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THE DIVISION OF OWNERSHIP AND
CONTROL IN LISTED JORDANIAN FIRMS

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Abstract

Firms listed on the Amman Stock Exchange (ASE) represent an important part of the economic activity in Jordan with 63.5% of market capitalization to GDP in 2016. However, there is little known about the ownership of Jordanian listed firms. This study is the first to document in details the ownership and control structures of more than 200 firms listed on the ASE. In this study I document the immediate ownership of shareholders who control over 5% of the votes in the sample firms. If principal shareholders are legal entities, I identify their owners, the owners of their owners and so on. Then, percentage control is computed using the weakest link rule to identify the ultimate controller at different cut-offs. If the corporation is identified as closely held I assign it one of the following identities: Family, Foreign, State, Widely Held Financial Institution, Widely Held Corporation and other. The study shows that around one third of listed firms are single firms with virtually no deviation between ownership and control. Single firms are mostly owned by families. The other two thirds of listed firms are group affiliated. In some cases control of group affiliated firms is enhanced by their ultimate controllers by the use of pyramids and cross holdings which leads to a diversion of voting rights and cash flow rights especially at the 5% and 10% levels. The control of group affiliated firms is mostly in the hands of families with some groups controlled by foreigners (mainly from the Saudi Arabia) and the state. Finally, corporate wealth is concentrated among a small number of investors, mostly families.

Keywords: Ownership; Control; Business Groups; Family Control; Jordan.

JEL Classifications: G32; L22.

1. Introduction

The study of ownership structure has received great attention for the past three decades. Highly concentrated firms can be advantageous since they can reduce agency costs resulting from the separation between ownership and control (Jensen and Meckling, 1976; Fama and Jensen, 1983). In theory, therefore, concentrated firms may represent an “optimal ownership” form. This argument however ignores that the division of ownership and control within the firm and at the business group may benefit ultimate owners at the expense of other shareholders (Shleifer and Vishny, 1997). However, to this moment little is known about the ownership structure of Jordanian companies. Most empirical investigation of listed Jordanian firms documents that those firms are highly concentrated and that concentration measures have an impact over various corporate decisions and market behaviour (Tayem, 2015; Tayem et al., 2016; Bino et al., 2016). However, the use of these measures is imperfect as they do not represent the true control mechanisms within the firm. This study focuses in more depth on the division of ownership and control within a firm and at a business group level. In doing so, this study aims at constructing specific measures of ownership and control following the relevant literature. Specifically, this study aims to document immediate ownership, and the structure of business groups in terms of identifying pyramids and cross holdings among affiliate firms. Also, the study aims at identifying the ultimate shareholder and the identity of the ultimate shareholder for each listed firm. Finally, the study aims at constructing cash flow rights to control rights measures following the relevant literature (Claessens et al., 2000).

The study finds that most listed Jordanian firms are closely held with all firms having a large shareholder with at least 5% ownership. Only six firms have cash flow rights less than 5% in the hands of one shareholder and 17 firms with ownership of less than 10%. In addition, 65 firms (about one third of Jordanian listed firms) are controlled by a single shareholder which are not challenged by other large shareholders. This number increases to increases to 93 firms if we include other shareholders with ownership less than 10%. Family control firms are the dominant in the ASE with 137 firms out of 234 are controlled by a family. Foreign ownership is significant in the ASE with 44 firms owned by foreigners manly from the Saudi Arabia.

Another important pattern that emerges from the data indicates that around one third of listed firms are single firms with virtually no deviation between ownership and control. Single firms are mostly owned by families. The other two thirds of listed firms are group affiliated.

In some cases control of group affiliated firms is enhanced by their ultimate controllers by the use of pyramids and cross holdings which leads to a diversion of voting rights and cash flow rights especially at the 5% and 10% levels. The separation of ownership and control is most pronounced among family-controlled firms and is non-existent for state firms. However, the wedge between cash flow rights and voting rights present in listed Jordanian firms is modest in comparison to other countries around the world. In terms of control of corporate assets, the study shows that the largest 15 families and the top 4 foreign investors control around 21% of corporate assets. This percentage is lower than the corporate assets under control reported in the literature in various developing countries. However, it is substantial as 19 investors control fifth of corporate assets.

2. Review of Related Literature

This study relates to the literature on the theory of the firm and the choice of financial claims (Jensen and Meckling, 2007; Fama and Jensen, 1983), how financial claims shape corporate governance (Shleifer and Vishny, 1997; Denis and McConnell, 2003), and how firm choices are affected by and how they affect proposed regulatory changes (Rajan and Zingales, 2003). Ownership concentration is a dominant feature of listed firms around the globe (see for example, La Porta et al. 1998; LaPorta et al. 1999; Claessens et al. 2000). There is an extensive work on the characterization of ownership concentration in various regions of the world (Claessens et al. 2000; Faccio and Lang, 2002; Claessens et al. 2002). 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 structure, and/or cross-holdings (Claessens et al. 2000; Faccio and Lang, 2002; Claessens et al. 2002).

The extant evidence on the division between ownership and control outside the US is vast (Claessens and Yurtoglu, 2012). The evidence shows that listed companies in East Asian countries are largely controlled by families and that they gain control over their cash flow rights the use of pyramid structure and cross-holdings (Claessens et al., 2000). In Russia, the evidence indicates that listed companies are controlled by the state or by private owners using pyramids and golden shares (Chernykh, 2008). The evidence from Western European

countries points to more role of the ultimate owner not the structure of ownership. 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 large firms are widely held while small ones are family firms.

With concentrated ownership at the hands of one or a small number of coordinated owners and with relatively small number of families controlling large fraction of the corporate sector, one is compelled to question if these families exert influence over the government in order to influence their economic policies or if they have access to privileges other companies do not have. The evidence indicates that ownership concentration varies with the quality of legal and judicial systems, including for example the protection of investors' rights, the enforcement of those rights; lack of corruption; and the disclosure system (La Porta et al., 1997; La Porta et al., 1998; La Porta et al., 1999; Claessens and Yurtoglu, 2012). The evidence suggests that in countries with weak legal protection of investor rights ownership concentration tends to be significantly larger (La Porta et al., 2002). Therefore, the status quo in some countries may provide current families with values and rent (Claessens and Yurtoglu, 2012). This is evident by the extant research that shows the sizeable economic rents gained by politically connected firms including for example experience higher stock returns and better access to bank debt (Claessens et al., 2008); increased probability of being bailed out (Faccio et al., 2006) and borrowing more than their non-connected counterparts (Charumilind et al., 2006; Chiu and Joh, 2004).

Although the literature exploring ownership structures around the world is large, little is known about Jordan. This is in part due to the scarcity of ownership data and the nature of the data that needs to be hand-collected from annual reports and/or by contacting the firm itself. Therefore, this study will fill a gap in the literature by providing the first comprehensive portrait of ownership and control from Jordan. Specifically, this study will address the following questions. Is there any separation of ownership and control among Jordanian countries and what are the mechanisms used to achieve this separation? How the Jordanian case is different from other developing countries? To what extent is corporate control concentrated with a group of families? The findings of this study have 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.

3. Construction of the Data and Ownership Variable Definition

3.1. Construction of the Data

This study follows closely Claessens et al. (2000) in constructing direct and indirect cash flow and control rights of ultimate shareholders. Claessens et al. (2000) define cash flow rights based on cash flow ownership and control rights based on voting rights. They show that cash flow rights and control rights may deviate when firms use different share classes with varying voting rights, pyramid structures and cross holdings.

The sample of this study consists of all listed firms in the Amman Stock Exchange (ASE) as in December 2017. The firms belong to the financial and non-financial sectors. The distribution of firms is documented in Table 1 with the average market value as of December 2017.

Table 1: Sample Firms

Firm Classification based on the ASE. The number of firms in Table 2 is 184 which are firms with market values.

Sector	Number of Firms	Average Market Value	Share of Total Market Value
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

As a starting point in data collection of cash flow and voting rights, I use the Securities Depository Centre (SDC) to identify and document the immediate ownership of the sample firms. The SDC reports the names and nationalities and ownership of all shareholders with percentage ownership of 1% and above. The ownership data is collected at the end of the 2017 fiscal year. For the fiscal year 2018, I am able to collect ownership data for all the listed companies numbering 237 firms. In addition, I am able to trace ultimate owners for the full sample of 237 firms. I trace the ownership of owners which are private Jordanian companies from the registry of the Company Controller (which is a department of the Ministry of Manufacturing and Commerce) and the ownership of owners which are foreign companies by conducting a web search. The identification of the ultimate owner is done with a small error margin in a number of cases. Some of the shareholders of listed companies are off-shore companies. The identification of the shareholder(s) of these off-shore entities is difficult as the web search usually retrieves no information with regard to the owner(s) of these companies. Therefore, the analysis runs into the risk of underestimating the percentage of ownership of a large shareholder who could be the owners of an off-shore entity. However, the presence of these (un)identified entities will bias the results of this study against finding more family ownership and control and hence listed firms with off-shore shareholders are included in the sample.

Finally, to the best of my knowledge, there is no specialized source of group-affiliation information. Therefore, this study constructs business groups based on the publically available data on owners of listed firms. Constructing business groups in the previous manner is likely to underestimate the number of the group-affiliated firms, however, this will bias the results against finding evidence of more family ownership and control.

3.2. Ownership Variable Definition

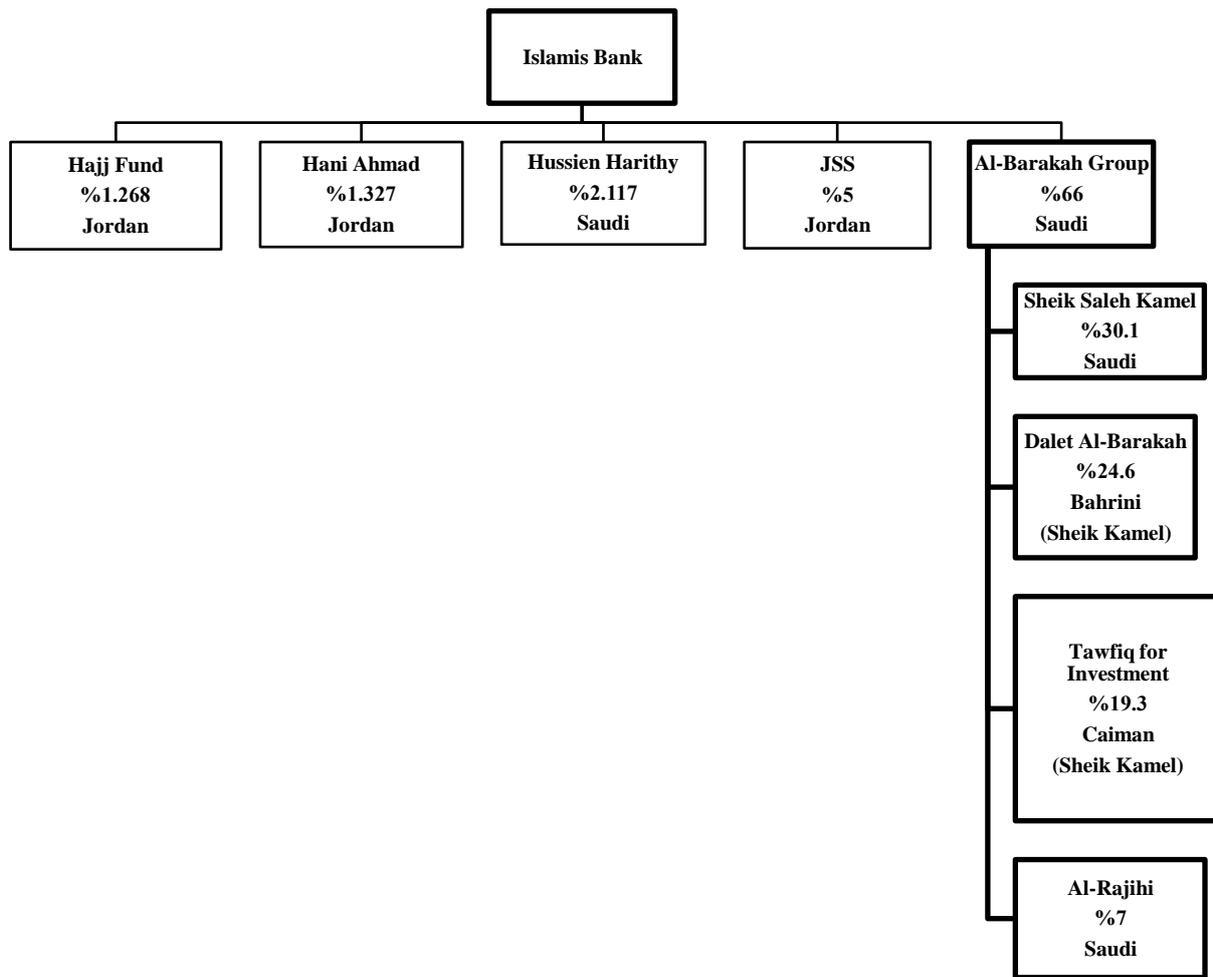
This study follows closely Claessens et al. (2000) by analysing cash flow and control rights of companies by studying all shareholders with ownership percentages exceeding 1%. I identify two types of principal shareholders: individuals and corporate entities. In case shareholders are individuals, I check if individual shareholders belong to the same family by identifying the family name. I also check if individual shareholders are spouses through internet search. In case the shareholder is a corporate entity, I trace the entity's ownership from the following resources: 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. Then, I keep repeating the previous procedure until I identify the ultimate owners of principal shareholders which are corporate entities.

To identify the control rights, I rely on the definition of control rights as the percentage of voting rights of a principal shareholder. The voting rights are equal to the cash flow rights but can be enhanced by the use of pyramid structures and cross holdings (Claessens et al., 2000). One common rule in the literature applied to measure control in case of the presence of pyramid structures and cross holdings is the weakest link rule. Under this rule I 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 of control through the chain which must be met in all the links. In this study I assign three cut-offs: 5%, 10%, and 20%.

For each listed company I form an ownership structure with all principal shareholders. I add up the ownership of individual shareholders belonging to the same family and highlight principal owners which are corporate and private entities that are controlled by the same family. Figure 1 illustrates the case of the Islamic Bank. In Figure 1, the Islamic Bank's largest shareholder is identified as Al-Barakah Group 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%.

Figure1: Principal Shareholders of the Islamic Bank and the Largest Controlling Owner



A more complex case of the Cairo Amman Bank is illustrated in Figure 2. The figure shows that principal shareholders of Cairo Amman Bank include one government agency, one foreign entity, three families and five firms. Other shareholders with ownership less than 5% and without direct relation to any of the principal shareholders with ownership above 5% are not shown in this figure. The Jordanian Social Security owns around 7.2% and the Bank of Egypt (controlled by the Egyptian government) owns about 11. The ownership of Al-Talhouni Family consists of the sum of the ownership of three siblings and the ownership of the Saleh Mustafa Family consists of the sum of the ownership of four siblings. The case of Al-Masri Family is more complex as they have direct and indirect ownership through firms under their control. As for each of the principal shareholders identified as a firm, I carried an internet search to identify their ultimate owner. I identified the ownership of four of these companies:

- Almasira for Investment (owns 11.388% of Cairo-Amman Bank and is 100% owned by Sabeeh Taher Almasri);
- Almasira International (owns 10.545% of Cairo-Amman Bank and is 100% owned by Sabeeh Taher Almasri);
- Al-Dhafer for Investment (owns 4.282% of Cairo-Amman Bank and is 100% owned by the late Dhafer Taher Almasri's offspring and his wife);
- Palestinian Telecommunication (owns 5.877% of Cairo-Amman Bank and is 30.63% owned by Palestinian Development and Investment which is in turn 17.91% owned by Sabeeh Taher Almasri);
- Finally, I could not identify the owners of Al-Arabia for Nutrition and Commerce, however, the web search indicates that Asbeeh Al-Masri owns and controls the firm.

Therefore, Al-Masri Family has a direct ownership of Cairo Amman Bank of 33.495% (11.388%+10.545+5.241%+4.282%+2.039%) and an indirect ownership of 0.322% (17.91%*30.63%*5.877%). This makes 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% at the 5% and 33.495% at the 10% and 20% cut offs.

Figure 2: Principal Shareholders of the Cairo Amman Bank and the Largest Controlling Owner

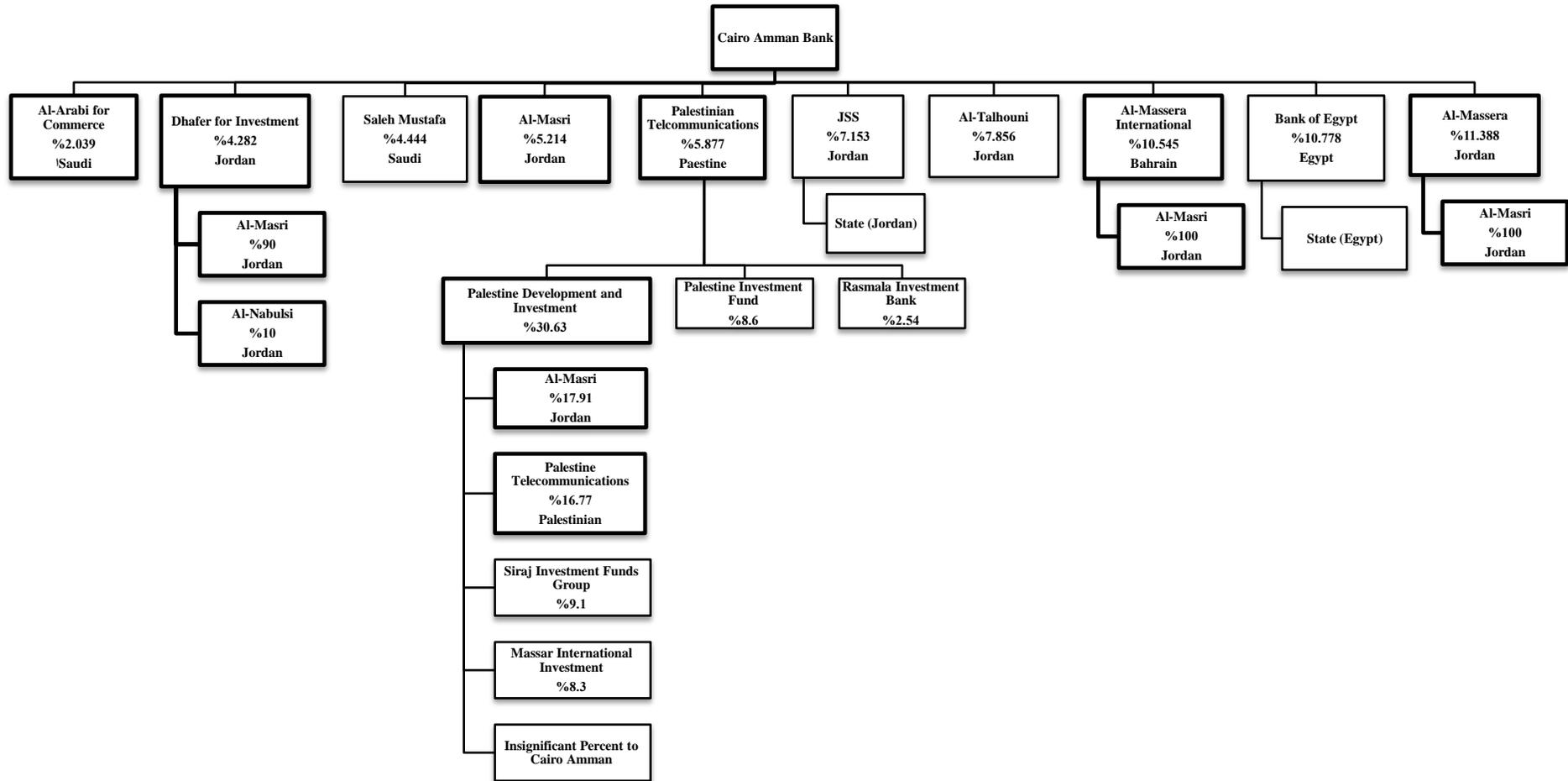
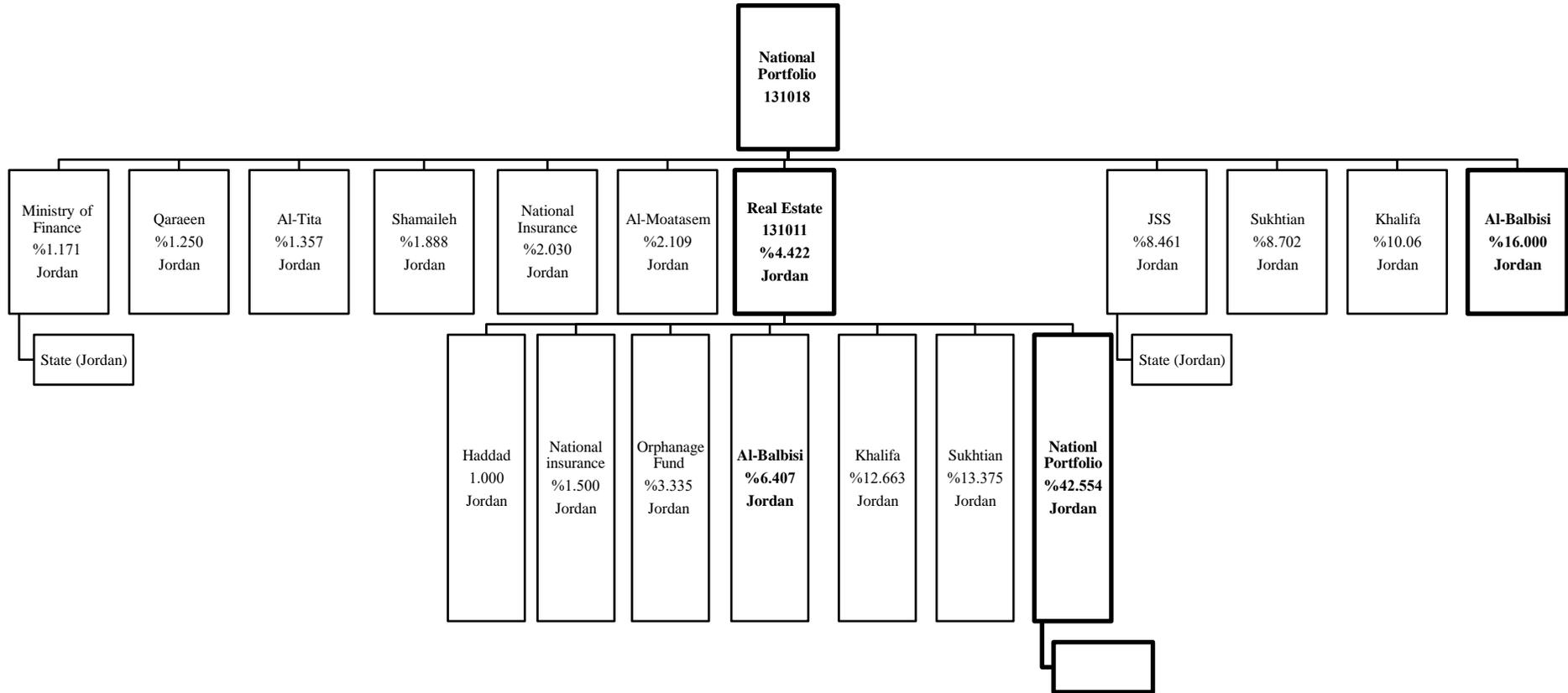
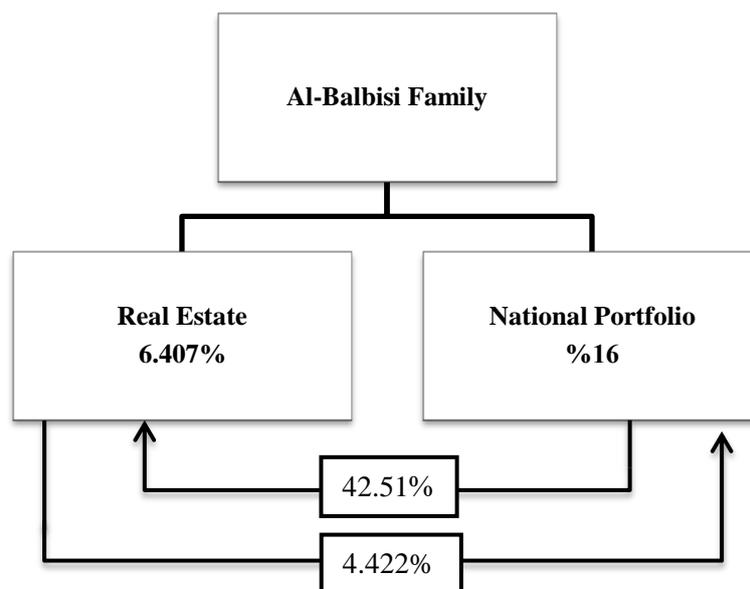


Figure 3: Principal Shareholders of the National Portfolio and the Largest Controlling Owner



The identification of the ultimate controller depends on the assigned cut-off as the next example illustrates. In Figure 3, Al-Balbisi has a direct ownership of the National Portfolio of 16% and an indirect ownership through the Investment Real-Estate Portfolio of 0.58% $[(6.407\% + (42.554\% * 16\%)) * 4.422\%]$ with a total of 16.58%.¹ Also, applying the rule of the weakest link, Al-Balbisi controls only 16% of the National Portfolio at the 5% and 10% cut-offs. 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 (see Figure 4). In addition, Al-Balbisi is an ultimate owners at both the 5% and 10% cut-offs but not at the 20% cut-off. Although part of Al-Balbisi's ownership of the National Portfolio is indirect through pyramids and cross holding, I do not classify the firm as one with pyramid structure or cross holding since the chain of ownership does not exceed the minimum threshold of 5%.

Figure 4: Al-Balbisi Crossholding



Finally, I assign an identity of the ultimate shareholder: Family, Foreign, Government, Widely Held Financial Institution, Widely Held Corporation and other. In the previous three examples the Jordan Islamic Bank is assigned the label Foreign and the sub-label Foreign Family. The Cairo Amman Bank is assigned the label Family. The National Portfolio is classified as a family firm at the 5% and 10% cut-offs and is classified at the 20% cut-off as a widely held financial institution firm.

¹ This computation ignores cross holding. The exact computation of Al-Balbisi ownership of the National Portfolio including the cross holding is given by the following equation: $[0.16 / (1 - (0.425 * 0.04422))] + [(0.0407 * 0.04422) / (1 - (0.425 * 0.04422))] = 0.1658$ (Almeida et al., 2008).

To better understand the extent of control concentration among each of the previous firm types, I construct business groups within listed firms. I identify a firm as part of a business group if it has the same controlling owner with at least one other corporation in the sample (Faccio et al., 2001). This allows the appearance of the same firm in two different business groups in order to compute the amount of corporate assets under the control of one principal shareholder. For Example, Figure 5 illustrates the business group affiliated with Al-Barakah Group. All firms highlighted in red have Al-Barakah Group as their second largest controller. However, it should be noted that the largest controller in the four of these firms is not affiliated with any other business groups. Figure 6 presents the business group controlled by Al-Mo'asher family. The case of Al-Mo'asher is interesting because of the amount of the usage of cross holdings. This group alongside another two (Abu-Khadeja and Al-Khashman) are the ones using cross holdings extensively.

Figure 5: Al-Barakah Group

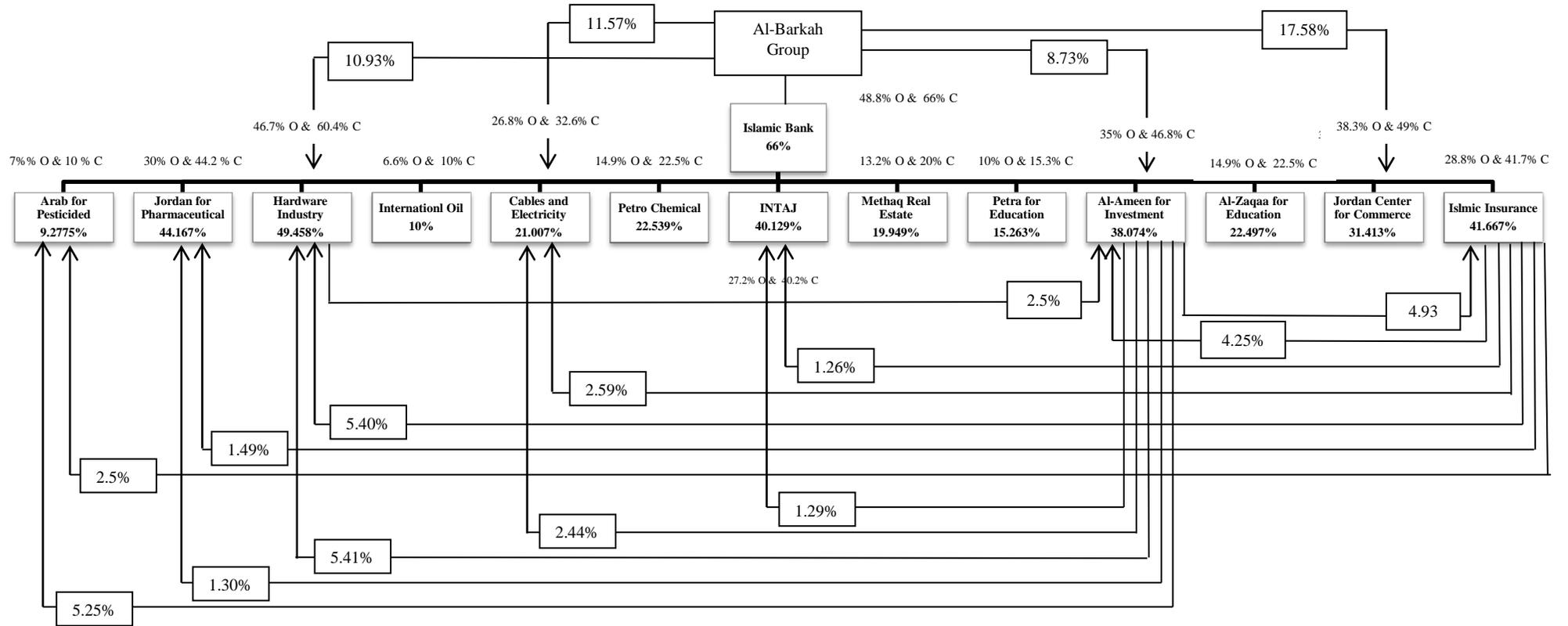
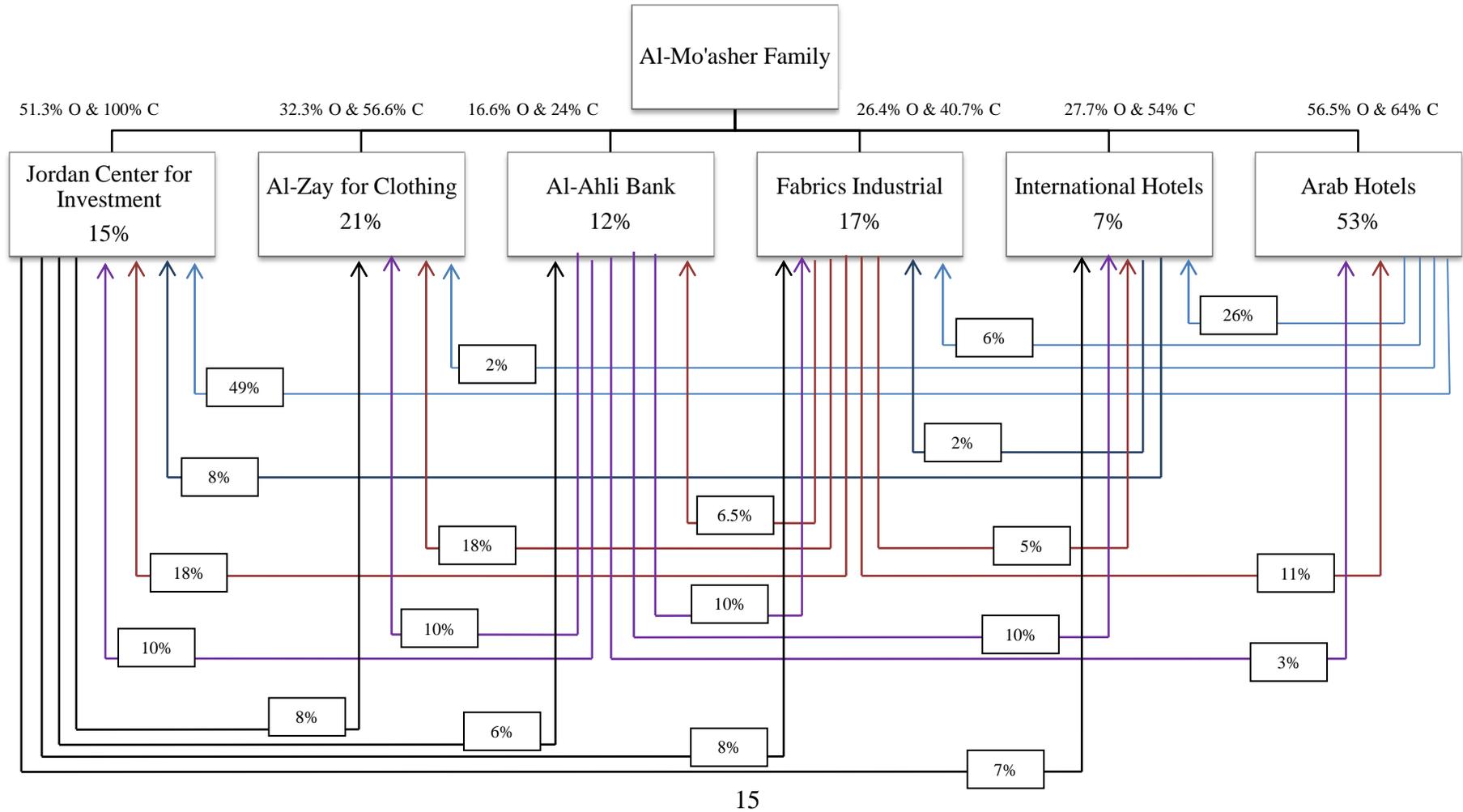


Figure 6: Al-Mo'asher Group



4. Key Trends of Jordanian Listed Firms Ownership Structures

The examples presented in the previous section indicate that ownership structures of some of the listed Jordanian firms are complex. The starting point of this analysis discusses the mechanisms that spate ownership from control. Table 2 detects the presence of three means that can be used to enhance control in Jordanian firms. According to Claessens et al. (2000) pyramid structures are defined as “owning a majority of the stock of one corporation which in turn holds a majority of the stock of another, a process that can be repeated a number of times” [Page, 93]. Table 2 detects the presence of pyramids at the 5%, 10%, and 20% cut-offs and assuming that each link in the chain should be greater than the assigned cut-off. Although the choice of 5% is not common in the literature, I believe it reflects the reality of the context of Jordan as a shareholder with 5% and more shareholders have the incentives and ability to influence the management of the firm. The data shows that 37.2% of the listed Jordanian firms can be 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%. For most firms control through pyramid structures only enhances the direct ownership of the ultimate owner. In other words, the ultimate owner usually have a substantial direct ownership (or through a fully owned firm) and enhances his control with the use of a pyramid structure.

Table 2: Means of Enhancing Control in Jordanian Listed Firms.

The sample consists of 234 closely held firms at the 5%.

	Sample Percentage
Firms with no 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%
Controlling Owner Only	28.8%

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 (this definition is adapted from Claessens et al., 2000). The percentage of firms with enhanced control using cross holdings is 5% which is small 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.

Next, I examine the separation between cash flow and voting rights and present some descriptive statistics in Table 3. The first row in Table 3 shows the ownership of the largest owner. The largest owner is defined as the principal shareholder with the largest ownership. In case there are multiple principal shareholders from the same family, their ownership is added. The mean value of the largest owner indicates that on average one principal shareholder controls at least 42.8% of the shares of listed Jordanian firm. In addition, 75% of Jordanian firms have at least one owner with more than 20% ownership. These results indicate that large shareholders hold a large fraction of the firm's equity. To examine the extent at which principal shareholders enhance their control with the use of pyramids and cross holdings Table 2 reports cash flow rights, voting rights at different cut-offs and their respective ratios. Cash flow rights are lower than the ratio of the largest owner which is expected in the presence of pyramids and cross holdings. The voting rights decreases with the increase of the cut-off, which is expected given that some chains of control will be disregarded. Finally to assess the degree at which ultimate owners enhance their control rights above their cash flow rights we look at the ratio of Cash flow to control rights. The median of this ratio is one indicating that at least half of Jordanian listed firms do not enhance control through the use of pyramid structures and cross holdings. The mean of cash flow to control rights is present at the 5% but diminishes gradually when considering larger cut-offs.

Table 3: Separation of Cash Flow and Voting Rights in Jordanian Listed Firms.

The sample consists of 234 closely held firms at the 5%.

	Mean	SD	1 st Quartile	Median	3 rd Quartile
Largest Owner	0.428	0.243	0.225	0.381	0.570
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

Table 3 examines if the separation of cash flow and voting rights is concentrated among one type of shareholders or within a group range. Closely held firms are classified into five types based on the identity of their largest controlling owner. These five types include: family, foreign, state, widely-held, and other. However, the data shows that none of the Jordanian firms are owned by a widely held institution and that firms under other are relatively small in number. Therefore, Table 3 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 small cut-offs but diminishes when we consider larger cut-offs. However, there are some differences based on the type of the firm. Foreign firms have more robust ratios of cash flow to voting rights. The mode of entry of large foreign firms such as Al-Barakah Group and Arab Cement indicates that they control one firm and use it as a centre to control other firms in the group. The separation ratio in family and state firms reduces substantially when considering large cut-offs. Family and state firms maintain large direct stake of ownership in their firms and other group affiliated firms have small ownership percentages that do not exceed the 10% cut-offs in most business groups. On average, it seems that the use of pyramids and cross holdings happened for reasons not related to control enhancement. One prominent example is the use of ownership in noncash settlement.

Table 4: Separation of Cash Flow and Voting Rights across Type and Firm Size.

The sample consists of 184 closely held firms at the 5% with published market values.

		5% Cut-off		
		Family	Foreign	State
		0.879	0.876	0.883
Small	0.882	0.900	0.865	0.745
Medium	0.867	0.867	0.906	0.853
Large	0.870	0.884	0.826	0.963
		10% Cut-off		
		Family	Foreign	State
		0.925	0.876	0.956
Small	0.919	0.944	0.838	1.000
Medium	0.894	0.903	0.845	0.976
Large	0.907	0.951	0.806	0.940
		20% Cut-off		
		Family	Foreign	State
		0.968	0.877	0.962
Small	0.966	0.984	0.978	1.000
Medium	0.935	0.957	0.857	1.000
Large	0.934	0.975	0.813	0.940

Next, I examine the variation of the separation ratio according to firm size. Foreign firms have the highest separation ratio among large firms. As explained above the mode of entry of foreign firms uses pyramid structures when the foreign entity is large enough. However, small foreign investors usually have control through direct ownership. As for family and state firms there is no clear pattern on the relation of firm size and the use of control mechanisms.

The analysis so far showed that firm control is usually achieved with direct ownership. The use of pyramids and cross holdings as means of control is present in foreign large. However, the data did not show clear patterns with regard to family firms although there are a number of cases of family groups that use pyramids and cross holdings. Therefore, this part of the study shifts the direction of analysis towards the concentration of control of corporate assets in the hands of family groups. I used family groups identified in the previous section as my unit of analysis. I assumed 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 in 2017 fiscal

year. The results are reported in the first column. Foreign control is not included in the computation of the top families but is reported separately in the last row. The top first family (AL-Masri) controls 1.5% of corporate assets, the top 15 families control around 12% of corporate assets. Foreigners control around 10% of corpora assets which is roughly equivalent to the control of Jordanian families.

In the second column I assume that the controlling shareholder is colluding with other large shareholder and hence has full control of the firm. To prevent the duplication of entry, I assign a firm to one group depending on the identity of the largest controlling shareholder. The second row reports the results. The picture changes dramatically when the latter assumption is applied. 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 corporate assets and foreign investors control quarter of these assets.

Table 5: Control of Corporate Assets

The sample consists of 184 closely held firms at the 5% with published market values.

	Percentage of Controlled Assets to 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
Average Number of Firms Per Family	3.719	
Foreign Ownership in the top 20 Firms	0.097	0.243

5. Conclusion and Future Research

This study documents in details the ownership and control structures of listed firms in the ASE. The study focuses on documenting the extent of the separation between cash flow and voting rights through the usage of pyramid structures and cross holdings. It also classifies firms into five types based on the identity of the largest controlling owner and finally it shows the extent at which corporate assets are controlled by families. The results indicates that the separation of cash flow and voting rights is detected at small cut-offs but not large ones. This result can indicate that pyramid structures and cross holdings are not widely used by Jordanian firms and their presence may be random (due for example to non-cash

transactions). However, the data shows that large foreign firms and a limited number of Jordanian families are using these schemes. This study can expand by examining each one of these cases in order to assess the extent at which those investors are using these schemes in order to expropriate other minority shareholders.

In terms of control of corporate assets, the study shows that the largest 15 families and the top 4 foreign investors control around 21% of corporate assets. This percentage is lower than the corporate assets under control reported in the literature in various developing countries. However, it is substantial as 19 investors control fifth of corporate assets. In this context, it is important that future research examines if those investors are challenged or are colluding with other large controlling shareholders. It is also interesting to examine the actual composition of the board of directors and the top management team and the extent at which it reflects the voting rights of the controlling shareholders. 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. These families are economically and politically powerful. This concentration of power is suspected to play an important part in influencing the government for preferential treatment. For example, the current speaker of the parliament is also an owner of one of the largest construction companies in Jordan. His family ranks number 14 in our list of the largest controlling families. It has been reported several times that this person uses his political power to influence the voting in the parliament to pass certain government decisions in exchange for special treatment when the government announces new construction projects. Also, the concentration of power may influence the government policies. In 2018 the government announced that it will impose (or increase) sales taxes on around 200 products including farming and pharmaceutical products. The decision on pharmaceutical products was cancelled two days after the announcement citing concerns over the general health of the Jordanian citizens as a main reason. However, farming products were not exempted from the increase of the new taxes although farmers and owners of related industries held continuous demonstrations for several weeks. The pharmaceutical industry is controlled by several members of the families in our list of the 15 largest owners while the farming industry is diversified and consists of a large number of small owners. The uneven distribution of economic and political power must have had an impact over the government's reversal of its decision on pharmaceutical products. This anecdotal evidence points out that concentration of wealth can have influence over the

government policies and even perhaps the evolution of the legal system, especially in terms of regulating competition.

6. References

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