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THE ASSOCIATION BETWEEN BANKING REFORMS AND PERFORMANCE OF BANKS: AN EMPIRICAL INVESTIGATION

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Abstract: Banking sector in Pakistan has undergone radical regulatory changes initiated in the early 1990s. These regulatory changes, *inter alia*, included enactment of regulations to improve private sector participation in the banking sector and to encourage efficient functioning of banks with less government interferences, removal of restrictions on interest rate and loans, and foreign exchange rate relaxation. This study attempts to review these banking sector reforms and examine its impact on the banks performance. The findings of the study suggest that there has been a persistent increase in profitability of banks with consistently decreasing nonperforming loans during the post-reform period (*i.e.* 2000), signifying that changes in the regulatory framework with ensuing competitive pressures on banks enabled banks to mobilize their resources more effectively and efficiently. The findings of this study provide important insights to the regulators, which would facilitate them to direct their policymaking and regulatory efforts. The importance of investigating the influence of banking reforms on banks performance in time of increasingly evolving banking regulations is a valuable contribution to the relatively limited banking literature, in general, and literature in the context of emerging economies, in particular.

Keywords: banking reforms; financial performance; emerging economy; regulatory change

1. INTRODUCTION

Strengthening banking sectors has been one of the key challenges facing many emerging economies. This is because sound and well performing banking sector serve as an important channel for achieving economic growth through mobilization of savings and investments, placing them to productive avenues and mitigating financial risks (Demirguc-Kunt and Maksimovic, 1998; Jayaratne and Strahan, 1996; Levine, 1996; King and Levine, 1993). In an attempt to strengthen banking sectors, according to Berger and Humphrey (1997), many countries implemented a series of measures in the late 1980s and early 1990s, which, *inter alia*, included interest rate liberalization, entry deregulations and removal of credit allocation. In many cases, through banking sector liberalization domestic (in some cases foreign banks) banks were given access to cheap funds from abroad and allocated those resources to domestic economic segments (World Bank, 2001).

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Literature concerning banking indicates that regulatory reforms coupled with the changes in economic policies have transformed the banking landscape of many countries in a noticeable way. For instance, evidence from countries, such as Mexico, Australia, New Zealand, Japan, Malaysia, Thailand, Korea and India suggests that banking reforms implemented in these countries have facilitated in improving financial performance of the banks which in turn improved economic health of these countries significantly (International Monetary Fund, 2001). While there have been some studies which examine the impact of banking reforms on the performance of banks, with a few exceptions (e.g., Berger and Humphrey, 1997; Gilbert and Wilson, 1998; Leightner and Lovell, 1998; Laeven, 1999; Okuda and Mieno, 1999; Hao *et al.*, 2001; Williams and Intarachote, 2002; Okuda *et al.*, 2002), the focus of these studies generally has been on banking sectors in developed countries with limited research examining the impact of banking reforms in emerging economies, thereby leaving an empirical gap in the banking literature. It is important that researchers focus on emerging economies as research settings given emerging economies face unique economic, political, social and technological environments. Hence, the aim of this study is to provide an insight into the impact of banking reforms on the banking sector in an emerging economy.

In Pakistan, banking reforms were initiated in the early 1990s with the aim to enhance economic growth while improving banks' profitability and efficiency. These reforms were initiated soon after the economic crisis that occurred in the late 1980s. The crisis was caused by poor macro-economic performance, characterized by a public deficit of over 10 per cent of gross domestic product, a current account deficit of 3.5 per cent of gross domestic product, an inflation rate of over 14.5 per cent, with growing domestic and foreign debt (State Bank of Pakistan, 1997).

Amongst South Asian countries, Pakistan has highly diversified banking sector, with a host of banking products and services. A review of State Bank's (central bank of the country, hereafter SBP) annual reports suggest that the growth in Pakistan's banking sector during the period 2000-2010 has been unprecedented. While its assets have risen to over US$76 billion (average growth rate 14.8 per cent) by the end of 2010, its profitability remained exceptional and at an all-time high, non-performing loans (NPLs) were at an all-time low, credit is fairly diversified and banks systemic risks are well-contained (State Bank of Pakistan, 2010). By the end of 2010, over 85% of banking assets were with the private banks. Similarly, the foreign investors' stake is over 47% of total paid-up capital of all the banks regulated by SBP. Given its achievements, Pakistan's banking reforms offer a useful insight into specific lessons for countries endeavoring to reform their banking sectors. Relying on these lessons, the study examines the impact of banking reforms on the performance of banking sector in Pakistan in general and individual category of banks (*i.e.* state-owned banks versus private-local and foreign banks) in particular. Keeping this objective in consideration, the study attempts to use a number of

banking related performance measures (*i.e.* return of assets, return on equity, capital adequacy, NPLs, operating efficiency) to examine how the banking reforms process has facilitated in improving banking environment in Pakistan. Implications of the study could be substantial and may bring far reaching benefits to the banking sector as well as policymakers, regulators and researchers.

Based on the discussions above, the following research question has been formulated for this study: Does banking reforms (in emerging economies) lead to enhance performance of the banking sector? To address this research question, the study empirically examine whether performance of the banking sector in Pakistan has improved after the implementation of banking reforms. The data for this study was gathered from the SBP's annual reports for the period 1997-2010. The annual reports (2000-2010) of individual banks operating in Pakistan were also used to calculate selected financial ratios in order to assess the performance of each category of banks (i.e. state-owned, foreign and private local banks). The variables used to measure the performance of the banking sector are: (i) profitability, (ii) cost efficiency, (iii) nonperforming loans, and (iv) earning assets' efficiency. While performance is dependent variable, measured by Return on Assets (ROA) and Return on Equity (ROE), the independent variables of this study are the bank size (measured by the total assets), asset management (measured by asset utilization ratio) and operational efficiency (measured by the operating efficiency ratio). SPSS software was used for statistical analysis and to analyse the relationship and correlations of independent variables on the dependent variable. Analysis of variance (ANOVA) was used in testing the hypotheses and to measure the differences and similarities between the sample banks according to their different characteristics. Pearson correlation coefficient was used to investigate the correlation between the variables at 5 per cent level of confidence.

The rest of this paper is organised as follows: Section 2 provide a description of banking reforms in Pakistan. While section 3 provides analyses of the impact of the banking reforms on the banking sector's performance including a discussion on the comparison with the other Asian countries, the discussion and conclusions is given in Section 4.

2. BANKING REFORMS IN PAKISTAN

Since 1990, Pakistan has been engaged in banking sector reforms aimed at increasing the profitability and efficiency of the then nationalized banks that controlled over 90 per cent of all deposits, assets and loans. Initiated in the early 1990s, the pace and sequencing of banking reforms were aligned with the economic crisis that occurred in late 1980s. The crisis was caused by poor macroeconomic performance, characterized by a public deficit of over 10 per cent of gross domestic product, current account deficit of 3.5 per cent of gross domestic product, inflation rate of over 14.5 per cent, and growing domestic and foreign debt. The reforms were

implemented in three phases (i.e. Phase 1: 1990-1996, Phase 2: 1997-2001, Phase 3: 2002-2004) and mainly consisted of (a) a shift of banking sector supervision from intrusive micro-level intervention over credit decisions toward macro-prudential regulations and supervision, (b) interest rate and entry deregulation, (c) adoption of prudential standards (d) guidelines for income recognition, asset classification and provisioning, (e) adopted the Basle Accord capital adequacy standards, (f) elimination of concessional lending schemes, and (g) lifting the cap for project financing.

Prior to the reforms, Pakistan's banking sector was mainly dominated by the five commercial banks (hereafter state-owned banks) which were nationalized by the Government in 1974. These banks have long accounted for over 90 per cent of the banking sector and dominated the financial system by expanding their own key banking businesses and by forming conglomerate structures through their control over other financial institutions. These state-owned banks were increasingly used to finance fiscal deficits. Although non-nationalized foreign banks were allowed to coexist with state-owned banks at that time, their activities were highly restricted through entry regulations and strict branch licensing policies. Thus, their activities remained negligible. Most of the banking decisions were influenced by the Government with money mainly lent to large size industries, multinational companies and people having political clout, and very little credit provided to Pakistan's vast number of rural farmers, small or micro businesses or those without political influence. This system adversely affected the asset quality, liquidity and profitability of the state-owned banks causing severe financial losses (Khan, 2005; Iimi, 2003). The banking sector's performance was gradually eroded over the years through imprudent lending policies and practices; poor institutional infrastructure including human resources, management control systems and procedures; and extremely high cost of operations due to over staffing and a large number of loss-making branches.

In order to address these issues, a number of structural and regulatory initiatives were undertaken. Banks restructuring came in the form of guiding principles set out by the World Bank and IMF bail-out program. Caprio and Martinez-Peria (2000) suggest that such initiatives tend to have great influence over banks profitability and cost efficiency during a banking crisis. The World Bank and IMF bail-out program included loans and standby credits in addition to technical assistance aimed at institutional strengthening and restructuring of state-owned banks, and measures to improve regulatory framework (State Bank of Pakistan, 2000). The key measures are outlined below.

To facilitate the privatization process, the Banks (Nationalization) Act 1974 was amended in 1990, empowering the Government to sell all or any part of the share capital of state-owned banks. The government was empowered to suspend the provisions of the Banks (Nationalization) Act, in cases where 26 per cent shares of

any state-owned bank were sold to the private sector. Subsequently, with a view to encourage private sector participation, the Banks (Nationalization) Act, 1974 was amended during 1991, allowing private sector to open banking companies. In 1991, ten new private banks were permitted to commence their operations. In later years, eleven non-banking financial institutions were given permission to start commercial banking. The branch policy for the private local banks and foreign banks was eased. This provided the opportunity for existing banks to grow. On the contrary, state-owned banks were prevented to open new branches in 1996 and advised to close loss making branches by 1997.

With respect to strengthen self-governance within banks, various amendments were made in Banking Companies Ordinance 1962, including sections 27b & 83a were inserted to curtail union activities, to make dishonest removal or disposal of goods punishable act, and to make extension of any financial facility to a borrower on verbal instructions an offence. Amendments were also made to empower the SBP to frame guidelines for recovery of NPLs by giving incentives to borrowers for repaying their loans within a specified time. At the same time, SBP was also authorized to publish a list of defaulters after notifying them in advance.

A review of literature concerning Pakistan's banking sector suggest that while state-owned banks had focused more on increasing their branch network beyond the sustainability level, their efficiency began to decline in the late 1980s and early 1990s with rising cost of operations and oversized workforce. The increase in cost of operations resulted into lower returns on deposits and higher lending rates. These, together with growing NPLs rapidly deteriorated profitability of banks forced SBP to formulate and implement plans to restructure state-owned banks by rationalizing their size and business activities. In addition, the rapidly deteriorating governance not only provoked structural problems, but also led to worsening level of NPLs. This necessitated rigorous efforts to strengthen prudential measures, focusing on capital adequacy, adequate provisioning and effective loan recovery mechanisms, and legal procedures. In 1996, banks were instructed to adopt the system of risk-weighted capital, in line with the Basel I Accord. Consequently, banks were required to maintain capital and unencumbered general reserves of not less than 8 per cent of their risk-weighted assets. In addition, banks had to achieve a minimum paid-up capital of Rupees (the currency of Pakistan hereafter referred to as 'Rs') 500 million ($5.25 million)[1] by end December 1998. In December 2000, the minimum capital requirement was doubled to Rs 1,000 million ($10.1 million), with half of the increase *i.e.* up to Rs 750 million ($7.87 million) to be achieved by the end December 2002 and the remaining till end December 2003. Banks failing to meet the above requirement were converted into a non-scheduled bank.

In order to strengthening on-site & off-site surveillance and enhancing the capacity, a process of internal restructuring of SBP was initiated. In this context, the State Bank Act was amended in 1994, giving full autonomy to the Board of Directors

in all matters relating to administration and conduct of business of the Bank within the provisions of State Bank of Pakistan Act 1956. This act was amended again in 1997 to further enhance SBP's responsibilities. Information from early warning system, off-site and on-site inspection was integrated and focused on risk analysis. At the same time, a system was introduced whereby performance of banks was evaluated under CAMELS[2] and CAELS[3] system. In 1997, Arthur Andersen (an international consulting firm) was engaged to undertake an in-depth review of the banking supervisory system and monitoring techniques. The firm assisted in modernizing and re-orienting inspection process besides providing training to central bank officials. More importantly, on their recommendations, a risk-based inspection of financial institutions and CAMELS system of off-site surveillance were introduced.

Banks were also directed to classify their loans in accordance with the detailed guidelines issued by SBP. These guidelines were further strengthened in 1992, whereby NPLs categories, in particular, the category 'Other Assets Especially Mentioned' were changed from 180 days or more to 90 days or more. In 1993, banks were also required by the SBP to set quarterly recovery targets, submit progress reports, and form strategies to improve future recovery process. Minimum conditions for borrowers were also established to ensure that loan defaulters were not provided fresh loans. In this context, banks were also required to furnish a list of defaulters to SBP, having a total borrowing of Rs 1 million ($0.01 million) and above, together with details of rescheduled and restructured loan facilities. The role of 'Credit Information Bureau' was strengthen in order to clearly identify defaulters, whereby banks were required to obtain information from the Bureau about total outstanding liabilities of any applicant seeking loans of Rs 0.5 million ($0.005 million) or more. In 1997, SBP revised disclosure standards and banks were advised to submit their annual accounts on new formats in line with international accounting standards. As a major step to safeguard the interests of prospective investors, depositors and creditors, and towards market-based monetary management, in 2000, banks were required to have themselves rated by one of the credit rating agencies approved by SBP.

3. ANALYSIS OF THE BANKING SECTOR'S PERFORMANCE: POST REFORM PERIOD

The performance of banking sector, in any environment, is critically dependent on reforms' success in: (i) promoting higher degree of efficiency in financial intermediation process by effective resource mobilization and channeling resources to productive sectors at competitive prices, thus playing a critical role in promoting economic growth; (ii) strengthening the financial performance of banks and their risk mitigation mechanisms; and (iii) extending the outreach of financial products and services to under-served segments of the economy. The financial performance of banking sector in Pakistan has indeed improved after the implementation of reforms. This is clearly depicted in the rise in: bank assets to Gross Domestic Product

ratio from 49 per cent in 1997 to 56 per cent in 2010 and deposit to Gross Domestic Product ratio from 39 per cent in 1997 to 44 per cent in 2010. While Pakistan's banking reforms have been in line with global trends, one unique feature is that, unlike with other economies such as Mexico, Hungary and Poland, Pakistan chose a gradual approach toward restructuring banks by enhancing competition through entry deregulation of foreign and domestic banks. It follows that ensuring the integrity and autonomy of state-owned banks is the more relevant issue and that they could improve profitability without changing their ownership if competition were enhanced. The rest of the paper provides an analysis of the impact of the reforms on the banking sector's performance.

Analysis of Banks' Profitability

Profitability of banks has improved and performance ratios in this area are amongst the best as compared to its counterparts in South East Asian region. The aggregate profits of banks crossed over $1 billion for the year 2010. During the period 2000-2010, ROA of banks rose from negative 2.3 per cent to 1.7 per cent and ROE from negative 14.8 per cent to 16.7 per cent. Banks' profitability has been driven by a combination of variables. These include: (i) a rise in earning assets of banks to 85 per cent by the end of 2010 which is significantly above the pre-reform period and a rise in loans to total assets from 49 per cent (in 1997) to 55 per cent (in 2010); (ii) a decline in operating expense to income with being half the pre-reform period; (iii) a rise in the small and medium sized enterprises, micro credit, consumer finance and agriculture sector finance which constitutes over one third of total outstanding loans and typically is priced above the average lending rates and those prevailing for larger corporate customers; (iv) a high share of non-interest based or low yield deposits, while share of fixed-term (above 6 months maturity) deposits declined; and (v) a substantial growth in service charges which had emerged as a new source of revenue for banks offering electronic and other contemporary banking products and services.

To test the impact of the banking reforms on banks profitability there are two measures of profitability used namely, ROA and ROE. Both measures are considered together, because high ROE with low ROA generally indicate relatively high financial leverage ratio, reflecting high risk of the bank. The trends of banking sector's ROA and ROE index (i.e. banks' profitability) have improved since the implementation of reforms, reflecting 1.7 per cent ROA and 16.7 per cent ROE as of the year 2008. In addition, ROA has in general moved in the same direction as ROE during the period 1997 to 2008. Therefore, the ROA index has been used as the only variable representing the banks' profitability in this study. The variables which affect the banks' ROA are assumed to include banks' deposits, loans and total cost as well as NPLs. In order to evaluate the impact of the banking reforms on the profitability of each category of banks, the model formulated in the following way:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3 + \beta_4 \cdot X_4 + \Sigma$$

Where

Y: Return on asset (ROA)

X1: Ratio of NPLs to total loan (NPLs/total loan outstanding)

X2: Deposit ratio (deposit/total outstanding liability)

X3: Loan ratio (loan/total asset)

X4: Cost ratio (operating cost/total incomes)

DV: Dummy Variable

Σ : Error term

The study hypothesizes as follow:

$H_0: \beta_1 = 0$

$H_1: \beta_1 \neq 0$

If H0 is accepted, this means that reforms do not affect the banks' ROA, which alternative hypothesis implies that ROA is affected by the reforms.

The sample of the banks was divided into groups based on the size and nature of the ownership at the sample period when the reforms were under way. Group 'A' (six banks) included state-owned banks, classified as relatively lower ROA banks, while group 'B' (eight banks, four each from private and foreign banks) includes those banks, which are listed by State Bank as private and foreign banks and had higher ROA than the average level during the period covered in this analysis. The panel data is used for the period from 1997 to 2008. Therefore, the total sample size for group 'A' is 72 and that for group 'B' is 96. The regression results are summarized in the Table 2.

Table 1
Regression Results

	All Banks	*A Group*	*B Group*
	(N=174)	(N=72)	(N=96)
X1	4.120403	25.03431**	-0.727410
	(1.101243)	(2.141412)	(-0.065032)
X2	0.093711	2.782734	-0.187998
	(0.179785)	(1.124228)	(-0.530181)
X3	-1.546074**	-7.278207**	-0.058763**
	(-1.498375)	(-1.961649)	(-0.116510)
X4	-11.21134*	-10.13476*	-7.867200*
	(-29.87930)	(-17.31464)	(-8.68353)
Adjusted R-square	0.958701	0.932247	-0.741118

( ) indicates t-value.

*, ** represent 1%, 5% significance level respectively.

Note: All banks include state-owned banks, private banks and foreign banks exclusively, while group 'A' includes only state-owned banks and group 'B' include private and foreign banks (excluding state-owned banks).

In group 'A', the estimated coefficient of reforms on bank profitability (ROA) is 25.03 with positive sign as expected. In case of group 'B', however, the estimate shows negative sign contrary to the expectation, but it is not significant statistically. In case of all banks, the value of the coefficient is estimated to be about 4.12 with positive sign, but t-value turns out to be insignificant. However, in all three samples, the cost variable (X4) has produced those expected estimates at 5% significant level.

The result shows that reforms were more effective for the banks having relatively low ROA levels than high ROA levels. Group 'A' banks had direct intervention from the central bank as these banks had relatively larger NPLs and liquidity problems. Although its impact on profitability of the state-owned banks is relatively strong but slow this was largely as state-owned banks needed more lead time to enhance their capacities and develop their internal control systems to improve efficiency. In other words, banks' profitability was improved by the reforms, which facilitated financially weak banks to clear their NPLs and overcome their liquidity crunch. In case of group 'B' banks, which had higher ROA, reforms had not much contributed to the improvement of their earnings. Their profitability was rather enhanced by self-remedy efforts via mergers and consolidations among good banks. The improvement in general economic environment played a crucial role in helping the group 'B' banks than state-owned banks.

The gradual improvement in the banking earning structure may have in part come from factors other than State Bank's support. The estimate for the cost ratio variable indicates such possibility. Since ROA is defined as the ratio of net income to total asset, the total cost determining the net income is certainly to affect the profitability. Both the change in interest rates and change in volume of business contributed almost equally to this increased interest income. In absolute terms, the increased business volume contributed about Rs 34 billion ($0.36 billion) in 2010 as against the Rs 25 billion (0.26 billion) in 1997. As for the tax expense, the reduction in the tax rate has reduced the tax expense of the banking sector in the last few years. This lower taxation has also contributed to improve profitability of the banks. Though in terms of before tax profits, the tax charge in 2010 was lower when compared with that of 1997, however, since the profits were on higher side, the banks made a higher contribution in tax revenue by the amount of Rs 40 billion ($0.41 billion) when compared to Rs 31 billion ($0.32 billion) in 1997.

Capital Adequacy Ratio

Another indicator used for measuring financial performance of the banking sector is capital adequacy ratio (CAR). Overall, CAR of the banking sector has improved, while NPLs have scaled down. Risk weighted CAR for banks have increased from 0.6 per cent in 1997 to 12.9 per cent by the end of 2010. Tier one capital to risk weighted assets rose from 8.3 per cent to 9.8 per cent and capital to total assets from 7.9 per cent to 8.8 per cent during the same period. In addition from recapitalisation,

banks' capital adequacy ratios have benefited from new capital injections. Debt settlement and recovery coupled with introduction of new prudential regulations, vigilant supervision and stricter enforcement of these regulations have facilitated a sharp fall in NPLs to total loans and net NPLs to net loans ratios to 12.7 per cent. 1.6 per cent and 1.1 per cent, respectively over 2000, 2006 and 2010.

Table 2 depicts trend of CAR from 1997 to 2010 which highlights that the banking system has strengthened and hence set new standards for the industry during 2006. Major support came from the persistent strong profits and capital injections to meet the enhanced minimum capital requirement, which was Rs 3 billion ($0.031 billion) at the end of 2006. Further, the process of mergers and consolidation in the banking sector also helped to strengthen the solvency of the banking sector. Of the core solvency ratios, the qualifying risk-based capital witnessed a marked increase of Rs 99.4 billion ($1.04 billion) to reach the level of Rs 364.5 billion ($3.8 billion) during 2006. In percentage terms, it grew by about 37 per cent. The quality of risk based capital also strengthened further as around 93 per cent of this increase came from the core capital, which increased by Rs 90 billion ($1.05 billion) to Rs 288 billion ($3.02 billion).

Table 2
Trend of Capital Adequacy Ratio (Risk Weighted) (unit: %)

1997	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*
0.6	10.8	10.0	10.5	9.7	8.8	8.5
2005	2005	2006	2007	2008	2009	2010
10.5	11.3	12.7	13.2	12.9	12.1	12.9

Source: SBP Annual Reports 1997-2010

Capital in terms of total assets, another performance indicator, also increased to 9.4 per cent as compared to 7.8 per cent percent in 2000. The increasing trend in this ratio signifies the decreasing leverage. Further, the capital coverage ratio *i.e.* capital free of net non-performing assets to total assets ratio has also strengthened and increased to 8.5 per cent from 6.6 per cent in 2000. It signifies that even if a provision of 100 per cent is created against the entire existing infected portfolio, the banking sector would still be able to meet the minimum benchmark of capital. This is well supported by the improved asset quality reflected in the declining NPLs ratios.

Operating Efficiency

Operating efficiency of the banks increased significantly since the implementation of the reforms. This increasing trend in net margin was mainly the function of relatively lower provisioning charge. After experiencing a slight decrease in 2005, the net margin of banks witnessed improvement in 2006, 2007 and 2010. Since 2002 the net margin ratio increased by 55 to 156 in 2010. It was the control over operating

expenses which contributed to the increased operating efficiencies. Productivity and efficiency of assets has also witnessed improvement when compared with the 1997 and onwards. Although there has been growth in the risk weighted assets over the past few years, the banks were able to manage positive returns by investing in high yield assets. The improved operational efficiency was mainly attributed to the consolidations and expansion of the banking sector and implementation of rigorous corporate governance practices.

Although the total number of branches for all banks has increased from 7397 in the year 1997 to 8551 in 2010, the restructuring of state-owned banks helped in reducing the financial intermediation cost. Accordingly, through various incentive schemes from 1997 to 1999, work force of these banks was reduced from 99,954 to 81,079 along with closure of loss-making branches. To encourage a consolidated banking sector, SBP implemented a phased increase, over a period of five years, in the minimum capital requirement of banks to eventually reach at least Rs 6 billion ($100 million) by the end of 2009. Private Banks had either injected own capital or sought alliances and partnerships to augment capital or had stepped to acquire small sized banks to expand their capital and outreach. While capital injections have been spurred by the possibility of recourse to capital markets or foreign interest in banking system, the impetus to consolidation emerges from the wave of mergers and acquisitions, which in turn was driven by foreign interest in Pakistani banks triggered by their profitability.

The Government implemented an elaborate corporate governance framework as a part of the banking reforms. The key aim of the framework was to ensure that the owners and managers of a bank are fully committed and have sufficient capacity to operate the bank prudently. The Banking Companies Ordinance 1962, the primary legislation governing banks, lays down several governance requirements. It includes the rules for appointment and dismissal of directors, disclosure of share ownership, dividend policy, appointment of external auditors etc. Further instructions in these areas were provided through 'Prudential Regulations' issued by central bank. Most critical in this context are the exposure limits, guidance provided on the role and responsibilities of the board of directors, and fit and proper test criteria for chief executive officers, board members and senior executives. This criterion is in addition to the minimum qualification requirements.

The above findings suggest that the efforts of banking reforms have yielded results in bringing a positive change in the corporate governance practices of banks. Banks are now managed and run by professionals. The boards meet regularly and participate in both setting strategic direction for their institutions and providing desired oversight. A review of State Bank's Annual Reports (2000-2004) suggests that managements at majority of banks are equipped with professional competence and high degree of integrity. Additionally, the increasing competition among banks has resulted in improved decision making processes.

3.4. Overall Performance Analysis

According to an analysis (Table 3 & 4), the overall performance based on trend patterns in 2000-2010 reveal that private local and foreign banks performed better than state-owned banks in terms of profitability and cost efficiency, thus soundness. However, private local banks overtook foreign banks in terms of profitability in 2004-2005. Moreover, all banks are comparable in terms of the scale of medium-to long-term loan facilities and liquidity. Private local and foreign banks' profitability exceeded that of state-owned banks in 1997-2010, despite a declining trend. However, foreign banks have become more profitable than private local banks in 1999-2010. Profits from securities and foreign exchange transactions, and commission services have increasingly contributed to profitability for these banks, suggesting that the diversification effect is positive.

Additionally, foreign and private domestic banks are generally more cost efficient than state-owned banks. The ratio of operating expenditure to operating income (COST) in 2000 was 74 per cent for foreign banks, 84 per cent for private local banks, and 87per cent for state-owned banks. While foreign banks are more cost efficient, their efficiency level has somewhat deteriorated over the years after the initiation of banking reforms. As for earning capacity, foreign banks are generally better performers. The earning indicator by the ratio of income to assets (INCOME) shows that private local and foreign banks have consistently performed better than state-owned banks. In addition, the income generating capacity of state-owned banks deteriorated somewhat from 10.5 per cent in 2000 to 7.5 per cent in 2010, while the foreign banks maintained their performance at a level of about 12 per cent. The inferior performance of state-owned banks relative to foreign banks can be attributed to (a) the larger share of credit extended to the public sector and government, (b) more stringent requirements imposed on direct lending, (c) a lesser degree of diversification, and (d) lower interest rate margins.

The balance sheets of private local and foreign banks appear to be more structurally sound than those of state-owned banks based on the following criteria: capital adequacy, asset quality, management and liquidity. The capital adequacy ratio (EQUITY), of foreign banks increased from 5 per cent in 2000 to 16 per cent in 2010. While the ratios increased moderately for state-owned banks, it still remains small. This suggests that private local and foreign banks have greater incentives to lend prudently and remain well capitalized than the state-owned banks. This reflects the fact that private local and foreign banks steadily reduced their deposit dependence ratio from 71 per cent of liability in 2000 to 43 per cent in 2010, while the state-owned banks maintained their dependence ratio at about 82 per cent throughout the sample period. The assessment on asset quality based on (a) the ratio of contingent liabilities to assets, (b) asset growth, (c) the ratio of investment in securities to assets, (d) the ratio of provisions for NPLs to assets (NPL PROVS), and (e) the ratio of medium-and long-term credit to assets reveal mixed results.

Table 3
Performance Indicators 2000-2010

	2000	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
ROA								
All banks	-0.1	0.1	1.1	0.8	1.1	1.1	1.2	1.1
Foreign	1.9	1.9	2.0	1.6	1.6	1.9	2.2	2.0
Private Local	-0.2	0.4	1.9	1.2	1.3	1.7	2.1	1.9
State-owned	-1.4	-2.2	0.1	-0.4	0.5	0.8	1.2	1.1
COST								
All banks	82.5	78.5	82.1	81.7	84.9	76.8	84.3	77.4
Foreign	69.0	61.5	80.9	81.7	87.2	79.7	81.3	72.4
Private Local	85.1	84.1	80.2	80.1	81.2	80.2	85.4	80.0
State-owned	94.2	91.2	88.2	86.7	85.4	84.9	86.9	85.3
ROE								
All banks	4.2	4.6	8.2	12.4	12.3	13.3	13.6	12.1
Foreign	6.8	7.9	16.5	23.2	23.4	22.24	24.4	21.3
Private Local	1.7	2.2	3.6	3.6	4.2	4.8	4.5	4.5
State-owned	3.0	3.4	5.3	14.4	11.2	6.1	5.8	5.7
INCOME								
All banks	12.4	11.5	10.4	11.6	12.1	12.1	11.4	11.2
Foreign	14.5	12.9	12.1	13.2	13.3	13.8	12.3	12.6
Private Local	11.2	11.2	8.7	11.2	11.4	11.4	11.1	11.4
State-owned	10.9	11.3	10.7	10.1	10.7	10.5	10.4	10.3
DIVERSE								
All banks	1.2	1.1	1.2	1.2	1.4	2.1	1.4	1.8
Foreign	1.8	1.5	1.4	1.5	1.6	1.9	1.9	2.0
Private Local	1.1	0.9	1.0	1.1	1.1	1.5	1.2	1.3
State-owned	1.0	1.1	1.1	1.0	1.0	1.1	1.1	1.2

The indicator reports that the ratio of private local and foreign banks (at around 21-29 per cent) has been greater than that of state-owned banks. While this indicates that private local and foreign banks are more exposed to high potential losses in cases of default, this outcome may simply show that private local and foreign banks provide more complex and sophisticated services than the state-owned banks, given that their activities are concentrated on urban areas, wholesale markets and large clients.

Table 4
The Differential Behavior – State-owned Banks versus Private Local and Foreign Banks 2000-2010

	2000	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
ROA	4.3	4.8	6.7	3.9	4.9	0.3	0.9	-1.3
COST	-6.4	-9.8	-0.6	1.3	0.4	-5.7	-0.9	4.2
ROE	9.8	5.4	1.2	-0.3	-0.1	0.9	0.1	0.3
INCOME	3.8	3.6	1.3	1.8	1.4	4.9	3.1	3.2
NPL PROVN	2.5	0.7	3.9	-3.5	-2.8	1.9	1.6	4.5

Note: values represent t-tested values and indicate at 5 per cent significance level.

4. DISCUSSION AND CONCLUSIONS

Since the implementation of banking reforms in early 1990s, there have been significant favourable changes in Pakistan's banking sector. This paper has assessed the impact of these reforms on banks performance by examining their profitability, capital adequacy, nonperforming loans and operating efficiency. It concludes that the reforms have had a significantly positive impact on reducing the concentration of the banking sector and improving performance (*i.e.* profitability).

The empirical estimation showed that new regulatory framework lowered the profitability and cost efficiency of state-owned banks at the initial stage of the reforms, but such an impact disappeared once they attuned to the new banking environment. In line with these results, statistics provided in Section 3 shows that profitability improved in 1997-2010, cost efficiency steadily improved over the reform period, and the gap in performance compared with foreign banks has gradually reduced. Allowing banks to engage in contemporary banking products and services has significantly contributed to improved profitability and earnings efficiency of the whole banking sector, including state-owned banks. Financing to priority sectors has not had a negative effect on profitability as expected. Foreign banks and private local banks have generally performed better than large banks in terms of profitability. This suggests that size and ownership matters and foreign entry has a positive impact on banking sector restructuring.

The findings of this study suggest that while Pakistan's banking reforms have been in line with global trends, one key feature these reforms was its gradual approach toward restructuring banks to enhance competition through entry deregulation of foreign and domestic banks. This suggests that ensuring the integrity and autonomy of banks critical to improve profitability without changing their ownership if competition were enhanced. Although with this approach, larger state-owned banks continued to dominate banking sector due to their well-spread branch coverage, customer base, and knowledge of the local market, these banks find it more difficult to reduce personnel and operating expenses owing of the strong staff unions. These banks also found it difficult to accept increasing competition within banking sector.

The results of this study suggest that state ownership of banks is negative implications for banking sector development and growth. This finding is consistent with La Porta *et al.* (2000) who by using data from the 10 large size banks in 92 countries for 1970-1995, found that greater state-ownership of banks was associated with less banking sector development, lower growth, lower productivity, and that these effects were greater at lower levels of income. Clarke and Cull (1998), Caprio and Martinez-Peria (2000) and Barth *et al.* (2001) have also shown similar results and suggest that greater state-ownership of banks tends to be associated with higher interest rate spreads, less private credit, less activity on the stock exchange, and less non-bank credit, even after taking into account other factors that could influence

banking sector's performance and development. This suggests that greater state-ownership tends to be anticompetitive, hence negatively impact banks profitability.

Diversification of banking activities helps banks by providing them with an opportunity to gain non-interest income and thereby sustain profitability. This enables banks to maintain long-term relationships with clients throughout their life cycles and gives them an incentive to process inside information and monitor their clients. Further, banks can stabilize their profits by engaging in activities whose costs of funds are low (Steinherr and Huveneers, 1990). According to Steinherr and Huveneers (1990), diversification of banking activities promotes efficiency by exploiting economies of scale from the production of various products and services since they can spread fixed cost (i.e., branches and distribution channels) and human capital costs. It suggests that diversification may improve bank performance by diluting the impact of direct lending by reducing the banks' incentives to conduct information processing and monitoring functions. As a result, this not only reduce banks' profitability by limiting financial resources available to more productive usages, but also results in a deterioration of efficiency by discouraging banks from functioning properly.

Pakistan's banking sector has been gradually developing, but still remains dominated by the banks in the reform period. Nevertheless, the government's commitment on restructuring the banking sector appears strong. While the overall profitability of banks foreign banks' profitability exceeded that of pre-reformed state-owned banks in 1997-2010, private local banks have gradually become more profitable than their other counterparts during the same period. Further, foreign and private local banks have generally become more cost-efficient than pre-reformed state-owned banks. The ratio of operating expenditure to operating income in 2010 was 72 per cent for foreign banks, 80-85 per cent for private local banks, and 84 per cent for pre-reforms state-owned banks. As for earning capacity, foreign banks are generally better performers. The ROA ratios show that foreign and private local banks have consistently performed better than pre-reformed state-owned banks. However, their income generating capacity deteriorated somewhat from 1993 to 2000. The inferior performance of pre-reforms state-owned banks relative to foreign and private local banks is attributed to (i) the larger share of loan extended to government and the public-sector, (ii) more stringent requirements imposed on direct lending, (iii) a lesser degree of diversification, and (iv) higher intermediation costs with lower margins.

The balance sheets of foreign and private local banks also appear to be more structurally sound as compared to pre-reformed state-owned banks based on (i) capital adequacy, (ii) asset quality, (iii) management and (iv) liquidity. While these ratios have increased for pre-reforms state-owned banks, it still remains small. This suggests that foreign and private local banks have greater incentives to lend prudently and remain well capitalized than the pre-reformed state-owned banks. This reflects the fact that foreign and private local banks steadily reduced their

deposit dependence ratio from 67 per cent of liability in 1997 to 47 per cent in 2010, while the pre-reforms state-owned banks maintained their dependence ratio at about 85 per cent throughout the sample period. The assessment on asset quality based on (i) the ratio of contingent liabilities to assets, (ii) asset growth and (iv) the ratio of provisions for NPLs to assets indicates that foreign local banks are more exposed to high potential losses in cases of default, this outcome may show that foreign local banks provide more complex and sophisticated services than the pre-reforms state-owned banks, given that their business activities are mainly concentrated on urban areas, wholesale banking and large corporate clients. The foreign and private local banks generally allocated greater provisions for NPLs. Given that more stringent accounting and auditing standards applied in these banks and these banks are more resilient to adverse economic shocks.

Substantial empirical studies are needed to examine the impact of the reforms in a more robust way however, lack of necessary micro as well as macro level data has been a major obstacle. For instance, more analysis on nonbanking financial institutions, small and medium size enterprises and micro credit markets in Pakistan would have been more useful to identify competitive improvements within the banking sector. This would have resulted in identifying areas where further reforms are needed to ensure the operation of an efficient banking sector.

Notes

1. 1US Dollar = Rs. 95.2150 as at December 12, 2012.
2. The CAMELS framework involves analysis of specific groups of measures such as Capital adequacy, Assets quality, Management, Earning quality, Liquidity and Sensitivity to risk).
3. The CAELS framework involves analysis of five-groups of performance measures such as Capital, Assets quality, Earnings, Liquidity and Sensitivity to risks.

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