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CORPORATE GOVERNANCE AND BANK PERFORMANCE AFTER THEFINANCIAL CRISIS: NOTE ON THE WALKER REVIEW

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ABSTRACT

This study analyses whether board independence and expertise in banks have increased and whether banks' board term duration has shifted to annual basis following the recommendations of Walker (2009). This study employed the two-step system generalised method of moments estimation method to analyse the relationship between these changes and bank performance. Findings provide empirical evidence that by adapting the recommendations in the Walker Report related to the increase in percentage of outside directors with financial expertise, electing a chairperson with financial expertise and a shift in the board member re-election term to annual basis enhances bank performance. Lastly, this study demonstrates that an increase in boardindependence and expertise and a shift in the board re-election term to annual basis are particularly relevant for small banks (as measured by total assets). These findingsare robust to the alternative bank performance measure using Tobin's Q.

Keywords: Board structure; Board independence; Board expertise; Walker Report

INTRODUCTION

This study analyses whether the board structure of banks has changed based on the recommendations in the Walker Report, which reviewed the corporate governance in the United Kingdom (UK) Banks and Other Financial Institutions (BOFIs) entities. The Walker Report focuses on banks and other major financial institutions, such as life insurance companies. This report was prepared following the experience of critical loss and failure of corporate governance, specifically on risk management, which worsened during the 2009 financial crisis. The 39 final recommendations included in the Walker Report centred on improving banks' corporate governance, which mainly comprised issues on the composition of boards and the effectiveness of board practices and risk governance. The implementation of several recommendations required specific initiative, particularly by the Financial Reporting Council (FRC) and Financial Services Authority (FSA).

Walker (2009) argued that the governance of BOFIs is systemically significant because the nature of the business is interconnected with all components of the economyand society. However, the following question remains: Could the implementation of the guidelines set in the Walker Report improve bank performance? This study focuses on the changes in BOFI board independence, expertise and term duration. Thus, the first objective of this study is to analyse whether BOFIs in the UK have increased the percentage of board independence and expertise and adopted the annual re-election termfor their board members based on the Walker recommendation. The second objective is to determine the impact of the adaptation on the respective banks' performance. The empirical evidence from this research will be beneficial for companies and policymakers by revealing the impact of adopting specific recommendations of corporate governance towards performance.

This study observed the trend of board structure and employed the two-step systemgeneralised method of moment (GMM) estimation method to analyse the relationship amongst those structures with bank performance across 167 listed BOFIs on the London Stock Exchange

(LSE) from 2002 to 2016. The findings from the econometric models are in favour of this study's core predictions. That is, adopting the final recommendations in the Walker Report would affect their performance. Particularly, theresults empirically supported the hypothesis that an increase in the percentage of financial expertise of chairpersons and outside directors and a yearly basis of board member re-elections would enhance bank performance.

Lastly, the outcome from the findings demonstrated that adopting the recommendations of Walker (2009) on board structure and governance is crucial, particularly for small banks (as measured by total assets). These results are robust to the bank performance measure using Tobin's Q.

Background on the Recent Financial Crisis as a Failure of Governance

The role of corporate governance in managing risk exposure was scrutinised during the recent global financial crisis. Investigation on the crisis concludes that the failures of corporate governance and lack of prudent risk management in many financial institutions, apart from policymakers and credit rating agencies, were the causes of the crisis (Financial Crisis Inquiry Commission, 2011).

Kirkpatrick (2009) argued that corporate governance procedures were deemed to fail during the crisis because of failure of the board of directors (BOD) to be informed regarding exposures. Moreover, BOD failed to implement suitable monitoring systems on firms' approved strategies and remuneration systems were not closely related to firms' strategy, risk and long-term interest.

Aebi et al. (2012) revealed that the practice of standard corporate governance in relation to chief executive officer (CEO) ownership, board independence andshareholder rights had no relationship with bank performance during the crisis. The aforementioned study concluded that the valuation of standard corporate governance in non-financial firms is inadequate to address the relevant governance structures of the banks. Accordingly, this issue has been addressed in 2009 through the publication of theWalker Report, which included 39 final recommendations to improve bank corporate governance. The current study will analyse the application of Walker's recommendationon UK banks and its impact on firm performance.

LITERATURE REVIEW AND HYPOTHESES

The analysis of the association between board characteristics and firm performance has considerably occupied researchers.

Board Independence and Expertise

One of the most controversial issues regarding boards is whether the number of members with financial expertise has a relationship with firm performance. Several researchers have concluded that board competence in finance is positively related to firm performance (e.g. Francis et al., 2012; Hau and Thum, 2009). Francis et al. (2012) studied 876 firms and revealed that external directors with financial experience have a larger impact on firm value compared with a considerably independent board. The corporate governance literature explains such finding by proposing that an excessive proportion of non-executive directors (NEDs) hinders the advisory role of boards because outside directors lack the capability to facilitate the

transfer of information between BOD and management (Andres and Vallelado, 2008; Adams and Ferreira, 2007). Andres and Vallelado (2008) concluded that specific knowledge of bank directors attained from vast experience in handling complex banking products makes them effective monitors and advisers of executive management. Accordingly, Walker (2009) viewed that a high proportion of NEDs should have financial expertise. The emphasis on financial expertise was given more weight compared with the independence criterion of NEDs. Therefore, the following hypotheses are formulated:

Hypothesis 1 - The average percentage of banks with board members having financial expertise will increase substantially higherthan that of the average percentage of independent directorson boards after the passage of the Walker Report.

Hypothesis 2 - The average percentage of the BOFI external directors with financial industry expertise will increase substantially after the passage of the Walker Report.

Walker (2009) stated that the chairperson should possess relevant financial industry experience and the ability to lead the board through proven senior boardroom capability. Additionally, Walker (2009) proposed that the leadership experience of the chairperson could be derived from former roles as senior independent director (SID), CEO or chairperson of a corporate board committee. Therefore, the nomination committee will appoint individuals with industry and leadership experience to serve as chairperson.

Hypothesis 3 - The average percentage of chairpersons of the BOFI boards with financial industry and leadership experience will increase substantially after the passage of the Walker Report.

Board Term Duration

Apart from financial background and industry experience, Walker (2009) consideredthat the re-election term for a chairperson of a BOFI board should only be one year. Thepurpose of this recommendation is to encourage effective communication between boards and major shareholders. Previous research have shown that directors of poorly performing companies, having poor attendance on board meetings and receiving adversereviews by the Institutional Shareholder Services (ISS) receive substantially limited votes (Cai et al., 2009). This finding indicates that shareholders are effectively exercising their voting rights in electing directors. This recommendation has attracted criticism, such as exerting pressure on directorsto focus on short-term performance rather than the boards considering medium and longer-term horizons. Walker (2009) responded that the role of the chairperson iscrucial and shifting elections annually would become a catalyst to enhance chairperson responsiveness with considerable engagement with shareholders. Generally, the practiceof the Financial Times Stock Exchange (FTSE) board is a three-year term for all BOD members. Walker (2009) further recommended a possible transition for all board members from three-year terms to annual elections. The purpose of this recommendation is to encourage effective communication between boards and major shareholders. Walker (2009) explained that the role of the corporate board chairpersonis crucial as an agent for shareholders, thereby holding special accountability, which is translated into a proposed annual election. Walker (2009) suggested that an annual election would become a means to induce considerable

receptiveness andreadiness for the directors to maintain rapid engagement with shareholders.
Hypothesis 4 - The average percentage of bank board members who are subject to annual re-election term will increase substantially after the passage of the Walker Report.

Board Structure and Bank Performance

The Walker Report focuses on the improvement in the BOD structure. However, the following question remains: Would the empirical evidence that could support the recommendation of Walker result in positive impact on performance? Previous studies on the impact of the Sarbanes–Oxley Act (SOX) of 2002 in the US on financial firms have revealed that valuation increases when firms implemented the SOX requirements on additional independent boards and financial experts on audit committees, as well as on institutional holdings, compared with the pre-SOX period (Akhigbe and Martin, 2006). Hence, the current study expects that the impact of the changes in board variables, as outlined by Walker (2009) on firm performance, is considerably pronounced following the Walker Report. However, this notion is only applicable provided that the previous hypotheses (i.e. H1–H4) are satisfied. Therefore, the fifth hypothesis is formulated as follows:
Hypothesis 5 - Compared with the pre-crisis period, the predicted correlation between board structure and BOFI performance, which supported the previous hypotheses (H1–H4), is considerably pronounced following the recommendations made in the Walker Report.

DATA AND METHODOLOGY

Sample Selection

The sample consists of data on 302 banks listed on the LSE from 2002 to 2016. This period was selected to assess the effect of the Walker Review as the focal years covering the pre- and post-financial crisis periods in 2007–2008 and Walker's recommendations in 2009. The list of the 302 BOFIs was initially obtained from the Datastream banking sector and consists of national and state commercial banks operating in various markets but listed on LSE. However, 135 companies out of the initial BOFI list are excluded because of unavailable information in Datasream for the sample period. Lastly, this study contains 1697 bank-year observations across 167 BOFIs. The data on board structure was obtained from the Datastream and Boardex databases.

Measure of Bank Performance

Two alternatives for bank performance measures are used to identify the relationship between board structure and performance, namely, Tobin's Q ratio (Q) and return on assets (ROA). Q is the sum of the market value of equity plus the book value of the liabilities divided by the book value of the total assets. Q with a coefficient of above 1 means that the market value of a particular company exceeds its book value and vice versa. ROA is calculated as net income before interest and tax as a percentage of the average book value of the previous and current year total assets. In measuring the impact of changes in the board characteristics post-Walker Review on bank performance, this study will present the core results for the ROA proxy.

Measure of Explanatory Variables

This study consists of five measures of board structure, namely, financial experts on boards (FEB), financial expertise of NEDs (FENEDs), financial expertise of the chairperson (FEC), leadership experience of the chairperson (LEC) and board term onan annual basis (BT1). Francis et al. (2012) explained that directors with financial expertise include individuals who previously or presently work as a chief financial officer (CFO), accountant, treasurer, vice president (VP) for finance or possess backgrounds in banking, insurance, accounting, or auditing. For the chairperson with leadership experience (LEC), Walker (2009) suggested the inclusion of individuals who, prior to becoming chairperson, has either held the post of SID, CEO, or chairperson of the boardcommittee. BT1 refers to the percentage of companies, in which the board members are subject to re-election on an annual basis as recommended by Walker.

Empirical Framework

This study intends to study two areas, namely, the changes in board characteristics post-Walker Review and assessment of the impact of these changes towards bank performance. For the former, the comparison of board features within the study period isobserved. For the latter, the regression technique using dynamic panel estimators as popularised by Arellano and Bond (1991) with GMM (Hansen, 1982) is used. Andres and Vallelado (2008) argued that panel data analysis using the GMM method is the most efficient tool to treat instruments for variables that are potentially endogenous.

The following regression equation includes one lag of performance as an explanatory variable. This dynamic model aims to explore the impact of the Walker Review on the association between board structure and bank performance:

$$PERFORMANCE_{i,t} = a_0 + \varphi(PERFORMANCE)_{i,t-1} + \sum^{10}(BOARD)_{i,t}\beta_j + \alpha_2(POST)_t + \sum^{10}(POST)_t \times (BOARD)_{i,t}\gamma_j + \sum^{2002-2016} P_t(YEAR)_t + u_i + s_{i,t}$$

where the subscript i represents the respective BOFIs (i = 1, 2,…,167); t is the time period (t = 2002, 2003,…, 2016); the coefficients a, β, u and γ are the parameters to be estimated; s denotes the remaining disturbance term; the dependent variable PERFORMANCE is the return on assets (ROA), which is the net income before interest and tax as a percentage of average book-value total assets as the main proxy of bank performance; BOARD comprises the five dimensions of FEB, FENEDs, FEC, LEC and BT1; POST is a post-Walker Review and financial crisis period that equals 1 if the year is within 2009 to 2016, otherwise 0 and the equation of POST is interacted with each of the five board variables (FEB, FENEDs, FEC, LEC and BT1) to assess how the introduction of the Walker Review affects the correlation between board structure and bank performance.

Table 1 Definition of the variables.

Notations	Variable names	Descriptions
Panel A: Dependent variables (bank performance)		
ROAQ	Return on assets	Net income before interest and tax as a percentage of averagebook-value total assets
	Tobin's Q ratio	Sum of the market value of equity plus the book value of liabilities divided by the book value of total assets
Panel B: Board structure variables		

IND FEB	Independent directors	Percentage of the total directors who are independent
FENEDs	Financial experts on boards	Percentage of the total directors who are financial expert
FEC LEC	Financial expertise of NEDs	Percentage of the total NEDs who are financial expert
BT1	Financial expertise of chairperson	Dummy for the chairperson with financial experience (i.e. a dummy variable that equals one for the chairperson who possesses financial background, otherwise zero)
	Leadership experience of chairperson	Dummy for chairperson with leadership experience (i.e. a dummy variable that equals one for the chairperson who possesses leadership experience, otherwise zero)
	Board term	Dummy for board interval of one year (i.e. a dummy variable that equals one for companies in which the re-election of board members is subject to an annual basis, otherwise zero)

Table 2: Descriptive statistics

Variable	Obs.	Mean	SD	Min.	Median	Max.
Panel A: Board structure variables						
IND (%)	1538	56.28	27.37	0.00	61.11	100.00
FEB (%)	1467	52.63	22.15	0.00	52.94	100.00
FENEDs (%)	413	42.30	23.12	0.00	40.00	100.00
FEC (%) (dummy)	485	28.07	45.17	0.00	0.00	100.00
LEC (%) (dummy)	485	76.93	42.05	0.00	100.00	100.00
BT1 (%) (dummy)	1570	31.98	6.34	26.09	30.51	50.00
Panel B: Bank performance measures						
ROA (%)	2197	0.01	0.01	−0.13	0.01	0.14
Q	1172	0.94	0.05	0.45	0.95	1.31

Note: This table presents the distribution of each variable by showing the mean, standard deviation (SD), minimum (Min.), median (Median) and maximum (Max.). Please refer to Table 1 for the definition of each variable.

Descriptive Statistics

Panel A of Table 2 presents the descriptive statistics of the board structure variables. Table 2 shows that the mean (median) percentage of the independent directors (IND) is 56.28% (61.11) with a minimum of 0% and a maximum of 100%. The mean percentage for financial expertise on boards for this study is comparable to that of non-financial firms' expertise on boards of 56.7% (see Francis et al., 2012). The mean (median) percentage of financial expertise of NEDs, FENEDs, is 42.30% (40%) and the mean (median) percentage of financial expertise and leadership experience of chairperson, FEC and LEC, are 28.07% and 76.93%, respectively. These huge differences are no longer surprising because Walker (2009)

suggested that chairperson with leadership experience but lacking in strong financial backgrounds are more competent than those with financial expertise but lacking in previous board experience. The mean percentage of BOFIs whose board term is on an annual basis, BT1, is 31.98%.

Panel B of Table 2 presents the descriptive statistics of the bank performance measures. The sample mean (median) return on assets, ROA, is 0.01 (0.01), whilst the mean (median) Tobin's Q ratio is 0.94 (0.95) times. Given that the sample includes the financial crisis period of 2007–2008, several extreme values prevail as represented by the minimum and maximum values. Therefore, the estimated coefficients are deemed significant at the 5% level in the regression analysis.

ANALYSIS OF FINDINGS

Core Results from Observations on Panel Data H1–H3: Board Independence and Expertise

The analysis of the board independence and expertise (see Figure 1) supports Valenti (2008), who argued that the trend toward increased corporate governance began prior to the financial crisis in 2007–2008. For example, Figure 1 shows that the majority of companies already implemented the recommendation of corporate governance by increasing the number of directors with financial expertise on their boards, particularly between 2002 and 2005.

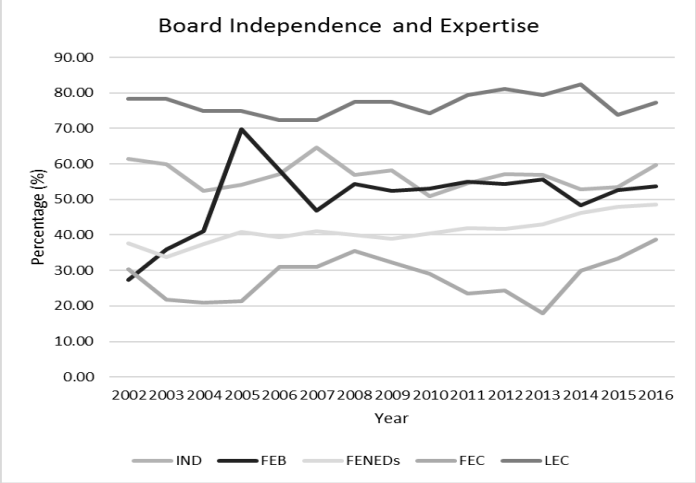

Figure 1 Board independence and expertise

Walker (2009) argued that the financial expertise of the board should be prioritised over the independence of its members. However, the chart depicts that after 2009, independence criteria (IND) and financial expertise of the members of the board, as represented by FEB, are relatively static. This finding does not support H1 because the average percentage of banks in which board members have financial expertise does not increase substantially more than the increase in the average percentage of independent directors on the board after the passage of the Walker Report. Instead, the average percentage of board members with financial expertise and the independent members remains relatively constant, which is between 50% and 60%. This phenomenon could becaused by the focus on BOFIs to increase the composition of NEDs

with financial expertise on boards rather than insiders with a financial background. A steady increaseis evident in the percentage of NEDs with financial expertise throughout the study period.

Meanwhile, H2 is supported because the chart reveals that the average percentage of the BOFI board external directors with financial industry expertise increases substantially after the passage of the Walker Report. Since 2005, the percentage of NEDs with financial expertise remains at 40% before the rate began to increase steadily from 2009 onwards. By the end of 2016, nearly half of NEDs possessed a strong financial background. The significance of having NEDs with financial expertise ishighlighted by Valenti (2008). That is, NEDs are good monitors of management. Particularly, NEDs are considerably objective because the CEOs has no direct influence over their career advancement. Furthermore, NEDs with strong financial backgrounds are likely to improve the board's monitoring and advising role because being an insider would constrain monitoring capability towards the financial executive (Francis et. al, 2012).

The observation of the financial expertise of the chairpersons (FEC) reveals a downward movement in the percentage of chairpersons on BOFI boards for the early period of the post-Walker Review (2009–2013). However, a substantial increase starts from 2013 onwards with the highest percentage across the sample period recorded at 38.64% in 2016.

Meanwhile, chairpersons with leadership experience have consistently accounted for between 72% and 78% in the pre-financial crisis period. Following Walker's recommendations in 2009 that chairpersons with proven senior boardroom capability aremost likely to lead the board effectively, the percentage of LECs is gradually increasing with the highest score of 82.5% recorded in 2014.

This finding supports H3. That is, the average percentage of chairpersons of the BOFI boards with financial industry and leadership experience would increase substantially after the passage of the Walker Report.

H4: Board Term Duration

Prior to the financial crisis, the percentage of banks in which the board members are subject to re-election on an annual basis is maintained at 30% between 2002 and 2006. Thereafter, a slight decrease in the percentage of companies was recorded until itreached 26% in 2009 before gradually increasing by a minimal amount, as represented by the flat slope. The substantial increase in the percentage of BOFIs who adopt an annual re-election, as recommended by Walker (2009), can be observed starting in 2013because the slope of BT1 becomes considerably steep. In 2016, approximately half ofthe banks in the current study followed the recommendations in the Walker Report regarding the re-election term of the board members.

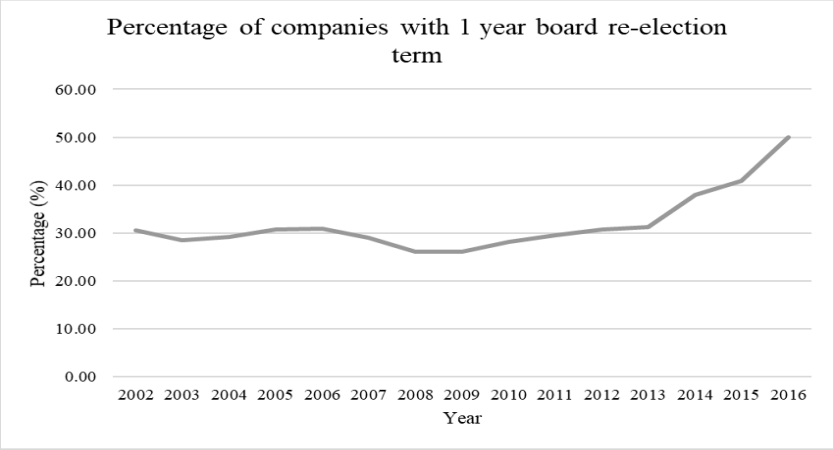

Figure 2 Percentage of companies with one year board re-election term

The transition from a three-year term as commonly practised by FTSE board to an annual basis is evident during the post-Walker Report although at the earlier stage of thepost period, BOFIs required adjustments before they could adopt the recommendations presented in the report. The reason for this finding is that only a slight increase of 5.21%between 2009 and 2013 can possibly be derived from the consequence that BOFIs that needed to balance as annual re-election will result in rapid communication to develop between board members and shareholders (Walker, 2009). The requirement to make substantial receptiveness and readiness in their engagement with shareholders maycause the majority of the companies in the sample to present constructive plans. The platform to evaluate each BOD personnel should be available to function as basis for shareholders to cast votes. The readiness to maintain such an engagement commitment prevails between 2013 and 2016, particularly given the increment of 18.7% during that period. This finding supports H4. That is, the average percentage of board members thatare subject to annual re-election increased substantially after the passage of the Walker Report.

Empirical Results from the Econometric Model: Two-Step System Estimator

The following section reveals the relationship between board characteristics, as suggested in the Walker Report and firms performance. Accordingly, only the variables that support previous hypotheses (H1–H4) will be analysed to understand the impact of the changes. Amongst these variables are FENEDs (H2), FEC (H3), LEC (H3) and BT1 (H4).

H5: Board Structure and Bank Performance

Table 3 shows the two-step system GMM estimation results of the empirical equation when ROA is used as a proxy of the bank performance. Panel B of Table 3 shows that the model is valid through the first and second differences tests (AR(1) and AR(2), respectively) of serially correlated residuals and with the Hansen J-statistics of over- identifying restrictions. Pathan and Faff (2013) indicated that the residuals in AR(1) should be serially correlated, whereas they should not be in AR(2). For the Hansen J- statistics test, the statistically insignificant result means that the instruments in the dynamic model is valid. Accordingly, the test shows the desirable statistically significant for AR(1)[†], statistically insignificant for AR(2)[‡] and Hansen J-statistics[§], respectively, thereby collectively indicating that the estimation models

are well fitted.

Table 3 System-GMM regression results of ROA, Q and SR performances on the board structure inbanks.

ROA			Q	
	Coef.	P > [t]	Coef.	P > [t]
Panel A: Coefficient estimates				
IND	−0.0412	0.000***	−0.0517	0.000***
POST*IND	0.0580	0.000***	0.0124	0.000***
FEB	−0.0483	0.000***	0.0367	0.000***
POST*FEB	0.0319	0.000***	−0.0344	0.000***
BT1	1.6171	0.000***	−5.5926	0.000***
POST*BT1	1.9416	0.000***	0.9838	0.000***
FENEDs	−0.0746	0.000***	−0.7102	0.289
POST*FENEDs	0.1383	0.000***	−0.0039	0.996
FEC	0.0859	0.893	−60.9286	0.007***
POST*FEC	1.6337	0.009***	42.9645	0.001***
LEC	−4.0416	0.006***	0.0000	-
POST*LEC	0.6482	0.606	−11.3372	0.000***
YEAR	Included		Included	
Panel B: Model fit				
F-stat (10,151/84/108)	402923	0.000***	170000000	0.000***
AR(1) test stat	−2.70	0.007***	−3.24	0.001***
AR(2) test stat	−0.72	0.473	−1.07	0.285
Hansen J-stat	144.88	1.000	83	1.000
No. of instruments	211		217	
Pooled observations	1461		901	

Note: Statistically significant at the 1% (***), 5% (**) and 10% (*) levels.

Board Term

For board term, the estimated coefficient on BT1 and POST*BT1 are positive and statistically significant (at the 1% level) in the full sample period (2002–2016) (1.6171) and in the post-sample period (1.9416). The higher coefficient on the interaction between post and BT1 compared with the entire period indicates an enhancement in performance as a result of opting to implement Walker's suggestions. This result means that the annual assessment of the individual board members positively impacts firm performance. Accordingly, an increase in BT1 by one (sample) standard deviation in thepost-Walker Review period (i.e., an increment in BT1 of 6.34, see Table 2) increases a bank's ROA performance by 194.16% points compared with only 161.71% in the full period. This finding suggests that assessing a BOD annually tends to improve performance. Arosa et al. (2013) suggested a tentative explanation for this finding. That is, the shift from the normal three-year board term to re-election on an annual basis gaveBOD considerable responsibilities that drove them to improve as monitors and advisers to management, thereby positively affecting strategic planning decisions. Thus, a reduction of re-election terms to an annual basis creates substantial value for banks.

For the financial industry expertise of external directors, the estimated coefficient on FENEDs is negative and statistically significant (at the 1% level) for the full period (−0.0746) but positive and statistically significant (at the 1% level) during the post- Walker Report period (0.1383). The increment in FENEDs by one (sample) standard deviation in the entire sample period (i.e., an increase in FENEDs of 23.12, see Table 2) decreased the bank ROA performance by approximately 7.46% points compared with anincrease by 13.83% in the post-period.

Meanwhile, the estimated coefficient on the financial industry expertise of chairpersons (FEC) is positive for the full (0.0859) and post-Walker Report (1.6337) periods. The addition in FEC by one (sample) standard deviation in the post-Walker Review period (i.e., an increase in FEC of 45.17, see Table 2) increased bank ROA performance by 163.37% points as compared to only 8.59% in the full period. The enhancement of performance by 154.78% (163.37%–8.59%) points indicates that chairpersons with financial industry expertise create substantial value for banks.

A negative impact for FENEDs on bank performance in the full period is similar tothe findings of Guner et al. (2008) and Agrawal and Chadha (2005). Guner et al. (2008) used 282 firms in the US and determined that in the cases where directors were associated with financial institutions, directors with financial expertise tended to influence the financial and investment policies of firms that create value for the associated companies but not for shareholders. Additionally, Guner et al. (2008) argued that directors with financial expertise lead to poor investment opportunities because they tend to act in the interest of creditors rather than shareholders.

The positive return in FENEDs in the post-period means that the board efficacy improved because the proportion of the external directors with financial expertise increased. Francis et al. (2012) suggested a tentative explanation for this finding. Thatis, boards with financial expertise can control the level of risk effectively and in a timelymanner. Walker (2009) argued that NEDs with substantial financial expertise are in a position to make insightful contributions to the corporate board through well-prepared discussion with executives. The finding on the increase of positive return of FEC in the post-period supports the preceding argument. Thus, boards with a high proportion of NEDs and chairpersons with financial expertise create substantial value for banks.

Alternative Bank Performance Measures

Apart from ROA as the proxy for bank performance, Table 3 presents the results of the system GMM estimates of regression for empirical equation when Q is employed as the alternative measurement of bank performance. The diagnostic test reveals that the models are statistically significant for AR(1) and statistically insignificant for AR(2) and the Hansen J-statistics, which are deemed valid.

Collectively, the use of Q as an alternative performance measure in Table 3 supports the notion that adopting the recommendations of the Walker Report by BOFI boards influences their performance. The interpretation of the estimated coefficients on BT1, FENEDs, FEC and the interaction between POST and these variables using Q are qualitatively similar to that in the

use of ROA. Table 3 shows that the interaction between post and BT1 (0.9838) compared with the full period (−5.5926), post and FENEDs (−0.0039), compared with the full period (−0.7102) and post and FEC (42.9645) compared with the full period (-60.9286) show either positive or decreasing negative estimated coefficient compared with the full period. These figures indicated an improvement in performance as a result of opting to implement Walker's suggestions.

Overall, the use of Q as a proxy of bank performance supports H5. That is, adopting the recommendations of Walker improved the association between board structure and performance.

The estimated coefficient of the bank board characteristics run through the two- step system GMM estimation results provides empirical evidence that adopting the Walker recommendations with regard to board term, financial expertise of NEDs and chairpersons and leadership experience of chairpersons positively impacts firm performance. These findings support H5. That is, the association between board structure and bank performance is substantially pronounced following theimplementation of recommendations in the Walker Report.

Impact on Small, Medium and Large Banks

The market capitalisation of banks in the UK is not strongly balanced because only a few large banks comprise a huge part of the total market share. For example, at the end of 2015, approximately 72% of the total samples of UK bank market capitalisation are represented by the top 3 banks. The concern is whether differences are found in the impact of the board structure on the performance of banks of different sizes. Accordingly, this issue is addressed by re-estimating the dynamic models of small, medium and large banks. The bank samples are grouped based on the size of their total assets irrespective of year t, where banks in the first quartile are small banks (SMALL), banks in the second and third quartiles are medium (MEDIUM) and banks in the fourth quartile are large (LARGE). This study reports the results for the ROA as a performanceproxy in Table 4.

Table 4 System-GMM regression results of the ROA performance on the board structure forsmall, medium and large banks.

Dep. V.: ROA	SMALL		MEDIUM		LARGE	
	Coef.	P > [t]	Coef.	P > [t]	Coef.	P > [t]
Panel A: Coefficient estimates						
IND	−0.0920	0.000***	−0.0200	0.000***	−0.0151	0.438
POST*IND	−0.3560	0.038**	0.0060	0.000***	0.1220	0.466
FEB	0.1550	0.000***	−0.0270	0.000***	−0.0486	0.011**
POST*FEB	−0.1960	0.000***	0.0130	0.000***	0.0348	0.092*
BT1	7.6390	0.084*	−1.6590	0.000***	3.1680	0.000***
POST*BT1	27.2160	0.000***	2.8451	0.000***	−1.0720	0.000***
FENEDs	−0.9890	0.000***	0.0204	0.710	−0.4239	0.005***
POST*FENEDs	1.3590	0.000***	−0.0543	0.502	0.2619	0.143
FEC	2.5530	0.599	−2.7954	0.435	−7.443	0.575

					4	
POST*FEC	11.9260	0.307	5.5630	0.255	6.2022	0.587
LEC	12.5960	0.346	61.1910	0.068*	−6.1500	0.780
POST*LEC	−19.7160	0.057*	−55.3481	0.077*	5.2358	0.805
YEAR	Included		Included		Included	
Panel B: Model fit						
F-stat (10,35/98/66)	1371.21	0.000***	13983.3	0.000***	3475.57	0.000***
AR(1) test stat	−2.3	0.021**	−3.69	0.000***	−3.99	0.000***
AR(2) test stat	−0.4	0.691	−0.95	0.342	0.19	0.852
Hansen J-stat	148.02	0.285	85.52	1.000	62.28	1.000
No. of instruments	150		325		287	
Pooled observations	200		720		451	

Note: Statistically significant at the 1% (***), 5% (**) and 10% (*) levels.

Table 5 System-GMM regression results of the Q performance on the board structure for small,medium and large banks.

Dep. V.: Q	**SMALL**		**MEDIUM**		**LARGE**	
	Coef.	P > [t]	Coef.	P > [t]	Coef.	P > [t]
Panel A: Coefficient estimates						
IND	−1.6023	0.022**	−0.2116	0.000***	−0.9857	0.000***
POST*IND	1.6129	0.019**	0.1138	0.000***	0.0000	-
FEB	1.2030	0.034**	0.2320	0.000***	0.1928	0.000***
POST*FEB	−1.1533	0.025**	−0.6033	0.000***	−0.1225	0.000***
BT1	1.3028	0.981	−1.0973	0.000***	−9.5242	0.002***
POST*BT1	−6.0034	0.908	1.3799	0.000***	11.1546	0.000***
FENEDs	2.0851	0.419	−3.5393	0.286	0.0000	-
POST*FENEDs	−3.1951	0.406	−0.8381	0.715	0.4753	0.711
FEC	−8.5023	0.747	54.2396	0.444	0.0000	-
POST*FEC	14.6043	0.611	−33.3071	0.690	0.0000	-
LEC	0.0000	-	−7030.577	0.420	0.0000	-
POST*LEC	0.0000	-	0.0000	-	0.0000	-
YEAR	Included		Included		Included	
Panel B: Model fit						
F-stat (10,19/55/31)	424000000	0.000***	07000000	0.000***	256000000	0.000***
AR(1) test stat	−1.79	0.074*	−4.00	0.000***	−2.44	0.015**
AR(2) test stat	−0.94	0.346	−1.19	0.235	−0.63	0.531
Hansen J-stat	20.41	1.000	123.08	0.999	1103.09	0.000***
No. of instruments	111		185		191	
Pooled observations	114		460		240	

Note: Statistically significant at the 1% (***), 5% (**) and 10% (*) levels.

The results for the SMALL, MEDIUM and LARGE banks reveal that the estimatedcoefficient of at least four variables (BT1, FENEDs and interaction between POST and these variables)

are all statistically significant for SMALL banks. For SMALL banks, the higher coefficient on the interaction between post and BT1 (27.2160) compared withthe full period (7.6390), post and FENEDs (1.3590) compared with the full period (−0.9890) and post and FEC (11.9260) compared with the full period (2.5530) indicates an enhancement in performance as a result of opting to implement Walker's suggestions. For MEDIUM banks, the estimated coefficient of the two variables (i.e. BT1 and POST*BT1) are statistically significant. For LARGE banks, only three variables (i.e. BT1, POST*BT1 and FENEDs) are statistically significant across all board variables. Therefore, the results in Table 4 suggest that the relationship between Walker's recommendations and bank performance is considerably prevalent for SMALL banks. The performances of the MEDIUM and LARGE banks are minimally affected by the recommendations in the Walker Report probably because of the rapid monitoring by regulators and investors that already induce these banks to improve corporate governance.

CONCLUSION

This study analyses whether an increase occurred in banks' board independence and expertise and a shift in board term duration to annual basis as recommended by Walker (2009), who reviewed corporate governance of the UK BOFI entities. The impact of the adaptation on the policies of Walker on bank performance is analysed as well. This study likewise observes the trend of board structure and employs the two-step system GMM estimation method to analyse the relationship between those structures with bank performance across 167 listed BOFIs on LSE from 2002 to 2016.

The findings from the econometric models are in favour of this study's corepredictions that adopting the final recommendations in the Walker Report would affect their performance. Particularly, the results show empirical support for the hypothesis that an increase in the percentage of financial expertise of chairpersons and outside directors and an annual basis of board member re-elections enhances bank performance.

Lastly, the outcome from the findings demonstrate that adopting the recommendationsof Walker (2009) on board structure and governance are important, particularly for small banks (as measured by total assets). These results are robust to bank performance measure using Tobin's Q.

This study contributes to the bank governance literature by analysing the relationship between three features of board governance (i.e. increase in financial expertise of chairpersons and outside directors and a shift to an annual basis board term) and performance. These results may be used by FRC and FSA in the UK as guidelines to implement several recommendations in the Walker Report. Apart from these two bodies, companies, particularly in the UK, or others with similar governance characteristics could consider adapting their structure based on the preceding findings. Further research may consider other board governance areas recommended by Walker (2009), such as governance of risk and remuneration.

REFERENCES

- Adams, R. B. and Ferreira, D. (2007), "A Theory of Friendly Boards", The Journal of Finance, Vol. LXII No. 1, pp. 217-250.
- Aebi, V., Sabato, G. and Schmid, M. (2012), "Risk management, corporate governance, and bank performance in the financial crisis", Journal of Banking & Finance, Vol. 36, pp. 3213–3226.
- Agrawal, A. and Chadha, S. (2005), "Corporate Governance and Accounting Scandals", The Journal of Law & Economics, Vol. 48 No. 2, pp. 371-406.
- Akhigbe, A. and Martin, A. D. (2006), "Valuation impact of Sarbanes–Oxley: Evidence from disclosure and governance within the financial services industry", Journal of Banking & Finance, Vol. 30, pp. 989–1006.
- Andres, P. D. and Vallelado, E. (2008), "Corporate governance in banking: The role of the board of directors", Journal of Banking & Finance, Vol. 32, pp. 2570–2580.
- Arellano, M. and Bond, S. (1991), "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations", The Review of Economic Studies, Vol. 58 No. 2, pp. 277-297.
- Arosa, B., Iturralde, T. and Maseda, A. (2013), "The board structure and firm performance in SMEs: Evidence from Spain", Investigaciones Europeas de Dirección y Economía de la Empresa, Vol. 19, pp. 127-135.
- Cai, J., Garner, J. L. and Walkling, R. A. (2009), "Electing Directors", The Journal of Finance, Vol. 64 No. 5, pp. 2389-2421.
- Financial Crisis Inquiry Commission (2011), The Financial Crisis Inquiry Report, Washington: Financial Crisis Inquiry Commission.
- Francis, B. B., Hasan, I. and Wu, Q. (2012), "Do corporate boards matter during the current financial crisis?", Review of Financial Economics, Vol. 21, pp. 39-52.
- Guner, A. B., Malmendier, U. and Tate, G. (2008), "Financial expertise of directors", Journal of Financial Economics, Vol. 88, pp. 323-354.
- Hansen, L. P. (1982), "Large Sample Properties of Generalized Method of Moments Estimators",
- The Econometric Society, Vol. 50 No. 4, pp. 1029-1054.
- Hau, H. and Thum, M. (2009), "Subprime Crisis and Board (in-) Competence: Private versusPublic Banks in Germany", Economy Policy, Vol. 24 No. 60, pp. 701-752.
- Kirkpatrick, G. (2009), "The corporate governance lessons from the financial crisis", OECDJournal: Financial Market Trends, Vol. 2009 No. 1, pp. 61-87.
- Pathan, S. and Faff, R. (2013), "Does board structure in banks really affect their performance?",
- Journal of Banking & Finance, Vol. 37, pp. 1573-1589.
- Valenti, A. (2008), "The Sarbanes-Oxley Act of 2002: Has It Brought about Changes in theBoards of Large U. S.Corporations?", Journal of Business Ethics, Vol. 81 No. 2, pp. 401-412.
- Walker, D. A. (2009), A review of corporate governance in UK banks and other financialindustry entities, London: The Walker review secretariat.

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