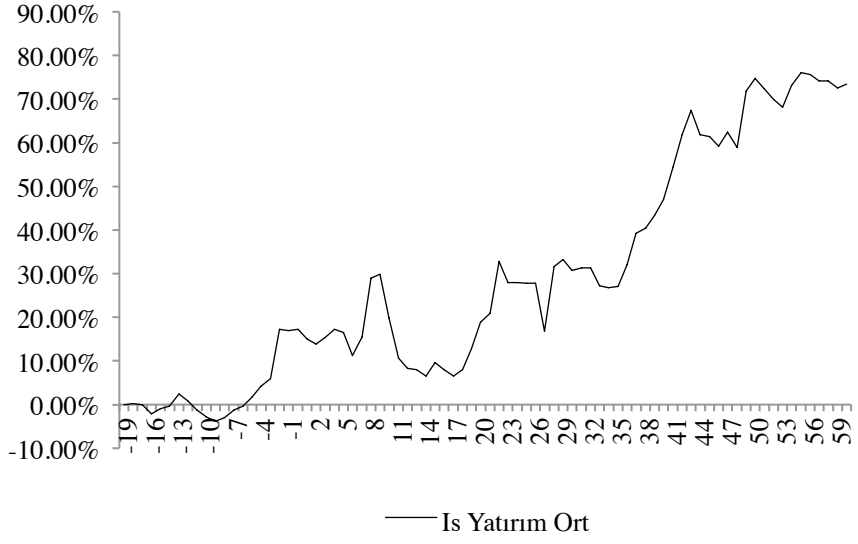
Appendix A-12

Panel A - CAPM Model around REIT IPO for Is Yatirim Ort

VARIABLES	(1) REIT R-Rf
BIST100	0.839***
	[0.089]
Constant	0.001
	[0.003]
Observations	119
R-squared	0.433

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Is Yatirim Ort



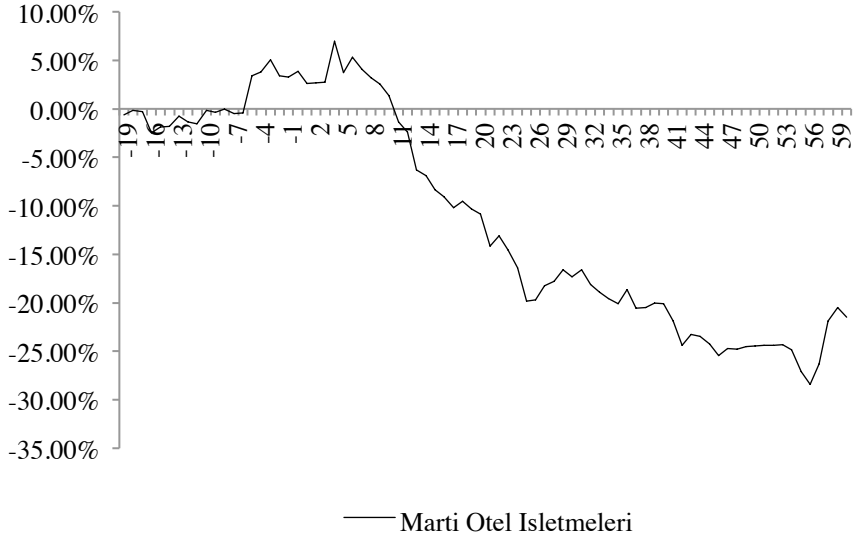
Appendix A-13

Panel A - CAPM Model around REIT IPO for Marti Otel

VARIABLES	(1) REIT R-Rf
BIST100	1.020***
	[0.125]
Constant	-0.000
	[0.002]
Observations	119
R-squared	0.363

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Marti Otel



Appendix A-14

Panel A - CAPM Model around REIT IPO for Reysas Logistics

VARIABLES	(1) REIT R-Rf
BIST100	1.129***
	[0.124]
Constant	0.000
	[0.002]
Observations	119
R-squared	0.414

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Reysas Logistics

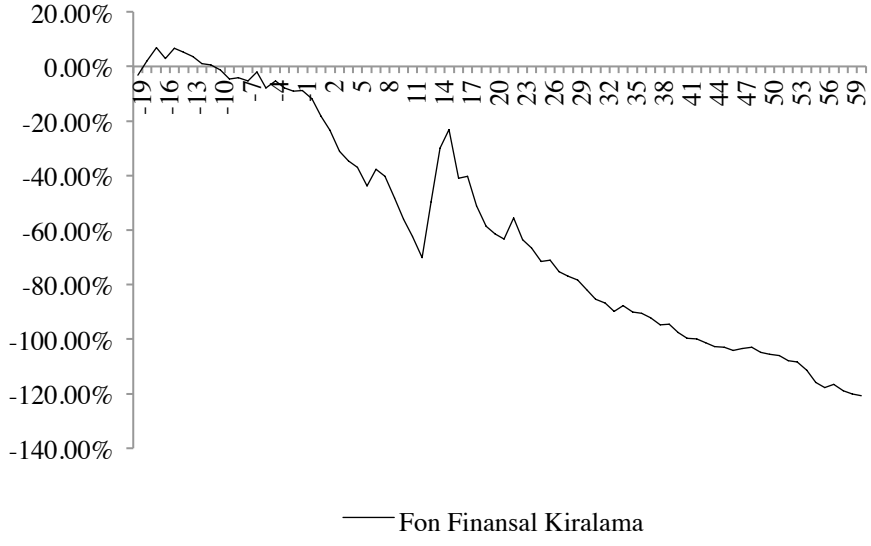
Appendix A-15

Panel A - CAPM Model around REIT IPO for Fon Finansal Kiralama

VARIABLES	(1) REIT R-Rf
BIST100	0.454
	[0.375]
Constant	0.007
	[0.005]
Observations	46
R-squared	0.032

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Fon Finansal Kiralama



Appendix A-16

Panel A - CAPM Model around REIT IPO for Kerevitas Gida

VARIABLES	(1) REIT R-Rf
BIST100	0.320
	[0.267]
Constant	0.001
	[0.003]
Observations	119
R-squared	0.012

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Kerevitas Gida

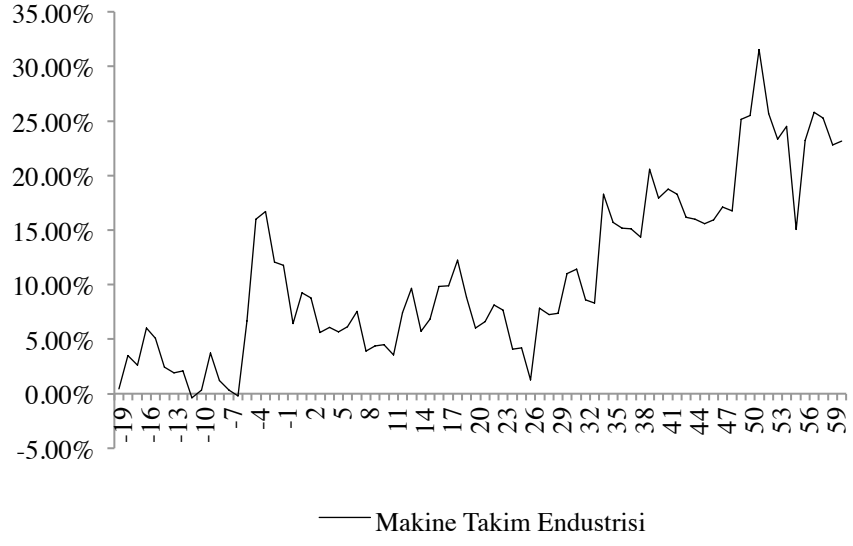
Appendix A-17

Panel A - CAPM Model around REIT IPO for Makine Takim Endustrisi

VARIABLES	(1) REIT R-Rf
BIST100	0.429**
	[0.196]
Constant	-0.003
	[0.003]
Observations	119
R-squared	0.039

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Makine Takim Endustrisi



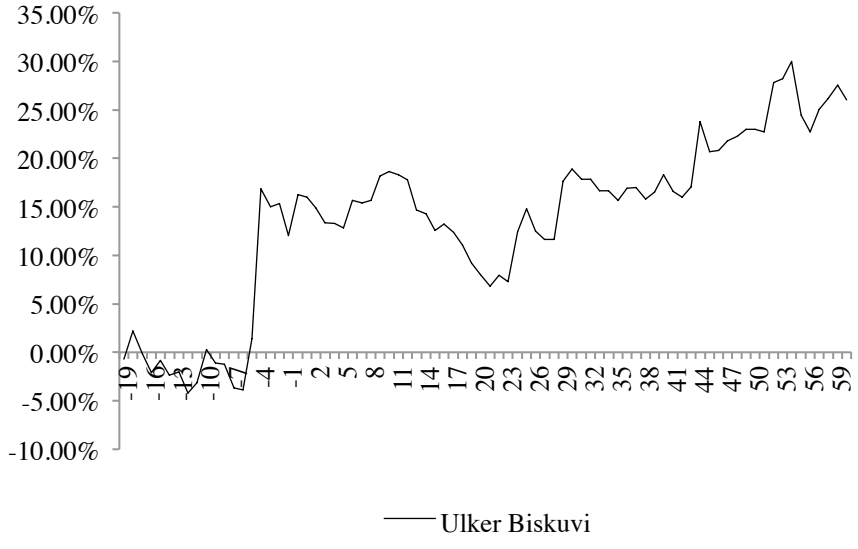
Appendix A-18

Panel A - CAPM Model around REIT IPO for Ulker Biskuvi

VARIABLES	(1) REIT R-Rf
BIST100	0.888***
	[0.077]
Constant	0.000
	[0.001]
Observations	119
R-squared	0.532

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Ulker Biskuvi



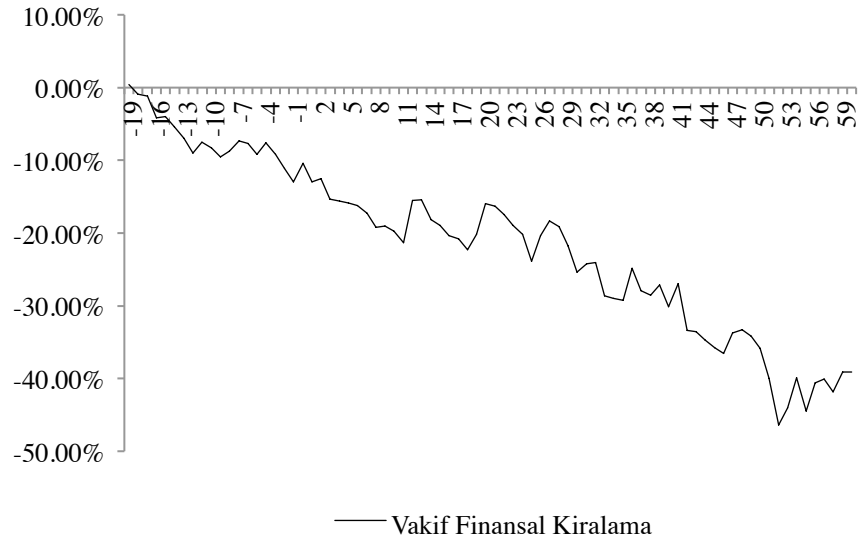
Appendix A-19

Panel A - CAPM Model around REIT IPO for Vakif Finansal Kiralama

VARIABLES	(1) REIT R-Rf
BIST100	0.999***
	[0.185]
Constant	0.003
	[0.003]
Observations	119
R-squared	0.200

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Vakif Finansal Kiralama



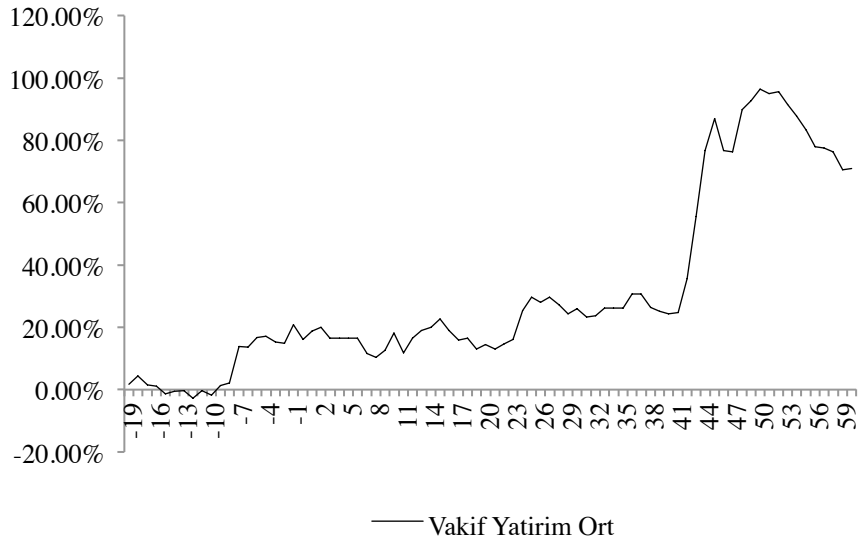
Appendix A-20

Panel A - CAPM Model around REIT IPO for Vakif Yatirim Ort

VARIABLES	(1) REIT R-Rf
BIST100	0.734***
	[0.152]
Constant	0.000
	[0.003]
Observations	119
R-squared	0.165

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Vakif Yatirim Ort



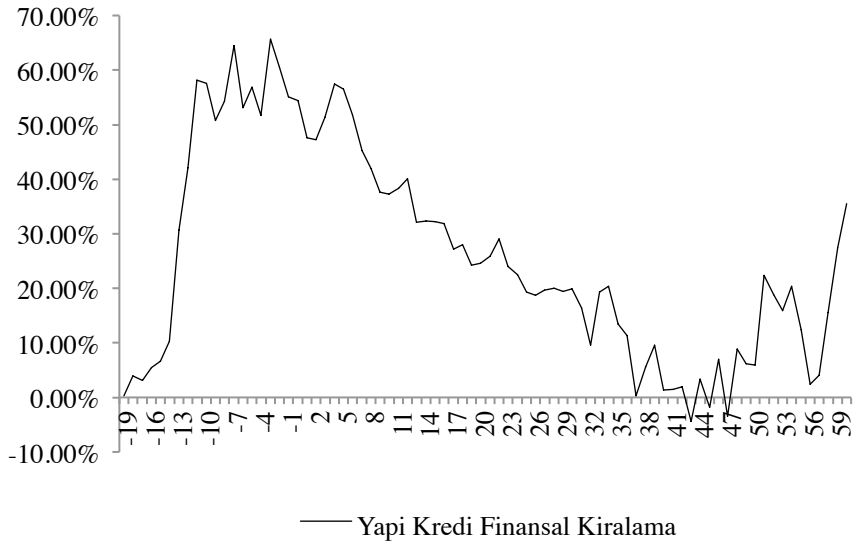
Appendix A-21

Panel A - CAPM Model around REIT IPO for Yapi Kredi Finansal Kiralama

VARIABLES	(1) REIT R-Rf
BIST100	0.493**
	[0.207]
Constant	0.008
	[0.006]
Observations	119
R-squared	0.046

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Yapi Kredi Finansal Kiralama



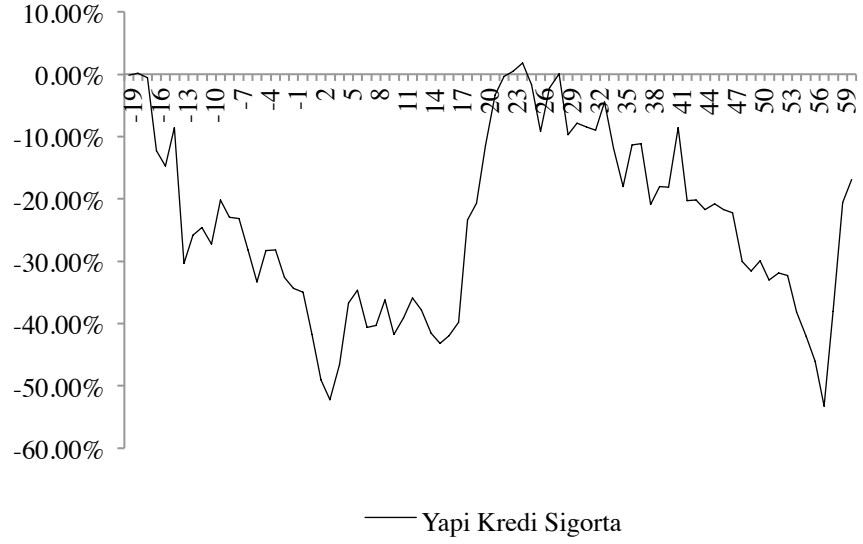
Appendix A-22

Panel A - CAPM Model around REIT IPO for Yapi Kredi Sigorta

VARIABLES	(1) REIT R-Rf
BIST100	0.237
	[0.173]
Constant	0.007
	[0.005]
Observations	119
R-squared	0.016

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Yapi Kredi Sigorta



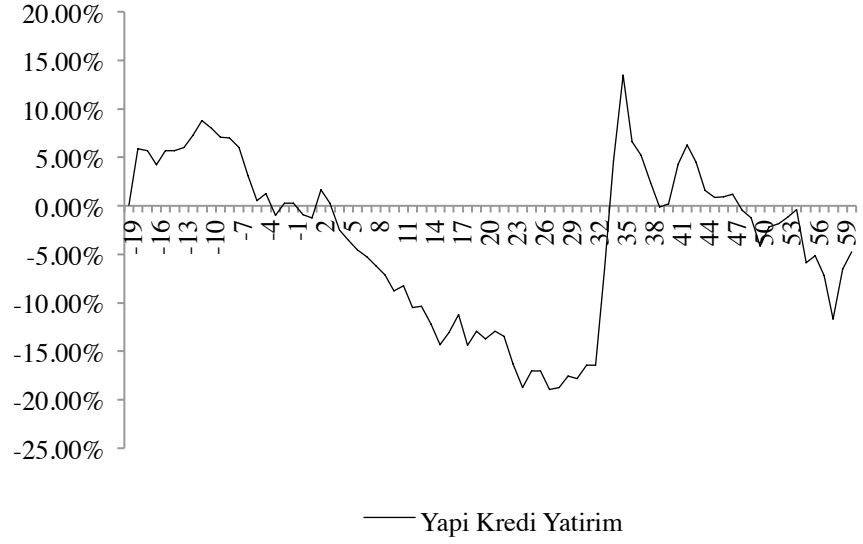
Appendix A-23

Panel A - CAPM Model around REIT IPO for Yapi Kredi Yatirim

VARIABLES	(1) REIT R-Rf
BIST100	0.741***
	[0.127]
Constant	0.002
	[0.004]
Observations	119
R-squared	0.226

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Yapi Kredi Yatirim



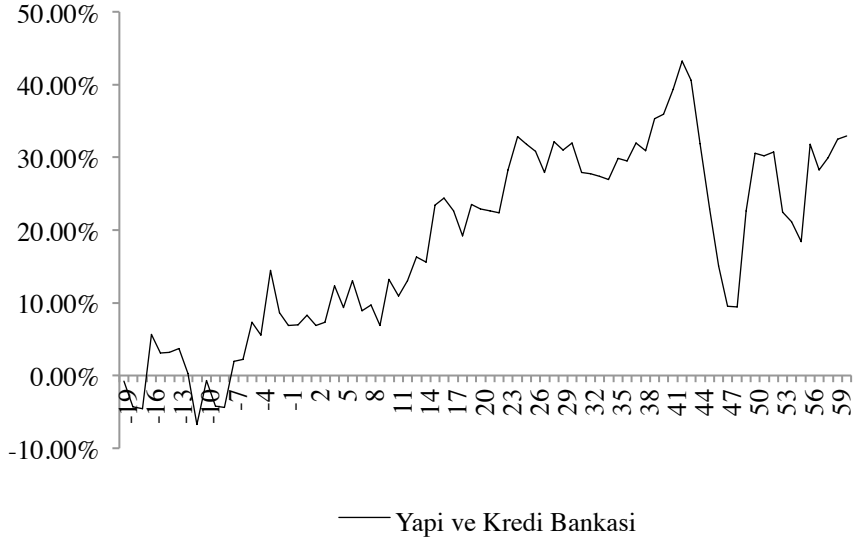
Appendix A-24

Panel A - CAPM Model around REIT IPO for Yapi Kredi Bankasi

VARIABLES	(1) REIT R-Rf
BIST100	0.915***
	[0.093]
Constant	0.002
	[0.003]
Observations	119
R-squared	0.454

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

Panel B - CARs around REIT IPO for Yapi Kredi Bankasi



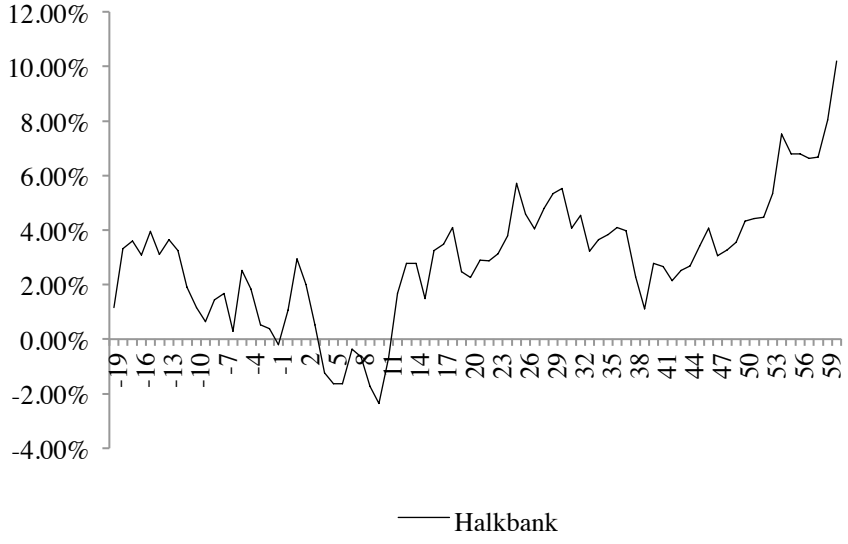
Appendix A-25

Panel A - CAPM Model around REIT IPO for Halkbank

VARIABLES	(1) REIT R-Rf
BIST100	1.161***
	[0.164]
Constant	-0.000
	[0.001]
Observations	119
R-squared	0.301

Notes: CAPM regression for REIT lead stakeholders and their affiliates. Daily excess stock returns are used. BIST100 index is used as the market index. Standard errors are in brackets. * indicates significance at the 10 percent level. ** indicates significance at the 5 percent level. *** indicates significance at the 1 percent level.

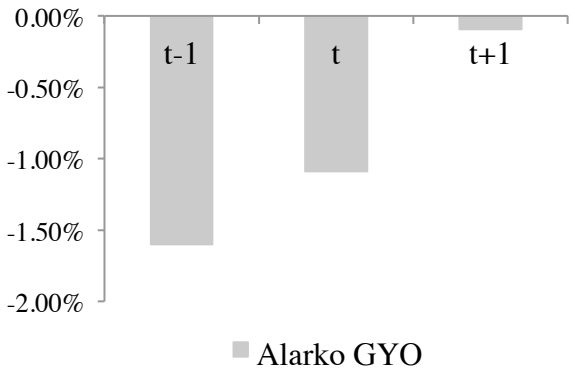
Panel B - CARs around REIT IPO for Halkbank



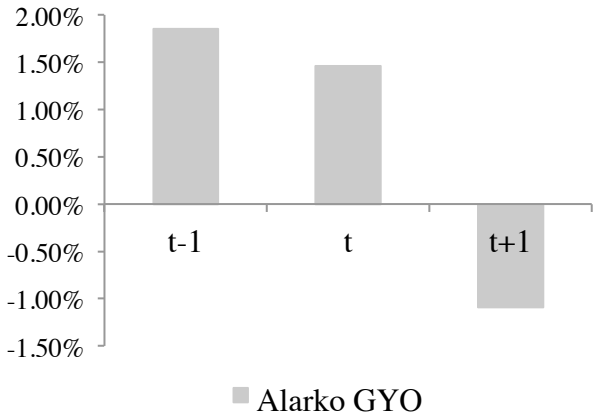
B. CARS DURING 2004 AND 2013 AMENDMENTS

Appendix B-1 Alarko GYO

Panel A - CARs around the Announcement of the 2004 Amendments

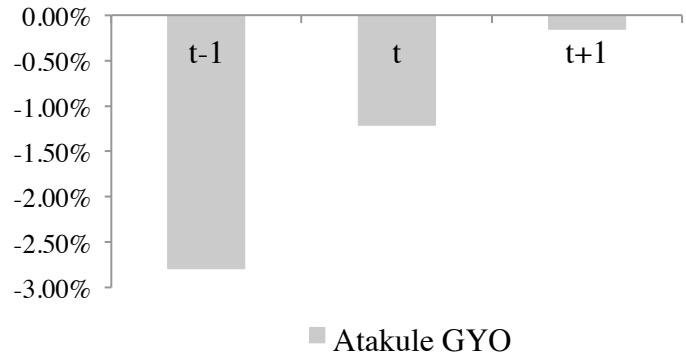


Panel B - CARs around the Announcement of the New 2013 Communiqué

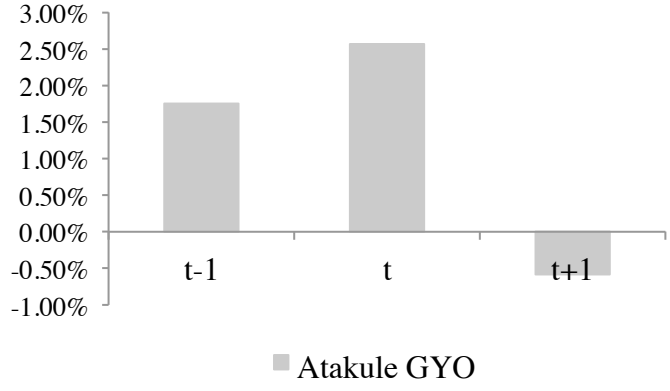


Appendix B-2 Atakule GYO

Panel A - CARs around the Announcement of the 2004 Amendments

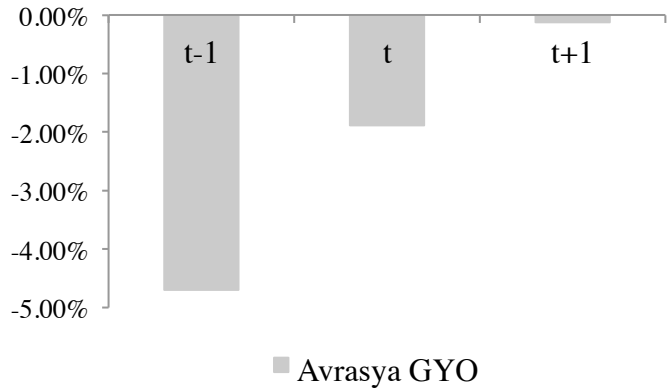


Panel B - CARs around the Announcement of the New 2013 Communiqué

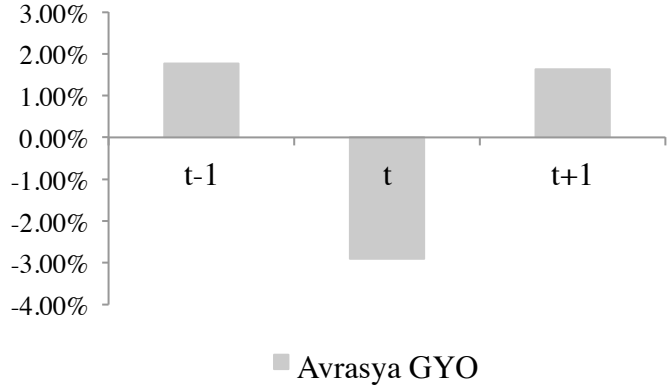


Appendix B-3 Avrasya GYO

Panel A - CARs around the Announcement of the 2004 Amendments

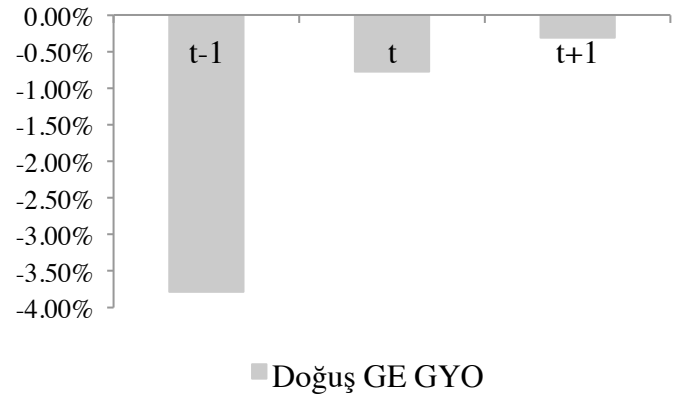


Panel B - CARs around the Announcement of the New 2013 Communiqué

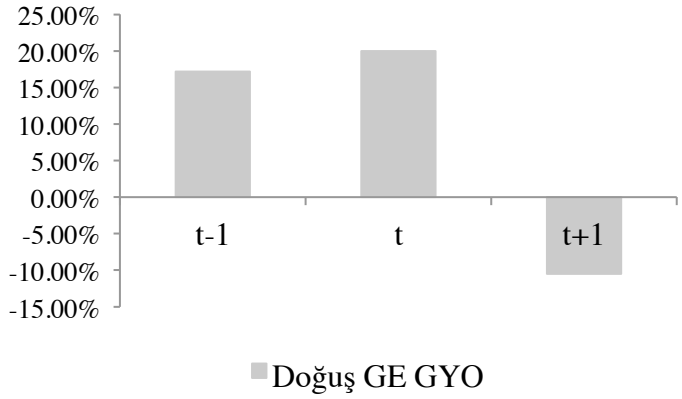


Appendix B-4 Dogus GE GYO

Panel A - CARs around the Announcement of the 2004 Amendments

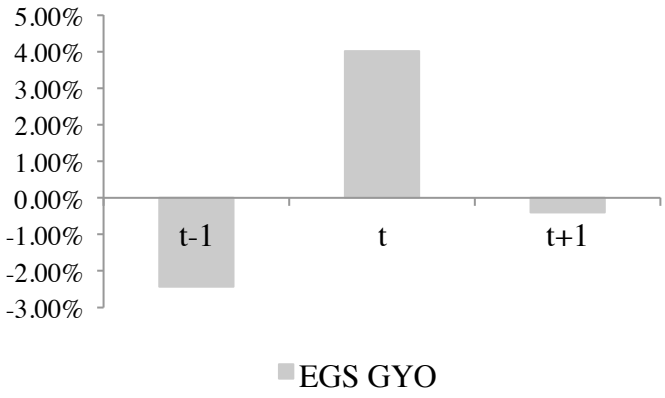


Panel B - CARs around the Announcement of the New 2013 Communiqué

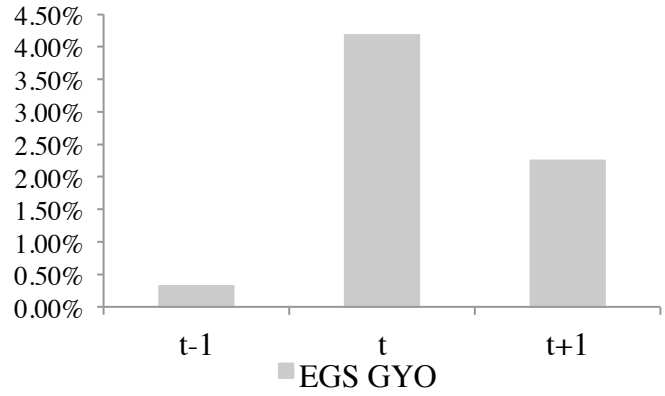


Appendix B-5 EGS GYO

Panel A - CARs around the Announcement of the 2004 Amendments

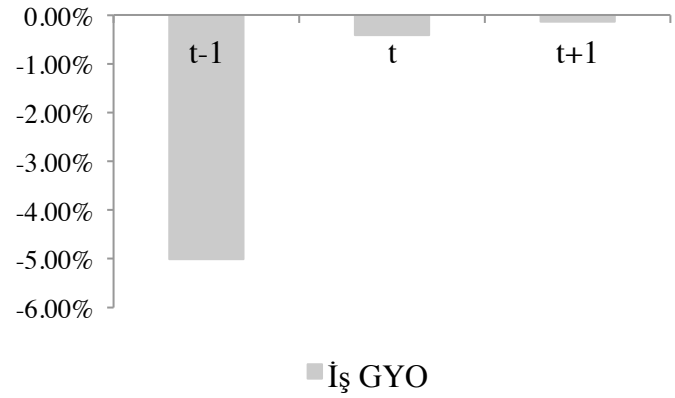


Panel B - CARs around the Announcement of the New 2013 Communiqué

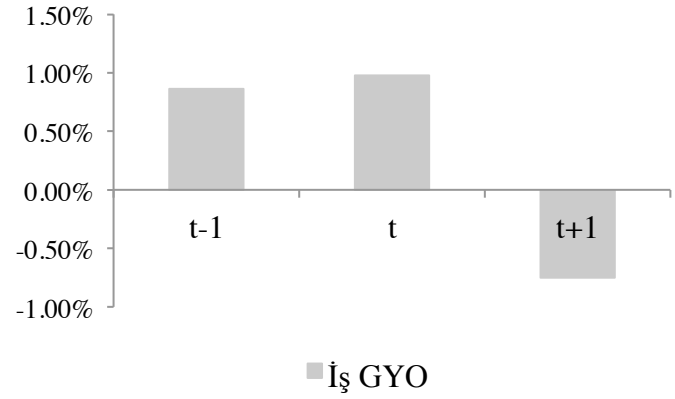


Appendix B-6 Is GYO

Panel A - CARs around the Announcement of the 2004 Amendments

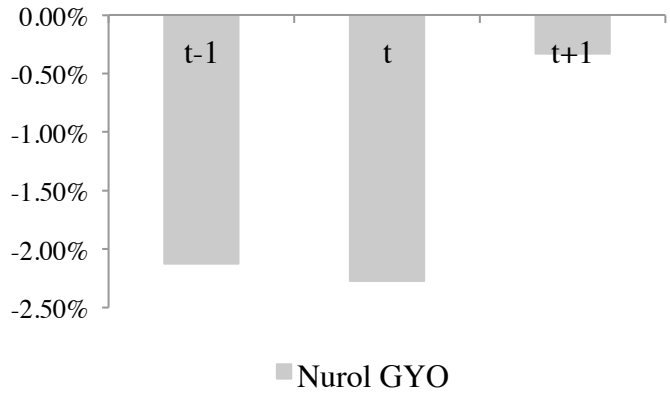


Panel B - CARs around the Announcement of the New 2013 Communiqué

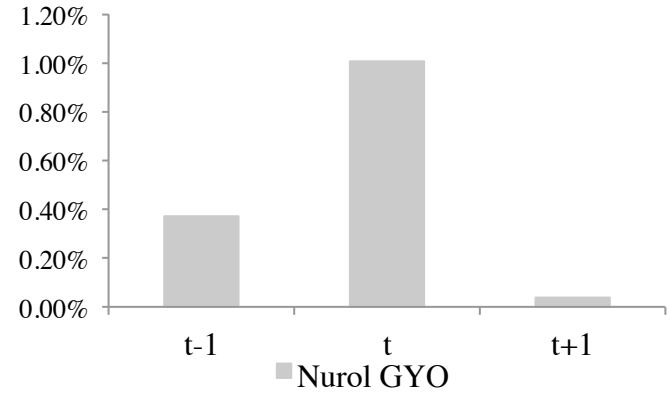


Appendix B-7 Nurol GYO

Panel A - CARs around the Announcement of the 2004 Amendments

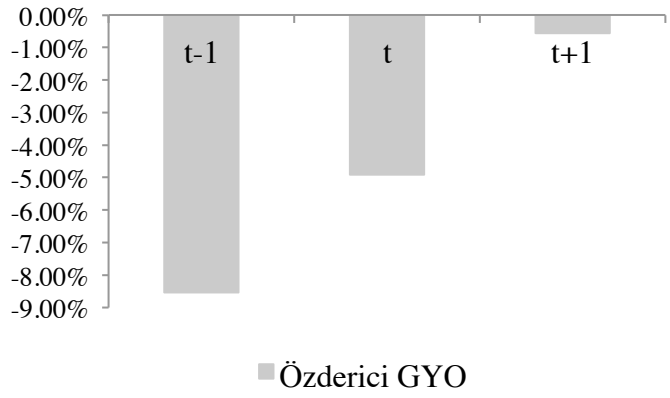


Panel B - CARs around the Announcement of the New 2013 Communiqué

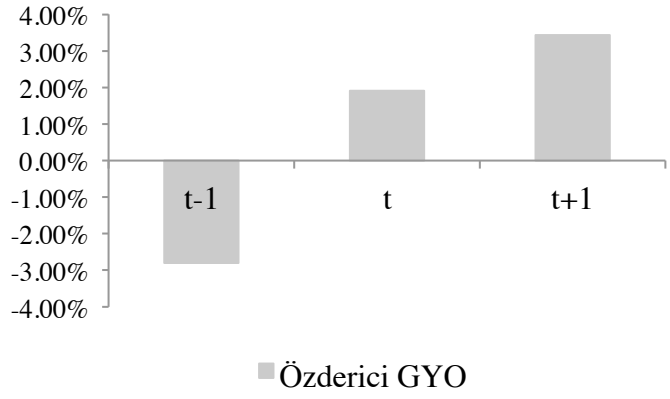


Appendix B-8 Ozderici GYO

Panel A - CARs around the Announcement of the 2004 Amendments

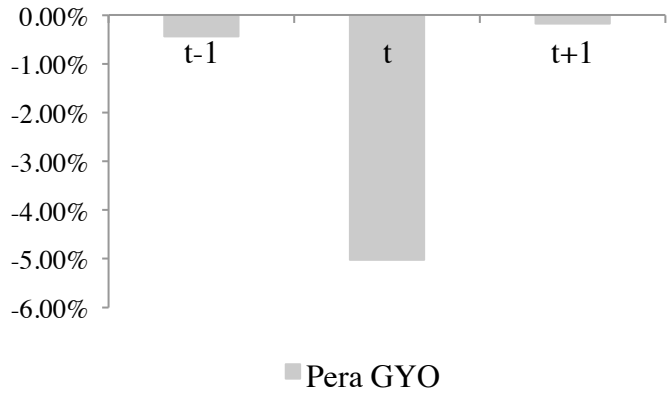


Panel B - CARs around the Announcement of the New 2013 Communiqué

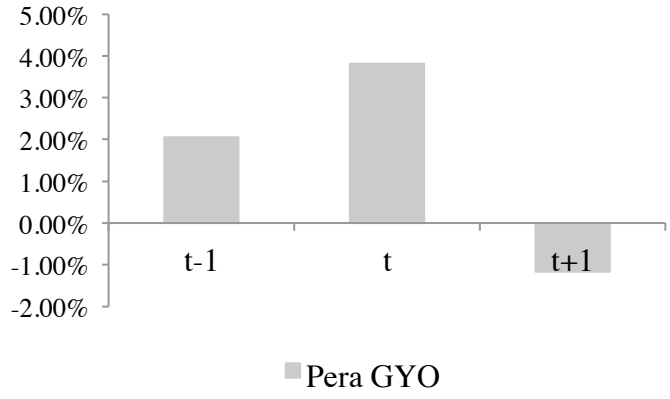


Appendix B-9 Pera GYO

Panel A - CARs around the Announcement of the 2004 Amendments

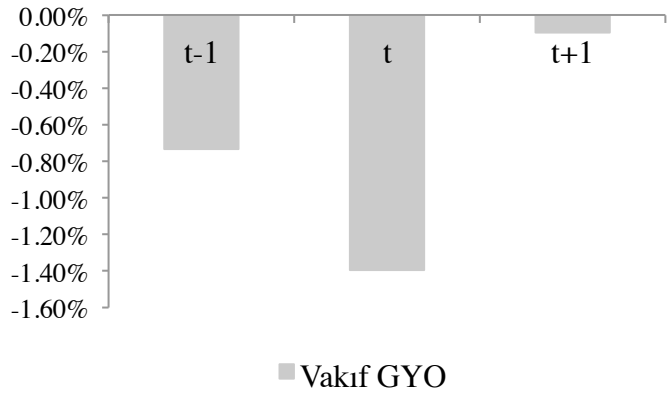


Panel B - CARs around the Announcement of the New 2013 Communiqué

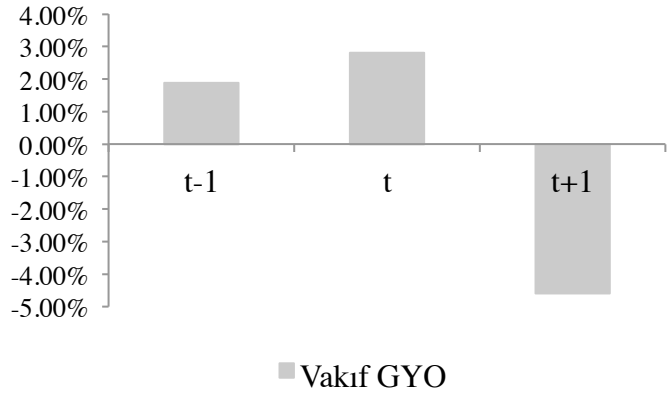


Appendix B-10 Vakif GYO

Panel A - CARs around the Announcement of the 2004 Amendments

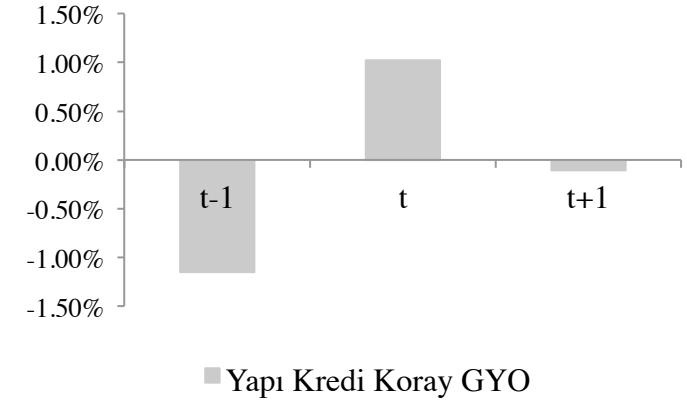


Panel B - CARs around the Announcement of the New 2013 Communiqué

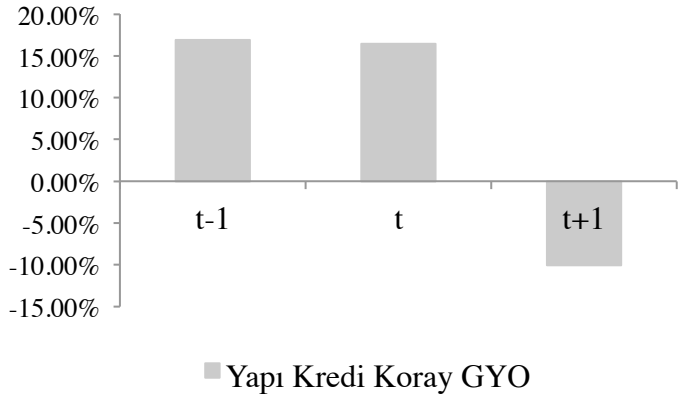


Appendix B-11 Yapi Kredi Koray GYO

Panel A - CARs around the Announcement of the 2004 Amendments

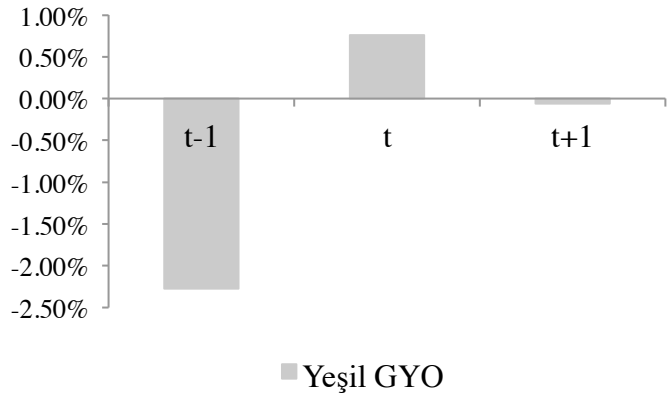


Panel B - CARs around the Announcement of the New 2013 Communiqué

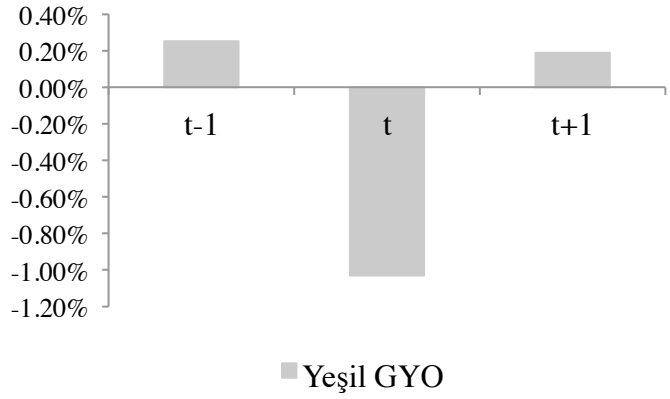


Appendix B-12 Yesil GYO

Panel A - CARs around the Announcement of the 2004 Amendments



Panel B - CARs around the Announcement of the New 2013 Communiqué



C. CURRICULUM VITAE

Personal

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Education

2013 – 2009	PhD in Finance Maastricht University Supervisor: Prof. dr. Piet Eichholtz
2012	Visiting PhD Student at Center for Real Estate Massachusetts Institute of Technology Host: Prof. dr. David Geltner
2007 – 2000	BS and MS in Economics Middle East Technical University

Academic Publications and Working Papers

'CEO Overconfidence, REIT Investment Activity, and Performance', 2015, *Real Estate Economics, forthcoming,* with Piet Eichholtz.

'The Economic Effects of Owner Distance and Local Property Management in US Office Markets', 2015, *Journal of Economic Geography (revise and resubmit),* with Piet Eichholtz and Rogier Holtermans.

'Portfolio Greenness and the Financial Performance of REITs', 2012, *Journal of International Money and Finance 31-7, 1911–1929,* with Piet Eichholtz and Nils Kok.

'Real Estate, Governance, and the Global Economic Crisis', 2011, *Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis* Edited by James P. Hawley, Shyam J. Kamath, and Andrew T. Williams, University of Pennsylvania Press, with Piet Eichholtz and Nils Kok.

Academic Awards and Grants

2013	Best Published Article in Finance and Sustainability (€5,000), the Principles for Responsible Investment (United Nations supported Initiative) and the French Social Investment Forum, Paris

2013	Real Estate Research Institute Grant ($15,000), the Real Estate Research Institute, Hartford, CT
2011	Best Doctorate Paper Award, Academy of Behavioral Finance and Economics, University of California (UCLA), Los Angeles, CA

Selected Academic Presentations

2015, 2013	ASSA Meetings, American Real Estate and Urban Economics Association, Annual Conference, San Diego, CA, presenter
2012	Alliance for Research on Corporate Sustainability, Fourth Annual Conference, Yale University, New Haven, CT, presenter
2011	Academy of Behavioral Finance and Economics, Annual Meeting, University of California (UCLA), Los Angeles, CA, presenter

D. TURKISH SUMMARY

Yatırımcılar, yatırımlarından getirilerini maksimize etmeyi ve yatırımlarıyla ilişkili riskleri minimize etmeyi amaçlarlar. Hisse senedi ve bonoya alternatif olarak, gayrimenkul yatırımcıların portföylerini çeşitlendirmesine yardımcı olur ve böylece portföylerinin risklerini azaltmalarını sağlar. Gayrimenkul uzmanlarının yeni yatırım araçları geliştirmeleriyle bireysel emeklilik fonlarının gayrimenkule ilgisi, son iki onyılda arttı. Andonov, Eichholtz ve Kok (2013), gayrimenkulün bireysel emeklilik portföyünde en önemli alternatif yatırım aracı olduğunu göstererek bireysel emeklilik fonlarının ilgisini belgelediler.

Öte yandan, yatırımcılar risk ve getiri dışında likidite ve yatırımın büyüklüğü ile de ilgilenirler. Yüzyıllar boyunca doğrudan gayrimenkul yatırımları, gayrimenkulün en önemli yatırım şekli olmasına rağmen gayrimenkul yatırımları likiditesi az ve sermayeye dayalı yatırımlardır. Örnek olarak, bir hane halkı ev alacağı zaman yüksek bir meblağda harcama yapması gerekir. Satacağı zaman ise uzun süre beklemesi gerekebilir. Diğer taraftan, gayrimenkul kontratları da likiditeye zarar verir ve gayrimenkul fiyatlarının düzelmesini yavaşlatır. Bütün bunlara ek olarak, gayrimenkul yerel bir iştir ve uzmanlık gerektirir.

Gayrimenkul Yatırım Ortaklıklarının (GYO'ların) hisseleri gibi dolaylı yada finansal kağıtlara dönüştürülmüş gayrimenkul, yukarıda bahsettiğim sorunlara çözüm getirmektedir. Örneğin, eğer bir yatırımcı GYO hisselerine sahip olursa bir ofis binasının tamamına doğrudan sahip olmak ve binanın değerinin tamamını karşılamak zorunda değildir. Onun yerine, GYO hisselerinin sahibi olarak GYO'nun sahip olduğu binadan pay sahibi olabilir. Bu yolla, ilgili yatırımcı, GYO'nun sahip olduğu uzmanlıktan ve bilgiden faydalanabilir ve elden çıkarmak istediğinde GYO hisselerini satarak binanın satışını beklemek zorunda kalmaz.

GYO'lar çoğunlukla borsada işlem gören gayrimenkul şirketleridir. Birçok ülkede GYO sistemleri mevcuttur. Amerika Birleşik Devletleri (ABD), küresel olarak GYO sistemini ilk kuran ülkedir ve dünyanın en büyük GYO piyasasına sahiptir. EPRA (2011) raporuna göre, 2011 yılında ABD'de 179 GYO firması bulunmaktadır ve 313,3 milyar avro'luk bir piyasa değerine sahiptir. Avustralya'da bulunan 57 GYO'nun piyasa değeri 56,4 milyar avrodur. Avrupa kıtasında, Fransa 2003, İngiltere 2007 yıllarında GYO sistemlerini kurmuşlardır. Fransa'da GYO'ların piyasa değeri 50,3 milyar avro iken İngiltere'de bu değer 30,9 milyar avrodur. Diğer taraftan, Asya ülkelerinde GYO dalgası 1990'ların sonlarında ve 2000'lerin başlarında başlamıştır. Japonya 1999 yılında, Singapur ise 2000 yılında GYO sistemlerini kurmuşlardır. EPRA raporuna göre 2011 yılında Japonya'daki GYO'ların piyasa değeri 29,5 milyar avro, Singapur'da ise 11,3 milyar avrodur.

Türkiye ise dünyada GYO sistemini ilk kuran ülkelerden biridir. 1995 yılından bu yana bulunan GYO sisteminde 19 GYO'nun toplam piyasa değeri 2011 verilerine göre 2 milyar avro civarındadır. Türkiye'deki GYO'ların sayısı yakın zamanda 31'e yükselmiştir. Yine de diğer birçok ülkeden önce kurulmasına ve artan GYO sayısına rağmen Türkiye GYO piyasası hala diğer piyasalara göre küçük bir büyüklüktedir.

Dünya çapında, hemen hemen bütün GYO sistemlerinde GYO'lar borsada işlem gören gayrimenkul firmalarıdır. Kuralların detayında farklılıklar gösterse de GYO'lar kurum vergisinden muaftır. Ancak vergi muafiyetinden faydalanabilmek için borsada işlem gören diğer tipteki firmalardan farklı olarak bazı yasal kurallara tabilerdir. Birçok ülkede, GYO'lar gelirlerinin yüzde 85 ve yüzde 100'ü arasında bir miktarı her yıl kar payı olarak hisse senedi sahiplerine dağıtmak zorundadır. Diğer taraftan Türk GYO'ları diğer ülkelerdeki gibi vergi muafiyetinden faydalanırken kar payı dağıtma zorunlulukları yoktur.

GYO sistemleri sahiplik oranları konusunda da kısıtlamalar getirmektedir. ABD'de en büyük 5 hissedar hisselerin yüzde 50'sinden fazlasına sahip olamazlar. Ayrıca

GYO hisselerinin en az 100 farklı hissedarı olması gerekmektedir. İngiltere'de her hangi bir hissedar bütün hisselerin yüzde 10'undan fazlasına sahip olamaz. Bu kural, Fransa'da daha esnektir. Bir hissedar toplam hisselerin yüzde 60'ından azını tutabilir. Öte yandan, Japonya ve Singapur'da belirli bir sahiplik kuralı bulunmamaktadır.

Türkiye'de ise sahiplik kuralı diğer şekilde tasarlanmıştır. 2013 yılındaki yasa değişikliğine kadar ki Türkiye'deki GYO'ların neredeyse tamamı önceki kurallara göre kurulmuştur, her GYO'nun lider sermayedara sahip olma zorunluluğu vardır. Lider sermayedar GYO'nun hisselerinin en az yüzde 20'sine sahip olmak zorundadır. Bu kural Türkiye'deki GYO sisteminin yoğunlaşmış bir sahiplik yapısına sahip olmasına neden olmuştur. Asya ülkelerinde de sahiplik oranında üst bir sınır olmaması nedeniyle benzer şekilde yoğunlaşmış bir sahip yapısı oluşmuştur. Bu yoğunlaşmış yapı ABD'deki GYO'ların sahiplik yapısından farklıdır. ABD'de tam tersi şekilde dağılmış bir sahiplik yapısı vardır. Zorunlu kar payı dağıtma ve sahiplik yapısı üstüne kurallar dışında GYO'ların tabi olduğu varlık ve gelir konularında kurallar mevcuttur. Bu kurallar, GYO'lara belirli oranda gayrimenkule dayalı varlık sahipliği ve getiri zorunluluğu getirir.

Bu tezde, dünyada ve Türkiye'de GYO'lar hakkındaki iki önemli unsura yoğunlaşmaktayım. Birincisi, GYO'ları çevreleyen ve GYO'lara has olan yasal düzenlemeler, özellikle kurumsal yönetim alanında araştırmacılar için GYO'ları özgün kılmaktadır. İkinci olarak da Türkiye'deki GYO sistemi diğer ülkelerdeki GYO sistemlerinden farklılıklar göstermektedir. Bu farklılıklar kurumsal yönetim uygulamalarını Türk GYO piyasası için daha da önemli kılmaktadır. Hem Türkiye'deki yasal farklılıkların Türk GYO piyasası özelindeki etkileri hem de diğer piyasalardan farklılıkların etkileri ve o yasal kuralların geçerliliği küresel GYO piyasaları açısından da önem arz etmektedir.

Kurumsal yönetim finans literatürünün önde gelen konularından biridir. Geleneksel firma teorisine göre firmalar karlarını maksimize ederler fakat firmalarda kar

maksimizasyonu yapılırken kararların insanlar tarafından alındığını göz önüne almaz. Firma kararları alınırken, firma yöneticileri, kendi sermayelerini değil şirket sahiplerinin sermayelerini yönetirler. Şirket yöneticilerinin fayda fonksiyonları, firma ve sahiplerininkinden farklılıklar gösterebilir ve denge noktasında birbirlerinden uzaklaşabilirler.

Jensen ve Meckling (1976), firmalar için "temsil teorisi" geliştirmiştir. Firma sahipleri işveren, şirket yöneticileri de onların temsilcileridir. Firma sahiplerinin şirketi yönetebilecek yada işletebilecek yeterli tecrübeleri yoktur. Yöneticilerin de işi kurabilecek yeterli sermayeleri yoktur. Bunun sonucunda firma sahipleri yöneticileri işe alır. Temsilci yani yönetici, işveren yani şirket sahibi adına kararlar alır. Fakat bu kararlar bazen şirket yöneticilerinin faydasına yada şirketin değerine zarar verebilir.

Bu konuda çözülmesi gereken en önemli konu, şirket yöneticilerinin bu tür şirket değerini düşürücü aktivitelerden nasıl uzak tutulacağıdır. Şirket sahipleri, yöneticilere sınırlamalar getirebilir yada teşvikler yaratabilirler. Kontratsal maddelerle belirli kısıtlar sağlansa da yöneticiler için artık haklar kalır. Bu artık haklar, şirket sahipleri için maliyetler oluşturur. Şirket sahipleri, yöneticileri denetleyebilirler yada performansa bağlı bonuslar yada ikramiyeler verebilirler. Bütün bunların hepsi şirket sahipleri için maliyetli işlemlerdir. Bütün bu maliyetler temsilci maliyetleridir.

Jensen (1986), çalışmasında yöneticilerin takdirine kalmış nakitlerin miktarının çok olması temsilci maliyetlerini yukarı çektiğini açıklamaktadır. Eğer yöneticilerin kontolünde bu şekilde yüksek meblağlarda takdirlerine kalmış nakit varsa, kendilerine fayda sağlayan ancak şirket değerine zarar verebilecek yatırımlara yönelmeleri olasılığı artar. Bu durumlarda kar payı dağıtmak yerine zararlı yatırımlar yapabilirler. Takdire kalmış nakit miktarını düşürmek, temsilci maliyetlerini de azaltabilir.

Sermayedarların sahiplik oranları da önemlidir. Oy kullanma hakları, sermayedarların en önemli kozlarıdır. Eğer ki sermayedarlar yeteri kadar hisse senedine sahipse oy kullanma haklarını ve güçlerini kullanarak yönetiminden memnun olmadıkları yöneticileri değiştirebilirler. Bireysel emeklilik fonları, diğer kurumsal şirketler gibi büyük sermayedarların varlığı yöneticiler üstündeki denetleme gücünü arttırır. Şirket yöneticileri şirketi kötü yönetirlerse ve şirket değeri düşerse büyük sermayedarların zararı çok büyüyeceğinden büyük sermayedarlar oy kullanma güçlerini de kullanarak şirket yöneticilerinin kararlarını yakından takip ederler. Bu, oy kullanma gücü zayıf küçük sermayedarlar için de önemlidir.

Diğer taraftan büyük sermayedar çok fazla sahipliğe ve dolayısıyla güce sahipse bu her zaman küçük sermayedarlar için iyi bir durum olmayabilir. Büyük sermayedarın şirket değerinin yükselmesi dışında daha başka menfaatleri varsa güçlerini yöneticiler üstünde kullanabilirler ve kendi menfaatlerine uygun kararlar aldırabilirler. Bu kararlar, her zaman küçük veya azınlık sermayedarların yararına olmayabilir. Burada en önemli faktörlerlerden biri oy kullanma gücüdür. Bir şirkette sahiplerine farklı oranlarda oy kullanma yetkisi veren hisse senedi sınıfları varsa oy kullanma gücü yüksek hisse senetleri sahipleri bu tip ayrıcalıklara ve güce sahip olabilirler. Türk GYO'larında imtiyazlı ortaklık hisseleri bu duruma örnektir. Genel olarak lider sermayedarlar bu sınıf hisselerden tutmaktadır.

Temsilci maliyetleri, şirketlere kurumsal yönetim ihtiyacını doğurmuştur. Daha iyi kurumsal yönetim, fırsat maliyetlerini düşürür ve dolayısıyla şirketlerin finansal performansını arttırır. Gompers, Ishii ve Metrick (2003) makalelerinde, oluşturdukları kurumsal yönetim kalitesi endeksini şirketlerin işletme ve hisse senedi performansına ilişkilendirmişlerdir. Bu sıkça atıfta bulunulan makalede, kurumsal yönetim kalitesi yüksek firmaların finansal performanslarının daha iyi olduğu gösterilmiştir. Bebchuk, Cohen ve Ferrel (2009) onların çalışmasını tekrar gözden geçirip kurumsal yönetim endeksini basitleştirmişlerdir. Onlar da benzer sonuçlar bulmuşlardır.

Firmaları çeviren yasal düzenlemeler de firmaların temsilci maliyetlerini etkileyebilir. La Porta ve çalışma arkadaşları (2000) daha kuvvetli yasal düzenlemelerin olduğu ülkelerde firmaların daha yüksek meblağlarda kar payı dağıttıklarını bulmuşlardır. Yazarlara göre, kuvvetli yasal düzenlemeler sermayedarların yöneticileri daha yüksek meblağlarda kar payı dağıtmaya zorlamalarına yardımcı olur. Bu şekilde yöneticilerin takdirine kalan nakit miktarı düşük seviyelerde tutulur. Daha ileriki zamanda, La Porta ve çalışma arkadaşları (2002) yasal düzenlemelerin sıkılığı ve şirketlerin finansal performansı arasındaki ilişkiyi incelemişlerdir ve pozitif bir ilişki bulmuşlardır. Bu sonuç gösterir ki sıkı yasal çevre şirket yöneticilerini şirket değerini düşürücü aktivelerden alı koyar.

Yazarlar ayrıca kontrol sahibi sermayedarların sahipliğini de incelemiştir. Yüksek sahipli, azınlık sermayedarlarla menfaatleri eşlerken, sahipliğin çok yüksek seviyelerde olması kontrol sahibi sermayedarların şirketi kendi menfaatlerine kullanma ihtimalini arttırır ve bu da finansal performansı düşürür. Cornett ve çalışma arkadaşları (2007) kurumsal sahipliği ikiye ayırarak iş ilişkisi olanların ve olmayanların sahipliği üstünden şirket performansını araştırmıştır. İş ilişkisi olmayan kurumsal sermayedarların sahipliği şirket performansını arttırırken iş ilişkisi olanların sahipliği şirket performansına olumlu bir etki yapmamaktadır. Büyük sermayedarlar ve şirket arasında iş ilişkisi olması büyük sermayedarların menfaatlerini azınlık sermayedarların menfaatlerinden uzaklaştırabilir. Bu da şirket yöneticilerini şirketin değerine zarar verecek kararlara itebilir.

Yönetim kurulunun yapısı da kurumsal yönetim açısından önem arz etmektedir. Finans literatürü genel olarak yönetim kurulu büyüklüğünün şirket performansıyla negatif ilişkili olduğunu göstermektedir. Yönetim kurulunun küçüklüğü yönetim kurulundaki verimliliği arttırabilir ve bu şekilde şirket performansını arttırır (Yermack 1996). Öte yandan, Coles, Daniel ve Naveen (2008) bu ilişkinin her zaman geçerli olmadığını göstermiştir. Açıkçası, yazarların sonuçlarına göre bu ilişki şirketlerin büyük, farklı alanlara yönelmiş ve yüksek borçlanma yapılarının

olması durumunda tam tersidir. Kiel ve Nicholson (2003) Avustralya firmaları için bu ilişkiyi incelemiş ve yönetim kurulu büyüklüğüyle firma performansı arasında pozitif bir ilişki bulmuştur. Yazarlar, bu durumu yönetim kurulunda daha fazla kişinin bulunmasının denetleme gücünü arttıracağı şeklinde açıklamıştır. Birçok çalışma, bağımsız yönetim kurulu üyelerinin firma performansını arttırdığı yönünde sonuçlar bulmuştur (Brickley ve Terry 1994; Coles, Daniel ve Naveen 2008; Kiel ve Nicholson 2003). Bağımsız üyeler şirket yöneticileri ve kararları üstündeki denetim gücünü arttırır. Türkiye'de belirli oranda bağımsız üye olma zorunluluğu ilk olarak GYO'lara getirilmiştir. Daha sonraki düzenlemelerle borsada işlem gören bütün firmalara zorunlu kılınmıştır.

GYO'lar daha sıkı bir yasal çerçevede işletildikleri için kurumsal yönetim çalışmaları açısından ilgi çekmiştir. Bauer, Eichholtz ve Kok (2010) bu sıkı yasal çevrenin GYO'lar için kurumsal yönetim kalitesi zorunluluğunu düşürdüğünü göstermişlerdir. ABD'deki bütün firmalar için kurumsal yönetim kalitesi şirket performansını arttırırken GYO'lar için firma performansı üstüne istatistiksel olarak anlamlı bir ilişki göstermemektedir. Özellikle kar payı dağıtma zorunluluğu, GYO yöneticilerinin elindeki takdirlerine kalmış nakit miktarını düşürür ve bu da temsilci maliyetlerini aşağı çeker. Böylece kurumsal yönetim ihtiyacı azalmaktadır.

GYO'lar için yönetim kurulu yapısı da araştırılmıştır. Ghosh ve Sirmans (2003) ve (2005) ABD'de küçük ve daha çok bağımsız üyeden oluşan yönetim kurulları bulunan GYO'ların daha iyi performans gösterdiğini bulmuşlardır. Ayrıca GYO'lar ile iş bağı olan sermayedarların sahipliği şirket performansını pozitif bir şekilde etkilemektedir. Asya'daki GYO'lar üstüne literatür daha kısıtlı olmasına rağmen Lecomte ve Ooi (2013) yönetim kurulu dağılımına dayalı kurumsal yönetim kalitesinin şirket performansına olumlu katkı yaptığını bulmuşlardır.

Dünyada GYO sistemlerinde temel olarak diğer firmalardan farklı olarak konulan kurallar vergi muafiyeti, zorunlu kar payı dağıtımı, sahiplik kuralları ve varlık dağılımı üstüne sınıflandırılabilir. Vergi rejimleri ülkelere göre farklılıklar

göstermektedir. Vergi muafiyeti, Almanya ve Türkiye gibi istisnalar dışında genellikle vergi muafiyeti kar payı dağıtımı yapılmış getiriler yada gayrimenkulden elde edilen gelirler üstüne verilmiştir. Örneğin, ABD'de dağıtılan kar vergiden muaftır fakat kar payı olarak dağıtılmayan gelirler kurum vergisine tabidir. Benzer bir kural Güney Kore'de de mevcuttur. İngiltere'de ise kira getirileri vergiden muaftır.

Zorunlu kar payı dağıtımı ise birçok ülkede mevcuttur. GYO'lar gelirlerinin yüzde 80 ile 100'ünü dağıtmak zorundadır. Bu oran ABD, İngiltere, Hong Kong, Güney Kore ve Singapur'da yüzde 90 iken Avustralya'da yüzde 100, Fransa'da ise yüzde 85'tir. Türkiye'deki GYO sisteminde kar payı dağıtma zorunluluğu yoktur. GYO'ların sahiplik yapıları üstüne de kısıtlamalar getirilmiştir. ABD'de en büyük 5 sermayedar hisse senetlerinin yüzde 50'sinden fazlasını tutamazken en az 100 tane de sermayedar olması zorunluluğu mevcuttur. Fransa'da tek bir sermayedar hisse senetlerinin yüzde 60'ından fazlasına sahip olamaz. Japonya'da bu oran yüzde 75 iken sermayedar sayısı en az 1000 olmak zorundadır.

Güney Kore'de hisse senetlerinin en az yüzde 35'i piyasada işlem görmek zorundadır. Tek bir sermayedar ise GYO'nun türüne göre piyasadaki hisse senetlerinin yüzde 30 yada 40'ından fazlasına sahip olamaz. Özet olarak birçok ülkede tek bir yatırımcının sahiplik oranına bir üst sınır getirilmiştir. 2013 yılına kadar Türkiye'deki GYO sistemi sermayedarların sahiplik yapısı konusunda dünyadaki birçok sisteme göre tam tersi bir yapı göstermektedir. Türkiye'deki GYO sistemi lider sermayedar kuralını ve kavramını içerir. Lider sermayedar, GYO hisse senetlerinin en az yüzde 20'sine sahip olmak zorundadır. Fakat bu kural 2013 yılında kaldırılmıştır. Direk olarak teşvik edici bir kural içermese de Asya ülkelerindeki GYO sistemlerinde de lider sermayedar yapısına benzer bir sponsor yapı mevcuttur.

GYO'lara has yasal düzenlemeler varlık yapısı üstüne de kurallar koymaktadır. Varlık yapısı kurallarındaki temel amaç GYO'ların ana iş konusu olan

gayrimenkulden uzaklaşmalarının önüne geçmektir. Kanada, ABD, Almanya, Singapur ve İngiltere'de GYO'lar varlıklarının yada getirilerinin yüzde 75'ini gayrimenkulden oluşturmak zorundadırlar. Japonya'da varlıkların yüzde 90'ı gayrimenkul olmalıdır. Güney Kore'de ise bu oran yüzde 75'e inmektedir. Ülkemizde GYO'ların varlıklarının yüzde 50'si gayrimenkul olmalıdır. Türk GYO sistemi varlık yapısı konusunda birçok ülkeye göre daha esnek bir kural sunmaktadır.

Global GYO sitemlerinin yapısından dolayı önemi artan kurumsal yönetim kalitesi Türk GYO'ları için Türk GYO sistemine özel farklılıklar sebebiyle bir kat daha artmaktadır. Türkiye'deki sisteme has farklılıklar, araştırmacılar için tekil bir örnek teşkil etmektedir. Türkiye'de vergi muafiyeti varken yasal olarak kar payı dağıtma zorunluluğu yoktur. Kar payı dağıtma zorunluluğu daha aşağıda anlatacağım senaryolara bağlı olarak vergi muafiyetinin lider sermayedara getireceği avantajları bertaraf etme potansiyeline sahiptir. Türkiye'deki GYO sistemine has olan bu yapı, hem Türkiye özelinde GYO sistemindeki yasal düzenlemelerin etkilerinin araştırılmasını önemli kılar hem de dünyadaki GYO sistemlerindeki kar payı dağıtma zorunluluğu kuralının önemini ve geçerliliğini test edilmesi şansını verir.

Şu örneği düşünelim. Bir lider sermayedar, GYO kurmaya karar versin. GYO kurmadan önceki süreçte sahip olduğu gayrimenkuller lider sermayedarın bilançosuna gayrimenkul değeri olarak girerken gelir ve nakit akım tablolarında kira olarak yer almazlar. GYO kurulduktan sonraki süreçte lider sermayedar gayrimenkullerinin bir kısmını GYO'ya transfer edebilir. Bu durumda GYO o gayrimenkullerin sahibi olurken, lider sermayedar kiracı konumuna geçer. Kira gelir ve nakit akım tablolarına maliyet olarak düşer. Şirketin net karı maliyetler arttığı için daha az gözükür ve lider sermayedar denk iki durumda daha az gelir vergisi öder.

GYO ise kira geliri elde edeceği için bu işlem gelir kısmına artı değer olarak düşer fakat GYO'lar kurum vergisinden muaf oldukları için bu gelir üstünden vergi

ödemesi yapmazlar. Bu durumda lider sermayedar için bir vergi arbitrajı oluşur. GYO kurulma işlemin maliyetlerinin önemsiz olduğunu varsayarsak GYO kurulduktan sonraki durumda iki firmanın bilançosunun bugünkü değerlerinin toplamı ilk durumdaki lider sermayedarın bilançosunun toplamının bugünkü değerinden vergi arbitrajının bugünkü değeri kadar büyük olur.

Vergi arbitrajı, lider sermayedar ve GYO arasında bu tip bir mülk sahibi kiracı iş ilişkisi olduğu ve GYO kar payı dağıtmadığı sürece teoride bulunmaktadır. GYO kira getirilerini kar payı olarak dağıtırsa bu kez lider sermayedar için kar payı getirisi olur ve bu durumda kar payı getirisi kurum vergisine tabi olduğundan vergi arbitrajı durum ortadan kalkar. Teoride vergi arbitrajı oluşmaması için vergi muafiyetinin kar payı dağıtma zorunluluğuyla eşleştirilmesi gerekir. Sonuç itibariyle Türk GYO'larının kar payı dağıtma oranlarının düşük olduğu göz önünde bulundurulursa bir firmanın lider sermayedar olarak GYO kurması o firmanın piyasa değerini yukarı çekmelidir.

Bu tezin ilk kısmında bu durumun lider sermayedara bir vergi arbitrajı üzerinden değer artışı getirip getirmediğini test etmekteyim. Öncelikle piyasanın vergi arbitrajı farkındalığını görebilmek için firmaların piyasa değerlerinin ölçülebilmesi gerekmektedir. Bu amaçla Türk GYO'larının lider sermayedarlarını çıkarıp onlar içinde borsada işlem gören lider sermayedarlara yoğunlaşmaktayım. Böylece bir GYO kurulduğu süreçte bu lider sermayedarların piyasa değerlerindeki değişiklikleri gözlemleme ve inceleme şansına sahip olunmaktadır. Temel olarak test ettiğim hipotez GYO'nun kurulduğu günlerde lider sermayedarın piyasa değerinde istatistiksel olarak anlamlı bir artış olması gerektiğidir. Tam anlamıyla ayrıştırmak güç olsa da istatistiksel olarak anlamlı bir değer artışı vergi arbitrajının varlığına ve bunu piyasaların değerlediğine işaret etmektedir. Bazı alternatif durumları da elemek için aşağıda anlatacağım şekilde ek testler yapılmıştır. Lider sermayedarlara ek olarak GYO halka arzının lider sermayedarın diğer iştiraklerinin değerine de bir etkisi olup olmadığı test edilmiştir.

Ampirik analize geçmeden önce lider sermayedarlardan GYO'lara yukarıda bahsettiğim gibi bir gayrimenkul transferi olup olmadığını incelemek üzere bir test gerçekleştirmekteyim. GYO'nun halka arz yılından 2 yıl öncesinden halka arz yılına kadar lider sermayedarın gayrimenkul portföyünde bir azalma olup olmadığına bakmaktayım. Bu amaçla sabit varlıkların toplam varlıklarına oranında bu iki yıl arasında istatistiksel olarak anlamlı bir farklılık olup olmadığını test etmekteyim. Bulduğum sonuçlara göre özellikle banka olan lider sermayedarlarda bu oranda anlamlı bir azalma vardır. Örneklemimde GYO kuran dört bankanın dördünde de sabit varlıkların toplam varlıklara oranında yüzde birlik seviyede istatistiksel olarak anlamlı bir azalma olmuştur. Ortalama olarak banka olan lider sermayedarlar sabit varlıkların toplam varlıklara oranında yüzde 11.54 oranında bir küçülme olmuştur.

Holding olan lider sermayedarlar da net bir sonuca varılamamıştır ama bu durum holdinglerin karmaşık yapılarından yada diğer iştiraklerinin etkilerinden kaynaklanabilir. Lider sermayedarların diğer iştiraklerinin birçoğunda bir düşüş gözlenmesine rağmen ortalamada istatistiksel olarak anlamlı bir sonuç bulunamamıştır. Özetlemek gerekirse beklendiği üzere bu iş ilişkisine en yatkın lider sermayedar tipi olan bankalarda bu ilişkiye işaret eden sabit varlıklarda azalma söz konusu olmuştur. Bankaların bu tür bir iş ilişkisine yatkınlığı bankaların birçok şubelerinin var olması ve bu şubelerde işlemlerini yapmasından kaynaklanmaktadır. Şu da not edilmelidir ki böyle bir iş ilişkisi gözlenemese bile yasal olarak lider sermayedarlar için bu şekilde bir menfaat mevcut bulunmaktadır. Yatırımcılar da bu lider sermayedarları değerlerken ileride oluşabilecek bu tip bir iş ilişkisini değerlendirerek lider sermayedarların değerlemesini güncelleyebilirler.

Ampirik analizde en önemli konu GYO'nun kurulacağının ne zaman halka açık bilgi haline geldiğidir. Bu bilgi sızdığı anda vergi arbitrajının farkında olan yatırımcılar lider sermayedarların hisse senetlerini satın alırlar ve hisse fiyatının yukarı çıkmasına sebep olurlar. Eğer bu sızıntıların zamanlaması doğru ölçülemezse ampirik analizde GYO kurulmasına bağlı değer artışları gözden

kaçabilir. Bu amaçla üç potansiyel halka açık bilgi paylaşıma olabilecek durum üstünden tartışma yapmaktayım. İlk dikkate alınabilecek tarih GYO'nun lider sermayedar tarafından kurulduğu tarihtir. Ancak kuruluş tarihi GYO'nun halka açılma sürecini tamamladığını garanti etmez. Kuruluştan itibaren de Sermaye Piyasası Kurulu (SPK) tarafından öngörülen her hangi bir resmi süreç yoktur.

İkinci potansiyel tarih izahname onay tarihidir. Halka arz yapacak firmalar izahnemelerini hazırlayıp SPK'ya sunarlar. SPK süreci anlattığı şekilde bir ay içinde izahnameye onay verir. İzahname onay tarihi halka açık bilgi olarak yayınlanırken firmaların SPK'ya başvurularını bir ay öncesinde yaparlar. Piyasaya yakın yatırımcılar açısından izahname başvurusu halka açık olarak ortaya çıkan en net bilgidir. İzahname başvurusu yapan firmalar artık halka arz sürecini resmen başlatmış olurlar.

Üçüncü olarak GYO'nun halka arz tarihi halka açık bir bilgidir. Ancak halka arz zamanında halka arzın başarısı ve halka arzdan oluşan faktörler de lider sermayedarın hisse senedi fiyatını etkileyebilir. Daha öncesindeki izahname başvurusu da GYO'nun halka arz sürecine girdiğini açık hale getirmesinden dolayı beklediğim vergi arbitrajı etkisini zayıflatır. Bu sebeplerden ötürü yapılan vaka çalışmasının tarihi için uygun zaman izahname onay tarihidir. Lider sermayedarın hisse senedi fiyatındaki değişiklikleri takip ettiğim zaman dilimi de izahname tarihinden bir ay öncesinden başlar. Yani GYO'nun tahmini izahname başvurusunu yaptığı tarihtir.

GYO halka arzının lider sermayedarın hisse senedi değerine olan etkisini araştırmak üzere günlük getiri verisi kullanılarak finansal varlıkları fiyatlama modeli kullanılmıştır. Model izahname onay tarihinden 139 gün öncesinden bir gün öncesine kadarlık örneklem için hesaplanmaktadır. Tahmin edilen katsayılar kullanılarak birikmiş günlük sapan getiri hesaplanmaktadır. Birikmiş sapan getiri izahname onay tarihinin 20 iş günü öncesi ve bir gün sonrası için hergün hesaplanan sapan getirilerin toplamıdır. Her lider sermayedar ve iştirakleri için

hesaplanan birikmiş sapan getirilerin ortalamasının istatistiksel olarak anlamlılığı test edilmiştir. Piyasa endeksi olarak BIST 100 endeksi kullanılmıştır. Finansal varlıkları fiyatlama modeli hem basit regresyon hem de genellenmiş otoregresif koşullu değişen varyans modelleri (GARCH) kullanılarak hesaplanmıştır. İki durumda da benzer sonuçlar elde edilmiştir.

Bulunan sonuçlara göre örneklemimdeki bütün lider sermayedarların ve iştiraklerinin birikmiş sapan getiri ortalaması yüzde 5.16 olarak yüzde 10 seviyesinde istatistiksel olarak anlamlı bulunmuştur. Bu ortalama hisse senedi sahipleri için yüzde 5.73'e, ana firmalar için yüzde 5.85'e ve bankalar için yüzde 6.81'e yükselmiştir. Bu sonuçlar beklenildiği üzere lider sermayedarların özelikle de bankaların GYO kurulmasından değer artışı yaşadığına işaret etmektedir. İzahname tarihinden 3 ay sonrası süreçte birikmiş sapan getirilerinin ortalaması bankalar için yüzde 20'lere yükselerek o oranlarda durağanlaşmıştır. Bu değer artışlarının kalıcı olduğuna işaret etmektedir.

Pozitif birikmiş değer artışlarının GYO'ların kurulmasından mı yoksa her hangi bir iştirak firmanın kurulmasından mı ortaya çıktığını ayrıştırmak için örneklemimde bulunan lider sermayedarların başka tip iştirakleri halka arzını da incelemekteyim. Lider sermayedarlardan dört tanesinin 8 adet GYO olmayan iştirak halka arzı çıkarılmıştır. Analizler bu 8 halka arz için de tekrar edilmiştir. Lider sermayedarlar GYO olmayan 8 iştirak halka arzında ortalama yüzde eksi 10.71'lik bir birikmiş sapan getirisi hesaplanmıştır. Sonuç olarak lider sermayedarlar diğer tip iştirak halka arzlarında değer kaybetmiştir.

Bir lider sermayedarın GYO halka arzında elde ettiği birikmiş sapan getirisi ile diğer tip iştiraklerinden elde ettiği birikmiş sapan getirisi arasındaki farkta hesaplanmıştır. Bu sonuçlara göre ortalamada lider sermayedarlar GYO halka arzından yüzde 16.79'luk daha fazla birikmiş sapan getiri elde etmişlerdir. Bu ortalama yüzde birlik dilimde istatistiksel olarak anlamlıdır. Bu sonuçlara göre lider sermayedarlar yada ana firmalar GYO halka arzlarına özel olarak değer artışı

yaşamışlardır. Tam olarak ayrıştırılamasa da bu sonuçlar yüksek ihtimalle vergi arbitrajından ortaya çıkmaktadır. Bankalar için bulunan kuvvetli sonuçlar bu ihtimali kuvvetlendirmektedir.

Bu vergi arbitrajı çalışması Türk GYO sistemindeki tekil özelliklerin verdiği avantajla literatüre önemli bir katkı yapmaktadır. GYO literatüründe vergi muafiyeti olan bir ortamda zorunlu kar payı dağıtımının olmaması kar payı dağıtım zorunluluğu kuralının etkilerini inceleme fırsatı vermektedir ve bu çalışmada bu kuralın etkileri test edilmektedir. Sonuçlar göstermiştir ki bu kural sistemin daha sağlıklı işlemesi konusunda, bazı sermayedarlara vergi muafiyetinden doğacak özel ayrıcalıklar ortaya çıkarmasını önlenmesi açısından önemlidir. Bu kuralın yokluğu Türk GYO sisteminde lider sermayedarlara has menfaatler doğurmaktadır. Bu menfaatler diğer sermayedarlara zarar verme potansiyeli taşımaktadır.

Tezin ikinci ana kısmında GYO'ların yasal yapılarından dolayı önem kazanan kurumsal yönetim kalitesinin firma performansına etkileri incelenmiştir. ABD ve diğer ülkelerden farklılık gösteren Türk GYO sistemi kurumsal yönetim kalitesini daha da önemli hale getirmiştir. Yasal farklılıkların olması Türkiye GYO piyasası özelinde kurumsal yönetim etkilerinin araştırılmasını gerektirmektedir ve bu çalışma bu konuda ilk olma özelliği taşımaktadır. Bu tez uluslararası GYO'lar için etkileri bulunan kurumsal yönetim değişkenlerinin Türk GYO'ları için geçerliliğini test eder. Aynı zamanda bulunan potansiyel vergi arbitrajı lider sermayedarlara has menfaatler yaratabilmektedir. Bu durum kurumsal yönetim kalitesinin önemini bir kat arttırır.

Kurumsal yönetim değişkenleri olarak yönetim kurulu yapısı, kurumsal sahiplik ve lider sermayedar türü kullanılmıştır. Yönetim kurulu yapısı değişkenleri olarak yönetim kurulu üye sayısının logaritmasının ve bağımsız üye sayısının toplam yönetim kurulu üye sayısına oranının finansal performans üzerine etkileri incelenmiştir. Kurumsal sahiplik değişkenleri olarak lider sermayedarın sahiplik oranı ve onun karesi, lider sermayedar dışındaki kurumların sahiplik oranı

seçilmiştir. Lider sermayedar türü olarak da bankalar ve devlet destekli lider sermayedarlara bakılmıştır.

Finansal performans, işletme performansı ve hisse senedi performansı olarak iki ana temada incelenmiştir. İşletme performansı Tobin Q olarak ölçülmüştür. Regresyonlar havuzlaştırılmış en küçük kareler metodu kullanılarak hesaplanmıştır. Standart hatalar değişen varyans problemi ve otokorelasyon problemi düzeltilerek hesaplanmıştır. Ayrıca otoregresif rastgele etki modeli de alternatif olarak kullanılmıştır. Hisse senedi performansı için finansal varlıkları fiyatlandırma modeli kullanılarak sapan getiri ve piyasa betası 6 aylık olarak yinelemeli olarak hesaplanmıştır. Modeller standart ve ağırlaştırılmış en küçük kareler metotları kullanılarak iki şekilde hesaplanmıştır. Ağırlaştırma oranları için katsayıların finansal varlıkları fiyatlama modelinde hesaplanan standart hatalar kullanılmıştır.

Bulunan sonuçlara göre yönetim kurulu büyüklüğü arttıkça firma işletme performansı artmaktadır. Yönetim kurulu büyüklüğünde yüzde 10'luk bir artış Tobin Q'da 0.05 civarı bir artışa sebep olmaktadır. Bu sonuç GYO ve finans literatüründen farklılıklar göstermektedir (Feng, Ghosh ve Sirmans 2005; Yermack 1996). Bu sonuçlara benzer sonuçlar Avustralya firmaları için Kiel ve Nicholson (2003) tarafından bulunmuştur. Yazarların açıklamalarına göre yönetim kurulundaki artan üye sayısı denetleme gücünü arttırır. Bu açıklamalar Türk GYO'ları için de geçerlidir. Bağımsız üye oranın artması da firma performansını yukarı çekmektedir. Bağımsız üye sayısının yönetim kurulundaki toplam üye sayısına oranindaki yüzde 10'luk bir artış Tobin Q'da 0.21'lik bir artışi getirmektedir. Finans ve GYO literatürleri de benzer sonuçlar bulmaktadır (Ghosh ve Sirmans 2003; Daniel ve Naveen 2008). Bu değişkenler sapan getiri getirmemektedir. Bu şu anlama gelir: yatırımcılar yönetim kurulu değişkenlerini GYO'ları değerlerken hesaba katmaktadırlar.

Lider sermayedar sahipliği ve firma performansı arasında lineer olmayan ilişki bulunmuştur. Belirli bir eşiğin altında ilişki negatiftir. Lider sermayedarların

yüksek oranlarda sahiplikleri olması firma performansına zarar vermektedir. Bu sonuç vergi arbitrajı sonuçlarıyla da ilişkilendirilebilir. Belirli bir eşiğin üstünde (sonuçlara göre yüzde 50 sahiplik oranı) nu negatif etki pozitife dönmektedir. Lider sermayedar dışındaki kurumsal sahiplik istatistiksel olarak anlamlı bir şekilde firma işletme performansını arttırmaktadır. Lider sermayedar olmayan kurumsal sahiplikte yüzde 10'luk bir artış Tobin Q'yu 0.24 civarı arttırmaktadır. Bu sonuçlar ABD'deki GYO'lardan farklılıklar içermektedir. Ghosh ve Sirmans (2003) GYO'larla ilişkili kurumsal sermayedarların şirket performansını arttırdığını bulmuşlardır.

İki ülke GYO sistemleri üstüne bulunun bu iki farklı sonuç sahiplik yapıları arasındaki farklılıklarla açıklanabilir. ABD'de dağılmış bir sahiplik yapısı vardır. Artan kurumsal sermayedar sahipliği ve bu sermayedarların ilişkili olması azınlık sermayedarlarla menfaatleri eşleştirerek şirket değerini arttırmaktadır. Türkiye'de ise tam tersi olarak yoğunlaşmış bir sahiplik yapısı vardır. Bu da lider sermayedarlara has menfaatlerin şirket performansına zarar verdiği söylenebilir. Bunlara ek olarak, lider sermayedar olmayan kurumsal sahiplik hisse senedi performansını da arttırmaktadır. Lider sermayedar olmayan kurumsal yatırımcıların sahipliğindeki yüzde 10 artış hisse senedi alfasını yüzde 1.7 ile 2.4 arasında arttırmaktadır. Bu sonuç yatırımcıların bu tip kurumsal sahipliğin faydalarının farkında olmadıklarına işaret eder.

Lider sermayedar türlerinin etkilerini incelediğimizde banka ve devlet destekli lider sermayedarlı GYO'ların daha düşük performans gösterdiği bulunmuştur. Eğer lider sermayedar bir banka ise Tobin Q 0.52 kadar azalmaktadır. Eğer devlet destekli bir lider sermayedar varsa Tobin Q 0.29 düşmektedir. Bu sonuç vergi arbitrajı sonuçlarıyla tutarlıdır. Hisse senedi performansı incelendiğinde bu tip GYO'ların piyasa betaları daha düşüktür. Örneğin lider sermayedar devlet destekli bir kurum ise beta 0.18 ile 0.20 arası bir düşüş göstermektedir. Bu etki banka ve devlet destekli lider sermayedarların sağlam yapılarının sonucudur. Devlet destekli lider

sermayedarı olan GYO'ların hisse senedi alfası da istatistiksel olarak anlamlı bir şekilde yüzde 5.6 ile 9 arası daha düşüktür.

Genel olarak, yönetim kurulu daha geniş, daha fazla bağımsız üyeye sahip, lider sermayedar sahiplik oranı düşük ve lider sermayedar olmayan kurumsal sahiplik oranı yüksek GYO'lar daha iyi performans göstermektedir. Bu sonuçlardan yönetim kurulu büyüklüğü, lider sermayedar sahipliği etkileri diğer GYO sistemlerdeki etkilerden farklılık göstermektedir.

Bu sonuçlara dayanarak politika çıkarımları da yapılmıştır. Türkiye'deki GYO sistemi dünyadaki örneklerine göre ilk kurulan sitemlerden olmasına rağmen hemen hemen her yıl yasal değişikliklere maruz kalmıştır. Bu da sistemin yaklaşık 20 senelik sürede istenilen şekilde oturtulamadığına işaret etmektedir. Bu tez, sonuçlarıyla yasal olarak yapılabilecek politik çıkarımlar yapmaktadır. Tezin sonuçlarıyla politik çıkarımları ilişkilendirmeden önce önemli değişiklikler içeren 2004 ve 2013 GYO sistemine yapılan yasal düzenlemelerin etkileri ampirik olarak incelenmiştir.

2004 yılında yapılan temel değişikliklerden biri halka açık olarak ticareti yapılan hisse senetlerinin minimum oranı yüzde 49'dan yüzde 25'e indirilmiştir. Gayrimenkul varlıklarının toplam varlıklara oranı ise yüzde 75'den yüzde 50'ye çekilmiştir. Maksimum borçlanma oranları da daha yüksek seviyelere çekilmiştir. Bu yasal düzenlemeler gösteriyor ki GYO sistemi 2004 yılı yasal düzenlemeleriyle daha da esnekleştirilmiştir. Bu da Türk GYO sistemini global GYO sistemlerinden uzaklaştırmıştır. Bu esneklikler lider sermayedarın ve şirket yöneticilerinin de azınlık sermayedarlara zarar verebilecek kararlar almalarını kolaylaştırmıştır. Bu sebeple bu yasanın yürürlüğe girdiği tarihlerde piyasadaki yatırımcıların bu yasaya negatif reaksiyon göstereceği hipotez edilmiştir.

Bu hipotezi test etmek için finansal araçları fiyatlandırma modeli kullanılarak birikmiş sapan getiri her GYO için hesaplanmıştır. Birikmiş artan getiri yasanın

yürürlüğe giriş tarihinden bir gün önceki ve bir gün sonraki zaman aralığında hesaplanmıştır. Sonuçlar göstermektedir ki 12 GYO'nun birikmiş sapan getirisi eksi yüzde 4.28'dir. İstatistiksel olarak yüzde bir seviyesinde anlamlıdır. Hipotezim reddedilmemektedir.

Benzer bir şekilde 2013 yılında yapılan yasal düzenlemenin etkileri de incelenmiştir. En önemli değişiklik olarak lider sermayedar sahiplik zorunluluğu yasadan çıkarılmıştır. Bu tez lider sermayedarın GYO'lar üstüne negatif etkileri hakkında kanıtlar sunmaktadır. Ek olarak GYO'lara gayrimenkul sertifikaları gibi gayrimenkule dayalı finansal araçlar çıkarma olanağı da getirilmiştir. Bu şekilde GYO'ların sermayeye ulaşması kolaylık kazanabilir. Bu iki temel değişikliğin pozitif etkileri beklenmektedir. Hipotezime göre 2013 yasal değişikliği çıkarıldığı zaman diliminde GYO'ların birikmiş sapan getiri ortalamasının pozitif olması beklenmektedir.

Bulunan sonuçlara göre 23 GYO için ortalama sapan getiri pozitif olarak yüzde 4.63'dür. Bu sonuç yüzde birlik dilimde istatistiksel olarak anlamlıdır. 2013 yasası üstüne oluşturduğum hipotez reddedilmemektedir. Bu sonuçlarla ilgili dikkat edilmesi gereken husus bu ortalama etkilerin her bir yasal değişiklik için ayrıştırılamamasıdır. Yine de bu sonuçlar tezin önceki bölümlerindeki ampirik kanıtları ile tutarlıdır.

Bütün bu sonuçlar bir araya getirilerek politika çıkarımları yapılmıştır. Öncelikle lider sermayedar kuralıyla ortaya çıkan yoğunlaşmış sahiplik yapısı, zorunlu kar payı dağıtma kuralı olmadan verilen vergi muafiyeti bu tezde gösterilen ampirik sonuçlara sebep olmaktadır. Sonuçlara göre yüksek ihtimalle var olan vergi arbitrajını önlemek için belirli düzenlemeler yapılabilir. Öncelikle lider sermayedar ve GYO arasındaki mülk sahibi-kiracı ilişkisinden doğan iş ilişkisini kısıtlayıcı yada önleyici yasal düzenlemeler vergi arbitrajını ortadan kaldırabilir. ABD ve Güney Kore'deki zorunlu kar payı dağıtma kuralının bir benzeri de yürürlülüğe konabilir. Bu iki ülkede vergi muafiyeti dağıtılan kar payı üstünden verilmektedir.

Karın dağıtılmayan kısmı kurum vergisine tabidir. Bu şekilde lider sermayedarlar için ortaya çıkabilecek vergi arbitrajı ortadan kaldırılmıştır. Kar payı dağıtma zorunluluğunun getirilmesi yada ABD ve Güney Kore'deki sisteme benzer dağıtılmayan karlar için kurum vergisi konması vergi arbitrajı problemine çözümler getirir. İş ilişkilerini halka açık bir şekilde bildirme zorunluluğunun getirilmesi de yatırımcılar ve GYO sahipleri arasında bu konunun önemini ön plana çıkarır ve firmalar ve yatırımcılar bu konunun önemi hususunda bilinçlendirilebilinir.

Lider sermayedar kuralının kaldırılması vergi arbitrajı için güç sahibi lider sermayedarların etkinliğini azaltılabilir. Bu kural 2013 yasasına göre kaldırılsa da diğer ülkelerde olduğu gibi bir sahiplik oranında üst sınır olmaması kontrol sahibi sermayedar oluşmasına engel olmamaktadır. Bu bağlamda sermayedarlara sahiplik oranı üst sınırı getirilmesinin etkileri daha çok önem arz etmektedir. Lider sermayedar sahipliğinin şirket performansına negatif etkileri de bu tip bir üst sınır getirilmesine işaret etmektedir.

Yönetim kurulu yapısı hakkındaki sonuçlar da önemli politika çıkarımlarına işaret etmektedir. Şirket yönetim kurulu büyüklüğünü ve bağımsız üye sayısını arttırıcı yada teşvik edici yasal düzenlemeler bu tezin sonuçlarına GYO sistemine katkı sağlaması beklenmektedir. Yine lider sermayedar dışındaki kurumsal sahipliği arttırıcı yada bu tip yatırımları teşvik edici yasal düzenlemelerin olumlu etkileri beklenmektedir.

Bu tezin sonuçları Türk GYO'ları üstüne gelecekteki araştırmaları da teşvik etmektedir. Bu araştırmalar Türk GYO'ların her bir yatırımlarını göz önüne alarak ve inceleyerek ileri bir noktaya taşınabilir. Örneğin, bu tezde potansiyel olarak bahsedilen iş ilişkileri yatırımların detayına gidilerek ortaya çıkarılabilir. Bir lider sermayedarın kiracı, GYO'nun mülk sahibi olduğu durumlar belirlenebilir. Daha sonra da bu tip yatırımların GYO performansı, lider sermayedar değeri üstüne etkileri incelenebilir. Bu şekilde vergi arbitrajı üstüne bu tezde bulunan sonuçlar

daha da kuvvetli bir şekilde desteklenebilir. Spesifik olarak bu tip bir ticari işlemin yapıldığı dönemde lider sermayedarın piyasa değeri araştırılabilir.

Pilot olarak GYO'lara getirilen belirli oranda bağımsız üye zorunluluğu 2011 yılındaki yasal düzenlemeyle borsada işlem gören tüm firmalara uygulanmaya başlamıştır. Bu tezde bulunan bağımsız üye zorunluluğu etkileri, Borsa İstanbul'daki tüm firmalar için incelenebilir. Böyle bir çalışmanın etkileri yasal şokun etkileri ve yasal şokla gelen yönetim kurulu değişiklikleri kullanılarak içsellikten arındırılarak yapılabilir. Ayrıca bağımsız üyelerin bağımsızlığının sorgulanması da önem arz etmektedir. Yönetim kurullarındaki bağımsız üyelerin özgeçmişleri göz önüne alınarak iş ağları çıkarılıp efektif bağımsızlık değişkenleri çıkarılabilir. Bu şekilde oluşturulan değişkenin etkileri incelenebilir.

E. TEZ FOTOKOPİSİ İZİN FORMU

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