

## How Does Ownership Concentration Affect Firms' Performance in Developed Economies?

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### Abstract

This paper analyzes the relationship between ownership concentration and firm performance in the context of different scales (large, medium, and small-cap) measured by market capitalization in 16 developed economies across the globe. Using a dataset comprising 12,751 annual observations of 850 publicly traded developed market companies from 2004 to 2018, the study uses a two-stage GMM estimation in the panel data set to mitigate first-order autocorrelation, heteroscedasticity, and endogeneity bias. The findings suggest that concentrated ownership enhances firm monitoring, mitigates agency conflicts, and boosts profitability. However, the results show that the role of concentrated ownership is more relevant to the profitability of large and medium-cap firms in developed economies than that of small-cap firms, which have no relationship between ownership concentration and firms' performance. Due to the heterogeneous impact of concentrated ownership on the profitability of large, medium, and small companies, the results have practical implications for affected stakeholders to formulate appropriate strategies for positive outcomes. Furthermore, the analysis emphasizes the necessity of considering different market capitalization categories when evaluating this relationship, elucidating distinct characteristics and strategic priorities among large, medium, and small-cap firms. These insights emphasize the importance of corporate governance and financial management strategies for improving firm performance in developed economies, while also pointing to the persistent effect of past performance on current financial outcomes.

**Keywords:** Ownership concentration, Firms' performance, Corporate Governance, Developed economies

### Introduction

The influence of the dictating shareholder on the resources of minority public owners by optimizing utility internal controls is an externality. We plan to maximize the utility of control block holders to exploit organizational capital in both monetary and non-monetary ways to support themselves. Monetary advantages can involve behavior that raises the share price and thereby favor small investors as well. Yet they may also involve non-artificial transactions at artificial transfer rates between regulated transactions. Self-sale firms through inter-corporate grants or purchases of shares. Non-specific advantages may include policies to employ businesses that oppress minorities which influence shareholders do not like (Shleifer & Vishny, 1986).

Berle and Means (1932) identified the "separation of ownership and control" as a core corporate governance concern. The fact that diffuse ownership is recognized in financial, law, accounting, and economy was shocking. Gedajlovic and Shapiro (1998) tested the ownership

concentration in five countries like UK, the USA, Canada, Germany, and France. The primary aim of this analysis is to decide whether the connection between concentrated ownership and performance varies from country to country in directions that are linked to regional gaps in financial regulation. However, the most important differences in the operation of the corporate governance structure are not from national policy inequalities and the element of corporate control and ownership. In Canada, Germany, and France the concentrated ownership and the extent of inter-corporate shares make controlling shareholders more difficult.

On the other hand, La Porta et al. (1999) attempted to examine 27 rich economies concerning their corporate ownership. Pertinently, the study aims at the ownership arrangements of the twenty biggest listed companies in each of the 27 (normally the world's wealthiest) nations, but also of certain smaller companies so that we can keep the scale steady throughout nations. Since a firm's market share is a necessary statistic for markups in a broad class of models, rising market concentration is frequently linked to rising market (Amiti et al., 2019; Mrázová & Neary, 2017) While well-designed ownership structure can enhance company performance by reducing agency conflicts, it may also lead to increased agency costs, thereby diminishing firm value (Balsmeier & Czarnitzki, 2017).

However, existing literature primarily focuses on the relationship between ownership concentration and a firm's performance in specific geographic locations in the world e.g. (Alomran, 2024; Amiti & Heise, 2024; Balsmeier & Czarnitzki, 2017; Iwasaki & Mizobata, 2020; Jain & Kalyani, 2023; Jiang et al., 2009; Maniruzzaman et al., 2024; Nashier & Gupta, 2023) leaving a gap in understanding how concentrated ownership impacts firms of varying market capitalizations (large, medium, and small-cap) in leading developed economies of the world. This market capitalization-based firm segmentation is essential to understanding the differences in approaches and motivations amongst owners at various stages. Offering fresh and comprehensive insights, this study explores the relationship between ownership concentration and company performance across developed nations. This study contributes to the literature in the following way Firstly, it examines the influence of ownership concentration on the performance of listed firms within developed economies. Second, it evaluates the relationship for the whole sample of firms by dividing the data by market capitalization in each nation into groups of large, medium, and small-cap companies.

The study highlights the significance of customized financial management strategies and corporate governance frameworks for firms operating in developed markets. Overall, the study contributes significantly to the understanding of ownership structure dynamics and informs both academic discourse and practical decision-making in corporate governance. The remainder part of this study is as follows: the second section depicts the literature review and hypotheses development. The third section presents the research design, data, and sample sources, construction of variables, and econometric model. The fourth section describes the empirical results. The fifth section concludes and gives implications and future direction of the study.

### Literature review

Shareholders with a large number of shares have been increasingly scrutinized by managers to ensure that they use their ownership rights to work in the best interests of the investors.

Managers are observed by institutional investors more than individual members of the board of directors, as they don't have any investment in the firm (Shleifer & Vishny, 1986). Researchers like (Katragadda & Sreeram, 2018; Shah & Paliwal, 2022) have narrated that ownership structure and its impact on firms' performance are considered as one of the fundamental issues of corporate governance. On the other hand (Ashrafi, 2019) described that literature has a different prospectus about the presence of concentrated ownership or lack of it and its impact on firms' performance. e.g. (Demsetz & Lehn, 1985; Mollah et al., 2012). have documented that increased shareholding by a specific group is considered as damage to the interest of other shareholders. On the other hand, (Javid & Iqbal, 2008; Jensen, 1986; Lehmann & Weigand, 2000; Yang & Ren, 2017; Zhang & Kyaw, 2017) stated that it is beneficial for a firm to have higher ownership, as it abolishes the agency problem.

According to empirical evidence, Himmelberg et al. (1999) build on the cross-sectional findings of (Demsetz & Lehn, 1985) by using panel data to demonstrate that managerial ownership affects financial performance. moreover, after controlling firm fixed effect and firm characteristics, results showed that changes in managerial ownership do not affect firm performance. Morck et al. (1986) examined two surely-understood theories concerning the effect of ownership by managers on an organization's performance. For more established firms' little evidence that Q is higher when the firm is run by a family member compared to when the firm is run by an outside executive. Depending on the period, the relationship between Q and insider ownership can range from one-to-one to three-to-one. At large amounts of insider ownership, the connection between Q and insider proprietorship is negative, yet the descending force is moderately quieted (McConnell & Servaes, 1990).

Gurbuz and Aybars (2010) investigate the impact of institutional ownership on the financial performance of Turkish enterprises in their 2010 study. The sample consists of 164 firm-year observations from actual sector businesses listed on the Istanbul Stock Exchange (ISE) during four years from 2005 to 2008 using panel data analysis. The results show that institutional ownership and financial success are positively correlated. Researchers like (Shahrier et al., 2020; Torres et al., 2024; Weiss & Hilger, 2012) found a positive relationship between ownership concentration and firms' performance. on the other hand, (Aboud & Diab, 2022) conducted a study of Chinese firms and found a positive relationship between ownership concentration and firm performance. however, state ownership affects negatively firm performance. Numerous studies suggest a positive (or positive but diminishing) relationship, often curvilinear, between management ownership and firm performance, supporting interest alignment and entrenchment theories. We hypothesize that firms with greater ownership concentration are better monitored, reducing agency problems between managers and shareholders and thereby positively impacting firm performance.

Hypothesis 1: "The firms with high ownership concentration have high performance in developed economies"

This study addresses a gap in the literature by exploring the effect of ownership concentration on the performance of firms in developed economies, taking into account a variety of market capitalizations. Prior research has focused solely on the overall performance of organizations.

On the other hand, the size of the firms is very crucial, when we study the phenomenon of performance at the firm level in developed economies. Prior research (Barnea & Rubin, 2010; Kweh et al., 2022; Mackenzie et al., 2012; Modrego & Foster, 2022) took the firm size as single variable that may relate the firm outcomes. Nonetheless, we contend that, in the context of a particular ownership concentration, management teams operating at different sizes—that is, large, medium, and small-cap firms—may employ distinct strategies and motivations for long-term profitability. Models and strategies that function well for small firms might not be appropriate for medium-sized or large firms. Moreover, Ganguli and Agrawal (2009) found a statistically significant positive correlation exists between holding concentration and firm performance among listed mid-cap Indian corporations. Previous research indicates that methods that work for small-cap companies might not work for medium- or large-cap companies since these bigger companies usually have stronger cash flows and better profitability (La Porta et al., 2002; Stierwald, 2009). Thus, the final hypotheses of the study are as follows:

H2: "The firms with high ownership concentration in large-cap firms have high performance". H3: "The firms with high ownership concentration in medium cap firms have high performance".

H4: "The firms with high ownership concentration in small-cap firms have high performance".

## Methodology

### Research design

The study adheres to the literature's description of the methodological and econometric characteristics for reliable and objective outcomes. The primary goal of the project is to evaluate the impact of high ownership concentration on firms' performance of firms in developed economies within a two-step GMM system. The second objective of this study is to evaluate the impact of high ownership concentration on the firm's performance of large, medium, and small-cap firms in developed economies using a two-step GMM strategy framework.

### Sample selection and data sources

Based on factors including market capitalization, economic stability, and regional representation, 850 developed-market companies from throughout the world make up the sample. These countries represent a significant share of the global developed markets, with substantial and varied economies. As key players in the global economy, they display a wide range of industrialization, economic policies, and market development levels, offering a diverse view of ownership structures and their impact on firms' performance e.g. (Kafouros et al., 2024). By selecting these countries<sup>1</sup>, a comprehensive view can be obtained of the diverse ownership structures within developed economies and how they influence corporate performance, providing valuable insights into the broader context of global economic development. The study covers markets across three regions: America, Asia, and Africa. Firms are grouped by market capitalization to explore returns on assets. The sample includes companies from diverse industries worldwide, totaling 12,751 observations. A panel dynamic model is used to analyze unbalanced panel data, considering potential delisting due to bankruptcy (Keasey et al., 2015).

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<sup>1</sup> United States of America, United Kingdom, Canada, Hong Kong, Australia, Germany, Belgium, Switzerland, Israel, Italy, Denmark, Spain, Netherland, Greec, Austria and Japan

The data on return on assets (a proxy for profitability), ownership concentration, and other control variables were taken from Thomson Reuters' data stream spanning from 2004 to 2018<sup>2</sup>.

**Key variables**

Variable	Measurement	Reference
Dependent variable		
ROA	ROA= Profit After Tax/Total Assets	(Al-Ahdal et al., 2023; Alodat et al., 2022; Karaca & Eksi, 2012)
Independent variable		
OWC	Represents the percentage of shares held by insiders and top 5% shareholders	(Al-Matari et al., 2017)
Control variables		
LEV	Total debt / total assets	(Al-Ahdal et al., 2023)
LIQ	Current Ratio	(Al-Ahdal et al., 2023; Nashier & Gupta, 2023)
Size	Natural logarithm of assets	(Nashier & Gupta, 2023)

Additionally, to find the scale subgroups of small, medium, and large-cap firms proposed by (Ronnie Lo, 2009) is followed. A company is categorized as significant ( $L_{cap_{it}}$ ) if its market capitalization is greater than \$8 billion. Similarly, it is classified as a medium cap ( $M_{cap_{it}}$ ) if its market capitalization is between \$1 billion and \$8 billion. A company is a small-cap ( $S_{cap_{it}}$ ) if its market capitalization is less than \$1 billion (Younas et al., 2017).

**Model specification**

In order to determine the relationship between ownership concentration and company performance in developed markets, we utilize the two-step GMM and panel data models. Different econometric problems are addressed by each estimating method. Wooldridge (2005) reported that time series variations that cannot be observed in cross-sectional data are studied using panel data models. They support the study of temporal, individual, and group impacts. These models account for the unobserved heterogeneity that is common in panel data. In the presence of serial autocorrelation and heteroscedasticity, the generalized method of moments (GMM) offers accurate parameter estimates.

$$(ROA_{it}) = \alpha + \beta_1(OWC_{it}) + \beta_2(LEV_{it}) + \beta_3(SIZ_{it}) + \beta_4(LIQ_{it}) + \varepsilon_{it} \tag{1}$$

$$(L_{cap}ROA_{it}) = \alpha + \beta_1(L_{cap}OWC_{it}) + \beta_2(L_{cap}LEV_{it}) + \beta_3(L_{cap}SIZ_{it}) + \beta_4(L_{cap}LIQ_{it}) + L_{cap}\varepsilon_{it} \tag{2}$$

<sup>2</sup> Selecting data from 2004-2018 in light of COVID-19 and the Ukraine war provides a consistent, stable, and unbiased foundation to examine trends, establish baselines, and understand pre-pandemic patterns, while also serving as a benchmark for analyzing the impact of recent global events.

$$(M_{cap}ROA_{it}) = \alpha + \beta_1(M_{cap}OWC_{it}) + \beta_2(M_{cap}LEV_{it}) + \beta_3(M_{cap}SIZ_{it}) + \beta_4(M_{cap}LIQ_{it}) + M_{cap}\varepsilon_{it} \quad (3)$$

$$(S_{cap}ROA_{it}) = \alpha + \beta_1(S_{cap}OWC_{it}) + \beta_2(S_{cap}LEV_{it}) + \beta_3(S_{cap}SIZ_{it}) + \beta_4(S_{cap}LIQ_{it}) + S_{cap}\varepsilon_{it} \quad (4)$$

The initial findings are predicated upon Ordinary Least Squares (OLS) models. Nonetheless, it is pertinent to note that in the context of simple OLS, estimations exhibit an upward bias. This phenomenon can be attributed to the presence of omitted variable bias, whereby relevant variables are excluded from the model, as well as the oversight of unobserved firm heterogeneity, which engenders a short panel bias in dynamic datasets (Flannery & Hankins, 2013). The study examines the impact of ownership concentration on firm performance of firms in selected developed economies from 2004 to 2018.

$$Returnonassets_{it} = \alpha + \beta_1 Ownership\ concentration_{it} + \varepsilon_{it} \quad (5)$$

$$\varepsilon_{i,t} = V_i + u_{i,t},$$

In equation (1) returns on assets (ROA) represent the dependent variable of firm  $I$  at time  $t$  with  $I = 1, 2, \dots, N$ ;  $t = 1, 2, \dots, T$ ,  $\alpha$  is a constant term. Ownership concentration is an explanatory variable, and  $\varepsilon_{i,t}$  is the disturbance with  $V_i$  the unobserved firm-specific effect and  $u_{i,t}$  the idiosyncratic error. This is a one-way error component regression model, we  $V_{it} \sim IIN(0, \sigma^2 v)$  and independent  $u_{it} \sim IIN(0, \sigma^2 u)$  (Abbas & Ali, 2022).

Furthermore, the research adds control variables that include firm-specific factors as well as other macroeconomic indicators. Hence, the overall formulation of the model equation (5) can be expressed as:

$$Return\ on\ assets_{it} = \alpha + \beta_1 Ownership\ concentration_{it} + \phi_1 control\ variables_{it} + \varepsilon_{it} \quad (6)$$

Control variables consist of firm-specific factors (leverage, liquidity, size). The research employs a dynamic specification of the model by incorporating a lagged dependent variable as one of the independent variables to address issues related to autocorrelation in residuals, heteroscedasticity, and endogeneity. Equation (6) can be enhanced by including the lagged firms' profitability.

$$Return\ on\ assets_{it} = \alpha + \delta_0 Return\ on\ assets_{it-1} + \beta_1 Ownership\ concentration_{it} + \phi_1 control\ variables_{it} + \varepsilon_{it} \quad (7)$$

## Analysis and discussion

### Descriptive statistics

This table provides a summary of six variables, revealing various aspects of financial metrics and their distribution. The variable CAP (Market capitalization in billion) has a mean of \$12.199 and a large standard deviation of \$35.755, indicating significant variation in capital sizes among observations. OWC (Ownership concentration) shows a mean of 36.545 with a standard deviation of 23.679, suggesting considerable differences in working capital across observations. ROA (Profitability) averages 42.702 with a standard deviation of 15.457, reflecting a broad range of profitability. LEV (Leverage) has a mean of 50.5 and a standard deviation of 18.96, indicating varying degrees of financial leverage. LIQ (Liquidity) has a mean of 39.816 and a standard deviation of 13.158, suggesting moderate liquidity with some variation. Lastly, SIZE (Log of total assets) has a mean of 12.21 and a standard deviation of 2.897, showing variation in firm sizes with a relatively tight distribution. Overall, the data indicates a wide range of values for most variables, reflecting significant variability within the datasets.

Table 1. Descriptive statistics: Full sample

Variable	Obs	Mean	Std. Dev.	Min	Max
CAP	11955	12.199	35.755	1	868
OWC	8254	36.545	23.679	.04	90.55
ROA	10618	42.702	15.457	.01	100
LEV	11932	50.5	18.96	.01	89.99
LIQ	9736	39.816	13.158	11.52	100
SIZE	12678	12.21	2.897	3.35	22.261

Table 1 shows summary statistics for proxies used in our empirical model, indicating mean, standard deviation, and minimum and maximum values.

Table 1a describe the descriptive statistics of large cap firms with a mean Cap of \$38.803 billion, indicating significant market presence. Ownership concentration (OWC) averages at 30.74, suggesting efficient operational management. Return on Assets (ROA) stands at 18.06, showcasing profitability. Large-cap firms exhibit a mean Leverage (LEV) of 21.8, implying strategic debt utilization. Liquidity (LIQ) averages 31.63, ensuring short-term obligation coverage. The firms' Size, with a mean of 12.371, highlights their considerable scale. This concise analysis offers valuable insights into the financial dynamics of large-cap firms.

Table 1a. Descriptive Statistics: Large cap

Variable	Obs	Mean	Std. Dev.	Min	Max
CAP	3264	38.803	60.847	9	868
OWC	4060	33.834	25.887	.04	90.54
ROA	4060	43.765	18.608	.01	100
LEV	4060	48.424	21.8	.01	89.99
LIQ	4060	31.63	21.385	11.52	100
SIZE	4033	12.371	2.896	4.01	21.871

Table 1a shows summary statistics for proxies used in our empirical model, indicating mean, standard deviation, and minimum and maximum values for large cap firms.

Table 1b presents descriptive statistics for the financial variables of medium cap firms with 4203 observations. Mean capitalization is \$3.497B with a significant standard deviation of \$1.535B. Ownership concentration (OWC) averages 29.294 with a deviation of 26.06. Return on assets (ROA) shows a mean of 40.541% with a deviation of 18.923%. The mean leverage ratio (LEV) is 50.08 with a deviation of 23.136. Liquidity (LIQ) stands at 31.896 on average with a deviation of 22.653 Size, based on the log of total assets, has a mean of 12.119 with a deviation of 2.979, though data is available for only 850 entities. The findings highlight significant variability across financial metrics, offering insights for strategic decision-making within Med Cap's financial landscape.

Table 1b. Descriptive Statistics: Medium Cap

Variable	Obs	Mean	Std. Dev.	Min	Max
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CAP	4203	3.497	1.535	3	8
OWC	4203	29.294	26.06	0.31	90.55
ROA	4203	40.541	18.923	0.01	100
LEV	4203	50.08	23.136	0.01	89.99
LIQ	4203	31.896	22.653	16.34	100
SIZE	4182	12.119	2.979	4.575	22.261

*Table 1b shows summary statistics for proxies used in our empirical model, indicating mean, standard deviation, and minimum and maximum values for medium cap firms.*

The summary statistics in Table 1c provide insights into key financial metrics for small-cap firms, showing notable variability across several dimensions. The Market Capitalization (CAP) metric, with a mean of 1.249 and low standard deviation, suggests a consistent categorization of small-cap firms. Ownership concentration (OWC) and Return on Assets (ROA) show substantial variability, with means of 33.243 and 38.439, respectively, indicating significant differences in operational liquidity and profitability. Leverage (LEV) and Liquidity (LIQ) also vary widely, reflecting diverse capital structures and liquidity positions. The Size (SIZE) metric further emphasizes the range in firm scale within the sample, with a mean of 12.178. Overall, these statistics highlight the heterogeneous nature of small-cap firms, which is crucial for understanding and analyzing this segment.

**Table 1c. Descriptive Statistics: Small Cap**

Variable	Obs	Mean	Std. Dev.	Min	Max
CAP	5977	1.249	.433	1	2
OWC	2269	33.243	20.845	.27	90.51
ROA	4110	38.439	12.126	.01	100
LEV	5308	50.458	15.159	.01	89.99
LIQ	4658	36.471	11.488	14.73	100
SIZE	5940	12.178	2.844	3.35	21.137

*Table 1c shows summary statistics for proxies used in our empirical model, indicating mean, standard deviation, and minimum and maximum values for small-cap firms.*

### Correlation analysis

The table 2 displays correlation coefficients among six variables with significance levels indicated for each coefficient. CAP (Market Capitalization) shows a significant positive correlation with OWC (Ownership Concentration) of 0.040 ( $p < 0.05$ ) and with ROA (Profitability) of 0.158 ( $p < 0.05$ ). LIQ (Liquidity) is positively correlated with ROA (0.337,  $p < 0.05$ ) and LEV (Leverage) (0.363,  $p < 0.05$ ), but not with OWC or SIZE. ROA is positively correlated with LEV (0.245,  $p < 0.05$ ) and negatively with Size (Log of total assets) (-0.077,  $p < 0.05$ ). LEV has a small positive correlation with CAP (0.042,  $p < 0.05$ ), but is not significantly related to OWC. SIZE shows weak negative correlations with LIQ (-0.022,  $p < 0.05$ ) and ROA (-0.077,  $p < 0.05$ ), and a negligible correlation with LEV. Overall, the correlations reveal some significant relationships among the variables,

particularly between ROA, LIQ, and LEV, while other correlations are weak or not statistically significant.

**Table 2. Pairwise correlation matrix for the entire sample**

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) CAP	1.000					
(2) OWC	0.040* (0.000)	1.000				
(3) LIQ	0.098* (0.000)	0.186* (0.000)	1.000			
(4) ROA	0.158* (0.000)	0.162* (0.000)	0.337* (0.000)	1.000		
(5) LEV	0.042* (0.000)	0.002 (0.887)	0.363* (0.000)	0.245* (0.000)	1.000	
(6) SIZE	0.031* (0.001)	0.015 (0.160)	-0.022* (0.028)	-0.077* (0.000)	0.001 (0.936)	1.000

*Table 2 shows the relationship between explanatory variables in the empirical model for the whole sample, where \* means that the relationship is significant at p0.05*

**Table 2a. Pairwise correlation matrix for large-cap firms**

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) CAP	1.000					
(2) OWC	0.004 (0.805)	1.000				
(3) LIQ	0.040* (0.022)	0.117* (0.000)	1.000			
(4) ROA	0.121* (0.000)	0.321* (0.000)	0.411* (0.000)	1.000		
(5) LEV	0.101* (0.000)	0.093* (0.000)	0.328* (0.000)	0.272* (0.000)	1.000	
(6) SIZE	0.054* (0.002)	0.000 (0.989)	-0.125* (0.000)	-0.109* (0.000)	0.025 (0.109)	1.000

*Table 2a shows the relationship between explanatory variables in the empirical model for the large cap firms, where \* means that the relationship is significant at p0.05*

**Table 2b. Pairwise correlation matrix for medium-cap firms**

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) CAP	1.000					

(2) OWC	0.195*	1.000				
	(0.000)					
(3) LIQ	0.062*	0.126*	1.000			
	(0.000)	(0.000)				
(4) ROA	0.199*	0.285*	0.291*	1.000		
	(0.000)	(0.000)	(0.000)			
(5) LEV	0.021	0.027	0.144*	0.224*	1.000	
	(0.176)	(0.081)	(0.000)	(0.000)		
(6) SIZE	-0.036*	-0.041*	-0.020	-0.126*	-0.022	1.000
	(0.018)	(0.008)	(0.200)	(0.000)	(0.159)	

Table 2b shows the relationship between explanatory variables in the empirical model for the medium cap firms, where \* means that the relationship is significant at  $p < 0.05$

Table 2c. Pairwise correlation matrix for small-cap firms

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) CAP	1.000					
(2) OWC	0.068*	1.000				
	(0.001)					
(3) LIQ	0.229*	0.283*	1.000			
	(0.000)	(0.000)				
(4) ROA	0.097*	0.054*	0.214*	1.000		
	(0.000)	(0.010)	(0.000)			
(5) LEV	0.038*	0.008	0.378*	0.198*	1.000	
	(0.005)	(0.726)	(0.000)	(0.000)		
(6) SIZE	0.018	-0.001	-0.063*	-0.094*	-0.011	1.000
	(0.173)	(0.975)	(0.000)	(0.000)	(0.435)	

Table 2c shows the relationship between explanatory variables in the empirical model for the small-cap firms, where \* means that the relationship is significant at  $p < 0.05$

### Findings of OLS and fixed effect

The regression analysis across different market capitalization segments (Large Cap, Medium Cap, Small Cap) and full sample reveals that Ownership concentration (OWC), Liquidity (LIQ), and Leverage (LEV) generally have positive and significant relationships with the dependent variable, indicating better firm outcomes with higher levels of these variables. Ownership concentration has an impact on firm performance in all models except the small cap firms. Firm Size shows a negative association, particularly significant in larger firms, suggesting potential challenges for larger entities. The explanatory power of the models, reflected in  $R^2$  values, ranges from modest to moderate, with the Large Cap segment exhibiting relatively higher explanatory power. These

findings highlight the importance of liquidity and leverage across all segments, while the impact of firm size appears more complex and variable.

Table 3: Results of Pooled OLS and Fixed Effect

	Full sample		Large Cap		Medium Cap		Small Cap	
	POLS	FE	POLS	FE	POLS	FE	POLS	FE
OWC	0.128*** (0.000)	0.125*** (0.000)	.194*** (0.000)	0.116*** (0.000)	0.178*** (0.000)	0.076*** (0.000)	0.029 (0.114)	0.034 (0.019)
LIQ	0.227*** (0.000)	0.279*** (0.000)	0.282** (0.000)	0.423*** (0.000)	0.194*** (0.000)	0.315*** (0.000)	0.098*** (0.001)	0.135* (0.000)
LEV	0.119*** (0.000)	0.159*** (0.000)	0.122*** (0.000)	0.132*** (0.000)	.148*** (0.000)	0.127*** (0.000)	0.099*** (0.000)	0.1** (0.000)
Size	-.422*** (0.000)	-.623*** (0.001)	-0.466** (0.000)	-0.422** (0.031)	0.645*** (0.000)	0.056 (0.825)	-0.509*** (0.000)	0.43 (0.35)
Constant	27.941*** (0.000)	28.166*** (0.000)	28.142*** (0.000)	25.266*** (0.000)	30.06*** (0.000)	21.284*** (0.000)	34.995*** (0.000)	26.65* (0.000)
R <sup>2</sup>	0.139	0.144	0.267	0.165	0.192	0.104	0.045	0.04
No of Obs	6,166	6,166	4,033	4,033	4,182	4,182	1,697	1,697

Table 3 shows the results of Pooled OLS and FE for all models. Standard errors appear in parentheses and are robust to heteroscedasticity. \*\*\*, \*\*, and \* represent a 1%, 5%, and 10% significance level using two-tailed tests, respectively.

#### Final results of the overall sample, and subgroups

The table summarizes the results of panel data regressions analyzing profitability across four different measures including overall sample and (LCAP, MCAP, SCAP) in relation to various explanatory variables. The lagged profitability variable shows a strong positive effect in all models, indicating high persistence in profitability over time except in small-cap firms. Ownership concentration (OWC) significantly impacts profitability in the LCAP and MCAP models, suggesting that higher OWC is associated with increased profitability, though its effect is less clear in full sample model. Moreover, results reveal that there is no relationship between ownership concentration and firm performance in small-cap firms of developed economies. The findings of the study are corroborated with the studies of (Torres et al., 2024; Weiss & Hilger, 2012).

The positive relationship leads to aligning the interests of owners and managers, thereby reducing agency problems. Major shareholders, with significant control and resources, can effectively monitor management, ensure strategic decisions focus on long-term value, and mitigate the free-rider problem associated with dispersed ownership. They also provide valuable expertise and industry connections. Empirical evidence supports this positive relationship, indicating that firms with concentrated ownership often exhibit better financial performance metrics. However, the benefits depend on the specific context and the nature of the controlling shareholders.

Liquidity (LIQ) positively influences profitability in the LCAP, MCAP, and SCAP models, but has a negative and insignificant effect in the SCAP model, highlighting a potentially different relationship in this context. Leverage (LEV) shows a significant positive effect on profitability in the SCAP model but is not significant in others, suggesting its impact may vary by profitability measure. Firm size does not appear to have a consistent effect on profitability across the models. Diagnostic tests for autocorrelation and instrument validity indicate that the models are robust, with no significant issues detected.

**Table 4. A Two-Step System GMM Methods for Ownership Concentration and Firm's Performance in Developed Economies: (Overall sample, LCP, MCAP & SCAP)**

VARIABLES	(1) Profitability	(2) Profitability (LCAP)	(3) Profitability (MCAP)	(4) Profitability (SCAP)
Lag dependent	1.175*** (0.143)	0.766*** (0.120)	1.061*** (0.125)	0.761*** (0.081)
OWC	0.040** (0.017)	0.066*** (0.017)	0.058** (0.023)	0.058 (0.038)
LIQ	0.162*** (0.036)	0.321*** (0.061)	0.189*** (0.038)	-0.014 (0.056)
LEV	0.020 (0.021)	0.022 (0.024)	0.063*** (0.024)	0.005 (0.035)
Size	0.002 (0.097)	-0.186 (0.138)	0.021 (0.124)	-0.164 (0.158)
Constant	-18.783*** (5.599)	-4.742 (5.013)	-17.599*** (6.194)	8.717* (4.714)
Observations	5,703	2,595	2,356	900
Number of Id	415	292	297	149
AR (2)	0.326	0.047	0.929	0.516
Hansen	0.168	0.112	0.720	0.099

Table 4. Shows the results for two-step system GMM methods. The dependent variable includes profitability. Explanatory variables include majority shareholders, firm size, leverage, profitability and corporate governance. \*\*\*, \*\*, \* indicate the level of significance at 1%, 5% and 10% respectively.

### Conclusion

The investigation into the intricate interplay between ownership concentration and firm performance across developed economies, with a particular emphasis on diverse market capitalizations, yields nuanced insights crucial for understanding corporate governance dynamics. Utilizing a comprehensive dataset spanning 850 firms from 16 developed countries over 15 years, this study offers substantive contributions to the existing literature. The findings affirm the hypothesized positive relationship between ownership concentration and firm performance,

suggesting that heightened ownership concentration correlates positively with enhanced firm monitoring, potentially mitigating agency conflicts and bolstering profitability. This study confirms the (Shleifer & Vishny, 1997) argument that ownership concentration (OWC) is crucial in corporate governance. It aligns with (Claessens & Djankov, 1999; Leech & Leahy, 1991), and Ganguli and Agrawal (2009), showing that concentrated ownership reduces agency costs by enabling active monitoring from block holders, thus enhancing firm performance. Furthermore, the analysis underscores the necessity of considering different market capitalization categories when evaluating this relationship, elucidating distinct characteristics and strategic priorities among large, medium, and small-cap firms. Notably, the influence of liquidity emerges as a significant factor positively impacting profitability, particularly evident in smaller firms.

### **Managerial implication**

Examining the concentration of ownership and its influence on the financial performance of large, medium, and small-cap companies in both developed and developed countries holds significant practical consequences for stakeholders, such as investors, business executives, legislators, and financial regulators. Minority shareholders in developed countries often face expropriation risks because large shareholders may not represent their interests well. Due to fewer regulations protecting shareholders, economic efficiency can suffer as resources are misallocated (Katti & Raithatha, 2018). This highlights the need for stronger legal protections to ensure fair treatment and a more transparent market.

### **Limitations and future research**

This research not only enhances our understanding of ownership structure dynamics but also points towards potential avenues for future inquiry, including exploring causality and temporal dynamics in ownership-performance relationships.

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