

OWNERSHIP CONCENTRATION EFFECT ON FIRM PERFORMANCE IN TURKEY*

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ABSTRACT

Effect of corporate ownership concentration on firm performance has been researched in various fields. We investigate the effect of family and foreign ownership on firm performance – both market and accounting- for companies listed on the Istanbul Stock Exchange-Turkey- from 2005 to 2009. We find a positive relationship between family and foreign ownership and market performance during the period. Our results also show that foreign ownership concentration loses its effect on market performance during 2008-2009 – a period marked by the economic crisis, which might be attributed to the global source of the crisis. Interestingly, effects of family and foreign ownership concentration on firm performance diminish, and even disappear, when performance is measured by using accounting data.

Keywords: Family ownership, foreign ownership, firm performance; ROA, Tobin's q,

JEL Classification: M10, M40

TÜRKİYE'DE ORTAKLIK YOĞUNLAŞMASININ ŞİRKET PERFORMANSINA ETKİSİ

ÖZ

Ortaklık yapısının şirket performansı üzerindeki etkisine ilişkin çeşitli alanlarda araştırmalar yapılmıştır. Bu araştırmada aile ve yabancı ortaklık paylarının şirket performansı üzerindeki etkileri, 2005-2009 yılları arasında İstanbul Menkul Kıymetler Borsasında işlem gören şirketler için incelenmiştir. Araştırma döneminde piyasa performansı ile aile ve yabancı ortaklık payı ara-

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sında pozitif ilişki saptanmıştır. Ayrıca sonuçlar, ekonomik kriz dönemi olan 2008-2009 yıllarında yabancı ortaklık yoğunlaşmasının piyasa performansı üzerindeki etkisinin azaldığını da göstermektedir ki bu da krizin küresel nitelikte olmasına bağlanabilir. Araştırmanın dikkate değer bir başka sonucu ise, aile ve yabancı ortaklık yoğunlaşması etkilerinin, performans muhasebe verileri kullanılarak ölçüldüğünde azalması ve hatta etkilerin ortadan kalkmasıdır.

Anahtar Kelimeler: Aile ortaklık yapısı, yabancı ortaklık, şirket performansı, varlık getirisi, Tobin's q.

JEL Sınıflandırması: M10, M40

1. INTRODUCTION

Ownership structure and concentration has attracted considerable attention since the seminal work of Berle and Means (1932), and it has been vastly investigated within the economics and business literature. The ownership concentration notion is used to define and describe, as well as to reflect and measure agency costs (Schleifer and Vishny 1997; Fama and Jensen 1983; Burkart and others 2003, among others); to determine the relation between managers and owners; to investigate the conflicts between and among the managers and major and minor shareholders (Denis and Denis 1994; Morck and others 1988; Schleifer and Vishny 1997; La Porta and others 1999; Andersen and Reeb 2003; Morck and Yeung 2003, among others); and to investigate the effect of ownership concentration on firm performance (Demsetz and Lehn 1985; Denis and Denis 1994; McConnell and Servaes 1990).

Prior research provides support for both positive and negative effects of ownership concentration, and thus there is no consensus on the effect yet. It is argued that ownership concentration is a response to weak protection of minority shareholders by the legal system. Code Law countries do not provide as much protection to minority shareholders as Common Law countries do (La Porta and others 1999; Shleifer and Vishny 1997, Grant and Kirshmaier 2004). Therefore, minority shareholders seek to protect their investments through large shareholders who can monitor managers' behavior (Shleifer and Vishny 1986; La Porta and others 1999; Franks and others 2009). However, even if ownership concentration leads to better monitoring of managerial behavior, it does not eliminate agency problems entirely. Majority shareholders may still extract firms' resources in order to increase their wealth at the expense of minority shareholders (Bennedsen and others 2010, p. 376; Surroca and Tribo 2008; Becht and others 2003; Bianco and Casavola 1999; Shleifer

and Vishny 1997 and 1986; Hausmann 1996, p. 59).

Similar to other Code Law countries such France, Spain and Italy, most companies in Turkey are family owned (Grant and Kirshmaier 2004; Gursoy 2004). Prior research indicates that most Turkish firms have a concentrated ownership structure with majority shareholders who belong to families (Ararat and Ugur 2003; Yurtoglu 2000 and 2003). Usually, the founding family member is both the chairman and the CEO, a case which is different than the developed country examples. Furthermore, a pyramidal ownership structure, in which one group or entrepreneur controls many firms, is also dominant in Turkish firms (Demirag and Serter 2003; Claessens and others 2000). Currently, there are about 95000¹ corporations in Turkey, of which approximately between 300 to 340 are publicly traded on the Istanbul Stock Exchange (ISE), though this number changes over time.

This present study extends prior findings and examines how concentrated ownership – family or foreign – affects the market and accounting performance of publicly traded companies in Turkey- for the period 2005 through 2009 within which considerable institutional developments (e.g. adoption of corporate governance disclosures and International Financial Reporting Standards-IFRS) took place. The study further examines the effect of ownership concentration during pre-crisis and crisis periods by dividing the analysis period into 2005-2007 and 2008-2009 sub-periods because of the economic crisis that started in 2008 and lasted in 2009. Firm performance is measured by Tobin's q to determine market performance whilst return on assets (ROA) measures the accounting performance.

In general we find that higher family and foreign ownership have a positive effect on market performance. Family ownership concentration especially increases market performance during the crisis, whereas foreign ownership effect dematerializes in the crisis period. Besides, family and foreign ownership concentration do not have any effect on accounting performance. The results show that ROA is associated positively with the size of the firm and negatively with the degree of leverage.

The remainder of this paper is organized as follows: Section 2 summarizes the literature review and Section 3 outlines the data and methodology. Section 4 provides the analyses and results and Section 5 concludes.

1 http://www.turkborsa.net/belgeler/raporlar/hb_18072011.pdf accessed on 19 July 2011.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Family Shareholder Concentration

Since the pivotal work of Jensen and Meckling (1976) on agency costs, conflicts between major and minor shareholders and professional managers in dispersed ownership have attracted considerable attention (Holderiness 2003). Conflicts that may arise from the relationships among management and various shareholder groups are resolved via institutional factors prevalent in the environment of the company. Such factors refer to laws and regulations, as well as other written or unwritten procedures and practices within each company's environment, which can be at a global, national or firm level (North 1990).

In the Anglo-Saxon model of corporate governance, which offers the strongest protection for minority shareholders, the founder hires professional managers to run the firm but then sells off the entire firm in the stock market if the benefits of keeping control in the firm are not large enough. In such a system, the agency problem is between minority shareholders and the manager. On the other hand, if the legal protection for minority shareholders is moderate, the founder still hires a professional manager, but the founder or his children keep their controlling shares to monitor the manager. In this case, conflicts can exist not only between the manager and majority shareholders, but also between the manager and minority shareholders and between majority and minority shareholders. In a system that offers the weakest protection for minority shareholders, there is no separation of management and ownership, and the founding family has controlling shares and runs the firm. The founding family may allow a professional manager to run the firm usually if she or he becomes a family member. The Turkish case is an excellent example of the weakest protection referred to above.

When institutional factors are strong, then minority owners are well protected, and family and minority owners benefit from the control the family has over the management, as the cost of monitoring is low – especially with a family member on the board (Burkart and others 2003). Burkart and others (2003) also argue that the separation of management and ownership leads to more efficient corporate governance. On the other hand, in a weak institutional environment, a majority owner – family or foreign – may have incentives to enjoy the benefits of expropriation and exploitation of control. According to the Principal-Principal (PP) model of corporate governance, which centers on conflicts between controlling and minority shareholders, concentrated ownership

and control is an indication of weak governance, lower firm valuations, lower levels of dividend payout and expropriation of minority shareholders (Young and others 2008). However, shared benefits of control can still exist in this environment; e.g., the majority exerts more pressure on managers to improve the performance of the firm and all shareholders benefit. In an unprotected and underdeveloped environment, small investors' interests may be in congruence with the major owner's (family or foreign) interests, who enjoys private benefits of control to increase the longevity and performance of a company (Castaneda 2006). Kuznetsov and others (2008) posit that in such an environment, accounting measures of performance rather than market measures of performance will be more important, due to possible weak and inefficient market conditions.

Studies that examine the relation between corporate ownership and firm performance report mixed results. According to Miller and Breton-Miller (2006), firm value declines after a certain ownership percentage because once a party or family obtains controlling shares it tends to abuse its power by expropriating resources at the expense of minority shareholders. However, Anderson and Reeb (2003) and Villalongo and Amit (2006) find that family firms perform better than non-family firms, and that in S&P 500 firms performance increases if family members serve as the CEO. Moreover, Andersen and Reeb (2003) indicate that minority shareholders are not adversely affected by family ownership. Furthermore, Lee (2006) argues that family firms are likely to grow faster and be more profitable when family members are involved in management. Using a sample of 2000 of the largest US firms, Anderson et al. (2009) conclude that founder or heir firms *perform better than non-family firms if the financial reporting environment is highly transparent and if minority shareholders have strong legal protection*. Otherwise, controlling shareholders use firms' resources for their private benefit and influence performance adversely.

On the other hand, many authors (Bebchuk and others 2000; Morck and others 2000; Morck and Yeung, 2003; Ali and others 2007, among others) provide evidence of severe agency problems in S&P 500 family firms that arise from relations between family members and other shareholders. In contrast to Anderson and Reeb (2003), Barth et al. (2005) report that family-owned firms are about 10% less productive than non-family-owned firms. They argue that the productivity gap can be explained by differences in management models. Furthermore, they provide evidence that *family-owned firms that are managed by a non-family member are equally productive as non-family-owned firms*. However,

family firms that are managed by a family member are significantly less productive than non-family firms.² Agency problems may be more prevalent in family-controlled firms, due to self-control issues and conflicts of interest within and among owners (Schulze and others 2001). In particular, family members who hold a controlling equity may expropriate firms' resources from minority shareholders (Chang 2003; La Porta and others 1999). According to Anderson and Reeb (2004), an agency problem of this kind can be resolved when family board representation is balanced by outside professional managers who mitigate conflicts of interest between family and minority shareholders.

In a comparative study, Bloom and Van Reenen (2007) find that US firms display better management practices in terms of higher productivity, higher profitability, better Tobin's q and sales growth than their European counterparts, where poor management practices are likely to be associated with family ownership. Studies in other developed countries also display mixed findings. Gedajlovic and Shapiro (2002) report a positive association between ownership concentration and financial performance in Japanese firms. Lehmann and Weigand (2000) examine the relation of ownership concentration and profitability for German corporations from 1991 to 1996 and report that ownership concentration has a significant negative impact on profitability as measured by the return on total assets. Górriz and Fumás (1996) study the relationship between ownership and performance among publicly held Spanish firms and find that there is no difference between family and non-family firms in terms of profitability, although they differ from each other in terms of productive efficiency. However, Miguel et al. (2004) document that ownership structure has a non-linear impact on a firm's value in Spanish public firms. They point out that a higher percentage of ownership concentration in Spanish firms (as compared to US and UK firms) would make it easier for controlling shareholders to expropriate profits. Sacristan-Navarro et al. (2011) report that it is not the family ownership but the family control that affects profitability in Spanish firms. Using a sample of 1672 non-financial firms from Western European countries, Maury (2006) finds that active family ownership, in which family members hold at least one of the top two officer positions, improves profitability. On the other hand, passive family ownership does not affect the profitability of family-controlled firms compared with non-family firms.

2 Even if the results obtained by Anderson and Reeb (2003) and Barth et al. (2005) contradict each other at first sight, Barth et al. argue that Anderson and Reeb's finding is related to percentage of ownership, and firm performance decreases when percentage of ownership increases.

Ownership studies in the emerging economies are similar to developed economy results. Lauterbach and Vaninsky (1999) examine the effect of ownership structure on firm performance in Israeli firms and reveal that firms with diffuse ownership and non-owner managers are more efficient in generating net income. However, in a study of 175 Greek firms listed on the Athens Stock Exchange, Kapopoulos and Lazaretou (2007) find that a more concentrated ownership structure is positively related to higher firm profitability and that management is better monitored and more disciplined. A more recent study by Kowalewski et al. (2010) examines the impact of family involvement in management and ownership on firm performance in Poland. Their results indicate that family ownership has a positive and significant influence on firm performance as measured by return on assets, return on equity and operating income. However, this positive effect disappears above a certain level of ownership, suggesting an inverted U-shaped relationship between family ownership and firm performance. Moreover, they provide evidence that firm performance is positively and significantly affected by family CEOs. Martinez et al. (2007) provide evidence that public family firms perform better than public non-family firms in Chile.

2.2. Foreign Shareholder Concentration

For emerging economies, foreign direct investment, i.e., foreign ownership is another feature of corporate ownership structure. Studies that investigate the effect of foreign ownership on firm performance find that foreign ownership has a favorable effect on performance, contrary to the results of family ownership studies. Douma et al. (2006) adopt a multi-theoretic perspective in explaining firm performance in emerging markets by integrating agency-, institutional- and resource-based theories. They propose that if the shareholders are outsiders, concentrated, foreign and have strategic resources, then firm performance will be enhanced. In emerging economies, then, foreign direct investments are expected to bring additional financial support, technology, know-how and best management practices. Their study confirms their expectations and reveals that Indian public firms that have foreign shareholders with strategic interests perform better, as measured by ROA and Tobin's q. Huang and Shiu (2009) report a positive impact of foreign ownership on firm performance by using accounting and market performance measures in Taiwan. Likewise, Bjuggren et al. (2007) find that foreign ownership has a positive impact on performance, as measured by marginal q in Swedish firms. Similarly, Sueyoshi and others (2010), provide that foreign shareholding increases firm operating efficiency, however, there is a non-linear relationship between foreign shareholding percen-

tage and operating efficiency and the efficiency declines after a certain threshold of foreign ownership.

The Turkish business environment is characterized by concentrated ownership, generally in the form of family-owned business groups (Gursoy 2004; Ararat and Uğur 2003). Families own the majority shares of a holding company, which in turn owns the shares of other companies, giving rise to a pyramidal ownership structure (Gursoy 2004; Gursoy and Aydogan 2003 and Yurtoğlu 2000). As of the end of 2010, around 49% of the publicly traded companies on the ISE have family ownership. Family owners had more than 50% of the controlling shares in 40% of these companies.³ In addition to family-owned firms, foreign direct investments in the form of concentrated foreign owners are also present in Turkey. As of the end of 2010, about 22% of publicly traded firms on the ISE had foreign direct investments, with an average foreign shareholding of 47.8%.

Several studies investigate the effect of family and foreign ownership on Turkish firm performance. According to Yurtoglu (2000), concentrated ownership characterized by family shareholdings has a negative impact on firm performance, as assessed by ROA, ratio of market to book value and dividend payout ratios. On the other hand, Gursoy and Aydogan (2003) report that, although not statistically significant, family ownership has a positive effect on accounting performance but a significant and negative effect on market performance. Gursoy and Aydogan (2003) also investigate the impact of foreign ownership on firm performance and find that although foreign ownership positively affects accounting and market performance, the results are not statistically significant.

2.3. Hypotheses Development

The above discussions demonstrate that there is no consensus among previous research regarding the effect of family ownership concentration on different company performance attributes for either the developed or emerging economies. Although family control reduces agency problems between owners and managers, it may lead to conflicts between minority shareholders and family members in countries with low legal protection. However, the findings of studies on foreign ownership in emerging markets demonstrate to some extent that foreign investment has positive effects on market performance and operating performance, as measured by Tobin's q and ROA, respectively (Weinand others 2005).

3 Calculated based on data obtained from www.imkb.org.tr and www.kap.gov.tr

Hence, our main hypotheses, in alternative form, follow:

H₁A: There is a close association between ownership concentration in the form of family and foreign ownership and market firm performance, though its sign may be positive or negative.

H₂A: There is a close association between ownership concentration in the form of family and foreign ownership and accounting firm performance, though its sign may be positive or negative.

3. DATA AND METHODOLOGY

3.1. Sample

Our data consist of companies quoted on the ISE and included in the ISE Composite Index, which covers all quoted companies except for investment funds and insurance companies, for the years 2005 through 2009. We chose to start at 2005, since all publicly traded companies started to use the same set of accounting standards, namely IFRS, in that year. The ISE is the only stock exchange in Turkey; it started its operations in 1986 and has been growing since, despite several national and global economic crises. There were 315 companies listed on the exchange in 2009, with a total market capitalization of 226 billion US dollars. The number of companies included in the sample began at 211 in 2005 and increased to 224 by 2009, due to the initial public offerings that occurred during the period. The final number of firm-year observations totals 1094.

3.2. Econometric Model

The objective of the study is to investigate whether family and foreign ownership concentration affects firm performance; we use the following model to test the relation between ownership structure and firm performance:

$$\begin{aligned} \text{Firm Performance}_{i,t} = & \\ & b_0 + b_1(\text{ownership percentage}_{i,t}) + b_2(\text{board membership proportion}_{i,t}) \\ & + b_3(\text{family chair of the board}_{i,t}) + b_4(\text{CEO board}_{i,t}) + b_5(\text{size}_{i,t}) + b_6 \\ & (\text{leverage}_{i,t}) + b_7(\text{age}_{i,t}) + \varepsilon_{i,t} \end{aligned}$$

where

*Firm performance*_{*i,t*} = ROA and Ln of Tobin's q of firm *i* at time *t*,

*Ownership Percentage*_{*i,t*} = Direct and indirect family shareholding percentage or foreign shareholding percentage of firm *i* at time *t*,

*Board Membership Proportion*_{*i,t*} = Proportion of the number of board members who belong to the family or foreign shareholder to the total number of board members

*Family chair of the board*_{*i,t*} = Dummy variable, 1 if the chair of the board is a family member, 0 if not

*CEOboard*_{*i,t*} = Dummy variable, 1 if the CEO is a board member, 0 if not

*Size*_{*i,t*} = Natural logarithm of total assets of firm *i* at time *t*,

*Leverage*_{*i,t*} = Ratio of total liabilities to total assets of firm *i* at time *t*,

*Age*_{*t*} = Natural logarithm of number of years of firm *i* at time *t*,
since establishment

All accounting data were hand collected from published financial statements and market data were collected from the ISE web site.

3.3. Performance Measures

We assess firm performance by using market and accounting data. We estimate Tobin's *q* as an indicator of market performance, which we calculate by dividing the market value of the firm by the book value of its total assets.⁴ We employ ROA as the accounting measure of performance and calculate it by dividing the net income of the period by the total book value of the firm's assets.

3.4. Family and Foreign Ownership

The family and foreign ownership percentages were hand collected from the ISE Yearbook of Companies (available on the ISE website) for 2005 through 2008 and the platform of company information⁵ for 2009 and 2010. Ownership percentages were determined by calculating the direct family and foreign shares within the outstanding capital. To determine the amount of family ownership in a company, we made sure to include the shares of all family members for each year. When we were not sure of family memberships, we consulted newspapers, commercial gazettes and the internet until all authors agreed on the identification of all family member owners.

3.5. Control Variables

There are three corporate governance measures used as control

4 Tobin's *q* was not normally distributed; we transformed it by taking the natural logarithm.

5 www.ise.org; www.kap.gov.tr.

variables. Board membership proportion represents the proportion of the number of board members who belong to the family or the foreign group, to the total number of board members and measures the additional control brought by the concentration of board membership to the shareholding percentage. The lower proportion is an indication of higher presence of independent directors who are expected to protect the minority rights and prevent expropriation of minority rights by the controlling shareholder group (Andersen and Reeb, 2004). Second variable- “family chair of the board” is a dummy variable. If the chair of the board belongs to the controlling family, it takes 1, if not the value of the variable is 0. Similar to the effect of board membership proportion, the presence of a family member as the chair of the board adds a further control of the family over the firm. Third variable- “CEOboard” is also a dummy variable. It takes 1 if the CEO serves on the board of directors, and 0 if not. All corporate governance variables were hand collected from the ISE Yearbook of Companies (available on the ISE website) for 2005 through 2008 and the platform of company information⁶ for 2009 and 2010.

Prior research demonstrates that firm size and leverage are important factors that affect firm performance (Lins 2003; Andersen and Reeb 2003; Douma and others 2006; Villalonga and Amit 2006, among others), hence, were included as control variables in the model. Both total assets and total revenues are used as firm size measures in the literature. We use total assets as the size measure. Leverage is equal to the total liabilities divided by the total assets. Age also is expected to affect firm performance: older firms might enjoy the benefits of experience; however, they might also be less flexible in terms of adaptation to new conditions (Douma and others 2006).

4. ANALYSIS AND RESULTS

Table 1 presents the descriptive statistics of the variables used in the analyses. The most striking figure is Assets, which ranges from 6 million to 116.3 billion TL, and hence has a very high standard deviation, skewed positively and highly leptokurtic. Hence, we used a logarithmic transformation to normalize the data for this variable. For the same reason, we transformed Tobin’s q and firm age as well. Distributions of other variables were appropriate to use in a regression model.

6 www.ise.org; www.kap.gov.tr.

Table 1. Summary Statistics

	Standard				
	Mean	Median	Deviation	Min	Max
Tobin's Q	0.82	0.60	0.96	0.03	12.51
ROA	0.04	0.03	0.12	(0.85)	1.50
Family Ownership	39.70	43.70	29.40	-	100.00
Family Board Membership %	25.54	18.18	27.77	-	100.00
Foreign Ownership	13.88	-	26.99	-	99.84
Foreign Board Membership %	13.92	-	25.62	-	100.00
Revenues (million TL)	1,332	206	4,100	-	55,631
Assets (million TL)	3,469	268	12,774	6	116,334
Leverage	0.49	0.47	0.26	0.00	2.00
Age	34.14	35.00	15.26	1.00	85.00

Tobin's q: Market value of the firm divided by the book value of total assets; ROA: Net income of the period divided by the book value of total assets; Family Ownership: Direct and indirect family shareholding percentage; Family Board Membership %: Proportion of the number of board members who belongs to the family to the total number of board members; Foreign Ownership: Direct and indirect foreign shareholding percentage; Foreign Board Membership %: Proportion of the number of board members who belongs to the foreign shareholder to the total number of board members; Assets: Total assets; Revenues: Total operating revenues; Leverage: Ratio of total liabilities to total assets; Age: Number of years of firm since establishment.

The data reflect the available information for all the companies traded on the ISE from 2005 through 2009, except investment funds and insurance companies. Some observations are dropped because of missing financial statements and/or market capitalization information; the resulting observations total 1087 for Tobin's q and 1088 observations for ROA.

Before performing regression analysis, we investigate the association among the variables. As can be followed from Table 2, the accounting and marketing performance measures don't have significant correlation with shareholding percentages except for the foreign ownership which has a positive correlation with Tobin's q.

Table 2. Correlation Matrix for the period 2005-2009

	Tobin's Q	ROA	Family Ownership %	Foreign Ownership %	Family Board %	Foreign Board %	Age
Tobin's Q	1	.355**	-0,013	.117**	0,04	.126**	-.070*
ROA		1	-0,008	0,042	-.068*	0,024	0,044
Family Ownership %			1	-.369**	.536**	-.309**	-.052
Foreign Ownership %				1	-.257**	.831**	.171**
Family Board %					1	-.274**	-.100**
Foreign Board %						1	.177**
Age							1
Leverage							
Total Assets							

Tobin's q: Ln of market value divided by the book value of total assets; ROA: Net income of the period divided by the book value of total assets; Family Ownership %: direct and indirect family shareholding percentage; Foreign Ownership %: direct and indirect foreign shareholding percentage; Family Board %: Proportion of the number of board members who belongs to the family to the total number of board members; Foreign Board %: Proportion of the number of board members who belongs to the foreign shareholder to the total number of board members; Age: Ln of number of years of firm since establishment; Leverage: Ratio of total liabilities to total assets; Size: Ln of total assets.**: Correlation is significant at the 0.01 level (two-tailed)

The relation between performance and size differs according to ROA and Tobin's q; size is positively correlated with ROA but negatively correlated with Tobin's q. Leverage is negatively correlated with ROA and Tobin's q, implying that highly leveraged companies have lower performance measurements. While there is a negative correlation between family ownership and total assets, there is a positive correlation between size and foreign ownership. This finding may suggest that, as in prior literature, foreign investors in Turkey choose firms with growth opportunities, while family owners choose less risky options.

Results of prior literature on the relation between family ownership and firm performance are mixed. Our next analysis employs regression models to determine the significance of the associations we observe in our initial analysis. Table3 presents the results of the panel data regression, cross section fixed effects full model, where all independent and control variables are included. Columns 1-3and columns 4-6 of the table present the results where Tobin's q and ROA are the dependent variables, respectively. In addition to performing regression for all firm year observations, the analysis period is further divided into 2005-2007 and 2008-2009 sub-periods. The reason for such division of periods was the economic crisis that started in 2008 and lasted in 2009 as also

evidenced by the annual GDP changes of 0.66% and -4.69% for 2008 and 2009, respectively. We also performed Hausman test to control for potential endogeneity between firm performance and ownership percentages, and the results do not reveal endogeneity issues.

According to the results of the full model, both family and foreign ownership concentration affect the market performance of the firm positively ($p < 0.01$). Furthermore, the proportion of family members serving on the board also increases the firm market performance ($p < 0.01$) as indicated in prior literature (Maury, 2006 and Kowalowski, 2010). On the other hand, the proportion of foreign board members does not have a significant effect. The presence of CEO on the board also positively affects the performance (< 0.05), but if the chairman of the board is a family member, performance is adversely affected ($p < 0.01$). In terms of firm specific control variables, the degree of leverage and the size of the firm negatively affect market performance ($p < 0.01$) while the age of the firm has no significant effect.

Regression results obtained for the accounting performance measure –ROA- are quite different than the market performance results. Accounting performance is affected only by the size and degree of leverage ($p < 0.01$), in which the size has positive and leverage has negative effect. Ownership concentration and corporate governance variables don't have significant effects on the firm's accounting performance.

Next we analyze firm performance in the sub-periods. According to the regression results presented in Table 3 column (2), same effects in the full period are observed in the pre-crisis period with the exception of family chair of the board losing its significance.

In the crisis period the results, as presented in Table 3 column (3), are different from the full period, in the sense that foreign ownership concentration doesn't have any significant effect on market performance although the family ownership concentration continues its positive effect ($p < 0.05$). Similar results are obtained for the effects of control variables for the crisis period.

Pre-crisis and crisis period results for the accounting performance are presented in Table 3 columns (5) and (6). We observe similar results with the full period as well, except for the positive effect of family ownership percentage during the crisis period ($p < 0.05$).

Table 3. Full Model Regression Results

	(1)			(2)			(3)			(4)			(5)			(6)		
	Tobin's q									ROA								
	Period			Period			Period			Period			Period			Period		
	All Years	Pre-Crisis	Crisis	All Years	Pre-Crisis	Crisis	All Years	Pre-Crisis	Crisis	All Years	Pre-Crisis	Crisis	All Years	Pre-Crisis	Crisis	All Years	Pre-Crisis	Crisis
Constant	11,04 (10.67 ***)	11,71 (8.88 ***)	13,76 (2.70 ***)	-0,58 (-2.25 **)	-0,67 (-1.97 **)	-3,00 (-3.86 ***)												
CEOboard	0,11 (2.53 **)	0,10 (1.94 ***)	0,08 (0.69)	-0,01 (-0.66)	-0,01 (-0.45)	0,00 (0.11)												
Family %	0,01 (4.45 ***)	0,01 (3.47 ***)	0,01 (2.26 **)	0,00 (0.80)	0,00 (2.17 **)	0,00 (-0.22)												
Family Board Membership %	0,28 (2.07 **)	0,42 (1.95 **)	0,77 (2.98 ***)	-0,01 (-0.40)	0,05 (0.63)	-0,05 (-0.83)												
Family Chair of the Board	-0,21 (-2.65 ***)	-0,01 (-0.15)	-0,41 (-1.84*)	0,01 (0.38)	-0,03 (-0.94)	0,05 (0.99)												
Foreign %	0,01 (3.43 ***)	0,01 (3.35 ***)	0,00 (-0.37)	0,00 (0.01)	0,00 (1.37)	0,00 (0.94)												
Foreign Board Membership %	0,21 (-0.15)	0,29 (1.27)	-0,22 (-0.66)	0,01 (0.33)	0,02 (0.29)	-0,05 (-0.64)												
Leverage	-0,51 (-4.60 ***)	-0,51 (-3.83 ***)	-0,96 (-2.79 ***)	-0,23 (-8.21 ***)	-0,15 (-3.39 ***)	-0,55 (-7.62 ***)												
Age	-0,20 (-1.05)	0,03 (0.16)	-0,55 (-0.49)	0,00 (0.09)	0,00 (-0.01)	0,06 (0.35)												
Size	-0,56 (-12.84 ***)	-0,64 (-11.63 ***)	-0,63 (-3.68 ***)	0,04 (3.25 ***)	0,04 (2.07 **)	0,15 (4.23 ***)												
Adjusted R2	0,85	0,88	0,87	0,51	0,50	0,55												
Cross sections included	224,00	220,00	224,00	224,00	220,00	224,00												

a. *, ** and *** denote significance at 10%, 5% and 1%, respectively

b. t values are presented in parenthesis

In order to separately investigate the effects of family and foreign ownership concentration, we also performed regression analyses by including only family or foreign ownership variables as independent variables along with the control variables.

Table 4. Reduced Model Regression Results- Family Ownership Concentration

	Tobin's q			ROA		
	Period			Period		
	All Years	Pre-Crisis	Crisis	All Years	Pre-Crisis	Crisis
Constant	11.192 (10.70***)	11.554 (8.57***)	13.765 (2.71***)	-0.582 (-2.26**)	-0.724 (-2.15**)	-2.982 (-3.85***)
CEOboard	0.110 (2.42**)	0.100 (1.84*)	0.086 (0.78)	-0.008 (-0.69)	-0.009 (-0.49)	0.003 (0.13)
Family %	0.003 (2.20**)	0.000 (0.15)	0.011 (2.33**)	0.000 (0.82)	0.001 (1.30)	-0.001 (-0.49)
Family Board Membership %	0.363 (2.75***)	0.318 (1.46)	0.725 (2.95***)	-0.010 (-0.32)	0.032 (0.45)	-0.059 (-1.10)
Family Chair of the Board	-0.259 (-3.27***)	-0.039 (-0.39)	-0.431 (-1.98**)	0.007 (0.35)	-0.033 (-1.02)	-0.045 (0.96)
Leverage	-0.519 (-4.64***)	-0.572 (-4.24***)	-0.955 (-2.82***)	-0.228 (-8.23***)	-0.161 (-3.63***)	-0.539 (-7.54***)
Age	-0.257 (-1.34)	-0.018 (-0.07)	-0.527 (-0.47)	0.004 (0.08)	0.000 (-0.00)	0.069 (0.44)
Size	-0.547 (-12.34***)	-0.597 (-10.71***)	-0.642 (-3.75***)	0.036 (3.29***)	0.043 (2.49**)	0.153 (4.19***)
Adjusted R2	0.846	0.870	0.870	0.506	0.501	0.554
Cross sections included	224	220	224	224	220	224

Tobin's q: Ln of market value divided by the book value of total assets; ROA: Net income of the period divided by the book value of total assets; CEO board: Dummy variable, 1 if the CEO is a board member, 0 if not; Family %: direct and indirect family shareholding percentage; Family Board Membership %: Proportion of the number of board members who belongs to the family to the total number of board members; Family chair of the board: Dummy variable, 1 if the chair of the board is a family member, 0 if not; Leverage: Ratio of total liabilities to total assets; Age: Ln of number of years of firm since establishment; Size: Ln of total assets.

- a. *, ** and *** denote significance at 10%, 5% and 1%, respectively
- b. t values are presented in parenthesis

The results of family ownership percentage are presented in Table 4. Although the results are similar to those obtained for the full model for the whole research period, they differ for the pre-crisis period, where the family ownership percentage and proportion of family members on the board have no effect on the market performance of the company. The results obtained for crisis period on the other hand show that the family ownership concentration and the presence of family members on the board affect the market performance positively ($p < 0.05$ and $p < 0.01$, respectively) but *family chair of the board* has significant negative effect ($p < 0.05$). It seems that market values the family presence when there is an adverse economic environment.

The results of the reduced model ROA for family ownership are

not different from the results of the full model. ROA is affected significantly only by the size and degree of leverage of the firm ($p < 0.01$).

Foreign ownership analyses for the reduced findings are presented in Table 5. In contrast with the full model, the results show that foreign-ownership percentage and proportion of foreign board members don't have any significant effect on the market performance of the company during the pre-crisis, crisis or the whole research period.

Table 5. Reduced Model Regression Results- Foreign Ownership Concentration

	(1)			(2)			(3)			(4)			(5)			(6)		
	Tobin's q									ROA								
	All Years			Pre-Crisis			Crisis			All Years			Pre-Crisis			Crisis		
Constant	11,303	11,811	14,055	-0,574	-0,627	-3,065	(10.83***)	(8.82***)	(2.71***)	(-2.23**)	(-1.86*)	(-3.978***)						
CEOboard	0,100	0,103	0,028	-0,008	-0,008	0,000	(2.18**)	(1.91*)	(0.25)	(-0.71)	(-0.45)	(0.27)						
Foreign %	0,002	0,003	-0,006	0,000	0,000	0,001	(1.58)	(1.28)	(-0.96)	(-0.47)	(0.13)	(1.07)						
Foreign Board Membership %	0,239	0,216	0,119	0,008	0,011	-0,045	(1.64)	(0.96)	(0.40)	(0.23)	(0.15)	(-0.74)						
Leverage	-0,507	-0,572	-0,966	-0,228	-0,161	-0,552	(-4.53***)	(-4.27***)	(-2.76***)	(-8.26***)	(-3.63***)	(-7.69***)						
Age	-0,222	-0,005	-0,517	0,003	-0,011	0,072	(-1.15)	(-0.02)	(-0.45)	(0.070)	(-0.16)	(0.46)						
Size	-0,558	-0,612	-0,635	0,036	0,041	0,156	(-12.56***)	(-11.01***)	(-3.61***)	(3.33***)	(2.34**)	(4.28***)						
Adjusted R2	0,845	0,872	0,863	0,507	0,500	0,556												
Cross sections included	224	220	224	224	220	224												

Tobin's q: Ln of market value divided by the book value of total assets; ROA: Net income of the period divided by the book value of total assets; CEO board: Dummy variable, 1 if the CEO is a board member, 0 if not; Family %: direct and indirect family shareholding percentage; Family Board Membership %: Proportion of the number of board members who belongs to the family to the total number of board members; Family chair of the board: Dummy variable, 1 if the chair of the board is a family member, 0 if not; Foreign %: direct and indirect foreign shareholding percentage; Foreign Board Membership %: Proportion of the number of board members who belongs to the foreign shareholder to the total number of board members; Leverage: Ratio of total liabilities to total assets; Age: Ln of number of years of firm since establishment; Size: Ln of total assets.

- *, ** and *** denote significance at 10%, 5% and 1%, respectively
- t values are presented in parenthesis

5. CONCLUSION AND DISCUSSION

The results of prior literature on the effects of ownership concentration on firm performance are mixed. In this study, we explore the effects of ownership concentration for Turkish listed companies from two different perspectives: family and foreign ownership. Furthermore, firm performance is assessed by using both market and accounting performance.

The results suggest that, ROA as the measure of accounting performance is not affected by either family or foreign ownership concentration, and corporate governance control variables. Shareholding structure of the firm in the form of family or foreign concentration is perceived positively in the market but such presence does not add to accounting performance significantly. The results further imply that the strategic benefits that are expected to be brought by foreign shareholders are only marginal in terms of conveying higher returns on asset investments. Size of the firm positively and significantly affects ROA, whereas degree of leverage has a significantly negative effect. Our finding regarding the accounting performance in most instances deviates from prior results where for example Kapopoulos and Lazaretou (2007) and Kowalewski et al. (2010) posit that ownership concentration leads to higher profitability and return on assets.

Tobin's q as a measure of performance on the other hand is found to be affected by the family ownership concentration. The results of our analysis posit that family ownership percentage together with the proportion of family members on the board significantly increases the market performance especially during the crisis period. This suggests that the market perceives the presence of family control as a protection against adverse market conditions. Furthermore, as suggested by Harvey (1999), family businesses may outperform non-family businesses due to the long-term interest on investment decisions of family members as opposed to professional managers. Castaneda's (2006) argument relating the environment and small investors' interests conjectures that the latter's interest may be in congruence with the major owner's interests who enjoys private benefits of control to increase the longevity and performance of a company. Interestingly, the chairman of the board belonging to the controlling family has a negative relation with Tobin's q which contradicts with the findings of Andersen and Reeb (2003). According to previous literature, family ownership concentration is expected to enhance firm performance only when there is strong institutional environment and minority shareholder protection (Burkart and

others2003). Thus, the results of this study provide a different angle on the effect of family control on firm performance in a so-called weak institutional environment by showing that in times of adverse market conditions, close monitoring by the owners enhances the value of the firm. However, it should also be noted that considerable institutional developments are in place, such as the adoption of corporate governance principles and IFRS, which might have increased investor trust in the family companies during the study period. Having the CEO on the board has significant positive effect on market performance before, but not during the crisis. We may tie this finding to the increased effect of family ownership on Tobin's q as indicated by its increased coefficient. One possible explanation is that market does not want a "one man show" during a crisis period, but values team decision as shown by diminishing effect of CEO and family chairman during the crisis period in the study.

Although, foreign ownership has a significant positive association with Tobin's q in the full model for the whole research period and the pre-crisis period, the significant relation diminishes in the reduced model and during the crisis period. Comparing the effect of family and foreign ownership on market performance before and during crisis, one salient difference is the loss of the effect of foreign owners on the market performance. The results also differ from the findings of earlier studies on the effect of foreign ownership on performance in which foreign ownership is found to improve performance. One plausible reason could be the global nature of the crisis and the expectation in the market regarding the behavior of foreign investors, i.e., the possibility that they may pull their investment from Turkey.

The results of this study can be expanded in the future by extending the research period to include post-crisis information and examine the effects of family and foreign ownership on both market and accounting performance after the crisis. Furthermore, a future study that compares other emerging markets using the same methodology will enhance our understanding of the effects of ownership concentration on firm performance in such markets as well.

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