

# **Value relevance of board compensation: Evidence from alternative banking models**

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## **A B S T R A C T**

This study examines whether the board of directors' compensation schemes affect stock market valuations for banks in a dual banking system (Islamic and conventional banks). We employ an international sample of 11 countries for the period 2010-2015. Our results show that for the full sample (i.e. irrespective of the bank type), board of directors' compensation has a significant and positive impact on stock market valuations. For different bank types, we find that the positive effect of the board of directors' compensation on market valuations holds only for conventional banks, with insignificant evidence for their Islamic counterparts. We, also, examine the impact of *Shari'ah* supervisory board's compensation on Islamic banks value. Our results show that investors positively perceived and priced information related to this boards' compensation.

**Keywords: Firm Valuation, Board Compensation, Islamic banks, Conventional banks, Shari'ah Supervisory Boards**

**JEL Classification: C23, G01, G21, G28, L50, M41**

## **1. Introduction**

Unlike their non-financial counterparts, banking firms have gone through substantial topsy-turvy over the past decade, surviving a severe financial turmoil and unparalleled regulatory reform. Since 2010, new stringent regulations (e.g., to heightened capital and liquidity regulation, tools to solve regulatory migration, resolution authority, stress testing and capital planning) have encouraged the development of new tools to manage institutional failure (Nguyen et al., 2015). The main aim was to reduce the probability of failed performance and to promote enhanced stock market valuations for the banking sector to restore public confidence in the sector (Trinh et al., 2020a). While post-crisis financial regulatory reforms have significantly improved the stability of financial institutions, other changes such as compensation regulation have been questionable. The banking industry is generally characterised by stricter regulatory and governance structures, high leverage, and the potential for contagion. The separation of ownership and control in modern banking is the origin of agency conflicts (Jensen and Meckling, 1976; Fama and Jensen, 1983). The principals (shareholders) try, through employing several governance mechanisms, to minimise these costs and protect their interests. Several studies (e.g., Elnahass et al., 2019; Trinh et al., 2020a, b) have argued that potential agency conflicts within banks are difficult to monitor and manage than non-financial firms which have implications on bank stability and stock market valuations.

The uniqueness of governance in banking implies a dominant effect of bank boards of directors on its market value (Elyasiani and Zhang, 2015; Elnahass et al., 2019). Theorists of resource dependence argue that a board of directors is "a provider of resources, such as legitimacy, advice and council links to other organizations" (Hillman and Dalziel, 2003, p. 383). Therefore, the quality of board monitoring and their engagements in managerial decision-making can have direct implications on firm value (Yermack, 1996; Meng et al., 2018). However, various stakeholders engaging with the banking sector constantly impose substantial pressures on board of directors to scrutinise the bank's operations against misconduct while seeking wealth maximisation (O'Donnell and Rodda, 2015). An expectation gap between market participants and board of directors might arise, as the banking operations' and business models become vague and complex. Investors and shareholders are likely to expect the board of directors to monitor top management on behalf of shareholders to reduce information asymmetry between managers and shareholders and lessen agency costs. The board of directors might not be commonly be motivated or even

available, particularly if they are over-committed by serving on multiple boards (i.e. they are busy board members) to act in the best interests of shareholders (see Trinh et al., 2020a). The Enron debacle and the Global Crossing bankruptcy have also raised particular concerns by market participants about the effectiveness of the board of directors' scrutiny and relevance of their compensation schemes (O'Donnell and Rodda, 2015). For example, banks used to design compensation schemes and remunerations for directors which are mostly linked to the bank's financial performance. Recently, banks are required to reduce compensation-related risk schemes and to offer more robust/longer-term contracts when paying the directors (O'Donnell and Rodda, 2015).

The structure and nature of board compensation are more complex within the banking sector when compared to non-financial institutions given to the opacity of the financial instruments use which can lead to substantial information asymmetries. To mitigate discretionary acts and excessive risk taking, both shareholders and regulators expect the board of directors to be active in establishing effective risk monitoring systems (Kress, 2018). Beside the traditional agency issues commonly arise in firms from the conflicts of interests between shareholders and managers, board of directors in banks might be challenged by extended conflicts between shareholders, bank managers and depositors. Accordingly, stock market valuations for banks are expected to be influenced by the effectiveness of monitoring and the overall quality of the governance mechanisms compared to their non-financial peers. From this perspective, reported information on board compensation and remunerations is expected to signal important news to stock markets about the bank's performance and stability alongside managerial actions related to either restricting or encouraging expropriation of the bank's resources. This effect depends on the levels of agency costs and the complexity of a bank business model.

Evidence on the market valuations of boards of directors' compensation is limited (e.g., Gerety et al., 2001; Ryan and Wiggins, 2004; Feng et al., 2007; Magnan et al., 2010) and mainly related to non-financial firms. Within the banking setting, examining stock market valuations and board compensation is rare, particularly regarding cross-country evidence. Exceptions are two studies in banking which focus on a single-country setting. While Becher et al. (2005) find a positive effect of director pay on US firms' performance and growth, Doucouliagos et al. (2007) find no contemporaneous link between director compensation and Australian bank performance. These two studies show mixed evidence, but they conclude that director compensation has a significant

mediating effect on the expectations of the board of director and shareholders. Global banking studies related to board compensation (e.g., Croci et al., 2012; Fernandes et al., 2012) specifically focus on executive or CEO compensation and its relationship with accounting-based measures of performance and not stock market valuations. Moreover, studies in non-financial firms document that compensation for directors translates into value creation by enhancing scrutiny focus of those directors (e.g., Ryan and Wiggins, 2004; Magnan et al., 2010). These prior studies commonly show an adverse impact of high board of directors' compensation on bank risk and can lead to reckless managerial behaviour and ineffective monitoring over irregularities, a key example is the underlying reasons for WorldCom collapse (Lublin and Bulkeley, 2006). Therefore, while the evidence relating to an effective board of directors' minor/risk management on bank value is still developing, an empirical examination for the relationship between board compensation and firm value is essential within the banking sector. We argue that the increased (reduced) incentives to align interests between directors and investors can help to explain the higher (lower) value of the firms. There are two theories which suggest a different association between compensation and bank value; the alignment theory and the entrenchment theory.<sup>1</sup>

None of the prior studies in banking have given attention to the systematic differences of stock market valuations for board compensation across alternative bank types. An important setting for such an investigation is the Islamic banking industry compared to their conventional counterpart. Islamic banks<sup>2</sup>, representing a subset of the banking industry, have continued to show their fast growth over the past four decades (Saeed and Izzeldin, 2016), holding approximately \$1.5 trillion in assets in the end of 2015 (Islamic Financial Services Board - Stability Report, 2017; Farag et al., 2018). This figure is anticipated to reach \$6.5 trillion by end of 2020 (IFSB, 2010; Čihák and Hesse, 2010). The stakeholders' interest in this bank type may extend beyond the financial interest to ethical and religious values (Alnasser and Muhammed, 2012). The operations of this banking industry are principally driven by a constrained banking model, which inherits both moral accountability values and legal responsibilities (Abdelsalam et al., 2016). Governance in Islamic

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<sup>1</sup> The alignment theory claims that higher director compensation should enhance bank value because bank directors are motivated by higher remuneration (Jensen and Murphy, 1990). However, the entrenchment theory argues that higher compensation leads to lower firm value because bank directors abuse their power to design their compensation packages following their self-interests at the expenses of the investors (Crystal, 1991).

<sup>2</sup> The Islamic doctrines include prohibiting charging of and giving interest or usury, forbidding uncertainty or speculation (*gharar*) (Kettell, 2011), curbing engagement in aggressive lending and major risk-taking activities (Beck et al., 2013; Mollah and Zaman, 2015), placing an embargo on financing of activities regarded as harmful to society (e.g., gambling and alcohol) (Kettell, 2011), and practicing equitable distribution of the financial rewards (i.e., profit-sharing - *mudaraba*) and risks of investments (i.e., partnership or the profit-and-loss sharing – *musharaka*) (Bashir, 1983; Dar and Presley, 2000).

banking is likely to be perceived by investors as being more complex than conventional banking. Unlike conventional banks, Islamic banks operate on an extended governance structure by Shari'ah supervisory board (SSB). This board acts as an investigator to certify that bank's operations are free from any element prohibited by the Islamic principles (Grais and Pellegrini, 2006). In line with these systematic differences between the two bank types, differential implications on investors' valuation of board compensation between the two bank types are predicted. Our premise in this study is that investors within the two banking sectors may hold different perceptions of the oversight and resource-creation roles of outside boards depending on the banking business model employed and the structure of governance, including the need for additional monitoring for example, for Shari'ah governance. A lower firm valuation of board compensation in Islamic banks is predicted when compared to their conventional counterparts. This is justified by the extended agency conflicts and the unique business model of Islamic banking, which requires effective scrutiny from two different boards (i.e., the board of directors and the SSB).

SSB members are employed in environments plagued with high agency costs to alleviate agency problems and to ensure the flow of transparent information between bank managers and stakeholders; hence, they should be perceived as having a central role to play in reducing agency costs by overseeing the effectiveness of management's policies and practices. In fact, SSB members have both consultative and supervisory functions (Mollah et al., 2017) and thus provide an additional check and should add value to Islamic banks (Mollah and Zaman, 2015). They endeavour to respond to any issues for a transaction or product conformation with the Shari'ah and offer advice and recommendations to the board of directors (Kettell, 2011; Mollah and Zaman, 2015). They should seek enhancing the Islamic banking knowledge among the employees (Alnasser and Muhammed, 2012). They also review bank activities and processes, supervise its development of Islamic financial products and services, endorse and validate relevant documentations, as well as the internal policies and manuals and marketing advertisements (Alnasser and Muhammed, 2012), and determine the Shari'ah compliance of these products and the investments (Choudhury and Hoque, 2006; Elnahass et al., 2014). Therefore, the SSB compensation may play an important in mitigating risk and promoting public confidence and affects market valuation because investors may need to assess SSB information (e.g., characteristics, functions) which influence the compliance of Islamic rulings of the banks they will invest in.

We utilise a unique dataset of 386 bank-year observations (150 Islamic bank-year observations and 236 conventional bank-year observations) for listed banks in 11 countries which operates on a global banking system from the period of 2010-2015. We use the value relevance price model of Ohlson (1995) as a base model for our analyses. Our results provide strong evidence that, for the sampled banks and irrespective of the bank type, board of director's compensation is significantly and positively associated with bank value. Conditional on the bank type, board compensation appears to significantly increase the bank value for conventional banks. Investors in Islamic banks seem not to perceive board compensation and we hence find insignificant results. These findings imply that director compensation in conventional banks is an important determinant of equity values. The stock market does not price such information in Islamic banks. We extend our analyses to study the impact of SSB compensation on Islamic bank value. Our findings show that the compensation of SSB is priced by investors to positively affect bank value. This suggests that compensation paid for Shari'ah Scholars is important in enhancing Islamic bank value.

Our study provides several contributions to existing literature. This is the first study to offer comparative assessments between two bank types: Islamic and conventional, by investigating stock market valuations for critical board information like compensation and remunerations. The study therefore, offer new insights on board compensation to the wide stream of corporate governance research (e.g., Caprio et al., 2007; Croci et al., 2012; and Fernandes et al., 2012, Chakravarty and Rutherford, 2017) through highlighting to the influence of institutional characteristics and governance structures on having distinct firm valuations for boards' compensation within the two banking sectors. Our study adds value to the recent literature comparing Islamic and conventional banks (e.g. Mollah et al., 2017; Elnahass et al., 2019; Hassan et al., 2019; Trinh et al., 2020a,b). Moreover, the results highlighting the positive effect of SSB compensation on an Islamic bank value contribute to the sizeable body of literature on governance in Islamic banking discussing the importance of this board (e.g., Quttainah et al., 2013; Abdelsalam et al., 2016).

Findings in this study provide valuable implications to policymakers and investors in both bank types. For conventional banks, a high compensation package designed for outside directors could enhance the confidence of investors towards monitoring and advising effectiveness of the board of directors; and hence, shareholders of this bank type should consider board compensation as one of the important value-enhancing factors when they reform their bank governance quality.

However, for Islamic banks, investors tend not to value this board attribute, and they are more likely to price the compensation for SSB suggesting that Islamic banking investors' pricing is more affected and sensitive to *Shari'ah* board related information like compensation than the board of directors' compensation information. Investors can benefit from our findings when considering profitable investment opportunities and deciding on selecting which banking model to adopt (i.e. Islamic versus conventional).

The remainder of this study proceeds as follows. *Section 2* discusses the research background and theoretical framework. *Section 3* presents hypotheses development. *Section 4* reports the sample and empirical models. *Section 5, 6* and *7* show our empirical model, descriptive statistics, and empirical results, respectively. *Section 8* reports sensitivities tests and robustness check. Finally, *Section 9* concludes the study.

## **2. Background and theoretical framework**

### *2.1. Previous studies*

The substantial increase in international investments has resulted in a need for more reliable and informative financial statements (i.e. balance sheet and income statement) globally (Anandarajan et al., 2011). This has resulted into a rapid growth of value relevance (VR) studies in the international accounting and finance literature over last four decades<sup>3</sup> of such accounting information in explaining equity values (e.g., Chan and Seow, 1996; Ball et al., 2003). Previous studies on firm valuation and value relevance (e.g., Ball et al., 2003; Al-Hares et al., 2012; Zoubi et al., 2016; Gonçalves et al., 2017) document that the value relevance of accounting information is important not only for investors but also for standard setters as it provides useful insights into several accounting issues.

Corporate governance indicators have also shown to be relevant information for stock market valuations (Lai and Chen, 2014) as they influence the ability of investors to price their firms and forecast future stock performance (Prommin et al., 2014). Strong corporate governance can be established by having an effective and responsive board of directors (BOD). Hence, prior studies for corporate governance have paid considerable attention to examining BOD characteristics (Adams et al., 2010; Harakeh et al., 2019). However, the empirical research on the relationship

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<sup>3</sup> Barth (2000, p.16) states that "relevance refers to the ability of the item to make a difference to decisions of financial statement users" and "reliability refers to the ability of the measure to represent what it purports to represent".



between board governance and firm value (e.g., Yermack, 1996; Gompers et al., 2003; Sami et al., 2011; Nguyen et al., 2015) has been inconclusive. For instance, Abbott et al. (2004) find that board size is negatively associated with firm value because larger board with many directors may reduce the board decision efficiency. In contrast, Andres et al. (2005) find that the link between board size and firm value is positive or negative depending on costs and benefits. Ahmed and Duellman (2007) argue that a higher number of non-executive directors leads to the more conservative firm accounting and thus, enhances firm value. However, Core et al. (1999) argue that more outside directors on the boards tend to pay higher for management, hence destroys the firm value. While these firm valuation studies on corporate governance are numerous and show mixed results, VR studies on board compensation are limited.

A board compensation is considered as one of the enormously important incentive mechanisms in shaping directors' behaviour and monitoring effectiveness (Ang et al., 2001). Yet more attention in prior literature has been devoted to investigating the association between CEO or managerial compensation (executive pay) and the performance/value of corporate entities. Relatively little is known about the board of directors' compensation and firm value nexus (Magnan et al., 2010). *"This is surprising given the fact that the BOD is the highest decision-making body at the firm with power to hire and fire management, set executive compensation, and ultimately guide the strategic direction of the firm"* (Boivie et al., 2015, p.1581). Brick et al. (2006) emphasise on the important monitoring role of the BOD. They find that director compensation is closely associated with the monitoring efforts required by directors to assure wealth maximisation. Ertugrul and Hegde (2008) find that equity-based compensation for directors provides them with stronger scrutiny motives represented by lower financing costs. Bryan and Klein (2004) also find that firms having greater levels of equity-based compensation for directors tend to exhibit higher levels of investments in R&D, new capital assets, return on assets and higher stock market returns. They also argue that director pay reflects the extent of agency conflicts within companies.

With the growing opaqueness surrounding the banking industry, research studies investigating the association between firm valuation and board compensation within an international setting are still scarce. At bank-level, boards have the same legal responsibilities and accountabilities as those expected by boards serving within industrial companies (i.e., the duty of care and loyalty, composition and board size). Nonetheless, banks also have several different operating aspects from industrial companies; thus, it is not necessarily clear that those factors should have a similar effect

on shareholder value. These factors are mainly related to the bank business model, stricter regulation and opacity of many financial transaction which could alter the association between board attribute and firm value (e.g., Booth et al., 2002). In the mainstream of corporate governance studies, Adams and Mehran (2012) and Andres and Vallelado (2008) generally provide evidence showing that bank board structure (board size and the proportion of non-executive directors) is relevant for bank value. Similarly, Caprio et al. (2007) also find a significant impact of the ownership structure of banks and shareholder protection on bank valuations. Regarding directors' compensations, the extant research mainly focus on a single country and have not explicitly examined the effect on bank value neither the value relevance of board compensation. Prior studies mainly examine the effect of board compensation on bank performance. For example, Becher et al. (2005) use US banks and find a positive association between director's payments and performance / growth for the period 1992-1999. Doucouliagos et al. (2007) study the relationship between directors' compensation and Australian bank performance for the period of 1992-2005 and they find no contemporaneous effect. Taken together, previous studies tend to suggest that directors' compensation is an important determinant of incentive alignment between directors and shareholders. However, there is a clear gap in literature to offer a global evidence within the banking sector. Croci et al. (2012) and Fernandes et al. (2012) offer evidence from a cross-country perspective, but they mainly examine accounting-based measures of performance and they have not specifically examined stock market valuations indicators.

## *2.2 Related theory*

Strong governance implies an active role by BODs in monitoring top managers, mitigating risks and enhancing long-term resilience, all of which should be, in principle, positively priced by investors. According to the Slack Resource theory, firms with higher market valuation have more economic resources to invest in the long-term improvements of their governance mechanisms and board monitoring quality. This investment will lead to future higher firm valuation, creating a virtuous circle (Pae and Choi, 2011). However, entrenched managers may have incentives to divert slack resources or free cash flows for their private interests (e.g., building an empire, increasing their compensation) (Jensen, 1986). Similar to executive directors, BOD might not act in the best shareholders' interests (Huang and Wang, 2015). Therefore, monitoring effectiveness of BOD can be questionable particularly, in line with the assigned compensation schemes and remuneration

packages. Any reputational damage surrounding the information related to board compensation could constitute a severe threat to the survival of the firm, and hence, have an adverse impact on stock market valuations.

The *agency theory* represents the central paradigm for directors' compensations (Adams et al., 2009; Supanvanij and Strauss, 2010; Gao et al., 2019). A director's compensation is the outcome of a bargaining process between agents (directors) and principles (shareholders), where the latter finds that the agents tend to pursue their self-interests and to extract additional rents (Bebchuk et al., 2007; Faleye et al., 2011). From an agency theory perspective, ineffective boards can exacerbate agency conflicts between investors and managers by encouraging managerial perquisites and private control benefits (Jensen and Meckling, 1976). Agency theorists entirely rely on this optimal contracting perspective for their explanation about the role of incentive-intensive compensation in minimising the divergence of interests between the directors and the shareholders (Core and Larcker, 2002; Kumar and Sivaramakrishnan, 2008). Compensation may encourage the directors to fulfil their legal responsibilities<sup>4</sup> for scrutinising and preventing top management from wasting investment and capital resources over paying dividends (Ang et al., 2001; Beiner et al., 2006) and mitigating their managerial shirking (Jensen and Meckling, 1976). It additionally could contribute to enhance the value of corporate entities by reducing information asymmetry among directors, shareholders and the market, and hence mitigating investor uncertainties and increasing their confidence towards information provided by a firm. This leads to a lower firm cost of capital by lowering the associated risk premium. As a result, compensation can be realistically expected to influence firm market value positively. Several prior studies suggest this theoretical prediction about the director pay-performance link. Those indicate that better compensation for directors generally reduces agency conflicts significantly (see Andreas et al., 2012; Jensen and Meckling, 1976) and thus motivates directors to perform better (Bender, 2007; Murphy, 1985). Specifically, in fiercely competitive markets, firms tend to introduce attractive compensation packages (i.e. high basic pay, pension, in-kind benefits, and performance-related compensation such as bonus and share options) to attract and retain well-experienced supervisory and advisory directors. These packages should reflect the directors' responsibilities and their expertise as well as firm activities' complexities. They should also be aligned with the

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<sup>4</sup> The BOD is responsible for monitoring whether managerial decisions are in line with shareholders' interests, reviewing the effectiveness of internal controls, and determining executive compensation contracts. Thus, compensation for the BODs tends to induce them to become an effective counterpart to the interests of the executives (Magnan et al., 2010; Harakeh et al., 2019).

organisations' business strategies and long-term objectives (Lipman and Hall, 2008). Therefore, BOD compensation appears to be indispensable in ensuring their good performance (Jaafar and James, 2014).

More importantly, many psychologists and economists have raised the issue of the effectiveness of monetary rewards as a mean of enhancing corporate performance. They argue that individuals may act differently in response to changes in monetary rewards, which depends on whether those changes tend to occur on the intensive or extensive margins (Adams and Ferreira, 2008). Board members are likely to perform better if they are paid at a higher rate than the lower rate (Gneezy and Rustichini, 2000). This implies that the nexus of monetary rewards and performance may be not non-monotonic, "*with a discontinuous drop in performance when one increases rewards from zero to a small positive value*" (Adams and Ferreira, 2008, p.155). According to psychologists, a positive compensation-performance relationship might exist when directors are paid more. Most directors are likely to serve on several boards and have additional executive positions in other firms (multiple directorships); thus, they may have extracurricular activities which they need to devote time passionately. This leads to the fact that the most apparent cost of attending a board meeting is an opportunity cost of time. Therefore, BOD might attend the board meetings of the higher-paid firms (e.g. higher meeting fees). For lower paid-firms, lower attendance rates by directors might damage their reputation as the dedicated directors, have implications on firm's strategic decisions and put the directors' re-election or re-employment in peril (Adams and Ferreira, 2008). Moreover, compensation in forms of meeting fees (and other benefits) provides direct motives for directors to attend board meetings, however, it may not necessarily be the primary incentives for board's attendance (Adams and Ferreira, 2008). These consequences are likely to be more complex within the banking sector than non-financial firms, affecting negatively the bank stability and stock market valuations (see Elnahass et al., 2019). Still, however, proponents of higher BOD compensation contend that higher payments compensate directors for the increased demands and risks related to board service (Sahlman, 1990; Cordeiro et al., 2000). An increase in board compensation is needed due to the increased amount of time a director has to prepare for every meeting. Advocates additionally affirm that higher director compensation levels can attract those directors which the required level of expertise and market connections essential to promote high firm performance (Hempel and Fay, 1994; Fatemi et al., 2003; Lin and Lu, 2009).

### 3. Hypothesis development

#### 3.1 *The value relevance of board compensation in Islamic and conventional banks*

Given the lack of prior evidence in the banking sector, additional research gaps emerge which particularly pertain to studying this effect within different bank types (i.e., Islamic and conventional banks). In line with agency theory, the direction of the association will be influenced by the system of corporate governance employed, the levels of the agency costs and the banking business model, all of which could vary depending on the bank type (Trinh et al., 2020a,b). These issues are expected to have implications on bank value.

Islamic and conventional banks typically show different operating mechanisms, corporate governance and agency-principle relationships (Shibani and Fuentes, 2017; Mahdi et al., 2018). While the latter operates and survives with the interest-based traditional banking instruments, the activities of the former must comply with the Islamic rulings of *Shari'ah* law. Also, there is a difference in the corporate governance structure since the Islamic banking model includes an extra layer of governance or religious preoccupations (i.e. SSB). Additional agency costs arise in Islamic banking given those outside directors who are expert in Shari'ah legitimacy are scarce worldwide, and there are few numbers of prominent and expert outside directors who dominate the Islamic banking industry (Trinh et al., 2020a). Unlike conventional banks, depositors/investors in Islamic banks have no right to intervene in the financial and operating management of their funds. Therefore, managers in Islamic banks have full control of the investment process of depositors' funds which offer several opportunities to pursue their own benefits at the expense of their investors, which can cause investors carrying additional agency costs (Abdelsalam et al., 2016).

Prior studies contend that high compensation for directors should lead to attracting and retaining experienced and well-connected members to the boards (Jaafar and James, 2015). Conventional banks operate on a relatively less complex business model which facilitate alternative investment channels, quick access to market sources and risk diversifications through trading in financial instruments which are prohibited by Islamic banks (e.g., derivatives and options). Therefore, high levels of board compensation in conventional banks is expected to send a distinctive and positive signal to stock markets that experienced and connected directors are recruited who can effectively scrutinise the firm operations and protect shareholders' interests, in line with signalling theory (Bergh and Gibbons, 2011; Connelly et al., 2011; Bergh et al., 2014). Signalling such reputational effects to the stock market is expected to positively affect the bank value. For a conventional bank,

appointing outside directors who are expert and expensive is likely to lead to overestimate by investors that the probability that these directors are more knowledgeable/ reputable and might also overestimate the fact that high payments to independent directors are certified as effective monitors of the banking operations and, hence, investors could anticipate subsequently high returns and high firm value, this is in line with the heuristic theory (Chan et al., 2004).

In contrast, under the institutional peculiarities related to Islamic banks' operation, we do not expect this positive relationship to hold where high compensation levels might be negatively perceived or not priced by investors. Due to the high agency costs associated with the Islamic banking business models, high board compensation might be indicative of scarcity of board members who are experts in Islamic jurisdictions and/or less effective monitoring capacity because of board busyness. Under the two views, low market valuations are likely to emerge for Islamic banks (see Trinh et al., 2020a). According to Elnahass et al. (2019), operating on a constrained banking model like Islamic banking might lead investors' uncertainty regarding the streams of future cash flows which must be invested in compliance with the Shari'ah rules. This is in line with the good management theory (Jamali et al., 2008; Pae and Choi, 2011) which states that a positive relationship between low-quality monitoring by boards and the provision of low-quality corporate-level information. Moreover, high compensation payments can jeopardise the trust of investors regarding managers' discretion and expropriation of rents under a complex institutional environment (Caprio et al., 2007). Therefore, investors may perceive that additional cash flow might be diverted, and a smaller portion of the firm's profits will be paid off as dividends (La Porta et al., 2002). Accordingly, in comparison to conventional banking where higher market valuations are expected, the published information on board compensation in Islamic banking is likely to be less valued by stock markets and it might signal weak systems of governance and/or increased cost of equity due to high information risk. This leads to the first study's hypothesis, stated in the alternative form:

***H<sub>1</sub>: Investors significantly and positively value board compensation; however, this is less likely in Islamic than conventional banks.***

### *3.2. The value relevance of Shari'ah Supervisory Board compensation within Islamic Banks*

Within Islamic banks, the SSB acts as distinct scholars responsible for monitoring the Shari'ah governance and screening out the bank activities to comply with the Islamic principles (Grais and

Pellegrini, 2006). Members of this board also serve as the counterparts of conventional internal auditors who enhance the creditability and reliability of published financial and non-financial information in the stock market (Godlewski et al., 2016). Therefore, investment choices and stock price valuations in Islamic banks are likely to be influenced by the information released on the characteristics and payments to the SSB.

The compensation of SSB is expected to affect the bank value positively because investors would expect that an attractive compensation package for *Shari'ah* scholars might be a good incentive for them to work more efficiently to fulfil their moral accountabilities (Jensen and Meckling, 1976); and therefore, high compensation may lead to high stock price multiples. High SSB compensation is likely to imply a recruitment of highly experts and hence, signalling to the market that the bank is operating under a strong system of *Shari'ah* governance. This effect is likely to be dominate as Shari'ah scholars are already scare to find worldwide (see Alnasser and Muhammed, 2012; Mollah and Zaman, 2015; Trinh et al., 2020a,b). Therefore, such signalling effect is important and can enhance the credibility and confidence of the shareholders and many stakeholders for the Islamic banks' operations and published Shari'ah related information. This positive perception by IAHs may reduce the expected return of equity of investors to the extent that SSB compensation reduces their monitoring and auditing costs, resulting in a lower cost of capital (see Shleifer and Vishny, 1997; Ammann et al., 2011) and hence, a higher stock market valuation. Therefore, we conjecture that high levels of compensation for SSB is positively priced by stock markets and increase the bank value. This leads to the second study's hypothesis, stated in the alternative form:

***H<sub>2</sub>: SSB compensation is significantly and positively priced by stock markets.***

## **4. Sample and measures**

### *4.1 Sample and data*

We compile data using the Thomson One Reuters DataStream, Bankscope, bank annual reports and World Bank database. We focus on Islamic and conventional banks listed on global stock markets for the period 2010-2015. The selected period allows us to avoid the potential impact of the financial crisis shock of 2007-2009 that banks encountered. We hand-collected the governance data for outside directors, Shari'ah advisors and board information from banks' annual reports, corporate filings (e.g., security prospectuses or governance reports) and websites. The initial

sample shows a total of 3038 banks (196 Islamic banks and 2842 conventional banks) in 36 countries. Following previous banking literature (e.g., Beck et al., 2013; Mollah et al., 2017; Elnahass et al. 2019; Trinh et al., 2020a), we applied four criteria to filter the sample: (a) countries having both types of banks and at least two listed banks; (b) banks which have full annual reports available from official websites, published as of the financial year of 31 December; (c) only commercial full-ledged banks were kept. Therefore, investment banks and conventional banks with Islamic windows were dropped from the sample<sup>5</sup>; and (d) banks having at least three consecutive year's full data availability.

Our final sample is based on unbalanced panel data of 70 publicly quoted commercial banks (386 bank year-observations), operating in 11 countries: Bahrain, Bangladesh, Indonesia, Kuwait, Pakistan, Qatar, Saudi Arabia, UAE, Oman, Egypt and Jordan. Countries such as *Malaysia* and *Turkey*, where Islamic banks have a significant share of the total banking industry, have been excluded from the sample as most Islamic banks are not listed as separated entities on the stock markets of these nations (Saeed and Izzeldin, 2016).

*Table 1* presents the sample distribution by country and bank, with 27 listed Islamic banks (150 observations) and 43 listed conventional banks (236 observations). The percentage of bank representations between Islamic banks and conventional banks is 38.9% to 61.1%, respectively. The highest concentration of Islamic banks is represented by Bahrain and Bangladesh, while Indonesia and Bangladesh report the highest concentration of conventional banks.

**[Insert Table 1 here]**

**[Insert Table 2 here]**

### *3.2 Measuring the bank market value*

Value relevance studies postulate that the information items are significantly related to information employed by investors in the companies' valuation such as equity prices, market capitalisation (price-based model) or stock returns (return models) (Barth et al., 2001; Wyatt, 2008;

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<sup>5</sup> Conventional banks with Islamic windows refer to banks with an independent department providing Islamic products with an SSB (Elnahass et al., 2014). Consistent with Elnahass et al. (2014) and Johnes et al. (2014), the reason for excluding these banks is that *supervisory issues* and *accountancy requirements* are expected to be different to those of full-ledged Islamic banks (Islamic Financial Services Board, 2005).



Elnahass et al., 2014). In this study, we use *Market Capitalisation (MARCAP)* measured as share prices multiplied by the number of share outstanding as our dependent variable because of two advantages of this measure over return measure.

First, the cumulative impact of earnings information is reflected in equity prices, thus price-based models produce unbiased coefficients for earnings whilst return models, in contrast, yield bias coefficients towards zero for earnings if the market anticipates any accounting earnings components and incorporates this anticipation in the beginning equity prices (e.g., price or market capitalisation leads earnings) (Kothari and Zimmerman, 1995). Second, price-based models (Ohlson, 1995) indicate how the firm value is associated with both book values and earnings, whereas annual return models only permit to assess the VR of accounting earnings (Liu and Liu, 2007). To mitigate effects of heteroscedasticity or the econometric effects of scale (Aleksanyan and Karim, 2012), all exogenous accounting variables and dependent variable in tested value relevance models are deflated by the average total assets which is one of the most commonly used deflators in prior literature (Barth et al., 2001; Francis and Smith, 2005; Kim and Kross, 2005; Jones and Smith, 2011).

### *3.3. Measuring compensation of board of directors and Shari'ah members*

Our data collection procedures reveal that several annual reports disclosed BOD compensation in the form of salaries, bonus, in-kind benefits and directors' attendance fees; however, others only disclosed total compensation. Most banks in our sample only reported total remuneration but not equity-based remuneration (e.g. stock options). Due to the limitation of data availability, we define board compensation in a given year as the total remuneration of fixed and variable components. Stock options and other equity-based compensation were not included into the variable part since banks are not required to disclose these data and many of them do not compensate for *Shari'ah* Scholars and outside directors by options (and shares). According and in line with previous literature (e.g., Jaafar and James, 2015; Burns et al., 2017), we ignore this type of compensation.

Following prior studies, we measure both board and SSB compensations as the level of total compensation<sup>6</sup> which includes annual directors' fixed fees (e.g. salaries), meeting and committee fees, bonus, and in-kind benefits (e.g., Ang et al., 2002; Doucouliagos et al., 2007; Wahab and

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<sup>6</sup> We are aware that this approach may produce a bias on compensation data if board compensation changes during the fiscal year. However, this is an enormous effort to compile the relevant data at the board level. Furthermore, only half of the banks disclose such information at individual levels, which may, in turn, further restrict our sample.

Rahman, 2009; Croci et al., 2012; Andreas et al., 2012; Jaafar and James, 2015; Burns et al., 2017). we take the natural logarithm of total compensation of boards' compensations (i.e., *logBODC* and *logSSBC*) to mitigate the impact of outlier banks.

## 5. Empirical Model

As banks are likely to have different opportunities and challenges that they may encounter over years, the disclosure of board compensation other board characteristics can jointly and dynamically be determined by unobserved bank-specific variables (e.g. quality and style of management, business strategy, market perception and bank complexity) (Guest, 2009; Henry, 2008). This issue may not be able to detected by pooled Ordinary Least Square (OLS) (Kraatz and Zajac, 2001; Wooldridge, 2002). Furthermore, although good corporate governance practices of a firm can enhance its profit, investors may value high profit rather than the corporate governance attributes. By combining all banks through pooling OLS method, this procedure ignores the heterogeneity or individuality that may exist among banks. Therefore, given the panel nature of our data, we estimate our regression models through employing panel data estimation to mitigate endogeneity problems arising from potential unobserved bank-specific heterogeneity. This is consistent with prior literature such as Henry (2008); Guest (2009) and Ntim et al. (2012). Therefore, Fixed and Random Effects provide more consistent and efficient estimators than OLS. However, time-invariant variables theoretically cannot be estimated with the fixed-effect method because of perfect multicollinearity. Our test variable of board independence, for example, seem not to vary over the sample period. Therefore, applying the fixed-effect technique is an inappropriate estimation procedure (Baltagi, 2005; Wooldridge, 2002). In line with prior studies (e.g., Pathan, 2009; Mollah and Zaman, 2015; Mollah et al., 2017), the random-effects GLS is more appropriate for our test settings. To avoid misinterpreting the behaviour of investors, we additionally add a comprehensive set of control variables to reduce the omitted variable bias and the possibility that our findings are impacted by endogeneity.

Our value relevance model, which identifies the relationship between accounting amounts and corporate governance characteristics, follows the traditional Ohlson (1995) valuation model. We extend this model by adding corporate governance and other bank-level and country-level factors, which may affect the market value of equity (e.g., Barth et al., 1996; Barth and Clinch, 1998; Barth et al., 1998). Based on Ohlson (1995), the market capitalisation is determined by both the book

values of equity plus net income, assuming clean surplus relation ( $MARCAP_{i,t} = \beta_0 + \beta_1 BVE_{i,t} + \beta_2 ENI_{i,t} + \varepsilon_{i,t}$ ). Clean surplus relation suggests that a company's reported earnings in year  $t$  are equal to the change in book value of equity ( $BVE_{i,t} - BVE_{i,t-1}$ ) plus current dividends ( $d_t$ ) (Ohlson, 1995; Elnahass et al., 2014). To examine our two identified hypotheses, we specify the value relevance models separately for the full sample and conventional and Islamic banks subsamples as follow:

*For full sample:*

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 BVE_{i,t} + \beta_3 ENI_{i,t} + \beta_4 BANK_{i,t} + \beta_5 LEGAL_{i,t} + \beta_6 ISLAMIC_{i,t} + \varepsilon_{i,t} \quad (1)$$

*For Islamic banks subsample:*

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 \log SSBC_{i,t} + \beta_3 BVE_{i,t} + \beta_4 ENI_{i,t} + \beta_5 BANK_{i,t} + \beta_6 LEGAL_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where,  $MARCAP_{i,t}$  represents the logarithm form of Market Capitalisation deflated by average total assets;  $\log BODC_{i,t}$  represents the total BOD compensation deflated by average total assets, in the logarithm form;  $\log SSBC_{i,t}$  represents the total SSB compensation deflated by average total assets, in the logarithm form;  $BVE_{i,t}$  represents Book Value of Equity (after excluding SSB/BOD compensation) deflated by average total assets;  $ENI_{i,t}$  represents Net Income (after excluding SSB/BOD compensation) deflated by average total assets;  $BANK_{i,t}$  represents bank-level indicators;  $LEGAL_{i,t}$  represents the degree of religiosity;  $ISLAMIC_{i,t}$  represents the type of bank. We exclude  $ISLAMIC_{i,t}$  when testing for either conventional banks only or Islamic banks only.

We separate both SSB compensation and BOD compensation from the income statement and balance sheet, consistent with the clean surplus relation and previous research (see Barth and Clinch, 1998; Elnahass et al., 2014). By following numerous studies, we utilise the average total assets as the main deflator (Barth et al. 2001; Francis and Smith 2005; Kim and Kross 2005; Jones and Smith, 2011). Therefore,  $BVE_{i,t}$  and  $ENI_{i,t}$  represents the incremental explanatory power of the book value and earnings for equity valuation, controlling for balance sheet and income statement information (Elnahass et al., 2014). Controlling for these two determinants in our models is expected to confirm the value relevance of SSB/BOD compensation as reflecting other value-relevant information to the market.

We use several control variables to limit potential omitted variables bias. Those are widely used in firm value equations, capturing factors that tend to affect bank value. We include board independence (*%INDEP*) to control for firm governance characteristics, which is measured by the percentage of outside non-executive directors on board (Fich and Shivdasani, 2006; Faleye, 2007; Pathan and Skully, 2010; Aebi et al., 2012; Switzer and Wang, 2013; Li, 2014). We also control for multiple directorships of BOD (*%BODM*) or SSB (*%SSBM*). *%BODM* (*%SSBM*) is the percentage of outside directors (*Shari'ah* advisors) with multiple directorships. This measure is computed as the number of outside directors (*Shari'ah* advisors) serving on two or more additional (outside) firms divided by the BOD/SSB size. We also control for bank size (*LogTA*) by employing the natural logarithm of total assets measured in thousands of USD of a bank at the end of the fiscal year in the sample period (Black et al., 2012; Berger et al., 2014; Bhagat et al., 2015; Saghi-Zedek and Tarazi, 2015; Black et al., 2015). Larger banks tend to maintain more transparent corporate governance disclosure regimes due to higher agency problems and hence, may have a higher value (Beiner et al., 2006). Meanwhile, smaller banks are likely to have greater opportunities to grow and thus may have a higher value (Klapper and Love, 2004). Given such mix literature, we predict that bank size is associated either positively or negatively with firm market value.

In accordance to previous work investigating the association between corporate governance and banking performance/value (e.g., Mollah et al., 2017), we control for the possible effect of banking sector concentration (activity diversification) on value by using Herfindahl-Hirschman Index (*HHI*). It is calculated by the square of the sum of the ratio of total assets of each bank-year to total assets of all banks each year. It has a value between zero and one. High *HHI* value indicates high banking concentration. Moreover, we control for the degree of religiosity by using the legal system of the country (*LEGAL*) (Troilo et al., 2018). This measure is a dummy variable which takes value of zero for countries not using *Shari'ah* law to define their legal system, the value of one for countries combining both *Shari'ah* law and others to define their legal system, and the value of two for countries, such as Saudi Arabia, only using *Shari'ah* law to define their legal system (Abedifar et al., 2013; Mollah and Zaman, 2015; Mollah et al., 2017). Finally, *ISLAMIC<sub>i,t</sub>* represents the type of bank, taking value of one if the observed bank is classified as Islamic bank and zero otherwise (Trinh et al., 2020a,b).

## 6. Descriptive Statistics

Table 3 reports the descriptive statistics of the dataset used in this analysis for full sample, Islamic banks (IBs) subsample and conventional banks (CBs) subsample. The dependent variable and all exogenous independent accounting variables are deflated by the *average total assets*. Regarding the market value, IBs report a higher average market capitalisation relative to CBs; with higher mean of 14.073 (10.268) for market capitalisation deflated by average assets (*MARCAP*). The two-sample t-test shows an insignificant difference between these two sub-samples.

Comparisons based on BOD compensation shows that the mean for the board compensation variable (i.e., *BODC*), board in IBs are paid lower, on average, than *BOD* in CBs; with lower means of USD 1,150 for IBs compared to USD 2,020 thousand for CBs. t-test show significant mean differences between the two bank types with significantly high mean for CBs. For board multiple directorships variables %*BODM*, we find that compared to CBs, IBs show the lower average level of multiple directorships for their BOD with lower means of 43% (51%) for IBs (CBs). Our sample also represents that on average, SSB serving in IBs shows a substantially high level of multiple directorships with mean of 77.78% for %*SSBM*. This result can be explained by the scarcity of experts in *Shari'ah* law on a global basis. This variable is significantly different between the two bank types. Findings also suggest that IBs report significantly lower net income and lower BE and they are significantly smaller in size than CBs.

**[Insert Table 3 here]**

Table 4 (a and b) shows the Pearson pair-wise correlation matrix for all main independent variables for each subsample of IBs and CBs. Results indicate that correlations among independent variables are within accepted limits (all coefficients are smaller than 0.8) and raise no concerns on multicollinearity<sup>7</sup>.

**[Insert Table 4a and 4b here]**

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<sup>7</sup> This is strongly supported by unreported low individual VIF values which are less than 10, means of VIFs are less than 6 and condition numbers are less than 15.

## 7. Empirical results

### 7.1 The value relevance of board of directors' compensation in Islamic and conventional banks

Table 5, Panel (A), (B), and (C) reports GLS random-effect regression results of the impact of BOD compensation on bank market value for the full sample, IBs and CBs subsamples, respectively.

For the full sample, in Panel A, results indicate that high director compensation is significantly and positively valued by the market on average, which is presented by highly significant and positive coefficients on (*logBODC*)<sup>8</sup>. This indicates that increasing compensation for directors tends to be priced by investors and increases the bank value. The result implies that shareholders are likely to be perceiving high board compensation as a reasonable incentive to motivate boards to effectively scrutinise the bank operations and to align interests between managers and shareholders, leading to high stock market valuations (Jensen and Meckling, 1976; Andreas et al., 2012). This finding is also consistent with previous studies in industrial firms (e.g., Brick et al., 2006; Ertugrul and Hegde, 2008). For controls, the coefficient on the board independence (*%INDEP*) is negative, which suggests that more outside directors serving on the BOD is likely to reduce the firm value. This is in line with previous research (e.g., Pathan and Faff, 2013), which indicates that BOD independence is negatively related to firm performance. Furthermore, large banks (*logTA*) tend to experience low market valuations. This can be explained by investors often preferring to invest their capital into high growth companies such as small firms; however, large banks are often perceived as ones having lower earnings growth (Elnahass et al., 2019). Therefore, smaller banks with better growth opportunities are highly valued by the market. The results also indicate highly significant and positive associations between *MARCAP* and, both of, the *BVE* and *ENI*. These findings are in line with prior VR studies (e.g., Ohlson, 1995; Barth et al., 1998; Choi, 2007).

When examining the effect of the BOD compensation across the two bank types in order to test our first hypothesis, in Table 5, we find insignificant evidence for the effect of board compensation on the market valuations for IBs (in Panel B). This implies that investors in IBs seem not to price board compensation. For CBs (in Panel C), we find a positive association between *logBODC* and *MARCAP*. This finding suggest that investors perceive board compensation as value-enhancing

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<sup>8</sup> Results keep relatively remained when we use stock returns as an alternative proxy for market value.

board information that increases bank valuations. The coefficient of *logBODC* in CBs is also economically significant, as a one per cent increase in board compensation reflects an increase in the bank value by 0.252 per cent. These results suggest that higher compensation for board is important in ensuring superior performance for CBs (Jaafar and James, 2014).

The results for the controls across the two bank types are generally consistent with the main findings of the full sample. We find a negative association between firm size and firm value. This implies that the market place lowers valuation for both large IBs and large CBs. This can be explained that investors are likely to be more interested in evaluating banks' potential growth. Smaller banks seem to have more opportunities to grow up in the future and bring investors more gains and benefits from their investments. Moreover, the negative association between board independence and corporate market value is observed in CBs, but not their Islamic counterparts.

**[Insert Table 5 here]**

Taken together, our findings show that board compensation has a differential effect on the market valuations across both bank types.<sup>9</sup> BOD compensation increases the market valuations for CBs with no significant evidence for IBs which is in line with our prediction and supports our first hypothesis *H<sub>1</sub>*. The positive effect of board compensation on the market valuations of CBs indicates that some reputational benefits are likely to dominate investors' expectations. Appointing expensive directors tends to promote reputational benefits which seem to alleviate investors' uncertainty related to ineffective monitoring and agency conflicts between investors and bank managers which in turn, leads to high market valuations. This is also in line with the prediction of signalling theory (e.g., Bergh and Gibbons, 2011; Connelly et al., 2011; Bergh et al., 2014) and prior industrial literature (e.g., Bender, 2007). The absence of market valuations for IBs can be justified through the signalling theory. Investors in IBs seem to be well informed about the importance of effective monitoring as well as the relative implications of paying high compensation to board on governance. These findings suggest that investors seem to be sceptical of board compensation by not valuing payments for outside directors, which is in line with the

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<sup>9</sup> These results are still unchanged after controlling for year fixed effects and/or country fixed effects. Tables will be provided upon request.

agency theory. An alternative justification is that investors in IBs are not sensitive neither perceive board compensation as relevant information to their decision making.

## 7.2 The value relevance of Shari'ah supervisory board within Islamic banks

In Table 6, we extend our analyses to test  $H_2$  expecting positive market valuations for SSB compensation within IBs. Findings show that the compensation for *Shari'ah* scholars is significantly priced by investors, with highly significant and positive coefficients on  $\log SSBC$ . The coefficient on SSB compensation is also economically significant: one per cent increase in SSB compensation, on average, is associated with a decrease in the market value of IBs by 0.908 per cent. This result suggests that having high compensation for appointed *Shari'ah* scholars tends to enhance the market value of IBs. High compensation for SSB members is likely to attract and retain experienced and well-connected experts in *Shari'ah* law basis. These findings are in line with the resource dependence theory, and suggest that an increased level of SSB compensation promotes a positive signal stock markets that the IB has the financial capacity to employ qualified *Shari'ah* scholars. That is, high remuneration can enhance SSB effectiveness and supervision function to offer better *Shari'ah* governance and promote high bank stability (Magnan et al., 2010).

Results for other control variables remain qualitatively unchanged. We find that the market tends to negatively value SSB multiple directorships ( $\%SSBM$ ). These findings are in line with Elnahass et al. (2019) and imply investors' negative perceptions of the limited time, less attention and efforts of over-committed SSB scholars to monitor IBs' activities and to provide effective advising services over the permissible banking transactions (see Ferris et al., 2003; Alnasser and Muhammed, 2012). Moreover, when we interact this variable with SSB compensation (i.e.  $\log SSBC * \%SSBM$ ), IBs stock market valuation is significantly reduced, which suggests that investors seem to penalise IBs for appointing busy SSB and offering them high compensation schemes. These results are consistent with Trinh et al. (2020a) showing the negative implications of appointing busy SSB on Islamic banking stability and performance. For other variables, results relatively keep unchanged. We also find that BOD compensation shows an insignificant impact on IBs valuations, which is in line with the result reported in Table 5. In addition, the interaction between  $\log BODC$  and board busyness ( $\%BODM$ ) is not significantly priced by investors, suggesting that such information is not valued by stock markets engaging with Islamic banking



systems. These findings confirm the earlier evidence by Elnahass et al. (2019) indicating investors in IBs do not significantly perceive information released around BOD busyness.

Overall findings support our second hypothesis,  $H_2$  implying that investors seem to highly price the compensation information related SSB. However, this pricing is adversely affected by appointing scholars serving on multiple boards because such busyness could jeopardise their responsibilities and commitments in screening out the bank activities/transactions to emphasise on their Shari'ah compliance. Moreover, investors seem to differentially perceive busyness of SSB and BOD. Investors are sensitive to SSB rather than BOD compensation, merely placing substantial valuation for SSB compensation. This might be justified by the relatively high trust and confidence in which effective Shari'ah monitoring could have in preserving the religious/ethical orientation of this banking sector (Grais and Pellegrini, 2006; Elnahass et al., 2018).

**[Insert Table 6 here]**

## **8. Sensitivities tests and robustness check**

We next implement sensitivity tests of our main results for both subsample IBs and CBs analyses. We aim to investigate whether our main findings hold when identifying and controlling for different institutional bank characteristics.

### *8.1 Testing for the effect of bank age*

We additionally test for the value relevance of SSB/BOD compensation while identifying the effect of bank age across IBs and CBs. The bank is classified as matured if its age (*LogAge*) is equal to or higher than the means of 3.066 (IBs) and 3.341 (CBs); otherwise, it is categorised as young banks. Results in *Table 7* (Panel A), testing for IBs subsample, indicate that the positive coefficients of *logSSBC* on firm value founded in *Table 6*, are observed in young IBs. This is consistent with our prediction that young banks often have higher potential growth opportunities relatively compared to matured ones; and hence, information reported in financial statements of young banks are more value-relevant. Results in Panel (B) find that there is no evidence showing differing effects of BOD compensation on firm market capitalisation between young and matured CBs.

**[Insert Table 7 here]**

### 7.2 Testing for the effect of bank size

We clustered either IBs or CBs subsamples into large and small banks using the mean of the log of total assets (15.2280 and 15.5218) in order to further study bank market value (*Table 8*, Panels A and B). Panel (A) reports a significant association between MARCAP and SSB compensation within of small IBs, with positive coefficients of *logSSBC*. Politically, there is a constraint on director pay as the market is often likely to perceive high compensation as unconscionable (Jensen and Murphy, 1990). This suggests that large IBs who tend to pay for directors and *Shari'ah* scholars exceeding the “politically correct” constraint (Ang et al., 2002), might be lower valued by the public. Panel (B) explores that the market positively valued BOD compensation for the stocks of small CBs, with positive coefficients of *logBODC*. However, there is no evidence showing the differing impact of other certain factors on firm value, between small and large CBs.

**[Insert Table 8 here]**

### 7.3 Two-step system Generalized Method of Moments

We further employ an alternative model specification, a two-step system Generalized Method of Moments (GMM) approach (Arellano and Bover 1995; Blundell and Bond 1998), to address for potential endogeneity issues which may exist in our empirical models. This method allows us to control for unobserved influences through a first-difference transformation of variables, and in turn helps to reduce unobserved heterogeneity and omitted variable bias. It also allows to treat firm-level characteristics factors as endogenous variables and orthogonally uses the lag values of those variables as instrumental variables (Mollah et al., 2017; Trinh et al., 2020a). Other country-level characteristics are treated as strictly exogenous. *Table 9* reports GMM results which show a consistency with the main findings reported in the main *table 5*. In other words, our main story keeps unchanged, even when we capture for unobserved heterogeneity, simultaneity and dynamic endogeneity.

**[Insert Table 9 here]**

## 9. Conclusion

With the existing literature gaps on examining stock market valuations of board compensation in global banking together with identifying the effect of different bank types, this study goes

beyond to offer new insights. Specifically, we investigate whether the board of directors' compensation schemes influence stock market valuations for banks within an international context, and further offer a comparative assessment of boards' compensation between Islamic and conventional banks.

By employing the Olshon (1995) model for value relevance, our results, for the full sample, indicates a positive relationship between bank value and the compensation of the board of directors, controlling for accounting amounts and other value relevance variables. This finding suggests that banks with high level of compensations for board are positively perceived by investors. However, investors across the two bank types showed distinct perceptions of board of directors' compensation. In conventional banks, investors assign a high valuation for board compensation while Islamic banks' investors do not significantly price information related to compensation for their board. Moreover, within Islamic banks, investors consistently perceive Shari'ah boards' compensation as increasing the bank value. These findings suggest that investors engaging with Islamic banking tend to be more sensitive to SSB compensation while they ignore board of directors' related compensation information.

The evidence presented in this study offer important policy implications to regulators, investors and various stakeholders engaging with the two banking sectors. Results in this study can inform both investors' investment choices and regulators about the implications that board compensation could have, distinctively, on the two bank types. Our results imply that despite the importance of having a double-layer governance mechanism in an Islamic banking system, enhancing the bank value is ultimately promoted through information related to SSB and Shari'ah governance. The investors significantly price information related to this board as this board enhances the credibility and trust for this banking business model. Results showing the positive influence of board compensation on conventional banks' valuations can partially alleviate concerns related to agency costs. Furthermore, by appointing expensive directors, conventional banks can effectively exploit the possible reputation benefits associated with those outside directors which tends to signal positive news to stock markets and increase the equity value for their banks. Our results also provide extended guidance to researchers and investors in the global banking industry with new perspectives to consider for published information surrounding different boards serving in the two bank types. This study contributes to the ongoing debate related to alternative banking systems and the need reconsider extended mechanisms of governance and their implications on stock

valuations worldwide. Future research in this financial arena may extend the individual-level or board-level compensation, multiple directorships issue and focus on investigating appraisal of the economic consequences of selecting *Shari'ah*-compliance advisors with adequate, relevant accounting and financial expertise, appropriate training, and continuing education.

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**Table 1**

Final sample distributions for the whole sample period

Country	Observations (Islamic Banks)	Observations (Conventional Banks)	Observations (Full Sample)	% (Islamic Banks)	% (Conventional Banks)	% (Full Sample)
Bahrain	30	30	60	20.00	12.71	15.54
Bangladesh	36	44	80	24.00	18.64	20.73
Egypt	3	9	12	2.00	3.81	3.11
Indonesia	6	66	72	4.00	27.97	18.65
Jordan	12	29	41	8.00	12.29	10.62
Kuwait	3	12	15	2.00	5.09	3.89
Pakistan	24	6	30	16.00	2.54	7.77
Qatar	18	24	42	12.00	10.17	10.88
Saudi Arabia	6	6	12	4.00	2.54	3.11
UAE	6	6	12	4.00	2.54	3.11
Oman	6	4	10	4.00	1.70	2.59
TOTAL	150	236	386	100	100	100
Number of banks	27	43	70	-	-	-

The sample comprises of 70 listed banks (386 observations) with 27 listed Islamic commercial banks (150 observations) and 43 listed conventional commercial banks (236 observations) in 11 countries for the period from 2010 to 2015.

**Table 2**

## Variable definitions

Variables	Abbreviations	Definitions
Market Capitalisation	MARCAP	Natural logarithm form of the bank's market capitalisation which is measured by stock price per share multiplied by the number of shares outstanding, deflated by <i>Average Total Assets</i>
Director Compensation	logBODC	Natural logarithm of board of directors' total compensation, which consists of salaries, sitting fees, retain fees, bonus and in-kind benefits, deflated by <i>Average Total Assets</i>
<i>Shari'ah</i> Advisors' Compensation	logSSBC	Natural logarithm of <i>Shari'ah</i> Advisors' total compensation, which consists of salaries, sitting fees, retain fees, bonus and in-kind benefits, deflated by <i>Average Total Assets</i>
Book Value of Equity	BVE	Book Value of Equity after excluding recognised amounts related to SSB and BOD compensation, for bank <i>i</i> at the end of the fiscal year <i>t</i> , deflated by <i>Average Total Assets</i> . BVE captures the status of the balance sheet. It is measured as total equity (total assets minus total liability) excluding SSB and BOD compensation: $BVE = (current\ Book\ value\ of\ equity + SSBC + BODC)$ .
Net income	ENI	Net income assuming clean surplus relation, after excluding recognised amounts related to SSB and BOD compensation, for bank <i>i</i> at the end of the fiscal year <i>t</i> , deflated by <i>Average Total Assets</i> . ENI captures income statements. It is calculated as end-of-year net income excluding SSB and BOD compensation: $ENI = (Net\ income + SSBC + BODC)$ . Net income, according to clean surplus relationship, is equal to the change in book value of equity (i.e. current value minus lag value) plus current dividends.
Board Independence	%INDEP	Percentage of independent non-executive directors on the board of directors.
BOD multiple directorships	%BODM	Percentage of outside directors with multiple directorships on the board (%), computed as number of independent directors serving on two or more additional firms divided by number of outside directors on the board.
SSB multiple directorships	%SSBM	Percentage of <i>Shari'ah</i> advisors with multiple directorships on the board, computed as number of <i>Shari'ah</i> board members serving on two or more additional firms divided by the total number of <i>Shari'ah</i> board members
Bank Size	LogTA	Natural logarithm of total assets of a bank at the end of the year.
Herfindahl-Hirschman Index	HHI	The Herfindahl-Hirschman Index as a measure of bank concentration. Higher HHI shows higher bank concentration. It is calculated by the square of the sum of the ratio of total assets of each bank-year to total assets of all banks each year. It has a value between zero and one.
Legal System	LEGAL	Dummy, 0 for countries not using <i>Shari'ah</i> law to define their legal system, 1 for countries combining both <i>Shari'ah</i> law and others to define their legal system, and the value of 2 for countries, such as Saudi Arabia, only using <i>Shari'ah</i> law to define their legal system.

**Table 3**  
Descriptive statistics

VARIABLES	FULL SAMPLE						Islamic Banks	Conventional Banks	Two-Sample <i>t</i> - Test (two-tailed)
	N	Mean	Median	Std.	Min	Max	Sample Mean	Sample Mean	
MARCAP	386	11.7467	0.1605	67.8369	0.02360	690.8537	14.0731	10.2680	-0.5159
BODC	386	1,682	902	2,445	1.1799	13,355	1,150	2,020	3.8191***
logBODC	386	-9.1169	-9.0104	1.5163	-13.9110	-4.5439	-9.1654	-9.0860	0.5460
SSBC	150	1,011	68	5,104	0.3554	44,076	1,011		
logSSBC	150	-11.1615	-11.1200	1.7062	-13.9803	-6.0152	-11.1615		
BVE	386	13.2272	12.0146	12.59473	-72.7255	80.88088	12.0567	13.9712	1.2245
ENI	386	1.314676	1.42238	2.091719	-26.0675	6.854982	0.6603	1.7306	4.2459***
%INDEP	386	34.8426	33.3333	23.70	0	100	32.73	36.18	1.3218
%BODM	386	47.9469	50	37.69	0	100	43.37	50.85	1.9078*
%SSBM	150	77.7783	100	29.88	11.1111	100	77.78		
LogTA	386	15.4076	15.4266	1.2873	11.9991	18.0465	15.2280	15.5218	2.1963**
HHI	386	0.1417	0.1092	0.0950	0.0581	0.6720	0.1588	0.1308	
ISLAMIC	386	0.3886	0	0.4881	0	1			
LEGAL	386	0.6373	1	0.5423	0	2			

The table reports descriptive statistics of all variables employed in the regression models of the study for the full sample and each banking sector (IBs vs CBs). We also report on the paired sample mean test (T-test). The currency unit (if any) is USD'000. The \*\*\*, \*\*, \* represents p-values of 0.01, 0.05, and 0.10. See *Table 2* for variable definitions.

**Table 4a**

Pearson Pair-Wise correlation matrix for the Islamic banks subsample for years 2010-2015 (N = 150)

	BVE	ENI	logSSBC	logBODC	INDEP	%BODM	LogTA	HHI	LEGAL
BVE	1.000								
ENI	-0.042	1.000							
logSSBC	0.595*	-0.109	1.000						
logBODC	0.299*	-0.179*	0.495*	1.000					
INDEP	0.323*	-0.091	0.303*	0.216*	1.000				
%BODM	0.306*	-0.093	0.094	-0.085	0.418*	1.000			
LogTA	0.157	0.431*	0.619*	0.718*	0.296*	0.008	1.000		
HHI	0.098	0.149	0.129	0.226*	-0.130	-0.125	0.085	1.000	
LEGAL	0.344*	0.039	0.668*	0.532*	0.312*	0.178*	0.370*	0.383*	1.000

The table shows the Pearson pair-wise correlation matrix among main independent variables employed in our analysis for Islamic Bank subsample. \* indicate significance at the 5% level. See *Table 2* for variable definitions.

**Table 4b**

Pearson Pair-Wise correlation matrix for the conventional banks subsample for years 2010-2015 (N = 236)

	BVE	ENI	logBODC	INDEP	%BODM	LogTA	HHI	LEGAL
BVE	1							
ENI	0.448*	1						
logBODC	0.454*	0.302*	1					
INDEP	0.126	0.096	0.309*	1				
%BODM	0.090	0.079	-0.080	0.020	1			
LogTA	-0.131*	0.130*	0.576*	0.141*	-0.015	1		
HHI	0.138*	0.067	0.256*	-0.077	0.181*	0.096	1	
LEGAL	0.345*	0.120	0.396*	-0.128	0.350*	0.318*	0.588*	1

The table shows the Pearson pair-wise correlation matrix among main independent variables employed in our analysis for Conventional Bank subsample. \* indicate significance at the 5% level. See *Table 2* for variable definitions.

**Table 5**

Boards of directors' compensation and market value for Islamic and conventional banks

*Market Capitalisation as Dependent Variable ((Deflator: Average Total Assets)*

VARIABLES	Panel A: FULL SAMPLE (1)	Panel B: ISLAMIC BANKS (2)	Panel C: CONVENTIONAL BANKS (3)
logBODC	0.366***(0.006)	0.205(0.254)	0.252**(0.038)
BVE	0.018***(0.000)	0.015***(0.000)	0.020*(0.098)
ENI	0.043*(0.056)	0.030*(0.053)	0.468***(0.000)
INDEP	-0.482**(0.019)	-0.175(0.597)	-0.494*(0.057)
%BODM	-1.933(0.249)	0.529(0.811)	-2.428(0.102)
LogBODC*%BODM	-0.246 (0.221)	0.031(0.897)	-0.277(0.123)
LogTA	-0.471***(0.000)	-0.580***(0.005)	-0.345***(0.004)
HHI	-0.446(0.417)	-0.794**(0.047)	0.793(0.640)
LEGAL	0.063 (0.872)	-0.480(0.539)	0.313(0.432)
<b>ISLAMIC</b>	-0.063(0.888)		
Constant	8.719***(0.000)	9.304***(0.002)	4.782**(0.029)
Observations	386	150	236
Number of BANK	70	27	43
Random Effects	YES	YES	YES
Adjusted R-square	0.023	0.079	0.058
Wald Chi2	168***	191***	47***

The table presents GLS Random-Effect *market capitalisation* regression results showing the value relevance of boards of directors Compensation for the full sample (Panel A), Islamic banks (Panel B) and Conventional banks (Panel C). Models are constructed as follow:

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 BVE_{i,t} + \beta_3 ENI_{i,t} + \beta_4 BANK_{i,t} + \beta_5 LEGAL_{i,t} + \varepsilon_{i,t} \quad (1)$$

Where,  $MARCAP_{i,t}$  represents the logarithm form of Market Capitalisation deflated by average total assets;  $\log BODC_{i,t}$  represents the logarithm form of total BOD compensation deflated by average total assets;  $BVE_{i,t}$  represents Book Value of Equity after excluding BOD compensation deflated by average total assets;  $ENI_{i,t}$  represents Net Income after excluding BOD compensation deflated by average total assets;  $BANK_{i,t}$  represents bank-level indicators;  $LEGAL_{i,t}$  represents the degree of religiosity. We consider the effect of having BOD multiple directorships on the value relevance of BOD compensation through the interaction variable:  $\log BODC * \%BODM$ . Models are tested for the period of six-year from 2010. P-values in parentheses, \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01. See *Table 2* for variable definitions.

**Table 6**

Boards compensation and market value within Islamic banks

*Market Capitalisation as Dependent Variable*

VARIABLES (Deflator: <i>Average Total Assets</i> )	<i>MARCAP</i>
logBODC	0.064(0.683)
logSSBC	0.908***(0.000)
BVE	0.015***(0.001)
ENI	0.028*(0.064)
INDEP	-0.023(0.942)
%BODM	2.583(0.268)
%SSBM	-11.409***(0.000)
LogBODC*%BODM	0.185(0.414)
LogSSBC*%SSBM	-1.070***(0.000)
%BODM*%SSBM	-1.084(0.166)
LogTA	-0.483**(0.022)
HHI	-0.973***(0.001)
LEGAL	-1.113(0.239)
Constant	17.099***(0.000)
Observations	150
Number of BANK	27
Random Effects	YES
Adjusted R-square	0.152
Wald Chi2	165***

The table presents GLS Random-Effect *market capitalisation* regression results showing the value relevance Shari'ah supervisory boards/boards of directors Compensation within Islamic banks. Models are constructed as follow:

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 \log SSBC_{i,t} + \beta_3 BVE_{i,t} + \beta_4 ENI_{i,t} + \beta_5 BANK_{i,t} + \beta_6 LEGAL_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where,  $MARCAP_{i,t}$  represents the logarithm form of Market Capitalisation deflated by average total assets;  $\log BODC_{i,t}$  represents the logarithm form of total BOD compensation deflated by average total assets;  $\log SSBC_{i,t}$  represents the logarithm form of total SSB compensation deflated by average total assets;  $BVE_{i,t}$  represents Book Value of Equity after excluding SSB/BOD compensation deflated by average total assets;  $ENI_{i,t}$  represents Net Income after excluding SSB/BOD compensation deflated by average total assets;  $BANK_{i,t}$  represents bank-level indicators;  $LEGAL_{i,t}$  represents the degree of religiosity. We use interaction variables between %BODM and %SSBM to test the impact of multiple directorships, among different boards, in Islamic banks on firm value. We also identify the effect of having multiple directorships on the value relevance of BOD compensation or SSB compensation respectively through the interaction variables:  $\log BODC * \%BODM$  and  $\log SSBC * \%SSBM$ . Models are tested for the period of six-year from 2010 and observations are 150. P-values in parentheses, \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.



**Table 7**

Boards compensation and market value, determining the bank age' effects

*Market capitalisation as dependent variable*

VARIABLES (Deflator: <i>Average Total Assets</i> )	Panel A: ISLAMIC BANKS	Panel B: CONVENTIONAL BANKS
	(1)	(2)
logBODC	0.119(0.515)	0.054(0.616)
logSSBC	0.958***(0.000)	-
BVE	0.011**(0.032)	0.023**(0.029)
ENI	0.041***(0.010)	0.445***(0.000)
MATURE	-3.931(0.138)	2.706**(0.020)
LogBODC*MATURE	-0.146(0.279)	0.266**(0.026)
LogSSBC*MATURE	-0.247(0.154)	-
INDEP	-0.136 (0.676)	-0.469*(0.068)
%BODM	3.216(0.163)	-1.437 (0.104)
%SSBM	-10.087*** (0.003)	-
LogBODC*%BODM	0.243 (0.282)	-0.213*(0.083)
LogSSBC*%SSBM	-0.894*** (0.001)	-
%BODM *MATURE	-0.406(0.387)	-0.570(0.170)
%SSBM *MATURE	0.798(0.579)	-
%BODM*%SSBM	-1.112(0.210)	-
LogTA	-0.532**(0.019)	-0.318*** (0.007)
HHI	-1.009*** (0.001)	1.083(0.507)
LEGAL	-1.054(0.272)	0.377 (0.370)
Constant	19.028*** (0.000)	2.265(0.209)
Observations	150	236
Number of BANK	27	43
Random Effects	YES	YES
Adjusted R-square	0.274	0.070
Wald Chi2	302***	81***

The table presents GLS Random-Effect *market capitalisation* regression results for testing the effect of bank characteristics (Bank Age), through constructing a *dummy age variable* ( $MATURE_{i,t}$ ) classifying as matured bank (value of 1) if log of age is equal or greater than its mean and young bank (value of 0) otherwise, and its interactions with compensation of boards of directors/SSB ( $INTERACTIONS_{i,t}$ ), on the value relevance of BOD/SSB compensation across Islamic banks and Conventional banks subsample. Panel A reports the results for Islamic banks while Panel B reports the results for Conventional banks. Models are constructed as follow:

Conventional banks:

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 BVE_{i,t} + \beta_3 ENI_{i,t} + \beta_4 MATURE_{i,t} + \beta_5 INTERACTIONS_{i,t} + \beta_6 BANK_{i,t} + \beta_7 LEGAL_{i,t} + \varepsilon_{i,t}$$

Islamic banks:

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 \log SSBC_{i,t} + \beta_3 BVE_{i,t} + \beta_4 ENI_{i,t} + \beta_5 MATURE_{i,t} + \beta_6 INTERACTIONS_{i,t} + \beta_7 BANK_{i,t} + \beta_8 LEGAL_{i,t} + \varepsilon_{i,t}$$

See notes in *Table 5* and *Table 2* for other variable definitions. Models are tested for the period of six-year from 2010 and observations are 150 in models 1 and 236 in models 2. P-values in parentheses, \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

**Table 8**

Boards compensation and market value, determining the bank size' effects

*Market capitalisation as dependent variable*

VARIABLES (Deflator: <i>Average Total Assets</i> )	Panel A: ISLAMIC BANKS	Panel B: CONVENTIONAL BANKS
	(1)	(2)
logBODC	0.201(0.289)	0.335**(0.034)
logSSBC	1.076***(0.000)	-
BVE	0.014**(0.040)	0.033**(0.048)
ENI	0.020*(0.089)	0.462***(0.002)
LARGE	-0.159(0.955)	-1.235(0.393)
LogBODC*LARGE	-0.025(0.850)	-0.136(0.462)
LogSSBC*LARGE	-0.030(0.862)	-
INDEP	0.076 (0.805)	-0.526*(0.081)
%BODM	0.926(0.742)	-2.267*(0.078)
%SSBM	-12.040***(0.001)	-
LogBODC*%BODM	-0.016(0.955)	-0.262 (0.107)
LogSSBC*%SSBM	-1.126***(0.000)	-
%SSBM*LARGE	-0.178(0.898)	-
%BODM*LARGE	-0.536(0.244)	0.007(0.983)
%BODM*%SSBM	-1.090(0.204)	-
HHI	-0.587*(0.089)	1.387(0.436)
LEGAL	-1.932(0.157)	-0.173(0.715)
Constant	13.336***(0.001)	0.249(0.861)
Observations	150	236
Number of BANK	27	43
Random Effects	YES	YES
Adjusted R-square	0.054	0.054
Wald Chi2	202***	94***

The table presents GLS Random-Effect *market capitalisation* regression results for testing the effect of bank characteristics (Bank Size), through constructing a *dummy Size variable* ( $LARGE_{i,t}$ ) classifying as large bank (value of 1) if log of bank size is equal or greater than its mean and small bank (value of 0) otherwise, and its interactions with compensation of boards of directors/SSB ( $INTERACTIONS_{i,t}$ ), on the value relevance of boards of directors/SSB compensation across Islamic banks and Conventional banks subsample. Panel A reports the results for Islamic banks while Panel B reports the results for Conventional banks. Models are constructed as follow:

Conventional banks:

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 BVE_{i,t} + \beta_3 ENI_{i,t} + \beta_4 LARGE_{i,t} + \beta_5 INTERACTIONS_{i,t} + \beta_6 BANK_{i,t} + \beta_7 LEGAL_{i,t} + \varepsilon_{i,t}$$

Islamic banks:

$$MARCAP_{i,t} = \beta_0 + \beta_1 \log BODC_{i,t} + \beta_2 \log SSBC_{i,t} + \beta_3 BVE_{i,t} + \beta_4 ENI_{i,t} + \beta_5 LARGE_{i,t} + \beta_6 INTERACTIONS_{i,t} + \beta_7 BANK_{i,t} + \beta_8 LEGAL_{i,t} + \varepsilon_{i,t}$$

See notes in *Table 5* and *Table 2* for other variable definitions. Models are tested for the period of six-year from 2010 and observations are 150 in models 1 and 236 in models 2. P-values in parentheses, \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

**Table 9**

Robustness check: GMM

*Market Capitalisation as Dependent Variable (Deflator: Average Total Assets)*

VARIABLES	Panel A: ISLAMIC BANKS (1)	Panel B: CONVENTIONAL BANKS (2)
MARCAP <sub>t-1</sub>	0.857***(0.000)	0.740***(0.000)
logBODC	0.063(0.260)	0.259**(0.033)
logSSBC	0.110**(0.041)	-
BVE	0.011***(0.000)	0.058***(0.001)
ENI	0.013***(0.000)	0.196***(0.000)
INDEP	-0.434***(0.001)	-0.346(0.309)
%BODM	-1.435(0.139)	-2.556(0.534)
%SSBM	-1.435***(0.009)	-
LogBODC*%BODM	0.431(0.634)	-0.301(0.492)
LogSSBC*%SSBM	-0.134**(0.034)	-
LogTA	-0.091***(0.000)	-0.143**(0.045)
HHI	-0.721***(0.000)	-2.637**(0.013)
LEGAL	0.109(0.255)	0.060(0.867)
Constant	2.922***(0.000)	-0.554(0.737)
Observations	123	193
Wald Chi2 (p-value)	0.000	0.000
AR (1)	0.007	0.008
AR (2)	0.114	0.430
Hansen (p-value)	0.127	0.400

The table presents GMM regression results showing the value relevance of boards compensation for Islamic banks (Panel A) and Conventional banks (Panel B). Models are tested for the period of six-year from 2010. P-values in parentheses, \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01. See *Table 2* for variable definitions.