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Abstract

The role of governance mechanisms in determining bank outcomes has been studied mostly in the context of developed economies and focused mainly on private banks. In this paper we examine the importance of board size and board composition in determining bank outcomes using data from an emerging economy, India, and using a sample that includes both public and private banks. Relatedly, we also examine the effect of CEO tenure in influencing bank outcomes, a topic that acquires particular importance in context of public sector banks where the tenure of the CEO is relatively short. Using data that spans over ten years from 2003-2012 that witnessed a large number of governance reforms in India, the results of our empirical analysis suggest that while board size plays an insignificant role in determining bank outcomes, board independence plays a significant role. There is a strong ownership effect with board independence having a significant effect on performance of private sector banks and negatively impacting the performance of private sector banks. The analysis also reveals that longer tenure of the CEO has significant effects in improving bank outcomes both in terms of financial performance and asset quality. These positive effects strengthen in the later years of CEO tenure. Our results have governance implications for strengthening the composition of board of directors and CEO tenure, especially in publicly owned banks.

Keywords: Banks, Regulation, Ownership, Board of Directors, CEO Duality, CEO Tenure

JEL Code: G21, G28, G32, G34, L32, L33

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Bank Ownership, Board Characteristics and Performance: Evidence from Commercial Banks in India[1]

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1.0 Introduction

The role of the board of directors in the governance of financial institutions has come under increasing scrutiny from both policy makers and researchers in the aftermath of the global financial crisis of 2008. Among the multitude of factors that worked in conjunction to precipitate the crisis, was the weak governance of banking institutions especially with respect to how the board of directors discharged their fiduciary duties (Kirkpatrick, 2009; Laeven, 2013). Following the crisis, in October 2010 the Basel Committee (Basel, 2010) issued a set of principles for enhancing corporate governance practices in banking organizations and highlighted the importance of the board of directors, the qualifications and composition of the board, the importance of monitoring risks at the firm level on an ongoing basis, the board's oversight on executive compensation and the board and senior management's understanding of the bank's operational structure and risks.[2] Other international efforts at promoting better governance of banks by the board of directors came through the OECD (OECD, 2006) and the Walker Review (Walker, 2009).

Notwithstanding the plethora of recommendations on the optimal role of the board of directors in governing banks, there is relatively scant empirical evidence on how banks are actually governed (Adams and Mehran, 2012; Andres and Vallelado, 2008). This is in contrast to the burgeoning empirical literature that exists on board governance for non-financial corporation[3]. Further, of the existing empirical evidence on board governance in banks pertain to privately owned banks in developed countries, particularly the US, and very little is known on the effectiveness of the board of directors in the governance of banks in countries dominated by state-owned banks, and how this compares vis-à-vis private banks. As La Porta et al. (2002) observe, "government ownership of banks is large and pervasive around the world," and this includes both developed and developing countries. There is widespread empirical evidence that government owned banks are endemically inefficient vis-à-vis its private sector counterparts and a burden on the financial system, with much of the blame for poor performance attributed to the weak governance of state owned banks (La Porta et al., 2002; Andrew, 2005; Cornett et al., 2009).

[2] http://www.bis.org/publ/bcbs176.htm
Even before the crisis, the importance of sound governance in banking and other financial institutions was underscored by the Basel Committee on Banking Supervision in 1999 which published guidelines to encourage banks to adopt sound corporate governance practices.

[3] For a recent survey of the literature, see Adams et al. (2010)

However, there is very little empirical evidence on the channels that cause state owned banks to be inefficient, and in particular the role that internal and external governance mechanisms play in the governance of state-owned banks and the extent to which such mechanisms impact their performance. Such evidence is imperative in view of the well-documented fact that the corporate governance regulatory framework is typically different in state-owned banks by virtue of government ownership and control, so that empirical regularities found in existing governance studies of private banks may not necessarily hold good for state-owned banks. Further, it is important to undertake a comparative assessment of the effectiveness of governance mechanisms in private and state-owned banks to find out whether governance is necessarily better in the former, and whether the source of the relative inefficiencies of state owned banks lie elsewhere. This is relevant because many private banks with ineffective governance mechanisms have failed in several countries where bank privatization has taken place and government ownership of banks has increased with such state involvement being expected to rise (Barth et al., 2013; Bertay et al., 2012; Walker, 2009).[4]

In view of the above, the objective of this paper is to provide evidence on the role of one of the key internal governance mechanisms in a corporation namely, the board of directors, on bank performance with a study of commercial banks in India. India is the country with the second largest number of commercial banks after the US. However, unlike the US which comprises of only private sector banks, the Indian banking system comprises of both state-owned banks, referred to as public sector banks, and privately-owned banks, referred to as private sector banks, thereby providing a natural setting to analyze the governance of state-owned banks as well as compare the role of boards across different bank ownership groups. The Indian experience could be instructive for the many emerging economies whose banking system contains a mix of state-owned and private banks.

In analyzing governance of banks we focus on the board of directors primarily because of two reasons. First, in a highly regulated and complex industry like banking that is characterized by

[4] For instance, Bertay et al. (2012) observe that during the 2008 crisis when several large banks failed or were on the verge of failure, governments intervened by acquiring stakes in these banks., and such state involvement could be expected to rise. During the banking crisis of 2008-2009, government bailouts of banks in Europe and elsewhere frequently resulted in state ownership of the bank. The rescue of Fortis Bank in 2008, for instance, involved the nationalization of ABN Amro by the Dutch state.

risk and informational asymmetry, monitoring by shareholder is difficult and accordingly the board of directors with specialized knowledge acts a critical mechanism for advising management, assessing risks, and monitoring implementation (Andres and Vallelado, 2008). Second, the composition and selection of the board of directors is typically different between state-owned banks and private sector banks, enabling us to test whether differences in laws and regulations with respect to the composition and functioning of the board have any bearing on performance differences, if any, across public and private sector banks. This is an issue that is yet to be addressed in the literature on bank governance because most studies deal with banks belonging to one ownership group, namely private banks considered in primarily US based studies.

In contrast, Board governance in India with respect to both state-owned and private banks have not only been incorporated in the banking laws and regulations for more than fifty years, bank governance reforms in India have received increased attention from policy makers and supervisory bodies as the Indian financial sector has become increasingly globalized since the late nineties. Problems of bank governance in general, and board governance in particular, received explicit attention from the country's central bank, the Reserve Bank of India (RBI) first in 2004, when it set up the A.K. Ganguly Committee to examine the board structure of Indian banks and more recently, in 2014, through the setting up of an Expert Committee to Review Governance of Boards of Banks in India under the chairmanship of P.J. Nayak (Nayak, 2014).

In examining the role of the board of directors, we focus on five specific aspects namely, board size, board independence, CEO duality, CEO tenure and nominee directors. Of these, the first three have been analyzed extensively for both developed and developing countries in the context of non-financial firms, but only in a very limited way in context of banks. Some studies have examined, in the context of bank holding companies in the US, the effect of board size, board independence, and other board characteristics on bank performance as measured by its market value (Adams and Mehran, 2012; Andres and Vallelad, 2008; and the references therein). While some of the findings conform to those with respect to non-financial corporates, some do not. Specifically, Adams and Mehran (2012) found that large boards in banks are positively

associated with performance, while Andres and Vallelad (2008) found that less independent may be more efficient in their monitoring and advising functions.

The rationale for focusing on board size, board independence, CEO duality, CEO tenure and nominee directors in the context of India is because, as mentioned earlier and discussed in detail in the next section, the regulatory and legislative provisions for board governance are substantially different between the public sector and private sector banks. While all banks irrespective of ownership status are regulated by the Reserve Bank of India (RBI), the country's central bank, public sector banks are *additionally* regulated by the Government of India and are subjected to additional restrictions with respect to the constitution and functioning of their boards. Specifically, as compared to private sector banks, public sector banks are less empowered both in terms of the selecting their board members and appointing their CEOs. In particular, public sector banks have far less flexibility in choosing their outside directors with the GOI nominating most of them. Similarly, the GOI exercises far greater control on the tenure of CEOs in public sector banks and have typically subscribed to the advantages of CEO duality by combining the position of Chairman and the Managing Director. In contrast, most private banks have separated the two positions and have full flexibility to decide the composition of their board and appointing its CEO and Chairman.

Going by the vast empirical and theoretical literature on board governance, it is expected that these differences in board governance structures across these two ownership groups are likely to have different implications for how effectively a bank board performs its monitoring and advisory function. It is also not *a priori* evident that the extensive regulations that public sector banks are subjected to are necessarily in-optimal. Given the nature and complexity of public sector banks in terms of their scope and size as compared to private banks, it is theoretically possible that the standard prescriptions that apply to non-financial corporates, or more specifically to private banks, may not be valid in the case of public sector banks. It is possible that a more independent board may impinge on public sector bank performance relative to private sector or that a CEO with dual position could reap the economies of scope in dealing with public sector banks.

In examining the relation between board characteristics and bank performance, while we consider some of the standard variables that have been used in the empirical literature, we use a variety of bank performance measures to capture both elements of financial performance as well as elements of asset quality. This is an additional contribution of our study. As is widely considered by policy makers and academicians, asset quality in terms of the proportion of non-performing assets in total assets and other related measures, is as crucial for the soundness of a banking system as is a bank's financial performance (as reflected in profitability and market value). Both the financial crisis in 2008 as well as the Asian financial crisis earlier had been precipitated by poor asset quality on bank balance sheets. Much of the onus in this regard has been placed on the ineffective monitoring by the board of directors.

We carry out our empirical analysis using a sample consisting of all the 25 state-owned banks and the 21 private banks operating in the Indian banking sector covering a period of ten years from 2003 to 2012. The results of our empirical analysis suggest that while board size plays an insignificant role in determining bank outcomes, board independence and CEO duality play a significant role. There is evidence of strong ownership effects with board independence having a significant positive correlation with performance of private sector banks and a significant but negative correlation with performance of public sector banks. The effect of CEO duality is negative and is a potential factor for the lower performance of public sector banks where incidence of CEO duality is high. The analysis with respect to nominee directors shows that presence of these directors has a negative effect on bank outcomes, especially with respect to market valuation, perhaps because the market anticipates them to take conservative decisions. Finally, our analysis with respect to the CEO tenure suggests that longer tenure has significant effects in improving bank outcomes with the marginal effect being stronger for private sector banks, and the positive effects strengthening in the later years of CEO tenure.

The rest of the paper is organized as follows. Section 2 discusses the institutional structure and governance environment of commercial banks in India. Section 3 discusses the sample and data. The empirical analysis and the results are presented in Section 4. Section 5 concludes the paper.

2. Regulatory Structure and Governance Setup of Indian Banks

India has the second largest number of banks among all countries in the world after the US[5]. The banking system in India is dominated by scheduled commercial banks[6] which account for about 95 percent of total banking operations in the country. As on March 31st 2012, there were 86 scheduled banks in India consisting of 25 public sector banks[7], 14 old domestic private banks, 7 domestic new private banks and 40 foreign banks. All the 40 foreign banks operate only as branches of banks that are incorporated outside of India. Within private sector banks there is no fundamental difference between old and new private sector banks except those arising from their scale and scope of operation and vintage[8]. Nevertheless, the classification has been maintained mostly for purposes of reporting and analysis. Public sector banks dominate the Indian banking system accounting for 75 percent of share of deposits as on March 31st, 2012. Notwithstanding this, the importance of the private sector banks, and especially that of the new private sector banks, have grown rapidly in the last two decades with their share in deposit increasing from 10 percent in 1991 to 25 percent in 2012.

All commercial banks in India are regulated by the RBI under the Banking Regulation Act of 1949. Additionally, all *public sector banks* are regulated by the banking division in the Ministry of Finance of the Government of India (GOI) under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970; the Bank Nationalization Act, 1980; and the State Bank of India Act, 1955.

[5] https://en.wikipedia.org/wiki/Category:Lists_of_banks_by_country

[6] The Indian banking comprises of commercial banks and co-operative banks with commercial banks dominating the quantum of the banking business with a market share of more than 95 percent at the end of March 2012. Commercial banks in turn comprise of scheduled banks and non-scheduled banks with the former being subject to certain statutory requirements such as minimum paid-up capital. The number of non-scheduled banks has dwindled over the years and stands at four at present with scheduled commercial banks accounting for more than 97 percent of total commercial banking operations.

[7] At the end of March 2012, the regional rural banks accounted for less than four per cent of total banking business of public sector banks

[8] The new private sector banks were set up post 1991 at the time of liberalization of the Indian economy. These banks have since then grown rapidly compared to the old private sector banks. As on March 31st, 2012, the deposit share of new private sector banks was 14 percent compared to the combined share of 11 percent of old private sector banks and foreign banks.

The Banking Regulation Act, 1949 contains several provisions that enable the RBI to exercise control over all banks in their composition of the Board of Directors and their appointment of the Chief Executive Officer, referred to as the Chairman and the Managing Director (CMD)[9]. In addition, the RBI exercises direct control through having its own nominee on the board of all public and private banks. Detail examination of the provisions of the Banking Regulation Act shows that apart from having a vital say on the composition of the Board of Directors such as appointing no less than fifty per cent of the total number of directors, requiring directors to pass the 'fit and proper' test, and putting term limits of no more than eight years for the CMD or a Whole time director, the RBI has the powers to appoint, reconstitute and remove directors in the "interest of depositors" under the said Act. The RBI has insisted that private sector banks exercise 'due diligence' in the selection of directors based on the 'fit and proper criteria' and have set limits on having family members on bank boards. Notwithstanding these regulatory guidelines, the RBI has given both public and private sector banks the freedom to design their according to their particular operational needs.

In addition to the regulatory control by RBI, *public sector banks* are also subjected to additional regulatory controls by the GOI under the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970; the Bank Nationalization Act, 1980; and the State Bank of India Act, 1955 that substantially influences the way they can design their boards compared to private sector banks. A close scrutiny of the provisions of these Acts shows that the GOI, being controlling owner, has the exclusive power to appoint the CMD of all public sector banks, put a Central Government nominee on the board, nominate two directors - one representing the workmen employee and the other an officer employee of a public sector bank, nominate a director who is a chartered accountant, and nominate up to six directors from the general category. In all, there are eight broad categories of directors for which the GOI can appoint a director on the board of a public sector bank. In addition, the GOI has the power to set the term limit for all whole-time directors including that of the CMD, which it has currently fixed at five years but the appointments are contractual and can be terminated by Government either on

[9] These relate to the Board of Directors, namely the inclusion of persons with professional and other experiences (10-A), the provision to have a whole-time Chairman(10-B), the power of the RBI to appoint Chairman of a Banking Company (10-BB), the Chairman and Managing Director not to be required to hold qualification shares (10-C), the election of new directors (12-A), the power of RBI to remove managerial and other persons from office (36-AA) and the power of the RBI to appoint additional directors.

reaching retirement age or for other specified reasons, before five years[10]. The provisions of the Acts also specify that the position of the CMD will be held by the same person giving rise to CEO duality in all public sector banks. Finally, there is a critical difference between public and private sector banks in terms of incentivizing CEOs and directors through market based remuneration packages. While private banks are free to set the remuneration of the directors and can link it with performance subject to being cleared by RBI on a case by case basis, top management salaries including that of the CEO in public sector banks are set by the government and are not performance linked.

Given the extensive say of the GOI in the constitution and functioning of the boards of public sector banks, the boards of these banks are much less empowered in decision making compared to their private sector counterparts, and have much less flexibility in constituting as well as incentivizing a board that would fit well with a bank's operational strategy. Additionally, boards of public sector banks are much larger in size compared to that of private sector banks due to the appointment of a large number of directors by the GOI from different categories. The tenure of these directors, including that of the CMD is much shorter compared to their private sector counterparts where many Chairmen and Managing Directors have had, and continue to have, tenures well beyond five years. Finally, unlike private sector banks which have chosen to separate the position of Chairman and the position of the Managing Director, public sector banks are required to combine these two positions.

The foregoing discussion on the institutional set up and governance structure of commercial banks in India highlights two critical points namely, (i) the extent of regulatory intervention in the design and operation of bank boards is extensive in India supporting the general observation that financial and non-financial companies are different in terms of their governance, and (ii) there are substantial differences in the design and operational flexibility of boards between public and private banks. Taking note of these two critical observations, in the remainder of the paper we analyze if bank performance depends on bank governance structures as it generally does in non-financial companies and examine if this relation varies between public and private banks. In light of our discussion on the nature of regulatory interventions, we consider five key

[10] As the Nayak Committee (2014) notes, the chairman and managing director of public sector banks typically get appointed very close to their retirement age of 60, the tenure of most of the top executives do not exceed two years.

board characteristics, namely board size, board independence, CEO duality, CEO tenure and presence of nominee directors to empirically analyze the relation between these governance structures and bank performance in carrying out our empirical analysis. Since ownership structures can also act a

3.0 Sample

The sample for our analysis consists of all the 46 scheduled commercial banks belonging to the public sector and the private sector. We do not include foreign banks in our analysis as these operate only as branches of banks incorporated outside of India. Of the 46 banks, 25 are public sector banks (consisting of the State Bank of India, 5 of its associate banks and 19 are other nationalized banks), 14 are old private sector banks, and 7 new private sector banks. The period of analysis covers the 10 year period from 2003 to 2012. Notably, 2003 represents the year when Clause 49 of Listing Agreement that included several corporate governance regulations applicable to listed companies came into effect, while 2012 represents the latest year till which complete data are available on each of the banks. Of the 46 banks in our sample, 37 are listed in the Bombay Stock Exchange (BSE) while 2 banks from the State Bank group and 5 from old private sector banks are unlisted.

The data for our analysis is collected from two sources namely the Prowess database and the Sansco database (now Report Junction). The Prowess database, created by the Center for Monitoring Indian Economy (CMIE), is a well-recognized data source for numerous empirical studies on India in the finance and governance literature. We extract information all financial and stock market variables related to banks, their ownership structure, and date of joining and the incumbency of the Chief Executive Officer (CEO) of each bank from this database. In particular, we extract information on profitability, productivity, interest income and expenses, asset quality, prudential norms and stock market performance from the Prowess database.

The Sansco database is also a widely used database that contains the Annual Reports of all listed companies over a long period of time. The Annual Report of each company in turn contains its Corporate Governance Report (CGR) that is to be filed as per the requirement of the Clause 49 regulations. The CGRs provide very detailed information on various corporate governance parameters of a listed company. We use the CGRs to hand collect information on the Board of

Director (BOD) of each bank namely, board size, board composition in terms of number of executive and non-executive directors, and within the later independent and nominee directors, the total number of directorships held by each director in all listed companies, CEO duality, total number of board meetings held, and the attendance record of each director in the board meetings and the Annual General Meeting (AGM).

Table 1 gives the list and description of the variables that we construct using the information available in these two databases and use in our empirical analysis.

4.0 Empirical Analysis

4.1 Descriptive Statistics

Tables 2 provide the descriptive statistics of our sample. For better exposition, the descriptive statistics are divided into two parts. Part 1 (Table 2(a)) presents the descriptive statistics with respect to the various bank performance measures and bank characteristics, while Part 2 (Table 2(b)) presents the descriptive statistics related to board size and board composition, busyness of independent directors in terms of number of outside directorships held, diligence of independent directors in terms of their attendance of board and annual general meetings, as well the presence of CEO duality and nominee directors on board.

Table 2(a) shows that the accounting performance (roa) as well the market performance (mbvr) of the new private sector banks is much higher compared to that of either the public sector banks or the old private sector banks. In particular, the market to book value ratio (mbvr) of the new private sector banks is about 2.5 times of that of both public as well as the old private sector banks. However, there is no clear ordering between public and old private sector banks. While roa of the old private sector banks are higher compared to that of the public banks, the mbvr of the public banks are higher than that of the old private sector banks. However, in each case, the difference in much lower when compared to the new private sector banks.

Table 2(a) also reveals that judged in terms of asset quality, both in terms of stock as well as flow, the new private sector banks fare much better compared to the other two groups. The percentage of net and gross non-performing assets to total loans and advances is much lower for the new private sector banks compared to those of the public and old private sector banks. In

terms of flow variables, the (average annual) net addition to net and gross non-performing assets to total advances is also much smaller for new private sector banks compared to the other two ownership groups. However, between public and old private sector banks, the asset quality of public banks appears to be better than of the old private sector banks.

Finally, as Table 2(a) shows, the public banks, on an average, are biggest in size (as measured in terms of log of deposits), followed by the new private sector banks and then the old private sector banks. Public banks also lend a much higher proportion of the loans and advances to the priority sector compare to the new private sector banks, and marginally higher compared to the old private sector banks.

Table 2(b) presents the board characteristics of the banks in our sample[11]. There is considerable variation in board size as well as board composition among the three ownership groups. The board size for the new private sector banks (11 members) is higher compared to the old private sector banks (10 members) and even higher compared to that of public sector banks (8 members). The mean and the median values of board size are almost the same suggesting that the difference in board size is not driven by a few banks with very large (or small) board size. Board independence, as measured by the percentage of independent directors, is also much higher for the new private sector banks (64.27) compared to that for the public sector banks (54.76), though board independence is the highest for the old private sector banks (68.29).

Yet another interesting difference in board composition across the three ownership groups is the presence of CEO duality, i.e. the case when the post of the Chairman and the Managing Director (or the Chief executive Office) is held by the same person. Separation of the two posts is often prescribed by corporate governance activists to reduce excessive control in hand of one person and ensure greater over sight. Separation may also be warranted to avoid putting onerous the responsibility of governance function and executive function on the same person. On the other hand, CEO duality may enable faster decision making. As Table 2(b) demonstrates, in almost all public sector banks (or more strictly, the bank year observations) the posts of the Chairman and Managing Director have been combined, compared to 30 percent in old private sector banks and

[11] Data on board composition are not reported for some banks in some years. Accordingly, the total number of observations is lower for the Board related variables compared to the financial variables reported in Table 2(a).

10 percent in new private sector banks. While many of the new private sector banks in our sample did have CEO duality in the earlier years but have moved to separate the two posts subsequently. Yet another important aspect of board composition in the Indian context is the presence of nominee directors on bank boards. These directors are nominated by insurance companies, mutual funds, financial institutions by virtue of their ownership holding or other statutes. The descriptive statistics show that about half of the public banks had a nominee director on board compared to only one fifth in new private sector banks, while there was little or no presence of nominee director in the boards of the old private sector banks.

The final five rows of Table 2(b) give various measures relating to "busy" independent boards and the diligence of independent directors. In the empirical governance literature, the total number of number of directorships held by the independent directors is often taken as a measure of "busyness" of independent directors and their attendance in board meetings is taken as a measure of their "diligence". Many empirical studies classify a director with three or more directorships as "busy" directors. The descriptive statistics show that in general independent directors in new private sector banks, with an average of 5 directorships, are more "busy" than those in old private and public banks. Accordingly, the proportion of boards with a "busy" director (i.e., a director with three or more directorships) is much higher in new private sector banks (65 percent) compared to those in old private sector banks (21 percent) and public banks (26 percent). These numbers remain relatively stable if we change the definition of "busy" to six or more directorships.

In terms of diligence, attendance of board meetings by independent directors is high in all ownership groups, varying between 77.12 percent in new private sector banks to 82.73 percent in old private sector banks. However, attendance of annual general body meetings is the highest in old private sector banks (84.52 percent), followed by that in new private sector banks (63 percent) and the lowest in public sector banks (43.25 percent).

4.2 Regression Results

The descriptive statistics presented in Table 2 suggest that bank outcomes differ significantly across ownership groups. At the same time, the descriptive statistics also suggest that bank governance structures in terms of board size and board composition, presence of CEO duality

and nominee directors, busyness and diligence of independent directors as well as ownership structures also vary significantly across ownership groups. Do, therefore, bank governance structures explain or at least correlate statistically with bank outcomes? While the descriptive statistics suggest so they provide only a univariate analysis of the importance of the various governance structures. A regression analysis within a multivariate setup can throw important light in the marginal contribution of each governance mechanism, especially in the presence of other complementary or substitute governance mechanisms. In this section, we therefore, explore the main questions of our analysis within the regression framework.

To begin with we first verify if the differences in bank outcomes across ownership groups reported in Table 2(a) are statistically significant. For this, we run a regression of each of the bank outcomes on the two ownership dummy variables *oprivate* (dummy for old private banks) and *nprivate* (dummy for new private banks), with the public sector banks acting as the control group. Accordingly, the coefficient on these two dummy variables measures the difference in outcome for each of these groups from the public sector banks. We use bank size (*ldeposits*) and priority sector lending (*ppsector_lending*) and year fixed effects captured by the year-specific dummies (*d2003 to d2011*) as control variables. The results of this regression are reported in Table 3. The results show that the coefficients on the two dummy variables are positive and highly significant in both the financial performance regressions and negative and significant in most of the asset quality regressions. These regressions confirm our earlier univariate findings that in general, the new private sector banks fare much better than both public and old private sector banks both in terms of financial performance and asset quality. However, the relatively weak dominance of old private sector banks over public sector banks that we found in the univariate results in Table 2(a) become somewhat stronger when we use a multivariate framework and control for other factors. The results of these regressions thus suggest that bank outcomes indeed differ statistically among ownership groups leading one to explore if governance structures can explain these differences.

4.2.1 Board Characteristics and Bank Profitability

Table 4 reports the results of five regressions models capturing the relation between different components of board characteristics and bank outcome as reflected in the accounting indicator,

return on assets (roa). Each of these regressions incorporates bank size, extent of priority lending and year fixed effects as control variables. The results presented in Column (i) show that board size does not significantly correlate with bank profitability nor does board independence in public sector banks. However, the interaction terms of board independence with the dummy variable for old private sector banks (*oprivate*) and the dummy variable for new private sector banks *(nprivate*) are both positive and significant suggesting that board independence has a differentially positive effect on these two bank groups[12]. The total effect is positive for both ownership groups, indicating that board independence correlate positively with bank accounting outcome in new and old private sector banks. This could be due to at least two potential reasons. First, new and old private sector banks have much greater flexibility in appointing independent directors including having access to bigger pools as these banks face much less regulatory specifications regarding the type of directors that can be appointed on the bank Boards. Second, the tenure of independent directors in new and old private sector banks is generally much longer and flexible compared to the short and often fixed tenure in public sector banks which gives independent directors in new and old private sector banks much more time to understand the business environment in general and the specific characteristics of the banks, in particular.

In Columns (ii) and (iii) we augment the basic model to include the busyness and attendance of independent directors to explore if these also act as significant determinants of bank's accounting outcome. However, none of these two variables turn out to be significant in either of the regressions. One reason behind this result could be that busyness of directors has potentially both positive and negative effects. Busy directors may find less time to devote to each individual bank, but they may also be more competent directors (that is why they are busy). Accordingly, the negative effects may be compensated by the positive effects.

In Column (iv) of Table 4, we incorporate an additional feature of board of directors that has been highly debated in the corporate governance literature, namely that of presence of CEO duality. The regression results show that CEO duality has a significant negative effect in public sector banks. The differential effect is positive and similar for old and new private sector banks.

[12] We also interacted *boardsize* with the two ownership dummy variables but none of the interaction coefficient was significant while the coefficient on *boardsize* continued to remain insignificant. We do not report these results separately to conserve space.

Additionally, the magnitude of the interaction coefficients suggest that the total effect of CEO duality is positive for old and new private sector banks. One potential explanation behind the negative effect of CEO duality in public sector banks is that combining the position of Chairman and CEO brings about too onerous a responsibility to be discharged by a single person in a public sector bank which are much larger in size compared to the new and old private sector banks – the flexibility in decision making is outweighed by the size of the bank. Additionally, CEO's of public sector banks may be more conservative in their decision making compared to their private sector counter parts knowing that the ultimate responsibility of bad loan decisions will rest on them while there will be little incentives given for bold and successful loan decisions. The same, but opposing, reasons can explain the positive total effect of CEO duality found for the new and the old private sector banks.

Finally, in Column (v) we incorporate yet another feature of Indian boards, namely the presence of nominee directors. Since nominee directors are present mostly in public sector banks, we do not interact the associated variable with bank group dummy variables. The coefficient on the nominee director variable is negative and highly significant suggesting the presence of these directors correlate negatively with bank profitability. Nominee directors from insurance companies and financial institutions may be more concerned with protecting the interest of their parent organizations — who may be significant providers of debt capital — which may not coincide with that of the bank's shareholders. The presence of these directors on corporate boards has been hotly debated in the Indian especially in the context of whether these directors should be counted as independent directors from the equity holders' perspective. The new Companies Act of 2013 that recently came into effect stipulates that nominee directors are not to be counted as independent directors for meeting the requirements of proportion of independent directors on boards of listed companies. Our empirical results seem to be consistent both with the theoretical arguments and the legal statues regarding nominee directors.

4.2.2 Board Characteristics and Bank Valuation

In Table 5 we re-estimate the five alternative models relating board size and board composition to bank outcome using the market indicator *mbvr*. Compared to the accounting indicator *roa*, the market indicator *mbvr*, is a forward looking measure of bank performance. In situations where

the effect of corporate governance structures are slow to materialize, a forward looking indicator may be better suited to the pick up the effect of corporate governance mechanism than an accounting indicator which is essentially short run and backward looking. The results using *mbvr* reported in Columns (i) through (v) confirm many of the findings in the earlier table, but there are some important differences. While board size continues to be insignificant in all the five models thereby re-confirming our earlier finding, the effect of board independence in negative and highly significant for public banks in all the five regressions. The results suggest that the market's assessment of the value of a public bank is lower, higher the percentage of independent directors. As pointed out earlier, this could because the short and fixed tenure of independent directors in public banks is viewed negatively by the market. While the negative effect does not show up in the short term accounting indicator (*roa*), the lower and significantly negative coefficient using *mbvr* could reflect the market's assessment of loss in long term bank value when independent directors do not get sufficient time either to accustom themselves with the workings of the bank and/or to translate their experience and expertise into real changes in a bank's operation. However, an alternative explanation for the negative coefficient on board independence could be that more number of independent directors are brought in to turn around public banks that are performing poorly, i.e., an argument of reverse causality. In an (unreported) analysis of the percentage of independent directors on boards of public banks over the ten year period shows that the percentage of independent directors does not differ significantly between relatively underperforming and over-performing public sector banks making this reverse causality argument somewhat weak. In fact, the percentage of independent directors in public sector banks as a group has actually declined over the years which appears to be consistent with the fixed and limited tenure of these directors giving them little opportunity to contribute to the growth of the banks.

Coming to old private sector banks, the coefficient on the interaction term with respect to board independence that was positive and significant in the *roa* regression, is insignificant in the *mbvr* regression. This suggests that the total effect of board independence is also negative in old private sector banks. The argument using fixed tenure given for public banks is weak here since the tenure of independent directors generally varies for old private sector banks. The possibility of reverse causality is potentially valid here as the percentage of independent directors in old

private sector banks has tended to increase over time. However, at the same time, the percentage of independent directors is much higher in old private sector banks than in public sector banks (refer to Table 2(a)) raising the possibility of an alternative explanation namely that the relative dominance of bank boards by independent directors who may not have specific domain knowledge may actually be harmful for bank value. An analysis contrasting the rates of increase in the percentage of independent directors in over and underperforming banks and the time trend of increase in percentage of independent directors in the old private sector banks can shed more light on which of these alternative explanations is correct.

Coming to the effect of board independence in new private sector banks, the coefficient on the interaction term is positive and significant and greater in magnitude than the coefficient on the board independence variable itself, confirming our earlier result that board independence has a positive (total) effect on bank value in new private sector banks. As mentioned earlier, the tenure of independent directors in new private sector banks is much higher compared to that in public sector banks thereby providing these directors sufficient time to make their experience and expertise count in the performance of the banks. Additionally, independent directors in new private sector banks come from a potentially larger pool compared to that for public sector banks raising the possibility that the quality of these directors could be potentially higher which in turn results in better bank outcomes.

The traditional argument of reverse causality namely that better performing banks may have chosen to have a larger percentage of independent directors rather than the other way round can be advanced to dismiss the above results as a causal relation from board independence to bank performance. However, while reverse causality is a potential explanation when the coefficient on independent directors is negative (i.e., weaker performing banks tending to higher more independent directors), the reverse causality argument is not clear for a positive coefficient as this begs the question as to why better performing banks would like to have higher percentage of independent directors on their board in the first place if these banks believed independent directors did not add i.e., "cause" anything to bank performance? If the justification is one of mere signaling to the investors then obviously this signal is valued in the market. Then the question arises as to why investors put a signaling value on independent directors unless they

believe that these directors bring in experience and expertise, or at least protect shareholder value as part of their fiduciary responsibilities thereby reducing risk to shareholders? In summary, whatever be the specific channel, the positive coefficient suggest a strong causal relation from board independence to bank valuation

Turning to other board characteristics, busyness and attendance of independent directors, when taken together, almost similar do not seem to be related to a bank's market valuation as was the case for the accounting indicator *roa*. The coefficient on CEO duality continues to remain negative and significant for public sector banks. However, unlike the *roa* regression, the coefficient on the interaction terms for old private sector banks is now insignificant, while for new private sector banks, though the coefficient on the interaction term is positive and significant, the total effect is only weakly positive. The market, in general, seems to negatively value CEO duality because of the potential reduced oversight. Market discount can be exacerbated by the excessive burden that is associated with CEO duality in large public sector banks. For new private sector banks, the market seems to compensate the negative effect of CEO duality by the flexibility of decision making, perhaps because of their relatively smaller size as well as due to the compensation incentives that exist for CEOs in new private sector banks.

4.2.3 Board Characteristics and Bank Asset Quality

While profitability and market valuation are the two most widely used measures of bank performance, asset quality could play a potentially important role. Asset quality has long term implications for the financial health of a bank as increases in doubtful or non-performing assets is likely to reduce bank performance in the long run. Table 6 presents the regression results on the relation between board size and board composition and various measures of quality of bank assets. The results are striking. In particular, the strong results that we found with respect to the accounting and the market valuation measures *roa* and *mbvr* are in most cases absent in all the four regressions using asset quality reported in Table 6. The effect of board size and the various features of board composition are at best very weak. One possible explanation for these contrasting results could be that the board and especially independent director may be more likely to monitor aggregate bank outcome measures rather than micro indicators like asset quality which are anyway reflected in the overall performance of the banks. However, short

term performance indicators like *roa* may not be able to fully capture the building stress on financial assets, while market indicators like *mbvr* may fail to account fully for the risk of bank assets due to lack of granular information to the market or due to financial engineering. Thus there may be merit in Board governance focusing directly on asset quality for strengthening the long run financial stability of the banks.

4.3 Tenure of Chief Executive Officer and Bank Outcomes

In this section we explore one issue that can have an important bearing on bank outcomes namely the tenure of the Chief Executive Officer (CEO) of a bank. It is well known that CEOs of public sector banks retire at the age of 62 as per government regulations. However, in quite a few of the cases the CEOs have been appointed very near to their retirement age giving these CEOs very short tenure. There are instances where CEOs of public sector banks have served on the post well below one year. In contrast, CEOs of old private sector banks and especially of new private sector banks are appointed much earlier in their career and often have much longer tenure. Does the short tenure of CEOs have any negative effect on bank outcomes? Intuitively this should be the case as an entrant CEO is likely to need some time to get his or her vision of running the bank reflected in actual outcomes. If the tenure of the CEO is short, he/she is likely to have less incentive to put the optimal effort. There could be also cases where the incumbent CEO might need to "clean up the books" since the retiring CEO may not have the incentive to do so at the end of his term as it could reflect poorly on the latter's tenure. The effect of such "cleaning" is likely to take time. In case the tenure of the incumbent CEO is short, he or she might have low incentive to take up the "cleaning" job. If all incumbent CEOs know this, then the decline in a bank's performance might persist for a long period of time.

In our analysis we explore this important question by relating bank outcomes to episodes of CEO changes and the length of tenure of CEOs in banks belonging to the three ownership groups. For the CEO tenure analysis we extend our sample by three years to cover the period from 2000 to 2012 (compared to 2003 to 2012 earlier) as there were a significant number of CEO changes in the years 2000, 2001 and 2002. Using this extended period, we look for all episodes of CEO changes in each of the 46 banks in our sample. For each CEO in each bank, we then trace the length of CEO tenure and try to relate it to important bank outcomes.

Table 7(a) gives the number of CEO changes in the sample banks in the sample period. In total there are 144 episodes of CEO changes of which as many as 93 are in public sector banks, 40 are in old old private sector banks and the remaining 11 are in new private sector banks. Controlling for the fact that the number of banks in each bank group is different, the average number of CEO changes per bank is about 4 in public sector banks, 2 in old private sector banks, and only 1 in new private sector banks. Accordingly, the number of CEO year observations on the first year of tenure is much higher for public banks compared for new private sector banks. For example, about 40 percent of the CEO year observations come from the first year of tenure for public sector banks compared to only about 15 percent of the observations for the new private sector banks.

Table 7(b) shows the distribution of CEOs according to the length of their tenure[13]. The tables clearly reveals that the tenure of CEOs are much shorter in public sector banks compared to that in either old private or new private sector banks. While only 6 percent of the CEOs in public sector banks had a tenure beyond five, 15 percent of the CEOs in old private sector banks and over fifty percent of the CEOs in new private sector banks had tenure that are above five years. On the other side of the distribution, while the tenure of over half of the CEOs is public sector banks ended within two years, only 10 percent of the CEOs in new private sector banks had tenure which was less than three years. On an average, the average CEO tenure is 2.65 years in public sector banks, 2.90 years in old private sector banks and 6.25 years in new private sector banks. The descriptive statistics on the number of CEO changes and CEO tenure presented in Tables 7(a) and 7(b) show that there is enough variation in CEO tenure to examine if CEO tenure relate to bank outcomes in a statistical sense.

Unlike independent directors, CEO of a bank is the highest executive officer who is in charge of overseeing the day-to-day operation of a bank and hence asset quality indicators as well the overall performance of the banks, are likely to be important indicators that are to be monitored.

[13] The tenures of CEOs who were appointed in the later years of our sample and whose tenures are yet to end are truncated. Since this occurs more frequently for the new private sector banks, the average length of tenure for new private sector banks is relatively more underestimated.

Accordingly, we augment the four earlier asset quality indicators with three additional indicators namely (a) write offs of net non-performing assets, (b) write offs of gross non-performing assets, and (c) provisions for non-performing assets. These additional variables are in consonance with our earlier discussion that an incumbent CEO may make adjustments in bank operations in his/her earlier years of tenure.

Table 8 reports the regression results relating CEO tenure to the two financial indicators, *roa* and *mbvr* and seven asset quality indicators. In each of these regressions we control for the effect of other time varying factor by including a time trend variable (*trend)* and bank size (*ldeposits)* and extent of priority sector lending (*ppsector_lending*). We omit the year specific fixed effects as the *trend* variable is likely to pick the effect of time varying factors. The results reported in Table 8 show that the CEO tenure has a strong relation with bank outcomes. In particular, the coefficient of *tenure* is positive and highly significant in both the *roa* and *mbvr* regressions. At the same time, the coefficient on *tenure* is significant in six of the seven asset quality regressions. These results show that an increase in CEO tenure is associated with significant improvement in asset quality with an accompanying increase in the overall performance of the bank both in terms accounting indicators as well as market valuation. The fact that the coefficients on the *tenure* variable turn out to be significant even after controlling for trend effect, suggest that CEOs are able to alter bank outcomes due to their association with the bank.

Does the effectiveness of CEOs in altering bank outcomes increase progressively with the length of their tenure? If so, extending the term of the CEOs can bring rapidly increasing benefits for the bank. To explore this question, we replace the *tenure* variable by five dummy variables with each dummy variable representing a particular year of tenure of the CEO. Tenure years of five and more are collapsed into a single dummy variable. The results of this regression are reported in Table 9. The results provide very strong evidence that the effect of CEO tenure increases rapidly with the year of CEO tenure. In fact in the *roa* regression only the coefficient on the fifth dummy variable (tenure of five years or more) is significant suggesting the efforts of the CEO may take a long time to show up in accounting indicators. In contrast, the coefficient on each of the five dummy variables is positive and significant in the *mbvr* regression suggesting that the market gives a positive valuation whenever a new CEO is appointed for a bank. Strikingly, the

magnitude of the five dummy variables increases monotonically over the years signaling a progressive favorable evaluation of higher CEO tenure over the years. A new CEO who is able to meet the initial expectation of the investors may be able to send strong signals of further improvement in bank performance and accordingly get his/her bank valued even further in the coming years. With respect to asset quality, the coefficient on the five dummy variables though negative, is mostly significant only in the later years of CEO tenure suggesting that improvements in overall asset quality (a stock measure) may take some time. However, in the last regression on provisions for non-performing assets where the coefficients are negative and significant for all the five dummy variables, the absolute value of the coefficient increases monotonically over the year of CEO tenure suggesting that the later years of CEO tenure are more effective than the initial years in affecting bank outcomes.

Does CEO tenure have different effects in the three bank groups? To examine this question and to preserve parsimony, we re-estimate the regression models reported in Table 8 by incorporating interaction effects of CEO tenure with ownership groups. These results are presented in Table 10. The results shows that the strong tenure effects that we have found earlier is driven by private banks, both old and new, and CEO tenure has little effect in public sector banks. This seems very consistent with our earlier observation that CEO tenure is often very short in public sector banks and the effect of long tenure cannot be estimated precisely using within group variation in CEO tenure of public sector banks. Taken together, the results presented in Tables 8, 9 and 10 suggest that longer CEO tenure has a significant effect of improving bank outcomes and is positively valued by the market.

5. Conclusion

This paper examined the effect of important governance structures like board size and board composition on bank outcomes using data for a long period of ten years on scheduled commercial banks in India. Since these banks belong to three different ownership groups, an equally important focus of the analysis was to see if the effectiveness of governance structures varied across ownership groups. In addition, the paper also examined the effect of CEO tenure in influencing bank outcomes. This acquires particularly relevance for public sector banks in India where CEO tenure is short and often varying greatly across CEOs appointed over the years.

The results of our empirical analysis suggest that while board size plays an insignificant role in bank outcomes, board independence plays a significant role. However, the effect of board independence is negative for public sector banks and positive for old and new private sector banks with the effect being significantly higher for the new private sector banks. The effect of board independence is stronger for market measures than for accounting indicators, suggesting that the market values the beneficial effects that independent directors can bring from their experience and expertise in the long run. The analysis also reveals that CEO duality has a strong and negative effect on bank performance. This is perhaps because of the perception that combining the post of CEO and chairman is likely to reduce governance oversight or simply because the task of discharging the functions of these two positions may be too onerous for a single person. Finally, the analysis with respect to board composition shows that nominee directors may have a negative effect on bank outcomes, especially with respect to market valuation, as these directors may be more inclined to safeguard the interest of their parent organizations who may be important providers of debt capital, than the interest of the equity holders. Our analysis with respect to the tenure of the Chief Executive Office suggest, that longer tenure has significant effects in improving bank outcomes especially those related to profitability and market valuation. These positive effects strengthen in the later years of CEO tenure.

Admittedly, some of our results on the effect of board composition, CEO duality and CEO tenure need to be further fortified by addressing the issue of reverse causality in a more formal setup. However, our analysis does provide strong initial evidence that governance structures in banks have a significant bearing on bank outcomes. Our findings have some implications for Indian banking system. First, our analysis suggests that public sector banks may be more empowered in selecting and incentivizing their Board of Directors. Second, our results suggest that it may be a worthwhile step to reduce the incidence of CEO duality in public sector banks by separating the posts of the CEO and the chairman. Third, it may be beneficial to give a minimum tenure to the CEOs, especially to those of public sector banks, to ensure that they get enough time to implement their visions and strategies leading to better bank outcomes. Finally, the feasibility of reducing the presence of nominee directors on bank boards can be also examined.

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Table 1: Variable Names and Description

Variable Name	Description
roa	Rate of return on assets
mbvr	Market to book value ratio
nnpa_to_netadv	Net non-performing assets to total loans and advances
gnpa_to_netadv	Gross non-performing assets to total loans and advances
nnpa_additn_netadv	Addition of net non-performing assets to total loans and advances
gnpa_additn_netadv	Addition of gross non-performing assets to total loans and advances
ldeposits	Log of deposits
ppsector_lending	Percentage of priority sector lending to total loans and advances
boardsize	Board size
bindep	Board independence: percentage of independent directors on the board
tldirsp_ind_dir	Average number of directorships held by an independent director
has_busy3_ind_dir	Dummy variable, equals 1 if board has at least one director holding three or more directorships
has_busy6_ind_dir	Dummy variable, equals 1 if board has at least one director holding six or more directorships
pattend_agm_ind_dir	Percentage of independent directors who attended the AGM
pattend_bdm_ind_dir	Percentage of board meetings attend by an independent director
ceo_duality	Dummy variable, equals 1 if the same person holds the position of CEO and Chairman
has_nominee_dir	Dummy variable, equals 1 if the board has a nominee director
CEO tenure	Length of CEO tenure in years
trend	Trend, equals 1 for the 1st year of the sample, 2 for the 2nd year and so on
d2003-d2013	Dummy variables, equal 1 if observation belongs to that year
oprivate (op)	Dummy variable, equals 1 for old private sector banks
nprivate (np)	Dummy variable, equals 1 for new private sector banks

Table 2(a): Summary Statistics of Bank Performance Measures and Bank Characteristics

		Ownership Groups			
		Public	Old Private	New Private	All
roa	Mean	0.89	0.93	1.01	0.92
	Median	0.91	1.09	1.3	1.01
mbvr	Mean	0.87	0.79	2.31	1.06
	Median	0.76	0.42	2.27	0.76
nnpa_to_netadv	Mean	2.47	3.13	1.59	2.53
	Median	1.45	1.58	0.72	1.39
gnpa_to_netadv	Mean	5.52	7	3.36	5.66
	Median	3.14	3.8	2.28	3.23
nnpa_additn_netadv	Mean	1.32	1.57	0.79	1.32
	Median	1.03	1.21	0.52	1.01
gnpa_additn_netadv	Mean	2.32	2.47	1.44	2.38
	Median	2.08	1.79	1.37	1.89
ldeposits	Mean	13.46	11.23	12.58	12.66
	Median	13.41	11.43	12.63	12.82
ppsector_lending	Mean	38.25	37.86	33.65	37.44
	Median	37.73	38.62	34.54	37.66
Sample Size	N	250	140	70	460

Table 2(b): Summary Statistics of Board Characteristics

		Ownership Group			
		Public	Old Private	New Private	All
boardsize	Mean	8.06	9.95	11.14	9.13
	Median	8	10	11	9
	N	154	55	59	268
*bindep_*	Mean	54.76	68.29	64.7	59.72
	Median	57.74	75	66.67	62.5
	N	154	55	59	268
tldirsp_ind_dir	Mean	1.68	2.88	5.08	2.74
	Median	1	1	5	1.5
	N	136	52	59	247
ceo_duality	Mean	0.97	0.29	0.1	0.43
	Median	1	0	0	0
	N	154	55	59	268
has_nominee_dir	Mean	0.46	0.03	0.18	0.29
	Median	0	0	0	0
	N	154	55	59	268
has_busy3_ind_dir	Mean	0.26	0.21	0.65	0.31
	Median	0	0	1	0
	N	154	55	59	268
has_busy6_ind_dir	Mean	0.1	0.15	0.6	0.19
	Median	0	0	1	0
	N	154	55	59	268
pattend_agm_ind_dir	Mean	43.25	81.97	63.34	57.57
	Median	50	84.52	60	60
	N	115	54	57	226
pattend_bdm_ind_dir	Mean	81.59	82.73	77.12	80.83
	Median	84.72	83.5	77.14	83.33
	N	151	54	59	264

Table 3: Bank Ownership and Performance

	Dependent Variable					
	Financial Performance		Asset Quality			
	Return on Assets (ROA)	Market to Book Value Ratio (MBVR)	nnpa/net advances	gnpa/net advances	addition to nnpa/net advances	addition to gnpa/net advances
Intercept	-2.58214***	-3.65787***	6.41115***	7.66560**	2.68873**	3.96986**
oprivate	0.35130***	0.50324***	-0.34390**	-0.29318	-0.13206	-0.48756**
nprivate	0.40245***	2.47738***	-0.46195**	-1.51800**	-0.47702**	-0.16688
ldeposits	0.17456***	0.25548***	-0.26155**	-0.42717**	-0.07367	-0.10156
ppsector_lending	0.03001***	0.02790***	-0.02946**	0.01766	-0.00393	-0.00339
d2003	0.43243**	0.25170	1.49894***	6.71769***	0.69188**	0.98997**
d2004	-0.14124	0.24473	0.51328**	4.27232***	0.26090	0.01569
d2005	-0.15577	0.26562	-0.42139	2.43179**	-0.53663**	-0.80225**
d2006	-0.06686	0.26204	-0.72105**	0.86613	-0.48255**	-0.80330**
d2007	0.06413	0.35824**	-0.93547**	0.04583	-0.76399**	-1.04444***
d2008	0.11312	-0.43063**	-0.90573**	-0.36360	-0.57276**	-0.70395**
d2009	0.07573	0.33242**	-0.75632**	-0.59249	-0.34809*	-0.38506
d2010	0.08160	0.47930**	-0.93523**	-0.50728	-0.69259**	-0.81052**
d2011	0.05629	0.19767	-0.58862**	-0.59440	-0.22549	-0.29001
Total Number of Observations	356	356	356	356	367	367
Adj. R^2	0.19	0.61	0.36	0.54	0.14	0.13
Pr > F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Table 4: Board Characteristics and Profitability: (Dependent Variable – Return on Assets)

	(i)	(ii)	(iii)	(iv)	(v)
Intercept	-1.08160	-1.03698	-0.32734	-0.24993	-0.74872
boardsize	-0.00790	-0.00410	-0.01315	-0.02046*	-0.01612
bindep	-0.00157	-0.00130	-0.00187	-0.00031	0.00124
bindep x oprivate	0.00447**	0.00447**	0.00472*	0.00041	-0.00247
bindep x nprivate	0.00624***	0.00660***	0.00789**	0.00447**	0.00150
has_busy3_ind_dir		-0.09863	-0.06664	-0.09493	-0.11902*
pattend_agm_ind			-0.00088	-0.00128	-0.00162
ceo_duality				-0.30325**	-0.24675**
ceo_duality x op				0.45387**	0.40132**
ceo_duality x np				0.28341**	0.42731**
has_nominee_dir					-0.36128**
ldeposits	0.12147**	0.12164**	0.08041**	0.09554**	0.14604**
ppsector_lending	0.01596**	0.01484**	0.01489**	0.01449**	0.01345**
d2003	0.45844*	0.45830**	0.41086**	0.43033**	0.56247**
d2004	-0.07766	-0.07800	-0.12679	-0.11420	0.00310
d2005	-0.09329	-0.09060	-0.22007	-0.22091	-0.08458
d2006	-0.07333	-0.05899	-0.11732	-0.14875	-0.06872
d2007	-0.01537	-0.00701	-0.09208	-0.10563	-0.03690
d2008	-0.10121	-0.09586	-0.15283	-0.15770	-0.13030
d2009	-0.03218	-0.02206	0.00381	0.02970	0.06262
d2010	-0.00690	0.00360	-0.04616	-0.03961	-0.03970
d2011	-0.00611	-0.00181	-0.01595	0.00170	0.02088
Total Number of Observations	267	267	225	225	225
Adj. R^2	0.10	0.11	0.15	0.17	0.21
Pr > F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Table 5: Board Characteristics and Bank Value (Dependent Variable – Market to Book Value Ratio)

	(i)	(ii)	(iii)	(iv)	(v)
Intercept	0.73576	0.62564	0.44623	0.71885	0.03586
boardsize	0.01155	0.00217	-0.00992	-0.03255	-0.02661
bindep	-0.01330***	-0.01395***	-0.01644***	-0.01300***	-0.01086**
bindep x oprivate	0.00365	0.00365	0.00200	-0.00383	-0.00775*
bindep x nprivate	0.02901***	0.02810***	0.02918***	0.02072***	0.01666***
has_busy3_ind_dir		0.24345**	0.18245	0.08738	0.05439
pattend_agm_ind			0.00422**	0.00324	0.00277
ceo_duality				-0.79515**	-0.71778**
ceo_duality x op				0.46963	0.39767
ceo_duality x np				0.60253	0.79957**
has_nominee_dir					-0.49470**
Ldeposits	0.00750	0.00709	0.00758	0.04894	0.11808
ppsector_lending	0.02208**	0.02487**	0.03422**	0.03054**	0.02912**
d2003	0.21880	0.21916	0.18495	0.35449	0.53543
d2004	0.36304	0.36388	0.36773	0.54269**	0.70331**
d2005	0.15934	0.15270	0.09486	0.20725	0.39392
d2006	0.34550	0.31011	0.30114	0.33417	0.44376**
d2007	0.37390	0.35326	0.27778	0.37769	0.47181**
d2008	-0.63820**	-0.65142**	-0.76362**	-0.65054**	-0.61302**
d2009	0.22515	0.20017	0.17932	0.28923	0.33431
d2010	0.45415**	0.42823**	0.32824	0.39379**	0.39367**
d2011	0.12709	0.11648	0.13924	0.19230	0.21856
Total Number of Observations	267	267	225	225	225
Adj. R^2	0.50	0.51	0.55	0.58	0.59
Pr > F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

Table 6: Board Characteristics and Bank Asset Quality (Dependent Variable – Percentage of net (gross) non-performing assets and percentage of addition to net (gross) non-performing assets)

	Dependent Variable			
	nnpa/net advances	gnpa/net advances	addition to nnpa/net advances	addition to gnpa/net advances
Intercept	-1.19328	-9.31600**	1.10974	2.87506
boardsize	0.00950	-0.04917	0.02299	0.00030
bindep	0.00274	0.02403***	-0.00354	-0.00117
bindep x oprivate	0.00426	0.00881	0.00301	-0.00036
bindep x nprivate	-0.00346	-0.01815**	-0.00384	-0.00117
has_busy3_ind_dir	0.10849	0.16706	0.12964	0.14557
pattend_agm_ind	-0.00030	-0.00047	0.00348	0.00463
ceo_duality	0.01220	0.34724	0.03358	-0.03466
has_nominee	0.26929	-0.83729**	0.33048	0.66802**
ldeposits	0.13261	0.69982***	-0.02186	-0.10316
ppsector_lending	0.00555	0.02944	0.00262	-0.00156
d2003	1.13234**	5.54096***	0.80510**	0.63042
d2004	0.45794**	3.51819***	-0.07295	-0.39658
d2005	-0.12279**	3.03344***	-0.61929**	-0.85558**
d2006	-0.40005**	1.26347**	-0.25131	-0.56846**
d2007	-0.45843**	0.78557	-0.58163**	-0.74391**
d2008	-0.35314**	0.24254	-0.12002	0.14402
d2009	-0.41913**	0.03110	-0.29263	-0.13584
d2010	-0.54719**	-0.07426	-0.66569**	-0.57887**
d2011	-0.29691**	-0.12733	-0.21497	-0.24834
Total Number of Observations	204	204	188	188
Adj. R^2	0.23	0.59	0.15	0.07
Pr > F	<0.0001	<0.0001	<0.0001	<0.0001

Table 7(a): Number of Changes in the Chief Executive Officer by Ownership Group: (2000-2012)

	No. of CEO Changes	No. of CEO Year Observations		
		First Year of Tenure	Later Years of Tenure	Total
Public Banks	93	93 (38.11)	151 (61.69)	244
Old Private Banks	40	40 (33.61)	79 (66.39)	119
New Private Banks	11	11 (14.67)	64 (85.33)	75
Total	144	144 (32.88)	294 (67.12)	438

Notes: Figures in parenthesis give row percentages.

Table 7(b): Distribution of Chief Executive Officer by Years of Tenure

Ownership Group	**Tenure (Years)**							
	1	2	3	4	5	> 5	Total	Average Tenure
Public Banks	28 (30.11)	20 (21.51)	21 (22.58)	13 (13.98)	5 (5.38)	6 (6.46)	93 100.00	2.65
Old Private Banks	14 (35.00)	6 (15.00)	9 (22.50)	4 (10.00)	1 (2.50)	6 (15.00)	40 (100.00)	2.90
New Private Banks	0 (0.00)	1 (9.09)	3 (27.27)	1 (9.09)	0 (0.00)	6 (54.55)	11 (100.00)	6.25
Total	32	27	33	18	6	18	144	
	(22.22)	(18.75)	(22.92)	(12.50)	(4.17)	(4.86)	(100.00)	

Notes: Figures in parenthesis give row percentages.

Table 8: CEO Tenure and Bank Performance

	Financial Performance		**Asset Quality**						
	ROA	**MBVR**	nnpa_ to_netadv	gnpa_ to_netadv	nnpa_ wrtoffs_ netadv	gnpa_ wrtoffs_ netadv	nnpa_add itn_ netadv	gnpa_add itn_ netadv	npa_ provsn_ netadv
Intercept	-0.40012	0.25347	8.86402***	31.98807***	4.71534***	10.58923***	2.34686	2.94689	17.48399***
CEO tenure	0.04893***	0.20703***	-0.11420***	-0.2636**	-0.08519**	-0.08900**	-0.0747**	-0.0497**	-0.08785*
trend	-0.00130	0.0523**	-0.15314***	-0.7195***	-0.12079***	-0.17495***	-0.01348	-0.01272	-0.3782***
ppsector_lending	0.01365**	0.00115	-0.06701***	-0.19256***	0.00053982	-0.06398***	-0.00620	-0.01390	-0.11940***
ldeposits	0.05948**	0.06936**	-0.25737***	-1.08867***	-0.17335**	-0.35302***	-0.04935	-0.02241	-0.57204***
Number of Observations	405	405	394	394	335	335	337	337	395
Adj. R^2	.08	0.23	0.25	0.36	0.15	0.24	0.03	0.003	0.29
Pr>F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0043	0.2714	<0.0001

Table 9: CEO Tenure and Bank Performance: Year-wise Effect

	Financial Performance		Asset Quality						
	roa	mbvr	nnpa_ to_netadv	gnpa_ to_netadv	nnpa_ wrtoffs_ netadv	gnpa_ wrtoffs_ netadv	nnpa_addi tn_ netadv	gnpa_additn_ netadv	npa_ provsn_ netadv
I*ntercept*	-0.22739	-0.08429	8.40912***	31.1218***	4.3865***	11.3201	2.20344	2.27816**	8.16744***
CEO tenure – Year 1	-0.00114	0.53220*	-0.03755	0.48514	0.22485	0.27208	-0.07172	-0.19358	-0.73330**
CEO tenure – Year 2	-0.02347	0.56975***	-0.19194	-0.71879	-0.01831	-0.31795	0.00390	-0.0555	-0.81773**
CEO tenure – Year 3	-0.11630	0.67616***	-0.34815	-1.18693	-0.06875	-0.48490	-0.0626	-0.0655	-0.81364**
CEO tenure – Year 4	0.000221	0.82202***	-0.61658**	-1.43170*	-0.10128	-0.49639	-0.1130	-0.04694	-0.82900**
CEO tenure – Years>= 5	0.29430**	1.67592***	-0.84734**	-1.78391**	-0.43719	-0.7142**	-0.47346**	-0.52905**	-0.9797**
trend	0.00137	-0.04922	-0.1926***	-0.8147***	-0.1377***	-0.1923***	-0.0186	-0.00755	-0.3180***
ppsector_lending	0.01587***	0.00194	-0.0672***	-0.1927***	-0.0012	-0.07216***	-0.0067	-0.00939	-0.0133
ldeposits	0.04726	0.07749	-0.1955***	-0.9638***	-0.14811**	-0.37505***	-0.0411	0.01485	-0.1649**
Number of Observations	453	453	437	437	362	362	363	363	363
Adj. R^2	0.08	0.21	0.25	0.39	0.15	0.28	0.01	0.001	0.26
Pr>F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0856	0.3886	<0.0001

Table 10: CEO Tenure and Bank Performance: Ownership Variations

	Financial Performance		**Asset Quality**				
	roa	mbvr	nnpa_ to_netadv	gnpa_ to_netadv	nnpa_ wrtoffs_ netadv	gnpa_ wrtoffs_ netadv	npa_ provsn_ netadv
I*ntercept*	-1.11026**	0.14138	10.2883***	36.6567***	4.91298***	12.6845***	20.5888***
CEO tenure	-0.02782	-0.04316	-0.02577	0.14832	-0.03701	0.05264	0.2397**
CEO tenure x oprivate	0.09837***	0.04274	-0.1862**	-0.6276**	-0.03298	-0.2792**	-0.4201**
CEO tenure x nprivate	0.07315**	0.30581***	-0.06812	-0.3719**	-0.05135	-0.1115*	-0.3113***
trend	-0.01256	-0.03434**	-0.1277***	-0.6453***	-0.1182***	-0.1307**	-0.3292***
ppsector_lending	0.01652***	0.01170**	-0.0702***	-0.2083***	-0.00135	-0.0690***	-0.1330***
ldeposits	0.12076***	0.06962*	-0.3806***	-1.4885***	-0.19037**	-0.5384***	-0.8364***
Number of Observations	405	453	394	394	335	335	395
Adj. R^2	0.11	0.45	0.27	0.37	0.15	0.26	0.31
Pr>F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001