OWNERSHIP, CONTROL, GROUP AFFILIATIONS, AND WEALTH CONCENTRATION: THE CASE OF A DEVELOPING MARKET

Ghada Tayem *

* Business School, The University of Jordan, Amman, Jordan
Contact details: Business School, The University of Jordan, Zip Code 11942, Amman, Jordan

OPEN ACCESS

How to cite this paper: Tayem, G. (2022). Ownership, control, group affiliations, and wealth concentration: The case of a developing market [Special issue]. *Journal of Governance & Regulation, 11*(1), 376–388. https://doi.org/10.22495/jgrv11i1siart16

ISSN Print: 2220-9352
ISSN Online: 2306-6784

Received: 08.11.2021
Accepted: 14.03.2022

JEL Classification: G32, L22
DOI: 10.22495/jgrv11i1siart16

Abstract

The aim of this paper is to assess ownership and control of Jordanian listed firms by identifying group affiliations, control-enhancing mechanisms, and the wealth of controlling owners. Hand-collected data for 237 firms listed on the Amman Stock Exchange (ASE) is used to identify ultimate owners, construct affiliated groups, and compute the separation between cash flow rights and control rights created by pyramid structures and cross-holdings. The findings indicate that more than one-third of listed firms are group-affiliated, the majority of listed firms are controlled by families then by foreigners and a small number of firms are controlled by the state. They also indicate that family and foreign investors use pyramids to enhance their control of business groups creating a wedge between cash flow and control rights with pronounced use of pyramids among foreign firms. In addition, the top family and foreign owners control at least 22% of corporate assets with half of this control being exercised by foreign investors originating from the Gulf region. The latter finding has important implications regarding the ongoing impact of the Arab Gulf on capital formation in the Middle East and North Africa (MENA) region.

Keywords: Ownership Structure, Cash Flow Rights, Voting Rights, Group Affiliation, Business Groups, Developing Markets

Authors' individual contribution: The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

Declaration of conflicting interests: The Author declares that there is no conflict of interest.

Acknowledgements: The Author kindly acknowledges the financial support received from the Deanship of Scientific Research (DSR), The University of Jordan under Grant No. 22/2017-2018. The DSR, The University of Jordan had no involvement in the conduct of this research or the preparation of this article. Also, the Author would like to thank participants in the conference on "The Political Economy of State Business Relations" organized by the Economic Research Forum (ERF) and École normale supérieure for providing useful comments on an earlier version of this paper circulated under the title "The Division of Ownership and Control in Listed Jordanian Firms". All remaining errors are the Author's.

1. INTRODUCTION

The study of corporate ownership structure has received close attention from academics and policymakers alike for the past three decades due to its impact on firm decisions. Empirical evidence suggests that ownership structure influences firm value, risk, and liquidity (Boateng, Liu, & Brahma, 2019; Mishra & Kapil, 2017; Tran, Hoang, & Tran, 2018), performance (Ciftci, Tatoglu, Wood, Demirbag, & Zaim, 2019; Vagnoni, Oppi, & Caterina, 2020; Hooy, Hooy, & Chee, 2020; Migliardo & Forgione, 2018) and corporate decisions (El Ammari, 2021; Kao, Hodgkinson, & Jaafar, 2019; Pellicani, Kalatzis, & Aldrighi, 2021). In addition, research shows that ownership structure can be used to enhance the control of ultimate owners which benefit them at the expense of other shareholders (Claessens, Djankov, & Lang, 2000; Shleifer & Vishny, 1997) or allow them to extract rents from the state (Chen, Li, Luo, & Zhang, 2017; Pang & Wang, 2021; Sharma, Cheng, & Leung, 2020). Although research suggests that concentrated ownership is a worldwide phenomenon (Claessens et al., 2000; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998; La Porta, Lopez-de-Silanes, & Shleifer, 1999) it also suggests that ownership and control structures vary considerably across countries especially among developing countries (Armitage, Hou, Sarkar, & Talaulicar, 2017; Claessens & Yurtoglu, 2013; Edmans & Holderness, 2017; Jiang & Kim, 2020).

However, studies that assess ownership and control structures focus on the cases of a number of developed and developing countries with little known about the Middle East and North Africa (MENA). Although there are important studies that document the ownership and control structures in the MENA countries (Al Awfi & Vergos, 2017; Alajlan, 2004; Martínez-García, Basco, & Gómez-Ansón, 2021; Santos, 2015) the number of those studies is limited and none of them has examined the case of Jordan. As Claessens and Yurtoglu (2013) note developing markets differ in some key aspects from developed countries but also show much variation in some of those aspects across themselves. For example, contrary to many developing countries, the state has little participation in the Jordanian corporate sector and foreign investors have considerable ownership stakes of corporate assets. In addition, the ruling family has no ownership of listed firms unlike other Arab countries in the MENA region. Further, Jordanian listed firms represent most business wealth as Jordan's largest firms are listed while the largest firms in Arab MENA countries are private (Omet, 2005). Therefore, the ability to generalize results regarding ownership and control structures of developing and MENA countries to the Jordanian case becomes difficult. In addition, studies that utilize the context of Jordan to examine the impact of ownership on various corporate outcomes and decisions rely on measures based on direct ownership, which are poor proxies for cash flow rights, control rights and firm identity (see Section 2 and Section 3 for detailed discussion). In addition, these studies do not attempt to measure the separation between cash flow and voting rights. Hence, this study fills the gap in the literature by providing the first comprehensive assessment of ownership and control structures for listed Jordanian firms.

This study aims at identifying ultimate owners, group affiliations, and control-enhancing mechanisms used by ultimate owners to create a wedge between cash flow and control rights. The study also aims at computing the amount of wealth concentrated with ultimate owners. In doing so, hand-collected data of 237 firms listed in the Amman Stock Exchange (ASE) as in 2017 is organized and analyzed by identifying ultimate owners through the weakest link rule (Claessens et al., 2000; La Porta et al., 1999), detecting the spread of the use of control-enhancing mechanisms such as pyramids (Claessens et al., 2000; Faccio & Lang, 2002; La Porta et al., 1999) and cross-holdings (Almeida, Park, Subrahmanyam, & Wolfenzon, 2008; Edwards & Weichenrieder, 2009), constructing business groups (Faccio & Lang, 2002) and computing asset value controlled by the ultimate owners of those business groups (Claessens et al., 2000).

The findings of this study show that most listed Jordanian firms are closely held with firms having a large shareholder with at least 5% cash flow rights. Only 6 firms have large owners with cash flow rights below 5% and 17 firms below 10%. In addition, about 63% of listed firms are not group-affiliated, controlled by one shareholder, have no deviation between ownership and control but are small. The other 37% are group affiliated, larger in size compared to the former group but are also closely held. In group-affiliated firms control is largely enhanced by pyramid structures and to a lesser degree by cross-holdings. The dominant ownership type is family with around 67% of listed firms. Foreign ownership is also significant with about 25% of firms owned by foreigners mainly from the Gulf Cooperation Council (GCC) countries. The separation between cash flow and voting rights is higher for foreign firms (80%) compared to family firms (88%) and is more stable for foreign firms at higher cut-offs, especially for large foreign firms. Finally, corporate wealth is concentrated with a small number of families and foreign investors with the largest 15 families and the top 4 foreign investors controlling around 22% of corporate assets. This pattern of ownership has important implications with regard to the ability and incentives of controlling owners and controlling families to expropriate rents from other shareholders or the economy at large. In terms of the substantial wealth owned and controlled by investors from the Gulf region, Hanieh (2010, 2011, 2018) argues that this capital formation in the Arab MENA region is a characteristic of the internationalization of Gulf capital by the increasing control of regional markets by conglomerates based in the Gulf region.

The rest of the paper is structured as follows. Section 2 reviews the literature. Section 3 discusses the research method. Results regarding key trends of ownership and control structures of Jordanian corporations are presented in Section 4. The results are discussed in Section 5 and Section 6 concludes and suggests future research.

2. LITERATURE REVIEW

This study relates to the literature on the theory of the firm and the choice of financial claims (Fama & Jensen, 1983; Jensen & Meckling, 1976; Means, 2017) and how financial claims shape corporate governance (Denis & McConnell, 2003; Shleifer & Vishny, 1997). Theoretically, closely held firms with concentrated ownership structures can be advantageous since they can reduce agency costs resulting from the separation between ownership and control (Edmans & Holderness, 2017; Fama &

Jensen, 1983; Jensen & Meckling, 1976). However, closely held firms give rise to the separation of ownership and control within the firm and at the business group, which can benefit ultimate controlling owners at the expense of other shareholders (La Porta et al., 1999; Shleifer & Vishny, 1997). In addition, concentrated ownership at the hands of one or a small number of coordinated owners controlling a large fraction of the corporate sector induces those owners to extract rents from the state (Chen et al., 2017; Schweizer, Walker, & Zhang, 2019; Sharma et al., 2020; Wang, Xu, Zhang, & Shu, 2018).

Empirically, it has been long established that ownership concentration is a dominant feature of listed firms around the globe (Claessens et al., 2000; La Porta et al., 1998; La Porta et al., 1999). There is extensive work on the characterization of ownership concentration in various regions of the world (Claessens, Djankov, Fan, & Lang, 2002; Claessens et al., 2000; Edmans & Holderness, 2017; Faccio & Lang, 2002; Jiang & Kim, 2020). The research so far produced important results on the channels on which control and ownership are intertwined: the first is direct by controlling majority voting rights through owning large cash flow rights and the second is indirect by gaining control with little cash flow rights. The latter can be accomplished using several schemes including superior voting rights, pyramid structures, and cross-holdings (Claessens et al., 2002; Claessens et al., 2000; Faccio & Lang, 2002). Empirical studies on the division between ownership and control show evidence of the existence of this division in the US corporate sector, though limited in comparison to other countries, through dual-class stock, disproportionate board representation, and voting agreements (Villalonga & Amit, 2009). Evidence outside the US indicates that control mechanisms vary considerably in emerging markets (Claessens & Yurtoglu, 2013). Faccio and Lang (2002) show that firms in Western European countries have little use of pyramids and cross-holdings and it is more likely that the largest firms are widely held while most other firms are family-controlled. In Russia, the evidence indicates that listed firms are controlled by the state or by private owners using pyramids and golden shares (Chernykh, 2008). The evidence shows that listed firms in East Asian countries are largely controlled by families and that they gain control over their cash flow rights by the use of pyramid structure and cross-holdings (Almeida et al., 2008; Claessens et al., 2000) while state ownership is still an important feature of Chinese firms (Jiang & Kim, 2020). Listed firms in Malaysia are mostly controlled by families and to a lesser degree by foreigners and both types of firms have pyramidal structures (Abdullah & Pok, 2015; Hooy et al., 2020). Evidence from Turkey shows that listed firms are controlled by families and control is mainly enhanced by using pyramids and dual class shares (Mustafa, Che-Ahmad, & Chandren, 2017).

The assessment of ownership and control structures in the Arab MENA region is limited with some countries receiving more attention than others. Early studies on Arab MENA were challenged by data limitation, as most stock exchanges did not require listed firms to disclose ownership information (Alajlan, 2004; Omet, 2005). Omet (2005) examines ownership of Arab MENA's top largest firms and documents that large firms are mostly non-listed (except for large firms in Jordan) and that listed firms are generally family-controlled, while Alajlan (2004) finds that listed Saudi firms are owned by families and the government. Yosra and Ben Ouda Sioud (2011) examine the case of 40 listed Tunisian firms and find that the dominant firm type is family firms while the rest of firms are equally divided between firms owned by the state and financial institutions and document the existence of separation between cash flow (average of 49.6%) and control rights (average of 51%).

A number of studies examine the case of the Gulf region and find that corporate ownership is strongly concentrated and business groups are mainly centered around public sector institutions representing the state with some groups centering around holding companies, financial institutions, and families (Santos, 2015). Similar findings are confirmed by Martínez-García et al. (2021) and Matinez-Garcia, Basco, Gomez-Anson, and Boubakri (2020) who report high ownership concentration, common use of pyramid structures, and widespread control by the state or families. In a number of studies, Hanieh (2010, 2011, 2018) examines the role of capital originating from the Gulf region on capital formation in Arab MENA countries and argues that there is an increasing control of regional markets by conglomerates based in the Gulf region. For example, the author shows that ownership of the major sectors of the Palestinian economy is heavily dominated by conglomerates whose primary activities are in the Gulf (Hanieh, 2011).

In terms of the case of Jordan, a number of studies using the context of Jordan examine the impact of ownership on various corporate outcomes and decisions (Abu Qa'dan & Suwaidan, 2019; Alhababsah, 2019). However, ownership measures of those studies are based on direct ownership, mainly ownership concentration of the largest owner and firm type classification based on the ownership of the largest owner. Those measures, though informative, are subject to measurement error. For example, the largest owner of the Cairo Amman Bank (see Section 3 for further details) is a private company owning 11%; however, the ultimate owner is a family with cash flow rights of 33%. This example shows that the ownership of the largest owners and firm classification based on direct ownership are poor proxies for actual ownership and firm identity.

3. RESEARCH METHODOLOGY

3.1. Sample and data sources

The sample of this study consists of 237 firms that represent all listed firms in the ASE with public annual reports in 2017. We use the Securities Depository Centre (SDC) to identify and document the immediate ownership of the sample firms. The SDC reports names, nationalities, and ownership of shareholders with a percentage ownership of 1% and above. In the case of private Jordanian companies, the ownership of Jordanian owners is traced from the registry of the Company Controller (which is a department of the Ministry of Manufacturing and Commerce) and the ownership of foreign owners is traced by conducting a web search.

Table 1 presents the distribution of firms according to the ASE's industry classification, average market values, and share of market capitalization for 184 firms as a number of firms are suspended from trading hence they do not have reported market values.

Table 1. Sample firms

Sector	*Number of firms*	*Average market value*	*Share of total market capitalization*
Banks	15	643,700,000	0.575
Insurance	20	14,910,705	0.018
Real estate	31	16,992,985	0.031
Financial services	30	10,600,892	0.019
Education	6	64,415,833	0.023
Health	4	19,531,250	0.005
Media	1	4,500,000	0.000
Tourism	9	48,678,556	0.026
Transportation	9	19,748,515	0.011
Commercial	10	64,085,533	0.038
Energy	2	202,000,000	0.024
Mining	11	174,100,000	0.114
Clothing	4	25,396,042	0.006
Construction	7	9,730,168	0.004
Food	9	21,420,313	0.011
Pharmaceutical	4	22,199,375	0.005
Printing and packaging	1	11,375,000	0.001
Technology	2	212,200,000	0.025
Tobacco	2	503,300,000	0.060
Chemicals	7	7,791,787	0.003

Notes: Table 1 shows the industry distribution of sample firms with market values.

3.2. Research design

This study follows the literature on identifying direct and indirect cash flow and control rights of ultimate shareholders through the weakest link rule (Claessens et al., 2000; La Porta et al., 1999), detecting the spread of the use of control-enhancing mechanisms such as pyramids (Claessens et al., 2000; Faccio & Lang, 2002; La Porta et al., 1999) and cross-holdings (Almeida et al., 2008; Edwards & Weichenrieder, 2009), constructing business groups (Faccio & Lang, 2002) and computing asset value controlled by the ultimate owners of those business groups (Claessens et al., 2000). Other papers employ network analysis to visualize the interconnectedness of shareholders and corporations through direct and indirect ownership and control links (Engel, Nardo, & Rancan, 2021). Network analysis is most useful in case of cross-holding when firms reinforce their ownership and control by owning shares in each other. However, when there is little use of cross-holdings, ownership networks become similar to hierarchal structures similar to the ones developed in this article. In addition, one of the aims of this article is to produce a measure of the separation between cash flow and control rights that is not produced by network analysis.

For each listed company, we form an ownership structure with all principal shareholders. Two types of principal shareholders are identified: individuals and business entities. In case shareholders are individuals, we check if individual shareholders belong to the same family by identifying the family name or if individual shareholders are spouses through an internet search. In case the shareholder is a business entity, the entity's ownership is traced from the following sources: the SDC in case the firm is a Jordanian listed firm, the Companies Controller in case the entity is a Jordanian private firm or the internet in case the firm is foreign. The identification of the ultimate owner is performed with a small error margin in a number of cases for offshore companies, as the web search could not retrieve information regarding the owner(s) of those companies. Hence, the analysis runs into the risk of underestimating the percentage of ownership of a large shareholder who can be the owners of an off-shore entity. However, the number of these cases is limited and the ownership of these off-shore entities of listed firms is small. In addition, the presence of these (un)identified entities will bias the results of this study against finding more concentrated ownership and control.

In terms of control rights, we rely on the definition of control rights as the percentage of voting rights of a principal shareholder. The voting rights are at least equal to cash flow rights but can be enhanced by the use of pyramid structures and cross-holdings. One common rule in the literature applied to measure control in the case of the presence of pyramid structures and cross-holdings is the weakest link rule (Claessens et al., 2000; La Porta et al., 1999). Under this rule, we identify the control chains through the pyramid or the cross-holding and identify the lowest control in each chain and sum up all control rights to yield the ultimate control share. Also, common in the literature is to assign a threshold (cut-off) of control through the chain which must be met in all the links. In this study, we assign three cut-offs: 5%, 10%, and 20%. Finally, this study constructs business groups based on the publically available data on owners of listed firms.

3.3. Examples of identifying ultimate owners and business groups

Figure 1 and Figure 2 illustrate two examples for identifying the ultimate owners of a corporate entity. Figure 1 illustrates the case of the foreign ultimate owner. In Figure 1, the Islamic Bank's largest shareholder is Al Barakah Group (Saudi Conglomerate) with a percentage ownership of 66%. The ultimate controller of Al Barakah Group is Sheik Saleh Kamel with 74% ownership in that group.

However, for the purposes of this study, we identify the controlling foreign owner at the first level of ownership and hence Al Barakah Group is considered the controlling owner of the Islamic Bank with a cash flow and voting rights of 66%.

Figure 1. Principal shareholders of the Islamic bank and the largest controlling owner

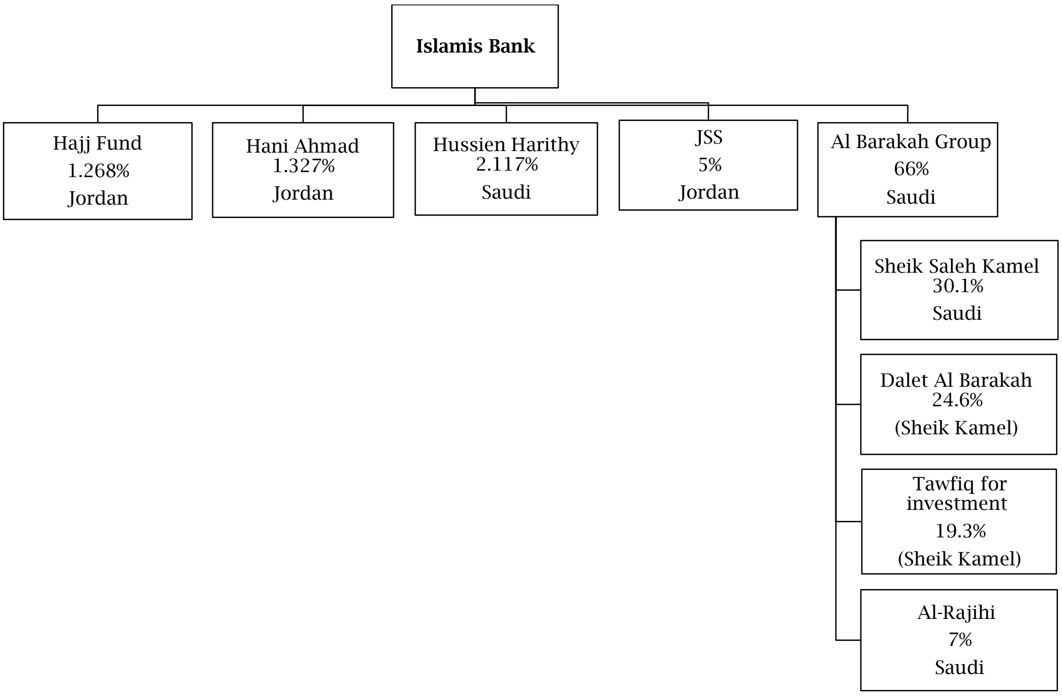


Figure 2 illustrates the case of a family ultimate owner. Figure 2 shows that principal shareholders of Cairo Amman Bank include one government agency, one foreign entity, three families, and 5 firms. One could ascribe Al-Massera company as the largest owner of Cairo Amman bank with an ownership of 11% and ignores Al-Masri family. However, the Al-Masri family owns 4 of the 5 companies and controls the fifth one. Al-Masri family is the owners of the following firms: Al Massera for investment (100% owned by Sabeeh Taher Al-Masri), Al Massera International (100% owned by Sabeeh Taher Al-Masri), Al-Dhafer for investment (owned by the late Dhafer Taher Al Masri's offspring and his wife) and Al-Arabia for nutrition and commerce (100% owned by Sabeeh Taher Al-Masri). The fifth firm, the Palestinian telecommunication represents indirect ownership of the Al-Masri family. Sabeeh Taher Al-Masri owns 17.91% of the Palestinian development and investment, which in turn owns 30.63% of the Palestinian telecommunication. Therefore, the Al-Masri family has direct ownership of Cairo Amman Bank of 33.495% [11.388%+10.545%+5.241%+4.282%+2.039%] and indirect ownership of 0.322% [17.91%*30.63%*5.877%]. This makes the Al-Masri family the largest shareholder of Cairo Amman Bank. Also, Al-Masri is the ultimate controller of the Cairo Amman Bank with voting rights of 39.372% [33.495%+5.877%] at the 5% and 33.495% at the 10% and 20% cut-offs.

The identification of the ultimate controller depends on the assigned cut-off as the next example shows. Al-Balbisi has direct ownership of the national portfolio of 16% and indirect ownership through the investment real estate portfolio of 0.58% [(6.407%+(42.554%*16%))*4.422%] with a total of 16.58%. Al-Balbisi is the ultimate owner at both the 5% and 10% cut-offs but not at the 20% cut-off. Also, applying the rule of the weakest link, Al-Balbisi controls only 16% of the National Portfolio at 5% and 10%. This computation ignores Al-Balbisi's potential control through the investment real estate portfolio, as one of the links in the chain does not exceed the 5% threshold. Although part of Al-Balbisi's ownership of the National Portfolio is indirect through pyramids and cross-holding, we do not classify the firm as one with a pyramid structure or cross-holding since the chain of ownership does not exceed the minimum threshold of 5%.

Then, we assign one of the following identities for the ultimate shareholder: family, foreign, government, widely held financial institution, widely held corporation, and others. In the previous three examples, the Jordan Islamic Bank is classified foreign firm, Cairo Amman Bank is classified family firm, and the National Portfolio is classified as a family firm at the 5% and 10% cut-offs and as a widely held financial institution firm at the 20% cut-off. To better understand the extent of control concentration among each of the previous firm types, we construct business groups within listed firms. A firm is identified as part of a business group if it has the same controlling owner with at least one other corporation in the sample (Faccio & Lang, 2002). Figure 3 illustrates the business group affiliated with Al-Barakah Group and Figure 4 presents the business group controlled by the Al-Mo'asher family.

Figure 2. Principal shareholders of the Cairo Amman Bank and the largest controlling owner

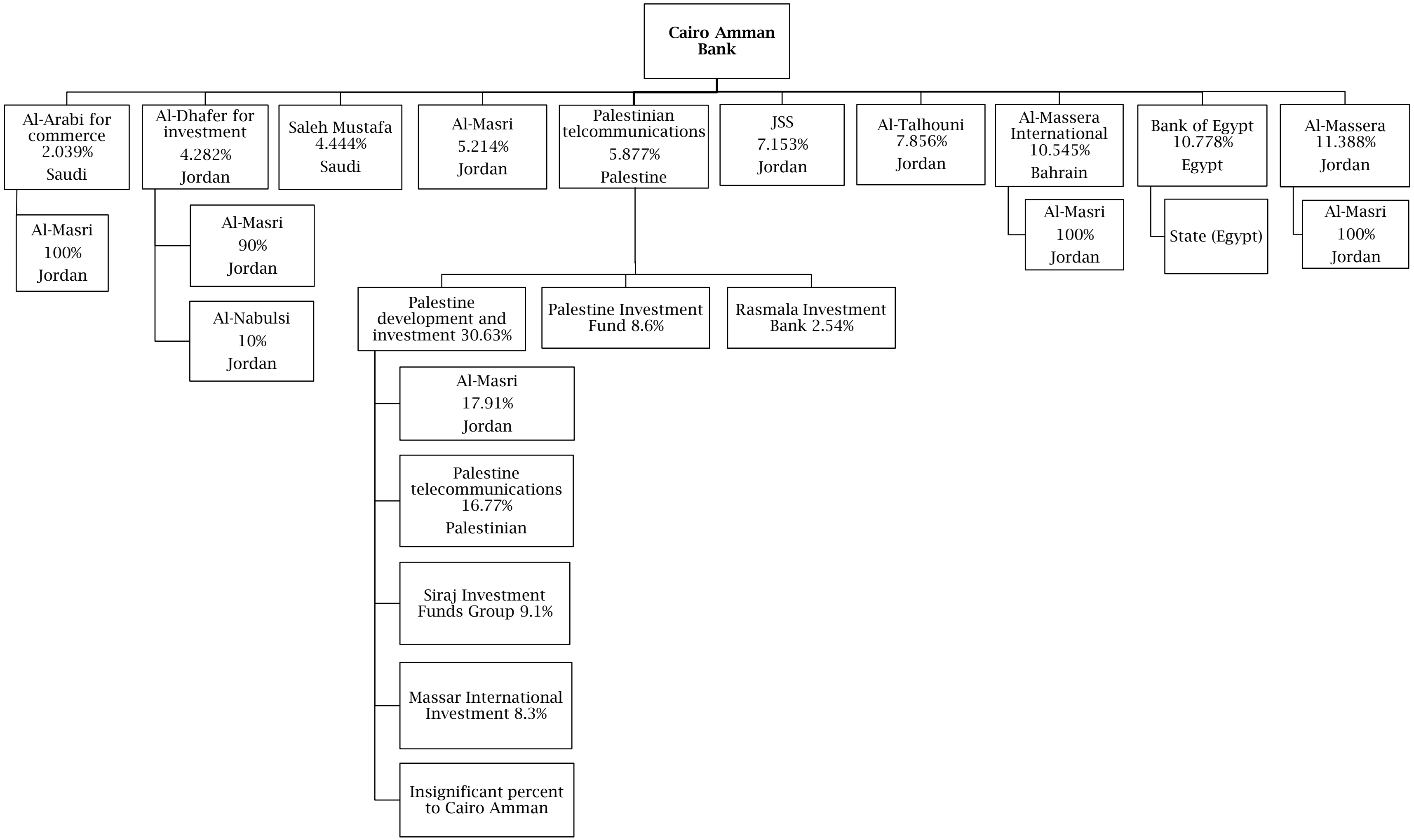


Figure 3. Al Barakah Group

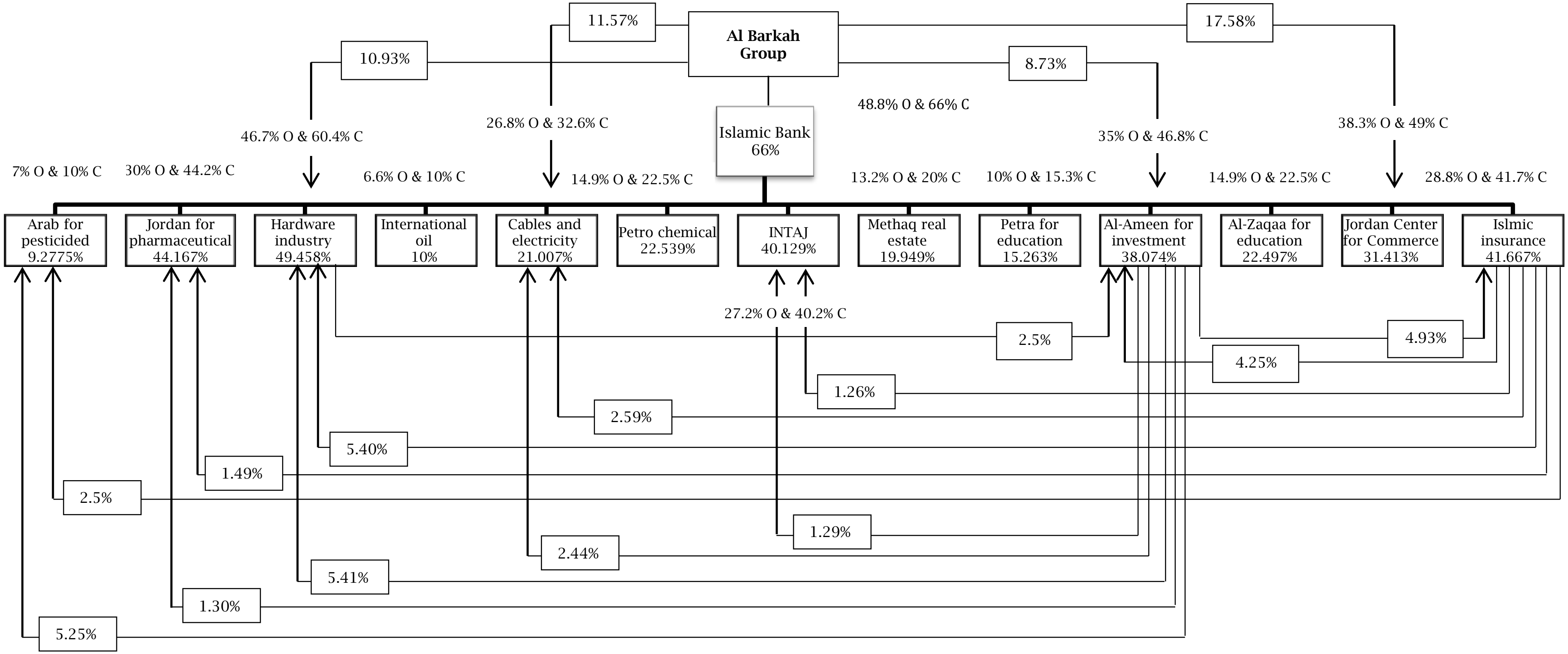
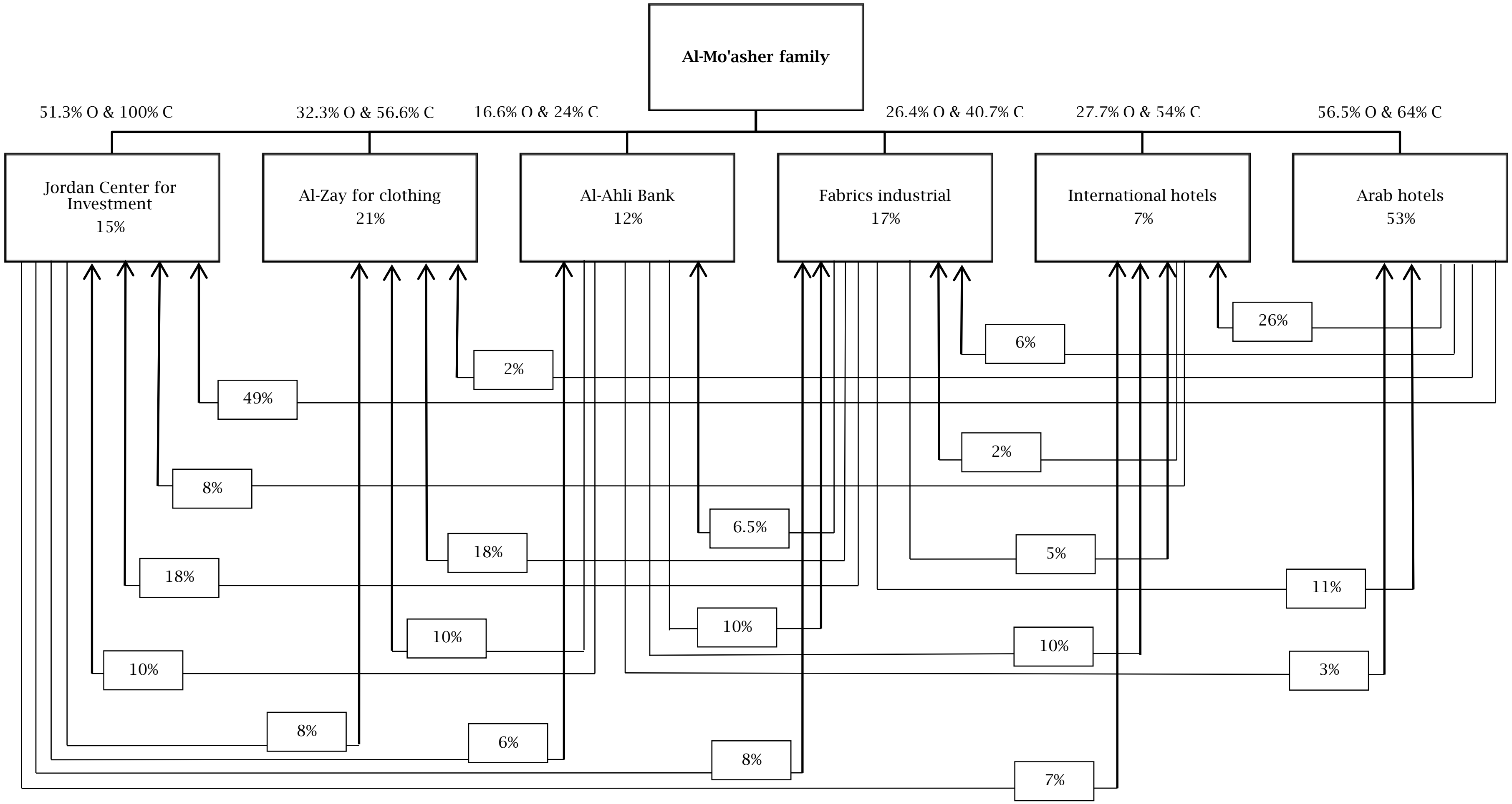


Figure 4. Al-Mo'asher Group



4. RESULTS

4.1. Means of enhancing control

Table 2 presents the extent of use of the two mechanisms that enhance control in Jordanian firms, pyramids, and cross-holdings. In addition, it presents the percentage of firms with one controlling shareholder in the last row. According to Claessens et al. (2000), pyramid structures are detected when a corporation owns a majority stock of one corporation which in turn holds a majority of another, a process that can be repeated several times. Table 2 reports that pyramids are detected at the 5%, 10%, and 20% cut-offs. The data shows that 37.2% of listed Jordanian firms are classified with pyramid structures at the less restrictive 5% cut-off. However, when the cut-off increases to 20% the ratio of firms with pyramid structures reduces to only 17.5%. In terms of cross-holdings, a company is recorded as one with a cross-holding if another company down the chain of control has some shares in the company of interest or one of its affiliates (La Porta et al., 1999). The percentage of firms with enhanced control using cross-holdings is 5% and decreases further to only 1% when the 20% cut-off is used. Finally, this study takes into account the possibility that one controlling shareholder is present without any other challenging shareholders (Claessens et al., 2000). This will enhance the powers of the controlling shareholder, as her decisions will not be challenged. The data shows that around 29% of listed firms have one controlling owner.

Table 2. Means of enhancing control — Sample percentages

Mechanisms of enhancing control	*Sample percentage*
Firms without pyramids or cross-holdings	62.8%
Pyramids at the 5%	37.2%
Pyramids at the 10%	28.6%
Pyramids at the 20%	17.5%
Cross-holdings at the 5%	5.13%
Cross-holdings at the 10%	3.4%
Cross-holdings at the 20%	1.3%
One controlling owner only	28.8%

Notes: Table 2 reports the percentage of firms with pyramid structures or cross-holdings at various cut-offs. The last row reports the percentage of firms with only one controlling owner and without other major shareholders owning 5% or more.

4.2. Separation between cash flow rights and voting rights

To examine the separation between cash flow rights and voting rights we present some descriptive statistics in Table 3. The first row in Table 3 reports the ownership of the ultimate owner or her cash flow rights computed by adding direct and indirect ownership (the latter is usually negligible as it is the product of multiplication). The figures indicate that ultimate owners control at least 39.3% of listed Jordanian firms. In addition, 75% of Jordanian firms have at least one ultimate owner with more than 20% ownership. These results indicate that ultimate shareholders hold a large fraction of the listed firms' equity. Voting rights decrease with the increase of the cut-off, which is expected given that some chains of control will be disregarded. The mean of cash flow to control rights is 88% at 5% but diminishes gradually when considering larger cut-offs. The median of this ratio is one indicating that half of the Jordanian listed firms do not enhance control through the use of pyramid structures and cross-holdings.

Table 3. Separation of cash flow rights and voting rights

	Mean	*SD*	*1st quartile*	*Median*	*3rd quartile*
Cash flow rights	0.393	0.237	0.210	0.350	0.540
Voting rights at the 5%	0.438	0.234	0.250	0.400	0.590
Voting rights at the 10%	0.427	0.237	0.230	0.390	0.579
Voting rights at the 20%	0.397	0.259	0.218	0.369	0.565
Ratio of cash flow to voting rights at the 5%	0.883	0.213	0.837	1.000	1.000
Ratio of cash flow to voting rights at the 10%	0.911	0.198	0.871	1.000	1.000
Ratio of cash flow to voting rights at the 25%	0.950	0.191	0.983	1.000	1.000

Notes: Table 3 reports descriptive statistics of cash flow rights, voting rights, and the ratio of cash flow to voting rights at various cut-offs.

Table 4 examines if the separation of cash flow and voting rights is concentrated among one firm size or type. Firms are classified into 5 types based on the identity of their largest controlling owner: family, foreign, state, widely held, and other. However, the data shows that none of the Jordanian firms is owned by a widely held institution at the 5% cut-off and that firms under others are relatively small in number. Therefore, Table 4 only shows three types: family, foreign, and state. In terms of size, firms were classified into three size classes: small (first quartile), medium (second and third quartiles), and large (fourth quartile). The number of firms in Table 4 is 184 only as the size of the firm is measured by the market value which was missing for 48 firms. Similar to the conclusion from Table 3, the separation between ownership and control is present at all cut-offs but reduces when we consider larger cut-offs. However, there are some differences based on the type of the firm. State firms have little or no separation between cash flow and control right at all cut-offs. Foreign firms have stable ratios of cash flow to voting rights across ownership cut-offs. However, the separation ratio in family firms reduces substantially when considering large cut-offs. Next, we examine the variation of the separation ratio according to firm size. Foreign firms have the highest separation ratio among large firms. However, small foreign investors usually have control through direct ownership. As for family firms, there is no clear pattern on the relation of firm size and the use of control mechanisms.

Table 4. Separation of cash flow rights and voting rights across type and firm size

Panel I: 5% cut-off				
		Family	*Foreign*	*State*
All firms		0.887	0.802	0.952
Small	0.882	0.896	0.827	1.000
Medium	0.867	0.884	0.787	0.967
Large	0.870	0.879	0.806	0.940
Panel II: 10% cut-off				
		Family	*Foreign*	*State*
All firms		0.924	0.832	0.956
Small	0.919	0.944	0.838	1.000
Medium	0.894	0.903	0.845	0.972
Large	0.907	0.951	0.806	0.944
Panel III: 20% cut-off				
		Family	*Foreign*	*State*
All firms		0.968	0.863	0.998
Small	0.966	0.984	0.914	1.000
Medium	0.935	0.957	0.857	1.000
Large	0.934	0.975	0.833	0.994

Notes: Table 4 reports the ratio of cash flow to voting rights by firm identity and firm size. Family firms represent 65%, foreign firms 25%, state firms 8%, and other 2% at the 5% cut-off. Firms can be reclassified to widely held at higher cut-offs.

4.3. Who controls corporate assets?

Table 5 presents statistics relating to the concentration of control of corporate assets in the hands of families and foreign investors. To prevent the duplication of entry, we assign a firm to one group depending on the identity of the largest controlling shareholder. In the first column, we assume that the controlling shareholder has assets under his control equal to his voting right at the 5% cut-off multiplied by the market value of the firm. The top first family (Al-Masri) controls 1.5% of corporate assets, the top 15 families control around 12% of corporate assets. Foreign investors control around 10% of corpora assets, which is roughly equal to the control of Jordanian families. In the second column, we assume that the controlling shareholder has full oversight and control of the firm. Under this less conservative assumption, the top first family percentage of corporate assets under their control increases to 24.2% while the top 15 families control more than half of the corporate assets and foreign investors control a quarter of those assets.

Table 5. Control of corporate assets

	Value of percentage controlled assets to total market capitalization	*Value of controlled firms to total market capitalization*
Top 1 family	0.015	0.242
Top 5 families	0.081	0.404
Top 10 families	0.109	0.478
Top 15 families	0.118	0.516
Foreign ownership in the top 20 firms	0.097	0.243

Notes: Table 5 reports the market values of controlled assets owned by top ultimate owners to market capitalization in the first column and the market values of firms controlled assets controlled by top ultimate owners to market capitalization in the second column.

5. DISCUSSION

The results of this paper indicate that the control of Jordanian listed firms exercised by the state is limited. Although the state has ownership stakes of around 20% of listed firms, mainly through Jordan's Social Security (JSS) Corporation, the percentage of its ownership is small. The state has effective control of only 8% of listed firms, most of which are small. This is contrary to the evidence documented in many developing and neighboring countries (Jiang & Kim, 2020; Martínez-García et al., 2021; Matinez-Garcia et al., 2020). This result is best understood from a historical perspective as Jordan's financial market was dominated by private investment from its establishment in 1978. In addition, the state maintained very small ownership of its formerly owned enterprises upon their privatization leaving effective control for private owners (Tayem, 2015).

Hence, the two main types of firms listed in the ASE are family and foreign firms. The findings of this paper show that there are similarities and differences in ownership and control structures of those two types. Family and foreign groups have pyramidal structures especially among large firms, which is comparable to other Arab MENA countries in the Gulf and Tunisia (Martínez-García et al., 2021; Matinez-Garcia et al., 2020; Yosra & Ben Ouda Sioud, 2011). The wedge between cash flow and control rights in both firm types is mainly caused by the use of pyramidal structures and is larger in large firms. However, compared to family firms, the wedge in foreign firms is larger and stable at various cut-offs. Foreign firms originate mostly from conglomerates based in the Arab Gulf region; they seize control of one firm and use it as a center to control other firms in the group, a pattern that is consistent with previous literature (Hanieh, 2010, 2011, 2018).

In terms of family firms, one distinct feature of ownership of Jordanian listed firms is the multiple direct ownership channels. Direct ownership is achieved by direct ownership of a principal shareholder and by ownership of private firms fully owned by the principal shareholder. In addition, in the case of the death of the principal owner, his wealth is distributed among multiple but coordinated inheritors. Therefore, to correctly record the direct ownership of a family one should identify the ownership of fully owned private firms and the ownership of inheritors. Hence, the common use of ownership of the largest owners and concentrated ownership in studies utilizing the context of Jordan is subject to substantial measurement errors. Further, the pyramidal schemes and to a lesser degree cross-holding schemes are present in family firms but they are detected at small cut-offs. Some of these pyramid structures and cross-holdings can be a result of non-cash transactions.

The findings of this study have implications for research, investors, and policymakers. In terms of academic research, future studies utilizing the context of Jordan should consider using ownership, control and firm identify measures based on an analysis similar to the one conducted by this article. As noted earlier, the common use of ownership of largest owners and concentrated ownership in studies utilizing the context of Jordan is subject to substantial measurement errors and could lead to incorrect inferences. In addition, the separation between cash flow and voting rights has important implications with regard to the ability and incentives of controlling owners to expropriate rents from other shareholders and hence can affect firm valuation and corporate decisions. Investors can find the findings useful as they indicate that separation between cash flow and voting rights is detected only at small cut-offs and hence investors may assume incorrectly the absence of pyramidal or cross-holdings schemes. In addition, policymakers concerned with the possibility of the expropriation of minority shareholders or the economy at large can find the results of this article useful in assessing this possibility. Finally, it is important to remind the reader of the limitations and the scope of this article. This article is descriptive with the aim of highlighting ownership and control structures of Jordanian listed firms hence it does not attempt to make conclusions regarding the impact of those structures on firm performance, value, or corporate decisions. In addition, the analysis of this article is limited to listed firms and does not include private companies (unless they are the owners of listed firms).

6. CONCLUSION

This study assesses the ownership and control structures of listed firms in the ASE and focuses on documenting the extent of the separation between cash flow and voting rights created by the use of control-enhancing mechanisms such as pyramid structures and cross-holdings. It also classifies firms into 5 types based on the identity of the ultimate controlling owner and shows the extent to which corporate assets are controlled by those owners. The findings show that Jordanian listed firms are closely held with firms having a large shareholder with at least 5% cash flow rights. In addition, firms that are not group-affiliated are small, are controlled by one shareholder, and have no deviation between ownership and control. Group-affiliated firms are larger compared to the non-affiliated and control is enhanced by pyramid structures and to a lesser degree by cross-holdings. The dominant ownership type is family with around 67% of listed firms. Foreign ownership is also significant with about 25% of firms owned by foreigners mainly from the Gulf Cooperation Council (GCC) countries. The separation between cash flow and voting rights is higher for foreign firms compared to family firms and is more stable for foreign firms, especially for large foreign firms.

In terms of control of corporate assets, the study shows that the largest fifteen families and the top four foreign investors control around 22% of corporate assets, which is substantial as nineteen investors control a fifth of corporate assets. In this context, it is important that future research examines if these investors are challenged or are colluding with other large shareholders. It is also interesting to examine the actual composition of the board of directors and the top management team and the extent to which it reflects the voting rights of the controlling shareholders. In addition, this concentration of power is suspected to play part in influencing the state to gain preferential treatment. Notably, eight out of the fifteen controlling families have or have had members of their families serving as ministers in the government, members in the parliament, or the senate. Therefore, future research can focus on the interplay between the concentration of wealth and its influence over government policies and the evolution of the legal system.

REFERENCES

1. Abdullah, N., & Pok, W. C. (2015). Separation of cash flow rights and control rights and debt among Malaysian family firms. *Journal of Accounting in Emerging Economies, 5*(2), 184–201. https://doi.org/10.1108/JAEE-09-2011-0030
2. Abu Qa'dan, M. B., & Suwaidan, M. S. (2019). Board composition, ownership structure and corporate social responsibility disclosure: The case of Jordan. *Social Responsibility Journal, 15*(1), 28–46. https://doi.org/10.1108/SRJ-11-2017-0225
3. Al Awfi, Y., & Vergos, K. P. (2017). *Determinants of ownership concentration in the Middle East and North Africa (MENA) region.* https://doi.org/10.2139/ssrn.2916472
4. Alajlan, W. (2004). Ownership patterns and the Saudi market. In M. Hirschey, K. J. & A. K. Makhija (Eds.), *Corporate governance: Advances in financial economics* (Vol. 9, pp. 161–186). Emerald Group Publishing Limited, Bingley. https://doi.org/10.1016/S1569-3732(04)09007-3
5. Alhababsah, S. (2019). Ownership structure and audit quality: An empirical analysis considering ownership types in Jordan. *Journal of International Accounting, Auditing and Taxation, 35,* 71–84. https://doi.org/10.1016/j.intaccaudtax.2019.05.006
6. Almeida, H., Park, S. Y., Subrahmanyam, M. G., & Wolfenzon, D. (2008). Beyond cash flow and voting rights: Valuation and performance of firms in complex ownership structures. Paper presented at *the EFA 2008 Athens Meetings.* https://doi.org/10.2139/ssrn.1101865
7. Armitage, S., Hou, W., Sarkar, S., & Talaulicar, T. (2017). Corporate governance challenges in emerging economies. *Corporate Governance: An International Review, 25*(3), 148–154. https://doi.org/10.1111/corg.12209
8. Boateng, A., Liu, Y., & Brahma, S. (2019). Politically connected boards, ownership structure and credit risk: Evidence from Chinese commercial banks. *Research in International Business and Finance, 47*, 162–173. https://doi.org/10.1016/j.ribaf.2018.07.008

9. Chen, C. R., Li, Y., Luo, D., & Zhang, T. (2017). Helping hands or grabbing hands? An analysis of political connections and firm value. *Journal of Banking & Finance, 80*, 71–89. https://doi.org/10.1016/j.jbankfin.2017.03.015
10. Chernykh, L. (2008). Ultimate ownership and control in Russia. *Journal of Financial Economics, 88*(1), 169–192. https://doi.org/10.1016/j.jfineco.2007.05.005
11. Ciftci, I., Tatoglu, E., Wood, G., Demirbag, M., & Zaim, S. (2019). Corporate governance and firm performance in emerging markets: Evidence from Turkey. *International Business Review, 28*(1), 90–103. https://doi.org/10.1016/j.ibusrev.2018.08.004
12. Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review, 15*, 1–33. https://doi.org/10.1016/j.ememar.2012.03.002
13. Claessens, S., Djankov, S., & Lang, L. H. P. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics, 58*(1–2), 81–112. https://doi.org/10.1016/S0304-405X(00)00067-2
14. Claessens, S., Djankov, S., Fan, J. P. H., & Lang, L. H. P. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance, 57*(6), 2741–2771. https://doi.org/10.1111/1540-6261.00511
15. Denis, D. K., & McConnell, J. J. (2003). International corporate governance. *The Journal of Financial and Quantitative Analysis, 38*(1), 1–36. https://doi.org/10.2307/4126762
16. Edmans, A., & Holderness, C. G. (2017). Blockholders: A survey of theory and evidence. In B. E. Hermalin & M. S. Weisbach (Eds.), *The Handbook of the economics of corporate governance* (Vol. 1, pp. 541–636). https://doi.org/10.1016/bs.hecg.2017.11.002
17. Edwards, J. S. S., & Weichenrieder, A. J. (2009). Control rights, pyramids, and the measurement of ownership concentration. *Journal of Economic Behavior & Organization, 72*(1), 489–508. https://doi.org/10.1016/j.jebo.2009.05.016
18. El Ammari, A. (2021). Ownership structure, dividend policy, and financial performance: A causality analysis. *Corporate Ownership & Control, 18*(3), 161–174. https://doi.org/10.22495/cocv18i3art13
19. Engel, J., Nardo, M., & Rancan, M. (2021). Network analysis for economics and finance: An application to firm ownership. In S. Consoli, D. R. Recupero, & M. Saisana (Eds.), *Data science for economics and finance* (pp. 331–355). Springer. https://doi.org/10.1007/978-3-030-66891-4_14
20. Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics, 65*(3), 365–395. https://doi.org/10.1016/S0304-405X(02)00146-0
21. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics, 26*(2), 301–325. https://doi.org/10.1086/467037
22. Hanieh, A. (2010). Khaleeji-capital: Class-formation and regional integration in the Middle-East Gulf. *Historical Materialism, 18*(2), 35–76. http://doi.org/10.1163/156920610X512435
23. Hanieh, A. (2011). The internationalisation of Gulf capital and Palestinian class formation. *Capital & Class, 35*(1), 81–106. https://doi.org/10.1177/0309816810392006
24. Hanieh, A. (2018). *Money, markets, and monarchies: The Gulf Cooperation Council and the political economy of the contemporary Middle East*. Cambridge University Press. https://doi.org/10.1017/9781108614443
25. Hooy, G.-K., Hooy, C.-W., & Chee, H.-K. (2020). Ultimate ownership, control mechanism, and firm performance: Evidence from Malaysian firms. *Emerging Markets Finance and Trade, 56*(15), 3805–3828. https://doi.org/10.1080/1540496X.2019.1584101
26. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X
27. Jiang, F., & Kim, K. A. (2020). Corporate governance in China: A survey. *Review of Finance, 24*(4), 733–772. https://doi.org/10.1093/rof/rfaa012
28. Kao, M.-F., Hodgkinson, L., & Jaafar, A. (2019). Ownership structure, board of directors and firm performance: Evidence from Taiwan. *Corporate Governance, 19*(1), 189–216. https://doi.org/10.1108/CG-04-2018-0144
29. La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance, 54*(2), 471–517. https://doi.org/10.1111/0022-1082.00115
30. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy, 106*(6), 1113–1155. https://doi.org/10.1086/250042
31. Martínez-García, I., Basco, R., & Gómez-Ansón, S. (2021). Dancing with giants: Contextualizing state and family ownership effects on firm performance in the Gulf Cooperation Council. *Journal of Family Business Strategy, 12*(4), 100373. https://doi.org/10.1016/j.jfbs.2020.100373
32. Matinez-Garcia, I., Basco, R., Gomez-Anson, S., & Boubakri, N. (2020). Ownership concentration in the Gulf Cooperation Council. *International Journal of Emerging Markets, 17*(1), 219–252. https://doi.org/10.1108/IJOEM-03-2020-0290
33. Means, G. (2017). *The modern corporation and private property* (2nd ed.). Routledge. https://doi.org/10.4324/9781315133188
34. Migliardo, C., & Forgione, A. F. (2018). Ownership structure and bank performance in EU-15 countries. *Corporate Governance, 18*(3), 509–530. https://doi.org/10.1108/CG-06-2017-0112
35. Mishra, R., & Kapil, S. (2017). Effect of ownership structure and board structure on firm value: Evidence from India. *Corporate Governance, 17*(4), 700–726. https://doi.org/10.1108/CG-03-2016-0059
36. Mustafa, A. S., Che-Ahmad, A., & Chandren, S. (2017). Ownership patterns and control of top 100 Turkish listed companies. *Asian Journal of Finance & Accounting, 9*(1), 192–209. https://doi.org/10.5296/ajfa.v9i1.10878
37. Omet, G. (2005). Ownership structures in MENA countries: Listed companies, state-owned, family enterprises and some policy implications. Paper presented at *the MENA Regional Corporate Governance Forum: Advancing the Corporate Governance Agenda in MENA*. Retrieved from https://www.oecd.org/mena/competitiveness/35402110.pdf
38. Pang, C., & Wang, Y. (2021). Political connections, legal environments and firm performance around the world. *International Journal of Finance & Economics, 26*(3), 4393–4409. https://doi.org/10.1002/ijfe.2021
39. Pellicani, A. D., Kalatzis, A. E. G., & Aldrighi, D. M. (2021). Family control, pyramidal ownership and investment-cash flow sensitivity: Evidence from an emerging economy. *Emerging Markets Finance and Trade, 57*(8), 2426–2446. https://doi.org/10.1080/1540496X.2019.1648249
40. Santos, A. O. (2015). *Integrated ownership and control in the GCC corporate sector*. IMF Working Paper No. 15/184. https://doi.org/10.5089/9781513589459.001

41. Schweizer, D., Walker, T., & Zhang, A. (2019). Cross-border acquisitions by Chinese enterprises: The benefits and disadvantages of political connections. *Journal of Corporate Finance, 57*, 63–85. https://doi.org/10.1016/j.jcorpfin.2017.12.023
42. Sharma, P., Cheng, L. T. W., & Leung, T. Y. (2020). Impact of political connections on Chinese export firms' performance — Lessons for other emerging markets. *Journal of Business Research, 106*, 24–34. https://doi.org/10.1016/j.jbusres.2019.08.037
43. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance, 52*(2), 737–783. https://doi.org/10.1111/j.1540-6261.1997.tb04820.x
44. Tayem, G. (2015). Does foreign ownership increase firms' productivity? Evidence from firms listed on Amman Stock Exchange. *Review of Middle East Economics and Finance, 11*(1), 25–54. https://doi.org/10.1515/rmeef-2014-0024
45. Tran, L. T. H., Hoang, T. T. P., & Tran, H. X. (2018). Stock liquidity and ownership structure during and after the 2008 global financial crisis: Empirical evidence from an emerging market. *Emerging Markets Review, 37*, 114–133. https://doi.org/10.1016/j.ememar.2018.07.001
46. Vagnoni, E., Oppi, C., & Cavicchi, C. (2020). Ownership structure and financial performance: A study of the Italian retail pharmacies. *Corporate Ownership & Control, 18*(1), 22–33. https://doi.org/10.22495/cocv18i1art2
47. Villalonga, B., & Amit, R. (2009). How are U.S. family firms controlled? *The Review of Financial Studies, 22*(8), 3047–3091. https://doi.org/10.1093/rfs/hhn080
48. Wang, F., Xu, L., Zhang, J., & Shu, W. (2018). Political connections, internal control and firm value: Evidence from China's anti-corruption campaign. *Journal of Business Research, 86*, 53–67. https://doi.org/10.1016/j.jbusres.2018.01.045
49. Yosra, G., & Ben Ouda Sioud, O. (2011). Ultimate ownership structure and stock liquidity: Empirical evidence from Tunisia. *Studies in Economics and Finance, 28*(4), 282–300. https://doi.org/10.1108/10867371111171546