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

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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

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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,
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 &
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 Martínez-García, Basco, Gomez-Anson, and Boukabri (2020) who report high ownership concentration, common use of pyramid structures, and weak corporate 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              | 6,437,900,000        | 0.575                                 |
| Insurance    | 20              | 14,910,705           | 0.018                                 |
| Real estate  | 31              | 16,992,985           | 0.011                                 |
| Financial services | 30 | 10,660,892          | 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              | 19,748,513           | 0.011                                 |
| Commercial   | 10              | 64,085,533           | 0.018                                 |
| Energy       | 2               | 202,000,000          | 0.024                                 |
| Mining       | 11              | 174,100,000          | 0.14                                  |
| Clothing     | 4               | 25,396,042           | 0.006                                 |
| Construction | 7               | 9,310,168            | 0.004                                 |
| Food         | 9               | 21,420,313           | 0.011                                 |
| Pharmaceutical | 4               | 22,199,575           | 0.005                                 |
| Printing and packaging | 1 | 11,375,000          | 0.001                                 |
| Technology   | 2               | 212,290,000          | 0.025                                 |
| Tobacco      | 2               | 563,300,000          | 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 identifying the ultimate owners of a corporate entity. Therefore, 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 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 publicly 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-Araba 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%*0.878%]. 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 39.37% [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

Al Barkah Group

Islamic Bank 66%

35% O & 46.8% C

14.9% O & 22.5% C

13.2% O & 20% C

14.9% O & 22.5% C

28.8% O & 41.7% C

26.8% O & 32.6% C

11.57%

10.93%

7% O & 10% C

30% O & 44.2% C

46.7% O & 60.4% C

6.6% O & 10% C

14.9% O & 22.5% C

38.3% O & 49% C

Petro chemical 22.539%

INTAJ 40.126%

Methaq real estate 19.949%

Petra for education 15.263%

Al-Amen for investment 38.074%

Al-Zaqaa for education 22.497%

Jordan Center for Commerce 31.413%

Islamic insurance 41.667%

Arab for pesticided 9.2775%

Jordan for pharmaceutical 44.167%

Hardware industry 49.438%

International oil 10%

Cables and electricity 21.007%

International oil 10%

Petro chemical 22.539%

INTAJ 40.126%

Methaq real estate 19.949%

Petra for education 15.263%

Al-Amen for investment 38.074%

Al-Zaqaa for education 22.497%

Jordan Center for Commerce 31.413%

Islamic insurance 41.667%

48.8% O & 66% C

8.73%

27.2% O & 40.2% C

2.5%

1.26%

4.25%

4.93%

1.49%

5.40%

5.41%

2.44%

1.29%

1.30%

5.25%
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% | 17.3% |
| Cross-holdings at the 5% | 3.13% |
| 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 | 3rd quartile |
|------------------|------|-----|--------------|--------------|
| Cash flow rights | 0.393| 0.237| 0.210        | 0.350        |
| Voting rights at the 5% | 0.438| 0.234| 0.290        | 0.400        |
| Voting rights at the 10% | 0.427| 0.237| 0.290        | 0.390        |
| Voting rights at the 20% | 0.397| 0.239| 0.218        | 0.349        |
| Ratio of cash flow to voting rights at the 5% | 0.883| 0.213| 0.837        | 1.000        |
| Ratio of cash flow to voting rights at the 10% | 0.911| 0.198| 0.871        | 1.000        |
| Ratio of cash flow to voting rights at the 20% | 0.930| 0.191| 0.883        | 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. Separation of cash flow rights and voting rights across type and firm size

|                  | Panel I: 5% cut-off | Panel II: 10% cut-off | Panel III: 20% cut-off |
|------------------|---------------------|-----------------------|------------------------|
|                  | Family              | Foreign               | State                  |
| All firms        | 0.887               | 0.802                 | 0.932                  |
| Small            | 0.882               | 0.896                 | 1.000                  |
| Medium           | 0.867               | 0.848                 | 0.967                  |
| Large            | 0.870               | 0.879                 | 0.940                  |
|                  | 0.924               | 0.832                 | 0.956                  |
| Small            | 0.919               | 0.844                 | 1.000                  |
| Medium           | 0.894               | 0.845                 | 0.972                  |
| Large            | 0.907               | 0.806                 | 0.944                  |
|                  | 0.966               | 0.863                 | 0.998                  |
| Small            | 0.984               | 0.914                 | 1.000                  |
| Medium           | 0.935               | 0.857                 | 1.000                  |
| Large            | 0.974               | 0.833                 | 0.994                  |
|                  | 0.081               | 0.404                 |                        |
| Top 5 families   | 0.081               | 0.404                 |                        |
| Top 10 families  | 0.109               | 0.478                 |                        |
| Top 15 families  | 0.118               | 0.116                 |                        |
| Foreign ownership in the top 20 firms | 0.007 | 0.243 |                        |

Notes: Table 4 reports the ratio of cash flow to voting rights by firm identity and firm size. Family firms represent 63%, 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 corporate 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     | 0.896                                                               | 0.244                                                  |
| Top 5 families   | 0.081                                                               | 0.404                                                  |
| Top 10 families  | 0.109                                                               | 0.478                                                  |
| Top 15 families  | 0.118                                                               | 0.116                                                  |
| Foreign ownership in the top 20 firms | 0.007 | 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; Martinez-Garcia 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 has 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 these 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 (Martinez-Garcia et al., 2021; Matinez-Garcia et al., 2020; Yosra & Ben Ouca 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, control and firm identity measures can 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 sure of large owning the impact of these 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.

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