Payout policy and ownership structure: The case of Islamic and conventional banks

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Abstract

Using a sample of Islamic and conventional financial institutions domiciled in 16 countries for the period 2000-2015, we examine how ownership structure affects dividend policy. Our main findings indicate that ownership identity is important in explaining dividend policy in these banks, albeit in different patterns. In particular, the results suggest that government ownership seems to exert negative effects on dividend payouts in both types of banks, which is in line with the preference of governments towards bank stability. With respect to family ownership, the impact is negative for conventional banks but positive for Islamic ones, consistent with agency theory. These results are to some extent similar in the case of foreign ownership where it is associated with a higher payout policy in Islamic banks, but not significant in conventional ones. Our results are robust to an array of additional analyses including propensity score matching.

1. Introduction

Islamic financial institutions have witnessed a rapid growth in the last decades and they have been very resilient and competitive *vis-a-vis* conventional institutions in many jurisdictions particularly in the Asian and Middle East regions (International Monetary Fund, 2015, Doumpos, Hasan, & Pasiouras, 2017). [1] Their *modus operandi* has attracted considerable interest from both academics and policy makers, and within this context, there has been a growing number of prior works that examine differences between Islamic and conventional banks (e.g. Abdelsalam, Dimitropoulos, Elnahass & Leventis, 2016; Athari, Adaoglu, & Bektas, 2016). This paper aims to extend this strand of research by analyzing the payout policy of these institutions. In particular, we empirically investigate the role of ownership structure in shaping their payout policy, which is largely an overlooked topic in the banking literature in comparison to the evidence on non-financial firms.

Prior literature argues that dividends alleviate agency problems arising between managers (controlling shareholders) and owners (minority shareholders) when ownership is dispersed (concentrated) (Jensen, 1986; De Cesari, 2012; Lepetit, Meslier & Wardhana, 2017). By distributing dividends, firms curb the potential extraction of resources by insiders, and hence signal to the market their commitment to limit expropriation (Chu, Haw, Lee & Wu, 2014). Other studies have pointed out that the payout preferences of different types of largest shareholders (e.g., government, financial institutions or families) are not homogeneous (Jagannathan, Stephens & Weisbach, 2000; Short, Zhang & Keasey, 2002). For instance, Ben-Nasr (2015) shows that dividend payout ratios are negatively affected by government ownership because of higher agency costs in state owned firms. Allen, Bernardo and Welch

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[1] Islamic banking and finance is based on *Shariah* guidelines which prohibit the payment of interest. Other features include prohibition to invest in particular derivative assets, or in activities that generate revenues from the sale of drugs, alcohol, weapons, or pornography (Abedifar, Ebrahim, Molyneux & Tarazi, 2015).

(2000) and Jeon, Lee and Moffett (2011) report that foreign institutional investors generally demand higher dividend payouts since this could be a disciplinary device that reduces the expropriation of resources by managers (Easterbrook, 1984; Farre-Mensa et al., 2014). Family ownership is generally linked to lower dividends because this shareholder tends to extract rents from minority owners, use firm resources to provide unjustified benefits to members of the family or invest in negative cash flow projects (Gonzalés, Guzmán, Pombo & Trujillo, 2014; Al Najjar & Kilincarslan, 2016).

Thus far, little academic work exists with respect to investigating the effects of shareholders on bank payouts, and extant literature mainly focuses on US banks with dispersed ownership. Anecdotal evidence suggests that dividends can be used by managers to disclose bank quality (Abreu & Gulamhussen, 2013; Floyd & Skinner, 2015). Banks generally display a higher degree of opaqueness, and hence agency costs are more severe. Consequently, the signaling role of dividends in banking institutions seems to be more important than for other industries, especially during a financial crisis period (Forti & Schiozer, 2015). In another context, Onali, Galiakhmetova, Molyneux and Torluccio (2016) investigate the payout policy of European banks and find that the effects of government ownership can be ambiguous. Government ownership results in a high payout level in order to maximize the value of its investment (Gugler, 2003). However, since generous dividend payouts might erode bank capital, the government has an incentive to monitor bank dividends and urge their reduction if necessary (Onali et al., 2016). In a similar setting, Lepetit et al. (2017) report that family-owned banks in Europe pay lower dividends suggesting that this type of owner is more prone to divert bank resources and expropriate minority shareholders.

Furthermore, there are at least two additional factors that could differently influence the payout policy of Islamic banks vis-à-vis their conventional counterparts, which have not been addressed by prior research. First, in addition to *Shariah* supervisory board and religiosity

monitoring, Islamic banks face a different type of agency costs which is not present in conventional banks (Abdelsalam et al., 2016).[2] That is, given that Islamic banks do not permit for the charging of fixed interest, these institutions have developed alternative products based on the principle of sharing profits and losses (Beck, Demirgüc-Kunt & Merrouche, 2013; Abedifar, Molyneux & Tarazi, 2013). These so-called profit sharing investment accounts (PSIA) are similar to equity capital to the extent that the bank is entitled to pool them together with shareholder's capital and invest in loans or other assets. Profits deriving from these investments are then divided between the PSIA holder and the bank on the basis of a predetermined ratio (Archer & Karim, 2010). Unlike depositors in conventional banks, PSIA holders could theoretically support even losses arising from these investments. However, they are not granted the same shareholder rights, as long as the governance of Islamic banks does not allow for effective monitoring of the management by PSIA holders. Under such opaque legal framework, expropriation of PSIA holders can occur in several ways. Boards which are aligned with large shareholders could grant the latter high dividends by manipulating the rate of return of PSIA holders. They could also invest PSIA funds in non-remunerative projects, whereas shareholder funds be invested in high net present value ones. Thus, dividend policy could be used as an expropriation tool, insofar it allows shareholders to divert funds from investment account holders, in an opposite pattern compared to conventional banks. Second, Islamic banks adopt a more prudent capital structure as they have limited financing choices compared to conventional competitors. Moreover, Islamic money markets are generally underdeveloped (Abedifar et al., 2013). This precludes somehow their engagement in asset liability management. Hence, these institutions could be more conservative in setting their payout policy in order to build capital buffers. Beck et al. (2013) report that Islamic financial

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[2] The *Shariah* board consists of learned Islamic scholars specialised in Islamic jurisprudence. The board main responsibilities include: (i) overseeing banks' activities to ensure that they operate in a *Shariah* compliant manner; (ii) assisting in the structuring, as well as providing *Shariah* approvals for new products and services; (iii) certifying in the financial report on whether the bank has been operating in a *Shariah* compliance manner and (iv) reporting any violation of *Shariah* principles.

institutions display better capitalization ratios compared to conventional ones in line with these assumptions.

Employing a dataset of both Islamic and conventional financial institutions domiciled in 16 jurisdictions for the period 2000-2015, our main findings indicate that ownership identity is indeed important for explaining dividend policy in these banks, albeit in different patterns. In particular, government ownership seems to exert a negative effect on dividend payouts in both types of financial institutions, which is consistent with the preference of governments towards bank stability. In the case of family ownership, the impact is negative for conventional banks but positive for Islamic ones, consistent with agency theory. It seems that family owned Islamic banks tend to expropriate PSIA holders by paying higher dividends to their shareholders, whereas expropriation (of minority shareholders) in conventional ones occurs by reducing dividends. These results are corroborated by the impact of foreign ownership, i.e., it is associated with a more generous payout policy in Islamic banks, but not significant in conventional ones. When controlling for bank size, our results show that the abovementioned outcomes are driven by the largest conventional and Islamic banks which the previous literature has established as being more risky than smaller institutions.

Our study incrementally contributes to the extant banking and finance literature in three ways: First, it enhances our understanding on the dividend policy in financial institutions by highlighting the importance of owners' identity and their different objectives with respect to payouts in banks. This is still an under-researched area in financial firms as compared to the literature on non-financial ones. Second, this is one of the first empirical works that attempts to explore the dividend payout policy in Islamic and conventional financial institutions, and to address the different agency costs that arise in the former which are not present in conventional banks or in non-financial firms. As far as we know, the study by Athari et al. (2016) is the only cross-country analysis of dividend policy in Islamic vs. conventional institutions, but they

focus predominantly on the association between country legal origin or investor protection and the payout policy in the Arab countries, without considering the importance of ownership structure. Third, from an empirical perspective, we employ a dynamic panel estimation which yields much more robust results in the presence of dividend persistence. The extant literature on bank payouts generally does not account for this factor which is surprising, given the well-known practice of dividend smoothing over time by managers.[3]

The study proceeds as follows: we review the extant studies on dividend policy, differences in the banking model of Islamic vis-à-vis conventional banks, and outline our research hypotheses in section 2. Section 3 presents descriptive statistics of our sample, methodology and variables. Section 4 discusses the empirical analysis, and Section 5 reports a number of robustness tests. Finally, section 6 concludes the paper.

2. Related Literature and Development of Hypotheses

2.1 Dividend policy of Islamic vs. conventional banks

Unlike the conventional banking model of accepting deposits and handing out loans on an interest basis (Ali & Sarkar, 1995), Islamic banks employ alternative partnership loans (fund mobilization) schemes which are based on a profit and loss sharing scheme between the bank and the entrepreneur (the bank and the capital provider). In particular, on the bank liability side, most of the depositors are considered as quasi-equity holders of investment accounts whose returns are linked to the Islamic banks' profit level (PSIA holders). This implies that profits

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[3] As far as we know, only Onali (2014) and to a limited extent Athari et al. (2015) employ a GMM specification in their papers on bank dividend payouts.

generated from Islamic bank assets are divided between the bank and the PSIA holders at pre-specified rates.

The use of investment accounts, which provides 62% of the source of funding (Sundararajan, 2007), creates a complicated agency issue in Islamic banks. In particular, the bank acts not only as an agent on behalf of the bank shareholders, but also on behalf of the PSIA holders. This could lead to potential conflicts of interests when the goals of both parties are not aligned (Archer, Karim & Al-Deehani, 1998). With respect to concentrated ownership, majority shareholders are able to monitor bank management but this is not the case for PSIA holders. The governance mechanism of Islamic banks does not provide PSIA holders any capacity to monitor the management. Hence, PSIA holders could be considered similar to minority shareholders in conventional banks insofar they are at risk of being expropriated by large blockholders. However, whilst minority shareholders would benefit from larger dividends to mitigate agency issues, PSIA holders face the opposite problem. As documented by Archer and Karim (2013), they would be adversely affected if the bank increases dividends to placate large owners, without simultaneously offering an equivalent rate of return to PSIA holders.[4]

Anecdotal evidence shows that dividend policy can be adjusted to accommodate the interests of PSIA holders (Archer, Karim & Sundararajan, 2010). In particular, shareholders voluntarily agree to forgo part of the profits that belongs to the bank (and indirectly to them) to ensure that the return of PSIA holders is competitive. This is to avoid a bank run or huge fund withdrawals that could jeopardize the stability of the bank (IFSB, 2010). In a certain way, this practice supports a sort of 'vicarious monitoring', to the extent that PSIA holders implicitly expect their returns to be 'adequate' to those of the competitors, and rely on shareholders who

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[4] On the contrary, Abdelsalam et al. (2016) argue that PSIA holders should be adequately protected given that managers of Islamic banks are supposed to adhere to strict ethical norms. Furthermore, the presence of *Shariah* boards should mitigate the managerial opportunistic behaviour, and thus moderate agency costs. However, they focus on earnings management and financial reporting, and do not investigate banks' dividend policy, which is usually adopted to divert firm cash flows from PSIA holders to controlling owners.

sacrifice part of their profits to encourage that PSIA holders remain with the bank. However, Archer and Karim (2013) report that this practice (which adversely affected the shareholders) has been replaced by the widely used smoothing techniques including profit equalization reserves (PER) and investment risk reserves (IRR). Moreover, Islamic banks provide limited disclosure on the criteria they use to allocate profits between different stakeholders, and the use of these reserves. [5] The scope of PER or IRR is to improve payouts to account holders in bad times, but given that PSIA holders have no say on how these funds are being used, the reserves could be diverted to dividend payouts to shareholders if decided by the board (Archer & Karim, 2009; Nienhaus, 2007). These problems are exacerbated when Islamic banks are operating in an environment where investor protection is weak and ownership structure is highly concentrated which is the norm in most of the countries in which these banks are domiciled. Furthermore, due to the high degree of opacity and lack of monitoring, the PSIA holders may not be aware if IRR is used to absorb losses arising from managerial misconduct. Consequently, they would most likely not be compensated in court for such cases (Islamic Financial Services Board, 2010). In such an environment, it is argued that the controlling shareholders could extract rents from investment account holders (Karim & Archer, 2002).

Furthermore, in the financing side, Islamic bank dividend payout policy is generally more constrained given the inadequacy of *Shariah* compatible financial instruments, a limited money market and wholesale funding. At the same time, prior studies point out that Islamic banks face higher risks on the asset side compared to conventional banks, including the complexity of Islamic loan covenants, moral hazard incentives and limited default penalties (Sundararajan & Errico, 2002). As a consequence, Islamic financial institutions could be forced to make higher

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[5] The provisions to the PER are calculated before the allocation of profits to the bank, shareholders and investment account holders. If the IRR is applied, provisions are deducted from the profits available for distribution to the account holders only after the bank retains its share of profits (Nienhaus, 2007).

use of equity and thus restrain from paying higher dividends to shareholders compared to conventional institutions other things being equal.

2.2. Ownership identity and payout policy

This paper examines the link between different types of ownership, i.e., government, foreign and family, on conventional vis-à-vis Islamic banks' dividend payouts policy. In the case of government ownership, its effect on dividend policy is a debatable issue. On the one hand, drawing on agency theory, prior literature on non-financial firms generally acknowledges a negative effect of government ownership on dividend policy. This view claims that managers appointed by the government are not adequately monitored by the latter. Government is not only interested strictly in firm performance but also concerned about a high level of employment or promoting regional development. This is translated in a more conservative payout policy since managers could be tempted to not distribute dividends and use them for negative net present value projects, which would increase political support (Borisova, Brockman, Salas & Zagorchev, 2012). On the other hand, the government as an owner could be interested in increasing the dividend payout in order to alleviate agency problems especially those between minority shareholders and the management. Moreover, government-owned firms suffer less financing constraints since they enjoy easier access to debt financing (Bortolotti & Faccio, 2009; Chaney, Faccio & Parsley, 2011). Accordingly, they could pay higher dividends since they benefit from alternative sources of funds.

With respect to ownership of financial institutions, the government faces another agency issue since it is acting also as an agent of its citizens. Given that higher dividend payouts increase the risk-taking of banks, the government can induce banks to retain their earnings in order to strengthen their capital base, and thus limit the risk shifting from owners to depositors. This could prevent a reputational damage due to bank failures and costly restructuring by

emergency loans or deposit protection schemes (Gugler, 2003; Onali et al., 2016). In this case, the government would be interested in lower dividend payouts, especially for undercapitalized banks.

Prior studies have empirically attempted to examine the dividend policy of state-owned firms but the results are inconclusive. Wang, Manry and Wandler (2011) and Lam, Sami and Zhou (2012) show that Chinese non-financial firms with higher state ownership are more likely to pay dividends. However, Kouki and Guizani (2009), and Onali et al. (2016) provide evidence that government-owned banks are less likely to distribute higher dividends. Ben-Nasr (2015) shows that dividend payout ratios are negatively affected by government ownership especially in jurisdictions with poor legal protection of investors. Based on the above and assuming that bank stability is the primary objective for governments as owners, we state the following hypothesis:

H1a: Government ownership negatively affects dividend payouts in conventional banks.

As previously mentioned, the dividend policy of Islamic banks could be affected by higher agency costs and higher perceived riskiness of their business model. This could induce Islamic banks to maintain higher capital buffers vis-a-vis conventional counterparts (Sundararajan & Errico, 2002; Abedifar et al., 2015). Similarly, Iqbal and Molyneux (2005) argue that governments in the MENA region tend to implicitly support a strong Islamic banking industry, and hence, they are more interested in their stability rather than generous dividend payouts to shareholders.[6] These arguments suggest the following hypothesis:

H1b: Government ownership negatively affects dividend payouts in Islamic banks.

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[6] Islamic banks have received continuous support from local governments in order to be able to compete with conventional banks. The first Islamic bank in Egypt, Nasser Social Bank, was directly created by the local government in 1971. Similarly, the first private Islamic bank, Dubai Islamic Bank received key support from the governments of UAE and Kuwait in 1971.

Early studies report that foreign investors generally face a high level of adverse selection and uncertainty with respect to their investments abroad due to the increased information asymmetries (Gehrig, 1993). Dividend policy can remarkably reduce the uncertainty associated with foreign investment decisions (Brennan & Thakor, 1990). High dividend payouts are also used by foreign investors as a mechanism to discipline managers by forcing them to limit over-investment problems (Jensen, 1986). An alternative view premised on the dividend clientele theory assumes that foreign investors would rather invest in a corporation which adopts a generous dividend policy (Allen et al., 2000; Jeon et al., 2011). Further, the predominant foreign investor in emerging markets' banking institutions is typically represented by financial entities such as commercial banks, investment banks, pension or mutual funds. All these institutions would invest based on rigid prudent-man rules, and they tend to have a preference for cash dividends (Woidtke, 2002).

However, more recent studies have challenged these assumptions in a number of directions. First, institutional investors are not homogeneous in their strategies. That is, some of them tend to prefer low dividends if the investee firm has growth potential, privileging capital gain over dividend yield (Hankins, Flannery & Nimalendran, 2008; Huang & Paul, 2017). Second, banks as owners display different strategies compared to mutual or pension funds. They have a long lasting relationship with the investee corporation, and they usually have extensive board representation (Franks & Mayer, 2001). Therefore, banks as shareholders are able to mitigate agency issues due to their close ties with the management (Georgen, Renneboog, & da Silva, 2005). In this case, there would be less need for higher dividends, or bank-owned local institutions would be less reluctant to reduce dividends compared to state or family owned ones.

However, this literature has mainly concentrated on institutional domestic ownership, in which case banks could be able to remarkably reduce agency costs. In the case of foreign institutions, we argue that the risk of being expropriated by managers is not irrelevant. Moreover, part of the countries under scrutiny displays a high political risk, therefore it is plausible that foreign banks would encourage a more generous dividend policy compared to a domestic investment. Using a Taiwanese dataset, Lin and Shiu (2003) empirically report that foreign investors are more likely to invest in firms low dividend yields, consistent to the findings of Grinstein and Michaely (2005) for U.S. companies. Manos (2002) in India, Short et al. (2002) for the U.K. and Jeon et al. (2011) in Korea, show that foreign investors prefer to invest in dividend-paying companies, and hence they observe higher payouts in foreign-owned firms in these markets. Accordingly, we propose the following hypothesis:

H2a: Foreign investor ownership positively affects dividend payouts in conventional banks.

Regarding foreign owned Islamic banks, two additional factors could justify a generous dividend policy, i.e., (i) higher opaqueness in these institutions; and (ii) agency costs arising between controlling shareholders and PSIA holders. Under this setting, foreign owners have the incentive to behave like families (see below) and expropriate PSIA holders. Therefore, we state the following hypothesis:

H2b: Foreign investor ownership positively affects dividend payouts in Islamic banks.

Family ownership is the most common type of insider ownership in emerging countries (Villalonga & Amit, 2006). According to the classic agency theory, families are directly involved in firm management, therefore there should be alignment of interests between shareholders and managers (La Porta, Lopez-de-Silanes, & Shleifer, 1999; Oh, Chang & Martynov, 2011). However, other studies contend that families exhibit a strong inclination to expropriate wealth from minority shareholders, especially when control exceeds cash flow

rights (Faccio, Lang & Young, 2001a; Mancinelli & Ozkan, 2006). Attig, Boubakri, El Ghoul and Guedhami (2016) find that family owned firms are more likely to pay lower dividends in East Asian countries where minority investors are not sufficiently protected. Similar results are also documented for other jurisdictions including Latin America (Gonzales, Molina, Pablo & Rosso, 2017), Australia (Setia-Atmaja, Tanewski & Skully, 2009), and Continental Europe (Lepetit et al. 2017). These arguments suggest that family ownership is linked to lower payouts due to higher agency costs and rent extraction. Further, founding families could be unwilling to lose control by issuing new shares, therefore they could retain firm earnings and reduce payout ratios.

The alternative view claims that family owners not necessarily reduce dividends under certain conditions. First, they could opt for generous payouts to signal future firm growth, or to project a credible reputation in the market especially in circumstances where legal protection of minority investors is poor. This strategy could be particularly useful if the corporation needs to access equity markets in the future (Yoshikawa & Rasheed, 2009). Second, dividends could be the main source of income for family members, if they are reluctant to sell shares because of the fear of control dilution of the firm. Michiels, Voordeckers, Lybaert and Steijvers (2014) support this view by demonstrating that family owners are not a homogenous group, whose members could have diverse objectives. Some of them could be actively involved in the firm, whereas others do not participate in the family business. The latter are generally more risk averse compared to the former, and this could generate intra-family conflicts especially when ownership within the family becomes dispersed. In this case, dividends can act as an alleviating tool in resolving these conflicts (Thomas, 2002).

With respect to family-owned banks in the present study, we believe that the first theoretical approach is more plausible i.e., family ownership is linked to lower dividend payments due to agency costs. First, banks in these countries are part of conglomerates, and

often they engage in lending to affiliated firms at below market interest rates (Claessens, Djankov, Fan & Lang 2002). Given that investor protection in these countries is generally poor, and banks do not disclose adequate information about their inter-group transactions, it is in the interest of controlling owners to retain dividends rather than distribute them. Moreover, these banks either are not listed or do not frequently access local equity markets for additional funding, which reduces the need to build a reputation (La Porta, Lopez-de-Silanes, Shleifer & Vishny 2000; Gonzales et al. 2017). Hence, we hypothesize the following:

H3a: Family ownership is associated with lower dividend payouts in conventional banks.

With respect to Islamic banks, we acknowledge that they could suffer a different type albeit more severe agency cost compared to conventional ones based on the assumptions mentioned earlier, (see Section 2.1). The inadequate level of disclosure of these institutions about the returns of their assets, the extended use of profit smoothing does not allow PSIA holders to deduce the exact and the fair remuneration of their capital in presence of generous dividends to large family owners. Therefore, under this pattern, it is unlikely that PSIA holders would withdraw their funds and threaten the stability of the bank. Based on these arguments, we state the following hypothesis:

H3b: Family ownership is associated with higher dividend payouts in Islamic banks.

3. Data and research methodology

3.1. Sample selection

Following extant studies (e.g., Beck et al., 2013, and Mollah, Hassan, Farooque & Mobarek 2017), we construct the sample by using the BvD Orbis Bank Focus database for the period

from 2000 to 2015 for both listed and unlisted Islamic and conventional banks domiciled in 16

jurisdictions with dual banking systems.[7] We initially retrieve from the database all Islamic

banks operating in all countries. Based on that information, we include only countries with dual

banking systems, which allows us to use country-year dummies to account for time variant

fixed effects. We then select institutions which prepare consolidated bank statements. We

exclude banks domiciled in Algeria, Syria and Iraq due to lack of adequate information. Finally,

we exclude banks for which there were less than two observations and those that did not pay

any dividend during the sample period.[8] Ownership of each bank and identity of the largest

owners were sourced from the Orbis Bank Focus, Factset database, as well as hand-collected

from bank websites, and the global directory *mubasher.info*.[9] The final sample consists of 214

conventional banks and 69 Islamic banks. Table 1 Panel A reports the construction of the

sample, whilst Panel B presents the distribution of banks for each country.

<insert Table 1 here>

3.2. *Dependent and explanatory variables*

Our dependent variable is cash dividends to total assets ratio, as in Abreu and Gulamhussen

(2013).[10] Our ownership explanatory variables, i.e., government, foreign and family, are three

binary variables taking values 0/1 when the ownership stake is lower/higher than 25%.[11] The

25% cutoff rule is also used in the prior literature to indicate controlling ownership (Gugler,

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[7] Banks were classified as Islamic or conventional according to the criteria used by Orbis Bank Focus. Further, we cross-checked the information provided by Orbis Bank Focus with banks' websites to ensure accuracy. We also examined the Thomson Reuters Zawya index which focuses exclusively on Islamic banks. We exclude years prior to 2000 given the scarcity of data on Islamic banks.

[8] Following Truong and Heaney (2007), we exclude banks which reported zero dividends during the whole sample period as these institutions generally are considered financially distressed.

[9] This website contains information about the ownership structure of listed firms in the MENA region where most of the banks in our sample are domiciled.

[10] Other proxies such as dividends to earnings ratio are subject to errors due to earnings manipulation, therefore we do not include them in the analysis (La Porta et al., 2000). In addition, several studies include stock repurchases as sometimes managers use them to allocate funds to shareholders for tax purposes (e.g., Jeon et al., 2011). However, in our sample stock repurchases were zero, therefore we concentrate only in dividends. In untabulated results, we use dividends normalized by total equity. Since the results are qualitatively similar, we do not report them for sake of brevity.

[11] The use of dummies instead of equity stakes is justified in the literature because over a certain threshold (i.e. 25%) it is not anymore relevant whether the stake is 30% or 60% to guarantee control of the corporation.

2003; Bremberger, Cambini, Gugler & Rondi, 2016). The government share in each bank is calculated by multiplying each bank's shareholder stake by the proportion that the government owns in that specific owner. Then, the result is summed over the total shareholders (La Porta, Lopez-de-Silanes & Shleifer, 2002; Cornett, Guo, Khaksari & Tehranian, 2010). A similar procedure is adopted to calculate foreign and family ownership.

Following prior literature, we include a number of bank specific characteristics including size, average return on assets, historical growth of the gross loan portfolio, charter value, capital adequacy, and bank Z-score. Dividend payouts are influenced by firm size, profitability and growth opportunities (Fama & French, 2001). Larger financial institutions are expected to be more stable as they can raise capital more easily in financial markets, and hence they should exhibit higher dividend ratios. Profitability should affect dividend payout in a similar way. Banking institutions that are growing fast might prefer to reinvest a higher percentage of their earnings, hence this variable is expected to negatively impact on cash dividends. The charter value should affect positively on the payout ratio according to the signaling view. That is, banks prefer to pay high dividends to signal higher expected growth. However, according to Acharya, Gujral, Kulkarni and Shin (2011) and Onali (2014), low charter values could catalyze moral hazard behavior in banks, and thus they would be more tempted to transfer funds from depositors to owners by shifting the risk of failure to the former. Alternatively, a high charter value as a proxy of future growth could push banks to retain earnings in anticipation of future capital needs (Abreu & Gulamhussen, 2013). A proxy of capital adequacy (common equity to total assets) is included in order to account for regulatory pressure.[12] It induces banks to limit moral hazard behavior. Dividends could also be used by private banks as a risk shifting mechanism in transferring default risk to creditors (depositors) or to the taxpayers through

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[12] In untabulated analysis, we include TIER1 capital ratio instead of equity to total assets and the results are qualitatively similar.

insurance schemes (Kanas, 2013; Ashraf, Bibi & Zheng, 2016). Undercapitalized banks are forced by regulators to improve their ratios, hence bank capitalization should positively affect payouts (Bessler & Nohel, 1996; Theis & Dutta, 2009; Abreu & Gulamhussen, 2013). Finally, the natural log of the Z-score is included as a measure of risk taking. Default risk increases in presence of higher dividends, because they decrease the value of the equity (Merton, 1977; Onali, 2014). Therefore, we expect that higher Z-scores (lower bank riskiness) would negatively affect dividend payouts.

Furthermore, we consider two country-level characteristics which could influence dividend payouts. First, we use an indicator of deposit insurance generosity (Demirgüc-Kunt & Detragiache, 2002) which aims to measure the likelihood of opportunistic behavior of banks when the deposit insurance is not well structured. Privately owned banks could be encouraged to adopt more risky strategies when they assume that the bank would be bailed out via the insurance mechanism (Demirgüc-Kunt & Detragiache, 2002).[13] Dividend payments are one of the ways through which private owners could transfer bank risk default to depositors, bond holders, or taxpayers as it weakens bank capital and exposes the bank to potential default. In the case of Islamic banks, they are generally not covered by deposit insurance in dual banking countries (Cihák & Hesse, 2010). However, recent evidence suggests that the authorities have introduced comprehensive deposit insurance covering Islamic banks in Malaysia, Indonesia, Jordan, Kuwait, Sudan and Turkey (IADI, 2010). Therefore, we include a second dummy variable for these countries indicating the presence of a safety net for Islamic banks. Finally, we include in the analysis a proxy for banks' supervisory authority powers as described in Barth, Caprio and Levine (2004). It aims to assess whether authorities in each country have the

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[13] These features include exclusive public sector participation, no coinsurance by banks, interbank deposits and coverage of foreign currency, and high coverage limits.

right to take appropriate actions to address the problems.[14] The higher the value of the index, the broader is the spectrum of action of the supervisory authority. Table 2 provides the list of variables used in this study.

<insert Table 2 here>

Table 3 presents descriptive statistics for the full sample, and for each bank type after winsorizing variables at the 1% and 99% percentile for each country. The Mann-Whitney tests provide comparisons of the means across the two samples.[15] The results suggest that the two populations exhibit significant differences in terms of payout policies, historical growth of the loan portfolio, charter value, capital adequacy ratios, and Z-score. On average, Islamic banks pay less dividends, experience higher loan growth, lower charter value, higher capitalization and profitability, and lower Z-scores. The average stake of family and foreign institutions is lower in Islamic banks. The statistics are similar to those reported in prior works, e.g., Mollah et al. (2017). Regarding banks in other jurisdictions, Onali (2014) reports that banks domiciled in U.S. and the European Union generally display higher Z-scores, lower capitalization, similar profitability, higher charter values compared to banks examined in our study.

<insert Table 3 here>

3.3 Model specification

The previous literature (Athari et al., 2016; Bremberger et al., 2017) acknowledges that firms set the payout policy in line with the model introduced by Litner (1956). That is, current dividends are the result of a partial adjustment of last year's dividend towards a target payout ratio. Given that the first lag of the dependent variable is included among the explanatory

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[14] These actions include the right of the authority to force a change in the bank organizational structure, impose limits to dividends, bonuses for managers, suspend ownership rights is a troubled bank, declare the bank insolvent, remove and replace managers or directors.

[15] We opted for the Mann-Whitney test because the Jarque-Bera test for assumption of normality of the covariates was rejected.

variables, the pooled OLS is not an appropriate model because errors would be correlated with the explanatory variables generating biased estimates of the covariates. The GMM model introduced by Arellano and Bond (1991) and refined later by Blundell and Bond (1998) is an appropriate specification to mitigate these problems. In particular, we use the GMM-SYS (Blundell & Bond, 1998) which estimates a system of first differences and level equations where the former uses lags of variables in levels and the latter lags of first-differenced variables as instruments (Onali, 2014).[16] Following Knyazeva (2006) and Bremberger et al. (2017), we adopt a robust specification which controls for autocorrelation and heteroscedasticity of the standard errors as follows:

$$D_{it} = \alpha + \beta D_{i,t-1} + \rho IB + \sum_{i=1}^{3} \gamma_i X_{i,t} + \varphi IB * \sum_{i=1}^{3} X_{i,t} + \sum_{j=1}^{6} \delta_i F_{i,t} + \sum_{k=1}^{N} \theta_k C_k + \eta_i + \varepsilon_{i,t} \tag{1}$$

where i, k and t represent the bank, country and the year, respectively. X_i represents the ownership dummies *Gov*, *Foreign* and *Family*. *IB* is a dummy variable taking value one for Islamic banks. $F_{i,t}$ represent the bank specific controls, whereas C_k is a vector of country controls. The error terms consist of a bank specific effect (η_i) and an idiosyncratic component. Among the bank controls, bank capitalization and Z-score are considered as endogenous, whereas growth as a predetermined variable.[17] We seek to limit the proliferation of instruments by adopting the collapsing approach, as proposed by Roodman (2009).[18] It uses only one instrument per endogenous variable and lag length instead of one for each year, endogenous variable and lag length (Onali, 2014).

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[16] The GMM-SYS is more apt when the persistency of the dependent variable is strong, i.e., the autoregressive parameter is large (Bremberger et al., 2017; Daher, Masih & Ibrahim, 2015).

[17] Endogenous variables are influenced by current errors, whereas predetermined variables only with past disturbances. Growth of the loan portfolio could be influenced by past dividends as they limit the amount of capital that can be invested by the bank.

[18] A high number of instruments compared to the number of clusters (banks) weakens the Hansen (1982) test of over-identifying restrictions.

4. Empirical results

4.1. Baseline regressions

Table 4 reports our baseline regressions. Column I presents the results for the full sample i.e., without differentiating the two types of bank, and in Column II, the interaction terms are included between the IB and ownership variables.[19] The results in Column I indicate that the coefficients of both government and family are negative and significant at 10% and 5%, respectively, whereas the coefficient of foreign ownership is not significant. The main effects for conventional banks in Column II show the coefficients of both government and family remain negative and significant. This is in-line with H1a and H3a, which implies that state and family shareholders encourage lower dividends in conventional financial institutions. These coefficients are economically significant as they suggest that on average dividends normalized by total assets are around 32% lower in state-owned conventional banks compared to widely-held ones, other things being equal. In the case of family-owned institutions this percentage is around 34%.[20] The coefficient of foreign ownership is not significant, hence it is not consistent with H2a.

With respect to Islamic banks, the IB dummy is negative and significant indicating that on average these institutions pay lower dividends compared to conventional ones. In the case of the interactive terms, the results show that IB*Gov is not significant, whereas IB*Foreign and IB*Family have a significance level of 10% and 5%, respectively. In both cases, privately owned Islamic banks are positively linked to payouts, which is consistent with H2b and H3b.

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[19] In untabulated results, we first test a simple modified version of the original Litner model where we include the autoregressive term, return on assets, the IB dummy and interact it with the other two variables. The results imply that the smoothing pattern is stronger for conventional banks. There does not seem to be a strong effect i.e., the coefficient on earnings is low. The interactive term (IB*NI) is not significant implying a similarity between the two groups. In summary, the adjustment towards a target payout ratio is rather slow but not too different across both types.

[20] We calculate these percentages by a mean value decomposition technique as in Holgersson, Norman and Tavassoli (2014).

On average, dividends are 11.5% (23.7%) higher in foreign (family) owned Islamic banks compared to a similar widely-held institution.[21] Both outcomes indicate a potential expropriation of PSIA holders. In foreign-owned Islamic banks, the results also support the fear of expropriation of non-domestic investors by bank managers which can be curbed by generous bank dividends.

The insignificant effect of IB*Gov suggests that government ownership has a similar but negative impact across the two groups which confirms H1b. We can conclude that the results suggest a likely harmful role of dividends in privately owned Islamic banks. In both types of banks, family owners tend to adopt a dividend policy which suits better their interests. This would adversely affect minority shareholders and PSIA holders, in the case of conventional and Islamic banks, respectively. Regarding government owned banks, we assume that these owners adopt a more prudent policy aiming at having highly capitalized banks in their jurisdictions. This could be the main priority for governments rather than distributing dividends to reduce agency costs.

In term of control variables, current dividends are positively influenced by bank earnings although the coefficients are lower as compared to previous studies (Athari et al., 2016; Bremberger et al., 2017). As expected, the coefficient of size (Ln_asset) is positive, whereas growth is negative. Positive signs are observed for bank capital and Z-score in line with previous research (Ashraf et al., 2016). Hence, we do not observe a risk-shifting mechanism here as other studies have found (Onali, 2014). The sign for deposit insurance and supervisory powers is positive albeit not significant. The post-estimation tests confirm the validity of our model as the ar2, the Sargan and Hansen tests are all not significant. The Wald tests suggest

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[21] We cannot assume that dividends in Islamic (foreign or family owned) banks are higher than in conventional counterparts, since the IB dummy is significant and negative suggesting that on average Islamic banks pay lower dividends than conventional ones.

that both IB*Foreign and IB*Family are significantly different from zero (at the 10% and 5% level, respectively).

<insert Table 4 here>

The previous literature has found that main differences between conventional and Islamic financial institutions could be driven by bank size (Cihák & Hesse, 2010; Beck et al., 2013 and Abedifar et al., 2013). Smaller Islamic financial institutions seem to be less risky than their conventional counterparts. However, the size effect reverses for larger ones. Hence, we decide to split our sample in two sub-groups based on bank size median value for each year.

The findings reported in Table 5 indicate that dividend policy is significantly linked to large banks. On the one side, state-owned large conventional banks pay lower dividends which is consistent with the fact that governments put more pressure on the stability of large conventional institutions and therefore encourage a more conservative dividend policy. Family ownership is significantly associated with lower dividends as well. With respect to Islamic banks, the results suggest that they generally retain a higher proportion of their profits in both groups (IB dummy is significant for small and large banks). We again observe that the impact of government ownership is statistically not different with conventional banks, whereas foreign and family shareholders are associated with higher payouts but only in large Islamic institutions. The effect is much stronger for family-owned banks where expropriation of PSIA holders seems to be more severe. The reason why small private banks (conventional and Islamic) expropriate less minority shareholders and PSIA holders, respectively, could plausibly be due to their efforts to establish a good reputation and the existence of more severe financial constraints compared to large banks which have access also to other sources of capital. In particular, small Islamic banks are more vulnerable to a reduction of investment accounts, therefore we do not find evidence of dividends used as an expropriation tool in them. The

findings are consistent with previous studies (Cihak & Hesse, 2010), implying that one of the reasons that large Islamic financial institutions tend to be more risky is that part of them (privately owned) adopts a more generous dividend policy which weakens their capital base and indirectly worsens their stability.

<insert Table 5 here>

5. Robustness tests

5.1. Corporate governance and other country specific controls

Previous literature has demonstrated that dividend policy could be related to firm-specific corporate governance factors (Knyazeva, 2006; Mollah & Zaman, 2015; Onali et al., 2016). In particular, the role of managers and CEO power seems to exert a positive effect on non-financial firms' dividends because entrenched CEOs use dividends to protect them against disciplinary actions from shareholders, and thus decrease their monitoring incentives (Elyasiani & Zhang, 2013). Knyazeva (2006) finds that in poorly governed firms, where there is misalignment of interest between managers and shareholders, the former would decide to disburse cash to the latter in order to limit the probability of being fired. However, this is conditional on strong shareholder rights as La Porta et al. (2000) report in their seminal study. With respect to financial institutions, the effect of CEO entrenchment and misalignment is more ambiguous as banks are also monitored by the government as previously mentioned. Therefore, CEO misalignment could generate lower payouts if CEO's main objective is to reduce government monitoring rather than shareholder pressure. Here, we construct a corporate governance index, which is similar to that adopted by Knyazeva (2006), and Mollah et al.

(2017).[22] Higher values of the score indicate more misalignment between the management and bank shareholders.

<insert Table 6 here>

Table 6 Columns I-VI report that main variables of interest confirm the baseline findings.[23] The interaction results in Column I show that IB*Foreign is not significant whereas IB*Family is now significant only at the 10% level. Interestingly, the misalignment variable is negative, indicating that poor corporate governance is linked to lower payouts in banks. This is similar to the results of Onali et al. (2016) for EU banks, and suggest that misaligned CEOs tend to reduce payouts because they assign a higher priority to government pressure rather than shareholders.

In the next columns, we test a battery of other controls which could influence bank dividends. In Column II, we include an index of investor protection from the World Bank Doing Business indicators (IP). It takes values 0-100 where the higher value implies better protection of minority shareholders. In Column III, we split this indicator in three sub-indices as in Athari et al. (2016).[24] It seems that directors' liability and shareholders suits index exert a positive effect on dividend payouts. We add a series of bank capital requirements from the World Bank Database on Bank Regulation in column IV, given that Ashraf et al. (2016) report that the national regulatory framework on capital adequacy influences the setting of bank dividend policies.[25]

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[22] This variable is constructed based on six governance indicators, i.e., (i) board size; (ii) independent directors; (iii) CEO tenure; (iv) CEO age; (v) large blockholder; and (vi) other blockholder. For Islamic banks, we also include a measure of *Shariah* board size which takes value of one for large boards as an indicator of poor monitoring and zero otherwise. All governance data was retrieved from the Factset database.

[23] Unfortunately, we have data on bank governance only for listed banks, hence our sample is considerably smaller.

[24] Disclosure index (d_index) measures the approval and transparency of business related transactions. Directors' liability index (dir_li) measures the liability of firm directors in case of self-dealing activities. Shareholders' suit index (s_suit) measures the shareholders' ability to obtain corporate documents prior to and during litigation. All indices take values from 0 to 10 and higher values reflect higher investor protection.

[25] The first variable (ovr_cap) measures whether the capital requirement reflects certain risk elements and deducts certain market value losses from capital before minimum capital adequacy is determined. Init_cap measures whether certain funds

In Column V, we consider another similar measure which takes the value of one if the regulatory authority has the power to cut bank dividends even after the management has opted for dividend payment. Lastly, in Column VI, we include three measures of national culture (Hofstede, 2001), given that recent evidence suggests they could indirectly influence dividend policy in a certain country (Byrne & O'Connor, 2017).[26] Interestingly, we find that in higher individualistic countries, dividends are lower in line with their study. In these jurisdictions, agency costs are higher, because managers are more prone to act on their self-interest by expropriating minority shareholders.[27]

5.2. Other endogeneity issues

The decision of a foreign bank to invest in an emerging market's financial institution might be correlated with some other factors such as bank profitability, which in turn determines payout ratios and thus, would render the coefficient of *Foreign* in our base model inconsistent because of cross-causality (Havrylchyk & Jurzyk, 2011).[28] Consequently, we perform a propensity matching technique with a difference-in-difference (DID) estimator. In estimating the propensity score, we use a logistic regression model where the dependent variable is set to one if a foreign investor acquired more than 25% of the equity stake in the investee bank and zero otherwise (Table 7). We choose a number of explanatory variables based on the previous studies analyzing factors that affect cross-border acquisitions of financial institutions (Buch &

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may be used to initially capitalize a bank. Cap_reg is the sum of the previous two. Higher values indicate greater stringency rules for all variables.

[26] Power distance (pow_dist) expresses the degree to which less powerful members of the society accept and expect that power is distributed unequally. Higher values indicate higher level of acceptance of the hierarchical order. The uncertainty avoidance index (un_avoid) expresses the degree to which members of a society feel uncomfortable with uncertainty and ambiguity. Individualism/collectivism (ind_coll) takes higher values in societies where individuals are expected to take care of themselves. Lower values indicate societies where individuals pursue a collectivist goal.

[27] We must acknowledge that in this specification, the main variables of interest are no longer statistically significant, which is plausibly due to the smaller sample. Culture indices in Hofstede (2001) are not available for all countries in our sample. Moreover, Arab countries are grouped together and thus, have a unique score.

[28] We could not instrument foreign ownership in the GMM specification because the STATA command xtabond2 that we used, cannot accommodate external instruments.

DeLong, 2004; Lanine & Vander Vennet, 2007). Accordingly, we include bank profitability (NI), capitalization (Capital), bank size (Ln_asset). We then control for a set of country-specific variables that are considered to influence foreign direct investment. In particular, we include the ratio of non-financial FDI to total GDP (FDI), the average real lending rate in the country (RATE), the real GDP growth (GDP_GR), the log of host country GDP per capita (GDP_PC), an indicator of protection of investor rights in the country (IP as in Section 5.1) (Havrylchyk & Jurzyk, 2011). All explanatory variables are lagged one year.[29]

It can be observed that some of the variables that impact foreign entry in emerging markets show a potential selection bias. Foreign investors express interest for large, profitable and well-capitalized banks, all factors that influence investee banks' payout policy. In terms of country specific variables, it seems that the GDP growth and GDP per capita exert a negative impact. This could be the result of the choice to concentrate on low growth countries where banks can be acquired at a low price. Moreover, even governments permit foreign entry in the banking sector in the wake of a financial crisis, when some banks need to be bailed out due to financial difficulties. As a higher real lending rate proxies for an inefficient banking sector with high opportunities, foreign investors find this promising as they could cut costs and increase bank profits.

<insert Table 7 here>

Finally, by employing a difference-in-difference regression, we calculate the means of an outcome variable on the two samples and apply a t-test where the null hypothesis is that the difference in means is zero (Rosenbaum & Rubin, 1983). This allows us to draw conclusions

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[29] GDP_PC, GDP_GR and FDI are sourced from World Bank Development Indicators, whereas RATE from IMF Financial Statistics Database.

regarding the causal effect of the treatment variable on the outcome, which is referred to as the *Average treatment effect on the treated (ATT).*

$$ATT = E(y_1 \mid T = 1) - E(y_0 \mid T = 1) \qquad (2)$$

This should be the difference between the payout ratio of bank that was acquired by a foreign investor $E(y_1 \mid T = 1)$, and the analogous outcome of a similar bank that remained in domestic hands.

Before running the DID regression, we ensure that the balancing property is satisfied. This implies that the average values of our instruments need to be statistically similar between the treatment and control group, otherwise we cannot assume that exposure to the treatment is random. In other words, acquired banks and matched non-acquired ones need to have similar characteristics in order to have a consistent estimator of the treatment. Consequently, we run the DID regression where the dependent variable is the payout ratio of conventional or Islamic financial institutions, conditional on the fact that a foreign investor has acquired an equity stake higher than 25% in year *t* (Table 8). We perform in both cases a PSM with nearest neighbor method which is based on finding the units for which the propensity score is the closest (Jeon et al., 2011). The results indicate that payout ratios of financial institutions are significantly higher anytime a foreign investor acquires more than 25% of the voting rights.[30] This confirms the outcome of previous regressions for foreign investors in Islamic banks and supports H2b. The results for conventional banks are weaker, only significant at the 10% level but they are in line with H2a.

<insert Table 8 here>

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[30] In untabulated results, we measure the ATT one year after the foreign acquisition to allow for a transition effect but the results are qualitatively similar.

6. Conclusions

We examine the relation between the ownership identity and dividend policy for Islamic and conventional financial institutions in 16 jurisdictions with dual banking systems. In doing so, we use a hand-collected ownership dataset of these institutions over the period 2000 – 2015. Our results indicate that payout policy is influenced by the type of shareholder, but not in the same way in Islamic and conventional banks. Government and family ownership impact negatively on the dividend policy of conventional banks. Governments are generally interested in bank stability, they seek to avoid poorly capitalized banks, rather than reducing agency costs in investee banks, and therefore they privilege lower payouts. Family ownership, as expected, reduces dividends which is a signal of expropriation of minority shareholders. In the case of Islamic banks, we find that they generally pay lower dividends than conventional ones. However, foreign and family-owned Islamic banks are associated with higher dividends whereas the payout policy of state-owned ones is similar to that of conventional institutions. The behavior of private Islamic financial institutions can be interpreted as a way to expropriate PSIA holders which are the most exploited from generous dividends. These results persist even after controlling for other variables including corporate governance, investor protection, regulatory authority powers, or generosity of deposit insurance in each jurisdiction. After splitting banks based on median sample size, we notice that the results are mainly driven by large banks. This provides additional support to previous literature about the lower stability of large Islamic banks.

This study is one of the first attempts that investigate the dividend payout policy in dual banking countries. We argue that Islamic banks present a different type of agency cost, which is not present in conventional institutions and has not been addressed by prior research adequately. It seems that their dividend policy can be explained under the light of this difference with conventional banks. The results of this paper can assist in enhancing our

understanding of the role of different types of investors in the payout policy of financial institutions, especially in countries with dual banking systems. Different owners might have different concerns regarding agency costs, or bank stability.

Islamic banks are becoming more mature, but their regulatory framework is still experiencing an on-going improvement. There are also a wide range of differences across jurisdictions on how Islamic banks are regulated. Anecdotal evidence indicates that investment account holders do not enjoy an adequate protection compared to deposit holders in conventional institutions. They do not have any governance mechanism that adequately protects them, nor do they receive full disclosure about the risk and return of their investment. Therefore, their interests are often not aligned with those of common shareholders. Dividend policy is a mechanism driven by these issues and could be used by controlling shareholders in their interest.

Our research work has important implications for both regulators and market participants. Regulators should take further steps in improving the quality of governance and regulatory framework of Islamic financial institutions. In particular, more disclosure on the use of reserves such as PER and IRR in Islamic banks should be mandated given that their adoption considerably affects returns of both PSIA holders and owners. The lack of transparency on the use of these reserves has undermined an appropriate assessment of the distribution of profits between these two types of investors. In addition, investors and analysts should take into consideration the roles of *Shariah* framework in analyzing payout policies of Islamic financial institutions as well as policies with respect to the remuneration of common shareholders and investment account holders.

Our study has two caveats that provide avenues for future research. First, data on PER and IRR are not currently available for the majority of Islamic banks in this study. Future research could examine dividend policies of Islamic banks by including the use of these reserves in the

models. Future research may also focus on examining, for instance, specific enforcement actions taken by *Shariah* boards related to the use of these reserves and distribution of profits between PSIA holders and common shareholders. Finally, governance data used in this study is generally available only for listed banks, hence future research could explore the possibility of constructing similar governance indicators for non-listed banks.

Table 1
Sample selection and distribution of banks by country

Panel A: Sample selection

Search criteria	Conventional banks	Islamic banks
Dual banking countries	395	210
Less:		
Banks without consolidated accounts	(160)	(123)
Insufficient data (Iraq, Algeria, Syria)	(14)	(3)
Missing dividends and less than	(7)	(15)
two observations		
Final sample	214	69

Panel B: Number of banks for each country

Country	Conventional banks	Islamic banks
Bahrain	9	8
Bangladesh	12	3
Egypt	21	5
Indonesia	6	2
Jordan	14	4
Kuwait	7	6
Lebanon	31	2
Malaysia	15	7
Oman	11	2
Pakistan	9	4
Qatar	9	4
Saudi Arabia	10	4
Sudan	3	5
Tunisia	17	1
Turkey	19	3
United Arab Emirates	21	9

Table 2

List of variables

Variables	Definition	Data source
Gov	If the Government or Government agencies have an equity stake (direct or indirect) ≥ 25%, the value equal to one otherwise zero.	Orbis Bank Focus, Factset and other websites
Foreign	If foreign investors have an equity stake (direct or indirect) ≥ 25%, the value equal to one, otherwise zero.	Orbis Bank Focus, Factset and other websites
Family	If local families have an equity stake (direct or indirect) higher or equal to 25%, the value equal to one, otherwise zero.	Orbis Bank Focus, Factset and other websites
Div_asset	Cash dividends paid during the financial year normalized by bank total assets	Orbis Bank Focus and authors' calculations
IB	The value equal to one for Islamic banks, otherwise zero.	Orbis Bank Focus and other websites
NI	Net income normalized by total assets	Orbis BankFocus and authors' calculations
Ln_asset	Natural log of total assets	Orbis BankFocus and authors' calculations
Growth	$(GLP_t – GLP_{t-1})/GLP_{t-1}$	Orbis BankFocus and authors' calculations
Charter	If the ratio of customer deposits to total assets is larger than the country-year sample median value equal to one, otherwise zero.	Orbis BankFocus and authors' calculations
Capital	Common shareholders equity normalized by total assets	Orbis BankFocus and authors' calculations
Ln_Z	Natural log of the Z score. Z score is measured following Leaven and Levine (2009). $Z = (NI + Capital)/Std.$ dev. NI. We calculate the average of each variable for each bank during the sample period.	Orbis BankFocus and authors' calculations
Dep_ins	If country adopts a generous deposit insurance value equal to one, otherwise zero.	World Bank database on Bank Regulation
I_dep_ins	If country adopts Islamic deposit insurance value equal to one, otherwise zero.	IADI (2010)
Power	If country is in the higher quantile of Authority supervisory powers value equal to one, otherwise zero.	World Bank database on Bank Regulation

Table 3

Descriptive statistics

	All banks				Conventional banks				Islamic banks				Man Whitney test (p-value)
	N	Mean	Median	Std. Dev	N	Mean	Median	Std. Dev	N	Mean	Median	Std. Dev	
Gov	3008	0.248	0.000	0.432	2306	0.232	0.000	0.422	702	0.305	0.000	0.461	0.000***
Foreign	3008	0.310	0.000	0.462	2306	0.332	0.000	0.471	702	0.230	0.000	0.421	0.000***
Family	3008	0.178	0.000	0.382	2306	0.191	0.000	0.393	702	0.132	0.000	0.338	0.000***
Div_asset	3008	0.004	0.000	0.007	2306	0.005	0.001	0.007	702	0.004	0.000	0.007	0.000***
NI	2943	0.015	0.013	0.018	2301	0.014	0.013	0.015	642	0.017	0.013	0.025	0.173
Ln_asset	3008	21.883	21.945	1.654	2306	21.904	21.929	1.637	702	21.811	22.045	1.712	0.827
Growth	2641	0.293	0.108	2.910	2078	0.177	0.100	0.619	563	0.721	0.157	6.174	0.000***
Charter	3008	0.506	1.000	0.500	2306	0.531	1.000	0.499	702	0.415	0.000	0.493	0.000***
Capital	2646	0.140	0.113	0.112	2004	0.129	0.110	0.093	642	0.180	0.130	0.155	0.000***
Ln_Z	2933	3.097	3.152	0.808	2291	3.171	3.227	0.793	642	2.833	2.729	0.807	0.000***
Power	3008	0.365	0.000	0.481	2306	0.359	0.000	0.480	702	0.387	0.000	0.488	0.182
Dep_ins	3008	0.179	0.000	0.384	2306	0.167	0.000	0.373	702	0.222	0.000	0.416	0.001***
I_dep_ins	3008	0.204	0.000	0.403	2306	0.168	0.000	0.374	638	0.334	0.000	0.472	0.000***

Notes: This table reports the descriptive statistics for a set of variables used in the present study for the period 2000-2015. ***, **, and * denote significance of the test at the 1%, 5% and 10% respectively. Definition of the variables is provided in Table 2.

Table 4

Baseline regressions

	All banks	Interaction effects
Gov	-0.006*	-0.007*
	(-1.75)	(-1.76)
Foreign	0.009	0.002
	(1.41)	(1.34)
Family	-0.007**	-0.009***
	(-2.08)	(-2.62)
IB*Gov		0.005
		(0.65)
IB*Foreign		0.002*
		(1.66)
IB*Family		0.017**
		(2.37)
IB		-0.007*
		(-1.75)
L.Div_asset	0.554***	0.556***
	(6.96)	(6.63)
L.IB*Div_asset		-0.311
		(-1.49)
NI	0.076***	0.073***
	(2.63)	(2.86)
Ln_asset	0.002**	0.004**
	(2.54)	(2.51)
Growth	-0.002**	-0.008**
	(-2.42)	(-2.31)
Charter	-0.002	-0.002*
	(-1.55)	(-1.72)
Capital	0.005*	0.001**
	(1.83)	(2.16)
Ln_Z	0.003*	0.003*
	(1.72)	(1.69)
Power	0.002	0.002
	(0.58)	(0.55)
Dep_ins	0.007*	0.008
	(1.74)	(1.68)
I_dep_ins	0.002	0.001
	(0.57)	(0.26)
Year effects	Yes	Yes
Country effects	Yes	Yes
Intercept	Yes	Yes
N	2310	2310
Instruments	65	69

F test	49.62	47.77
p-value of F test	0.000	0.000
AR1	0.000	0.000
AR2	0.65	0.641
Sargan	0.827	0.800
Hansen	0.61	0.566
Wald IB*Gov		0.517
Wald IB*Foreign		0.074*
Wald IB*Family		0.018**

Notes: This table reports the results for two GMM-SYS regressions where the dependent variable is the dividends to total assets ratio (*Div_asset*). Definitions of variables are provided in Table 2. In Column I, we consider all banks, whereas in Column II we include interaction effects which measure the impact of Islamic banks. F-test indicates the overall model fit (it replaces the Wald chi square test for small samples. T-tests are shown in parentheses below each coefficient. ***, **, and * denote significance of the test at the 1%, 5% and 10%, respectively.

Table 5

GMM-SYS regressions between small and large banks

	Small banks	Large banks
Gov	-0.043	-0.045*
	(-0.48)	(-1.79)
Foreign	0.031	0.073
	(0.18)	(1.51)
Family	-0.060	-0.091***
	(-0.84)	(-2.73)
IB*Gov	-0.009	0.007
	(-0.33)	(1.36)
IB*Foreign	0.034	0.019*
	(1.05)	(1.79)
IB*Family	0.417	0.182***
	(0.25)	(4.01)
IB	-0.011**	-0.078**
	(-2.04)	(-2.10)
L.Div_asset	0.439***	0.693***
	(4.02)	(8.87)
L.IB*Div_asset	-0.164	-0.075
	(-0.89)	(-0.79)
NI	0.063**	0.061**
	(2.60)	(2.05)
Controls	Yes	Yes
Year and country effects	Yes	Yes
Intercept	Yes	Yes
N	1047	1263
Instruments	69	69
F test	11.86	122.1
p-value of F test	0.000	0.000
AR1	0.001	0.000
AR2	0.774	0.368
Sargan	0.615	0.716
Hansen	0.288	0.237
Wald IB*Gov	0.684	0.175
Wald IB*Foreign	0.142	0.038**
Wald IB * Family	0.532	0.000***

Notes: This table reports the results for two GMM-SYS regressions where the dependent variable is the dividends to total assets ratio (*Div_asset*). Definitions of variables are provided in Table 2. In each regression we include country and year dummies. We also include as controls *Growth, Charter, Capital, Ln_Z, Power, Dep_ins and I_dep_ins*. T-tests are shown in parentheses below each coefficient. ***, **, and * denote significance of the test at the 1%, 5% and 10%, respectively.

Table 6
Robustness tests – Controlling for bank- and country-specific variables

	I	II	III	IV	V	VI
Gov	-0.008*	-0.008*	-0.005*	-0.006*	-0.007*	-0.006
	(-1.66)	(-1.87)	(-1.68)	(-1.73)	(-1.77)	(-1.49)
Foreign	0.008	0.007	0.007	0.003	0.003	0.006
	(0.09)	(0.69)	(0.81)	(0.46)	(0.37)	(0.87)
Family	-0.008**	-0.001**	-0.007*	-0.008**	-0.009**	-0.006
	(-2.40)	(-2.40)	(-1.70)	(-2.36)	(-2.21)	(-0.83)
IB*Gov	0.004	0.005	0.003	0.007	0.006	0.003
	(0.37)	(0.67)	(0.48)	(0.96)	(0.80)	(0.36)
IB*Foreign	0.001	0.003*	0.003*	0.002*	0.002*	0.007
	(1.06)	(1.68)	(1.84)	(1.69)	(1.78)	(1.45)
IB*Family	0.011*	0.019**	0.015*	0.016**	0.017**	0.061
	(1.81)	(2.23)	(1.93)	(2.24)	(2.31)	(0.90)
IB	-0.004	-0.009*	-0.002***	-0.008**	-0.008*	-0.007
	(-1.51)	(-1.92)	(-2.65)	(-1.97)	(-1.89)	(-0.81)
L.div_asset	0.585***	0.487***	0.543***	0.552***	0.557***	0.590***
	(7.54)	(5.10)	(6.28)	(6.23)	(6.86)	(6.95)
L.IB*div_asset	-0.288**	-0.237	-0.226	-0.289	-0.303	-0.097
	(-2.00)	(-1.34)	(-1.16)	(-1.35)	(-1.45)	(-0.55)
NI	0.074***	0.062***	0.056***	0.069***	0.074***	0.055***
	(2.90)	(3.03)	(2.64)	(2.63)	(2.79)	(3.10)
Misalignment	-0.004*					
	(-1.75)					
IP		-0.001				
		(-0.11)				
d_index			0.006			
			(0.10)			
dir_li			0.002***			
			(3.23)			
s_suit			0.002*			
			(1.92)			
ovr_cap				-0.002		
				(-1.30)		
init_cap				0.003		
				(0.92)		
cap_reg				0.008		
				(0.49)		
sup_div					0.002	
					(0.35)	
pow_dist						0.005
						(1.52)
un_avoid						0.002
						(0.52)
ind_coll						-0.005*

						(-1.94)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
Country effects	Yes	Yes	Yes	Yes	Yes	Yes
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
N	1533	1783	1991	2310	2310	1438
Instruments	70	66	69	72	70	72
F test	78.23	41.25	59.90	46.34	46.85	48.37
p-value of F test	0.000	0.000	0.000	0.000	0.000	0.000
AR1	0.000	0.000	0.000	0.000	0.000	0.000
AR2	0.566	0.690	0.953	0.646	0.640	0.771
Sargan	0.679	0.463	0.542	0.813	0.800	0.957
Hansen	0.511	0.421	0.445	0.520	0.582	0.586
Wald IB*Gov	0.713	0.506	0.632	0.34	0.97	0.72
Wald IB*Foreign	0.29	0.094	0.06	0.083	0.078	0.655
Wald IB*Family	0.227	0.026	0.054	0.026	0.065	0.369

Notes: This table reports the results for a series of GMM-SYS regressions where the dependent variable is the dividends to total assets ratio (*Div_asset*). In Column I we control for bank corporate governance by including *misalignment.* In each regression, we include country and year dummies. We also include as controls *Growth, Charter, Capital, Ln_Z, Power, Dep_ins and I_dep_ins*. T-tests are shown in parentheses below each coefficient. ***, **, and * denote significance of the test at the 1%, 5% and 10%, respectively.

Table 7

Logistic regression where the dependent variable is a dummy indicating a foreign acquisition of a stake higher than 25% in an investee bank (conventional or Islamic).

	Conventional banks		Islamic banks	
	Coef.	Marginal effects	Coef.	Marginal effects
Ln_asset	0.164	0.010	1.391***	0.079
	(1.20)	3.03	(3.47)	3.52
NI	1.128***	1.085	2.576	2.009
	(4.95)	3.37	(1.50)	1.49
Capital	1.806***	1.170	1.136	0.065
	(3.71)	3.69	(0.19)	0.19
RATE	0.143**	0.009	0.191**	0.010
	(2.42)	2.41	(2.01)	2.01
FDI	0.087	0.006	-0.192	-0.011
	(1.17)	1.17	(-1.01)	-1.02
GDP_PC	-1.059***	-0.068	-0.793**	-0.045
	(-3.39)	-3.35	(-2.02)	-2.06
GDP_GR	-0.232***	-0.015	0.049	0.028
	(-2.62)	-2.61	(0.58)	058
IP	0.082***	0.053	0.042	0.023
	(2.95)	2.93	(1.08)	1.09
Intercept	-0.853		-3.79***	
	(-0.27)		(-3.61)	
Observations	766		227	
chi2	83.21		30.08	
Pseudo R^2	0.193		0.249	

Notes: This table reports the results of two logistic regressions where the dependent variable is a dummy taking value one if during a certain year a foreign investor acquires more than 25% of the equity stake of a bank in our sample. T-tests are shown in parentheses below each coefficient. ***, ** and * denote coefficient significance at the 1%, 5%, and 10% level respectively.

Table 8

Difference-in-difference estimator of the payout policy of Islamic vs conventional banks based on the propensity score matching

Differences in payout policy based on ownership identity		

Type   nearest neighbor

Instrumental variables : Ln_asset, NI, Capital, RATE, FDI, GDP_PC, GDP_GR, IP

	Panel A	Panel B
Outcome:	Conventional banks	Islamic banks
	Div_asset	Div_asset
Foreign share more than 25%	0.007*	0.011**
T-test	1.84	2.32

Notes: In this table, we report the results of a difference-in-difference estimator based on propensity score matching with nearest neighbor, where the dependent variable is dividends to total assets ratio (*Div_asset*). Definitions of *Ln_asset, NI* and *Capital* are described in Table 2. ***, ** and * denote coefficient significance at the 1%, 5%, and 10% level, respectively.

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