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OPINIONS

The Effect of Privatization and Liberalization on Banking Sector Performance in Pakistan

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1. Introduction

A well functioning financial system is necessary for enhancing the efficiency of intermediation, which is achieved by mobilizing domestic savings, channeling them into productive investment by identifying and funding good business opportunities, reducing information, transaction, and monitoring costs and facilitating the diversification of risk. This results in efficient allocation of resources, contributing to a more rapid accumulation of physical and human capital, and faster technological progress, which in turn lead to higher economic growth. Anxious to achieve higher growth, policy makers in many developing countries saw public ownership of banks and other financial institutions as necessary in order to direct credit towards priority sectors.

It was in this backdrop that the financial sector in Pakistan was nationalized in the early 1970s under the framework of the Banks Nationalization Act 1974. The nationalized domestic banks were consolidated into 6 major national commercial banks and several specialized credit institutions were established[1]. The objective of the nationalization was to direct bank credit towards specific developing sectors and to provide a source of funding to the government. By the end of the 1980s, it became, however, quite clear that the socio-economic objectives, sought through the nationalization of the banking sector were not being achieved[2]. Instead, the pre-dominance of the public sector in banking and Non-Bank Financial Institutions (NBFIs), coupled with the instruments of direct monetary control, were becoming increasingly responsible for financial inefficiency leading to the crowding out of private sector investment. The dominance of public sector banks

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[1] See Bonaccosi di Patti and Hardí (2003).
[2] Husain (2004).

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at the beginning of the 1990s was apparent with a share of 92.2 percent in total assets (Table 1) of the banking sector. The remainder belonged to foreign banks, as domestic private banks did not exist at that time. Similarly, high shares existed for deposits of the public sector banks. With these characteristics, the banking sector at the end of FY90 did not provide a level playing field for competition and growth. The importance of state owned banks in many developing countries contrasts worryingly with recent research findings, which show that state ownership of banks is with negative effects.

Privatization of government owned banks and other liberalization measures introduced were the cornerstone of the financial sector reforms initiated in the early nineties in order to revitalize the financial system of the country. As part of this policy, in 1991 two of the publicly owned banks, the Muslim Commercial Bank (MCB) and Allied Bank (ABL) were privatized. At the same time permission was granted for setting up of new banks in the private sector with 10 new banks getting licenses to commence their operations in 1991. Consequently, towards the end of 2002, the structure of the banking sector in Pakistan had changed considerably (Table 1) as a result of the privatization/liberalization policies pursued in the broader canvas of financial sector reforms. The share of public sector banks in the assets of the banking system was reduced to just 41 percent by 2002 compared to over 92 percent in 1990, while that of private banks had reached over 45 percent starting from nil in 1990. Similarly, the share of public sector banks in the deposit base of the banking system was reduced to 43.5 percent starting from 93 percent in 1990.

Table 1. Dynamics of the Banking Sector

	Number		Amount (Rs. Billion)		Share (%)	
	1990	**2002**	**1990**	**2002**	**1990**	**2002**
Assets						
Public	7	5	392.3	877.6	92.2	41.3
Private	-	16	-	968.3	-	45.5
Foreign	17	17	33.4	280.9	7.8	13.2
Total	***24***	***38***	***425.6***	***2126.8***	***100***	***100***
Deposits						
Public	7	5	329.7	721.9	93	43.5
Private	-	16	-	754.2	-	45.4
Foreign	17	17	24.9	184.1	7	11.1
Total	***24***	***38***	***354.6***	***1660.2***	***100***	***100***

Source: State Bank of Pakistan (2000) and (2002)

This study would attempt to investigate the effects of privatization and liberalization on the performance of the banking sector in Pakistan. We would be employing the CAMELS framework of financial indicators to gauge the effects of privatization and liberalization policies pursued since the 1990s in the banking system, using bank level data from 1990 to 2002. Banking supervisors all over the world are using the CAMELS framework of financial indicators to oversee the performance of their respective banking systems. Recent studies indicate that substantial performance and efficiency gains can be achieved by transferring ownership of banks/ financial institutions from the public sector to private hands; a summary of these is given in the next section.

The paper is divided into 5 sections. Section 1 presents the introduction; second section gives an overview of the relevant literature. In the third section the methodology employed and the data used are discussed while Section 4 contains the detailed analysis. The paper is ended by Section 5, which gives some concluding remarks.

2. Literature Review

The role of public sector banks and other financial institutions in economic development has been examined in many studies. There are two broad views about government involvement in financial systems around the world, i.e., the ‘development’ view and the ‘political’ view. The development view as advocated by Gerschenkron (1962) states that governments can intervene through their financial institutions to direct savings of the people towards developmental sectors in countries where financial institutions are not adequately developed to channel resources into productive sectors. Gerschenkron’s view was part of a broader consensus in development economics that favored government ownership of enterprises in strategic economic sectors. Realizing this importance of financial sector in economic development, governments in developing countries sought to increase their ownership of banks and other financial institutions in the 1960s and 1970s, in order to direct credit towards priority sectors.

Contrary to this view, in recent years a new ‘political’ view of government ownership has evolved which asserts that state control of finance through banks and other institutions politicizes resource allocation for the sake of getting votes or bribes for office holders and thereby results in lower economic efficiency. Barth et al. (2001) using cross country data on commercial bank regulation and ownership from over 60 countries find that state ownership of banks is negatively associated with bank performance and overall financial sector development and does not reduce the likelihood of financial crises. Another study [La Porta et al. (2002)],

based on data of government owned banks from 92 countries around the world, finds that government ownership of banks is high in countries which are characterized by "low levels of per capita income, underdeveloped financial systems, interventionist and inefficient governments and poor protection of property rights". The study further finds evidence that government ownership of banks is associated with slower subsequent financial development, lower economic growth and especially lower growth of productivity.

Now we come to the question: how privatization can improve the performance of a state owned enterprise? Generally, the case for privatization of state owned enterprises can be grouped around three main themes, i.e., competition, political intervention and corporate governance. The competition argument states that privatization will improve the operation of the firm and the allocation of resources in the economy, if it results in greater competition. Privatization can improve efficiency even without changing market structure if it hinders interventions by politicians and bureaucrats who would like to use the SOEs to further their political or personal gains. It is also argued that corporate governance is weaker in state owned enterprises than in private firms because of agency problems. "SOEs have multiple objectives and many principals who have no clear responsibility of monitoring" [Clark et al. (2003)]. Another reason for SOEs to have poorer corporate governance is the weak incentive structure for managers to perform efficiently. They do not face a market for their skills or the threat of losing their jobs for non-performance. Thus, "less competition, greater political intervention and weaker corporate governance are strong theoretical arguments against state ownership" [Clark et al. (2003)].

Clarke et al. (2003) using a combination of country case studies and cross country analyses conclude that privatization of banks improves performance as compared to continued state ownership. However, continued state ownership even in minority shares of privatized banks is found to have negative effects on their performance. Privatization of state owned banks through public share offerings produces lower gains than direct sales to strategic investors in countries where the institutional environment is weak. Lastly, they find that the benefits accruing are reduced if foreign banks are not allowed to participate in the privatization process.

Otchere (2003) presents a comprehensive analysis of the pre and post privatization performance of privatized banks and their rival banks in low and middle-income countries. The author does not find any significant evidence of improvements in the privatized banks' post privatization performance. In fact, the privatized banks have a higher proportion of bad loans and appear to be overstaffed relative to their rivals, in the post privatization period. The continued government ownership of

privatized banks is found to be responsible for their underperformance, as it hinders managers' ability to restructure them effectively.

Using a comprehensive dataset of bank privatizations in 101 countries during the period 1982-2000, Boehmer et al. (2003) examine the economic and political factors that are likely to effect government's decision to privatize a state owned bank, in both developing and developed countries. Their findings indicate that in developing countries, a bank privatization is more likely the lower the quality of the country's banking sector, the more right wing the country's government is, and the more accountable the government is to its people.

3. Methodology

In this paper, we would attempt to investigate the effects of privatization/ liberalization on the performance of the banking sector in Pakistan, using the CAMELS framework of financial ratios. This framework involves the analyses of six groups of indicators relating to the soundness of any financial institution. These six measures of financial health include:

- Capital adequacy
- Asset quality
- Management soundness
- Earnings and profitability
- Liquidity
- Sensitivity to market risk

Capital Adequacy

This refers to the ability of the capital base of a financial institution to absorb unanticipated shocks. Capital adequacy of any financial institution is instrumental in the formation of risk perceptions about it amongst its stakeholders.

Asset Quality

This is an important parameter for any banking institution, as the quality of its assets has a major bearing on the earning ability of that institution. A deteriorating quality of assets is the prime source of banking problems. Asset quality is measured in relation to the level and severity of non-performing assets, recoveries and the level of provisioning.

Management Soundness

The management of a financial institution is measured against the performance of its financial indicators. In effect, management soundness is rated in terms of performance in capital adequacy, asset quality, earnings and profitability, liquidity and sensitivity to market risk.

Earnings and Profitability

Profits add to while losses result in erosion of the capital base of a banking institution. Earnings and profitability are usually measured in terms of returns obtained on assets or capital employed.

Liquidity

A liquid position of a financial institution refers to a situation where it can obtain sufficient funds, either by increasing liabilities or by converting its assets at a reasonable cost. Thus, it is evaluated in terms of overall asset and liability management, such that mismatches are minimized.

Sensitivity to Market Risk

Sensitivity to market risk refers to an institution's exposure to interest rate risk, exchange rate risk, equity price risk and country risk.

The banking sector in Pakistan has been divided into 4 categories for the purposes of this study. These categories include; public sector banks, privatized banks, domestic private banks and foreign banks. Public sector banks are those in which the government holds management control and/or the majority shareholding. Privatized banks include those nationalized banks which have been privatized/ denationalized, while domestic private banks comprise of new banks established in the private sector. Foreign owned banks operating in Pakistan are classified under the fourth category. The detailed list of banks included in each of these four categories is given in Appendix 1. Another category of specialized banks/ Development Finance Institutions (DFIs) has been excluded from this study, as these are specialized institutions set up by the government to finance certain priority sectors and they rely mainly on government funding and credit lines from donor agencies for their lending activities. The consolidated CAMELS ratios for all the above four categories of banks will be calculated as well as for the entire banking sector, which is the sum of all the four categories. Our analysis will be based on data of CAMELS ratios from 1990 to 2002. The data has been obtained

from the audited annual accounts of banks showing the end of calendar year position of each bank. The definitions of CAMELS ratios calculated for each group of indicators is given in Appendix 2.

4. Analysis

The detailed analysis based on each of the six groups of CAMELS indicators is presented in this section. The CAMELS ratios, between the period 1990-2002 are discussed separately for public sector banks, privatized banks, domestic private banks and foreign banks, while the results for the entire banking system are discussed subsequently.

Capital Adequacy

Public Sector Banks
The capital to liability ratio is used as a measure of capital adequacy in this study. It shows the extent to which the capital and reserves of a bank provide coverage to its liabilities (mainly to its depositors). As can be seen from Figure 1, this ratio has been declining since 1990, indicating erosion in the capital base of public sector banks. In 1997, this ratio became negative as two of the largest banks[3] in this sector made huge losses.[4] The subsequent recovery in this ratio can be explained by capital injection.[5] by State Bank of Pakistan and revaluation of fixed assets[6] in 1998 [State Bank of Pakistan (2000)]. It is only after 2000, that improvement in the capital to liability ratio relative to the pre-privatization level can be seen for the public sector banks. However, the State Bank had to provide capital support of another Rs. 8 billion to one of these banks in 2000 too prevent further erosion of its capital base (ibid).

Privatized Banks
This group of banks comprises mainly of two banks, i.e., the Allied Bank and Muslim Commercial Bank, with United Bank joining the group in 2002, the last year for which data is available. As the figures indicate, the capital to liability ratio for this group of banks is the lowest of all the four groups of banks analyzed here, reflecting the poor capitalization of these institutions (Figure 1). The ratio which had improved somewhat between 1998-99 took a plunge in 2000, when the capital base of these banks was reduced to just 1.3 percent of its liabilities due to the

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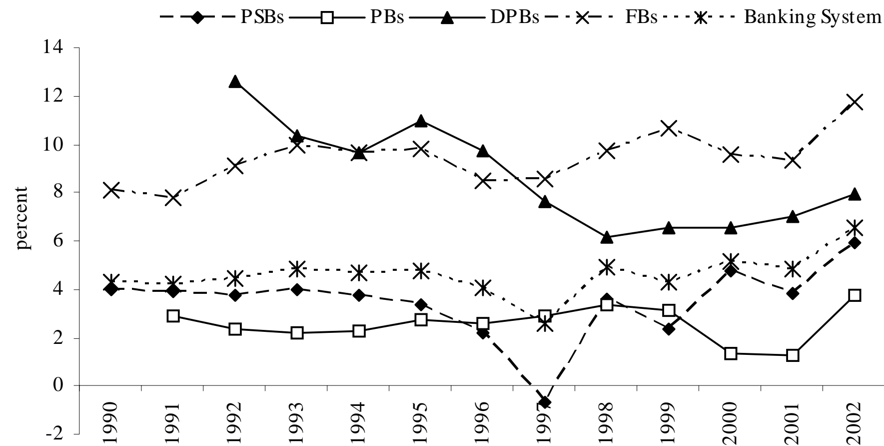
[3] The Habib Bank Ltd. and the United Bank Ltd.
[4] The after tax losses of these two banks amounted to Rs. 41.73 billion.
[5] Rs. 30.7 billion injected as equity in Habib Bank and United Bank by the State Bank.
[6] The revaluation of fixed assets added Rs. 13.7 billion to the balance sheets of these two banks.

Figure 1. Capital to Liability Ratio



Source: State Bank of Pakistan

heavy losses incurred by the Allied Bank in that year[7]. The capital adequacy of these banks improved considerably in 2002 when the well capitalized United Bank joined the ranks of the privatized banks, but the capital to liability ratio still remained below the average for the entire banking system.

Domestic Private Banks

The capital adequacy of the newly established banks in the private sector is seen to be substantially higher than that of the public sector banks and the privatized

Table 2. Indicators of Capital Adequacy

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Public Sector Banks													
Capital/ Liability	3.9	3.9	3.7	4.0	3.7	3.4	2.2	-0.6	3.6	2.4	4.8	3.9	5.9
Privatized Banks													
Capital/ Liability	-	2.9	2.3	2.2	2.2	2.7	2.6	2.9	3.4	3.2	1.3	1.3	3.8
Domestic Private Banks													
Capital/ Liability	-	-	12.6	10.3	9.6	11.0	9.7	7.6	6.1	6.5	6.5	7.0	7.9
Foreign Banks													
Capital/ Liability	8.1	7.8	9.1	10.0	9.6	9.8	8.5	8.6	9.7	10.7	9.6	9.3	11.8
Banking System													
Capital/ Liability	4.3	4.2	4.5	4.9	4.7	4.8	4.0	2.6	4.9	4.3	5.2	4.8	6.5

[7] These losses amounted to Rs.4.8 billion.

banks. In the early years of the operations of these banks, their level of capital adequacy is seen to be even better than that of the foreign banks. As the deposit base of these banks widened in subsequent years, their capital to liability ratio started declining from 12.6 percent in 1992 to less than half of that by 1998 at 6.1 percent. However, after 2000 this ratio began rising again reaching nearly 8 percent by 2002.

Foreign Banks
The capital to liability ratio of foreign banks is well above the level of the public sector and domestic private banks during the period under examination. At its minimum of 7.8 percent in 1990 (Figure 1), the ratio is still considerably higher than the maximum levels attained by the public sector and privatized private banks between 1990-2002.

Banking System
The capital adequacy of the entire banking system is seen to have improved marginally as a result of the liberalization and privatization process. The capital to liability ratio, however, deteriorated substantially in 1997 (Figure 1), when two of the biggest public sector banks made huge losses.

Asset Quality

Public Sector Banks
The asset quality of any financial institutions is an important determinant of its financial health namely its earning ability. The asset quality can be measured using indicators like earning assets to total assets and Non-performing loans to total advances (gross). The asset quality of public sector banks does not seem to have improved much during the period under review. A deterioration can be observed in the ratio of earning assets to total assets (Table 3) in the first wave of privatization in 1991, when MCB and Allied Bank were handed over to the private sector. Thereafter, some marginal improvement in asset quality, can be seen up to 1994, after which the ratio declines continuously hitting its lowest level in 1999, when only 68.6 percent of the total assets were earning as compared to 80 percent in 1990 prior to the initiation of the privatization process.

Another indicator of asset quality is ratio of non-performing loans to total loans. Public sector banks are seen to have an increasing trend in the ratio of NPLs to total advances (Table 3) during the nineties, indicating a decline in their asset quality. This can be mainly attributed to the increasing amount of loans provided by the public sector banks on political grounds, in the first half of the nineties. However, another factor responsible for the increasing quantum of non-

performing loans is the higher disclosure requirements prescribed by the State Bank in 1997, which forced banks to reveal the true picture of their stuck up loans. This resulted in a rise in the volume of NPLs. Towards the end of the 1990s, however, the ratio of NPLs to gross advances started declining after hitting a high of 32.4 percent in 1999.

Privatized Banks

The asset quality of the privatized banks as measured by the ratio of earning assets to total assets is seen to have improved during the period under review. The level of the ratio of earning assets to total assets for this group of banks has consistently been higher than that for the public sector banks, ranging from a low of 77.5 percent in 1996 to a high of 87.4 percent in 2002 (Table 3).

The ratio of NPLs to gross advances – another measure of asset quality, for privatized banks is seen to be lower than that for the public sector banks. However, the ratio shows a rising trend over the years due to the growing accumulation of non performing loans in the portfolio of the Allied Bank. NPLs as a proportion of gross advances for these banks reached 23.3 percent in 2002 when the United Bank with its large portfolio of non performing loans joined the ranks

Table 3. Indicators of Asset Quality

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Public Sector Banks													
Earning assets/ Total Assets	80.2	75.3	75.9	77.3	78.3	76.4	74.3	71.0	68.8	68.6	70.1	69.3	75.9
NPLs/ Gross Advances	18.1	21.6	20.0	23.6	28.3	27.1	27.2	32.0	30.2	32.4	26.3	25.9	25.5
Privatized Banks													
Earning assets/ Total Assets	-	78.4	81.9	79.8	79.2	79.3	77.5	81.0	79.4	77.1	83.1	82.2	87.4
NPLs/ Gross Advances	-	12.2	13.6	16.5	16.5	11.0	12.5	14.4	16.4	20.0	19.1	21.2	23.3
Domestic Private Banks													
Earning assets/ Total Assets	-	-	82.6	89.8	87.4	81.0	79.3	89.3	86.7	83.0	76.1	71.5	80.1
NPLs/ Gross Advances	-	-	20.6	10.9	7.6	5.9	5.9	6.3	9.8	13.3	11.0	11.1	7.6
Foreign Banks													
Earning assets/ Total Assets	77.2	76.7	80.0	77.1	76.1	72.9	74.4	74.4	73.7	64.4	76.6	67.8	75.2
NPLs/ Gross Advances	11.8	8.3	5.6	5.9	3.4	4.5	5.3	5.0	5.3	5.2	4.7	4.3	3.8
Banking System													
Earning assets/ Total Assets	80.0	75.9	77.6	78.3	78.7	76.8	75.3	75.4	73.5	71.1	74.1	71.4	79.6
NPLs/ Gross Advances	17.6	18.9	17.4	20.0	21.7	19.3	19.2	21.1	21.0	23.2	19.5	19.6	18.0

of the privatized banks.

Domestic Private Banks
The asset quality of the domestic private banks is observed to be much better than that of the public sector banks during the entire period of our analysis and the privatized banks during the nineties (Table 3). The ratio of earning assets to total assets show a high level of fluctuation during the period under study, with a low of 71.5 percent in 2001 and a high of 89.8 percent in 1997.

Looking at the ratio of non-performing loans to total advances, we again see that this ratio is considerably lower than that of public sector and privatized banks. The ratio shows a declining trend up to 1996 after which it starts rising again. This may be due to the fact that the domestic private banks were established only after 1990 and therefore, it would take some years to see the effects of their lending polices.

Foreign Banks
The ratio of earnings assets to total assets for the foreign banks remained stable at around 75 percent throughout most of the 1990s (Table 3). However, a decline can be observed in this ratio towards the end of 1990s. This is due to the fact that since more than 95 percent of investment of foreign banks was in government securities, a fall in the yield of these securities resulted in the sharp fall in the ratio of earning assets to total assets[8].

Looking at the ratio of non-performing loans to total advances for foreign banks, we see that this ratio remained stable at around 4 to 6 percent during most of the period. This ratio is considerably lower as compared to the banks in the other three categories, reflecting the much lower rates of default and higher rates of recovery of the foreign banks.

Banking System
The asset quality of the entire banking system as gauged by the ratio of earnings assets to total assets has not seen much improvement as the result of the privatization. In fact, this ratio has declined in the latter half of the nineties mainly due to the deterioration in the asset quality of the public sector banks (Table 5). It is only in 2002 that an improvement in this ratio is observe when earning assets reached nearly 80 percent of total assets – the level prevalent prior to the start of the privatization process in 1990.

[8] State Bank of Pakistan (2000)

Similarly, the ratio of non-performing loans to total loans increased during the 1990, reaching their highest level of 23.2 percent in 1999. It is only after 2000 that an improvement can be observed in this ratio.

Management Soundness

Public Sector Banks

The growth of any financial institution is heavily dependent on the soundness of its management. Unlike the other indicators in the CAMELS framework, the measurement of management soundness of any financial institution involves a higher degree of subjectivity and is therefore not easy to quantify. Nevertheless, the ratio of total expenses to total income and earnings per employee are generally employed to determine management soundness. The ratio of total expenses to total income for public sector banks increased significantly during the nineties (Table 4), showing the growing operating inefficiency in the management of these institutions. In 1990, before the start of the privatization process in the banking sector, total expenses of state owned banks were 95.5 percent of their total income, which had grown to well over 132 percent by 1997. This can be mainly attributed to an increase of Rs. 26.5 billion[9] in provisioning expenses against NPLs due to the enforcement of more stringent standards of classifying bad loans by the central bank, State Bank of Pakistan. By 2002, however, the total expenses had declined to around 84 percent of total income.

On the other hand, earnings per employee – another measure of management soundness shows a steadily rising trend during the period under review. From Rs. 0.4 million in 1990, they grew by nearly 5 times to Rs. 1.9 million by 2002. One possible explanation for this can be the substantial reduction in the workforce of three nationalized commercial banks as a result of voluntary separation scheme offered to their employees. Between 1997 and 1999, these banks were able to reduce their workforce from 99,954 to 81,079[10].

Privatized Banks

The management soundness of the privatized banks as seen by the ratio of total expenses to total income shows a mixed trend during the period of our study. The total expenses as a percentage of total income declined from 95 percent in 1991 to 92.3 percent by 1995 (Table 4) after which no definite trend can be observed. Total expenses as a proportion of total income reached their highest point in 2000

[9] State Bank of Pakistan (2000).
[10] Ibid.

Table 4. Indicators of Management Soundness

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Public Sector Banks													
Total Expenses/Total Income	95.5	94.0	90.8	90.1	92.8	94.6	108.0	132.4	103.7	104.0	95.3	99.8	83.6
Earnings per Employee (Rs. million)	0.4	0.4	0.5	0.6	0.7	0.8	0.7	1.1	1.4	1.4	1.6	1.8	1.9
Privatized Banks													
Total Expenses/Total Income	-	95.0	93.2	93.9	93.0	92.3	97.7	95.5	96.1	95.6	112.1	95.6	89.7
Earnings per Employee (Rs. million)	-	0.3	0.4	0.6	0.7	0.8	0.9	1.3	1.4	1.4	1.4	1.5	1.6
Domestic Private Banks													
Total Expenses/Total Income	-	-	66.6	62.8	66.5	74.1	74.4	81.5	90.0	87.1	89.1	86.4	80.1
Earnings per Employee (Rs. million)	-	-	0.6	1.7	1.8	2.2	2.5	3.1	3.4	3.1	3.1	3.4	3.5
Foreign Banks													
Total Expenses/ Total Income	70.0	56.5	53.6	69.4	76.3	83.8	80.4	81.1	88.5	86.9	87.7	86.0	73.0
Earnings per Employee	1.6	2.2	3.1	4.0	4.5	4.8	6.3	9.0	9.7	9.3	8.6	11.5	9.1
Banking System													
Total Expenses/ Total Income	93.0	89.2	84.6	85.7	87.9	90.4	96.3	106.8	97.1	96.8	95.7	94.3	82.8
Earnings per Employee (Rs. million)	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.7	1.9	1.9	2.0	2.3	2.3

when they represented 112.1 percent of total income. This can be attributed mainly to the mounting expenses of the loss making Allied Bank.

On the other hand, the earnings per employee, another indicator for measuring the management soundness of any financial institution, showed a steady increase during the period under consideration. From just Rs. 0.3 million per employee, earnings increased more than five times to Rs. 1.6 million per employee by 2002.

Domestic Private Banks

The ratio of total expenses to total income for these newly established banks in the private sector showed a rising trend during the 1990s with a decline afterwards (Table 4). Starting from just 66 percent in 1992, total expenses reached a peak of 90 percent of total income in 1998.

The earnings per employee increased steadily between 1992-98. From a mere Rs. 0.6 million in 1991, the earnings per employee had grown nearly 6 times to Rs. 3.5 million by 2002 (Table 4), showing higher operating efficiency as compared to the public sector banks and the privatized banks.

Foreign Banks

The management of foreign banks is seen to be sounder than that of the other three groups of banks examined, as can be seen by the lower level of expenses to income ratio of these banks (Table 4). The sharp increase in this ratio observed in 1998 can be attributed to the freezing of the foreign currency accounts in 1998.

The earnings per employee of foreign banks are at a much higher level in comparison to the previous three categories of banks (Table 4), reflecting the lean organizational structure adopted by these institutions in their Pakistani operations.

Banking System

The banking industry as a whole has seen some improvement in the indicators of management soundness in the early part of the nineties as the expenses to income ratio declined (Table 4). However, after 1995 a sharp increase in this ratio can be observed due primarily to the mounting expenses of some loss making government owned banks. By 2002, a definite improvement in this ratio can be discerned.

Earnings and Profitability

Public Sector Banks

For any financial institution to viable in the long term, it has to be profitable. Earnings add to the capital base while losses result in the erosion of capital base. The most commonly used indicators for assessing profitability of a financial institution are the Return on Assets (ROA) and Return on Equity (ROE). Looking at the figures for the public sector banks (Table 5) we see an increase in ROA in the early part of the nineties after which their profitability deteriorated substantially. The increasing quantum of non-performing loans along with increased provisioning requirements and a decline in the proportion of earning assets affected the income generating capability of these banks[11]. While on the expenditure side, the rising share of borrowing caused expenses to increase faster than income[12] leading to reduced profitability.

Return on Equity reflecting the yield on holding bank's capital showed mostly a declining trend for the state owned banks. Moreover, this ratio became negative in 1996 improving only after fresh capital was injected in two of the loss making nationalized banks.

[11] State Bank of Pakistan (2000).
[12] Ibid

Table 5. Indicators of Earnings and Profitability

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Public Sector Banks													
Net profit/ Total Assets (ROA)	0.4	0.5	0.6	0.8	0.3	0.2	-0.5	-5.9	-0.9	0.0	0.2	-0.5	0.5
Net profit/ Total Equity (ROE)	10.5	14.6	16.0	20.6	7.0	4.7	-21.1	920.3	-27.4	1.9	4.3	-13.2	9.7
Privatized Banks													
Net profit/ Total Assets (ROA)	-	0.1	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.2	-1.5	0.0	0.4
Net profit/ Total Equity (ROE)	-	4.8	11.2	9.0	10.7	11.0	3.5	4.0	5.3	7.1	-113.4	-0.4	10.8
Domestic Private Banks													
Net profit/ Total Assets (ROA)	-	-	0.7	1.9	1.5	1.4	1.5	1.1	0.2	0.6	0.3	0.7	0.9
Net profit/ Total Equity (ROE)	-	-	6.3	19.9	17.2	14.4	16.5	16.2	3.5	10.4	4.6	11.3	11.9
Foreign Banks													
Net profit/ Total Assets (ROA)	0.8	1.9	2.6	1.2	0.8	0.4	1.0	1.2	0.4	0.6	0.4	0.8	1.5
Net profit/ Total Equity (ROE)	11.1	26.9	31.0	13.5	8.7	4.9	12.8	15.8	4.7	6.5	4.9	9.3	14.1
Banking System													
Net profit/ Total Assets (ROA)	0.4	0.6	0.8	0.8	0.4	0.3	0.1	-2.7	-0.4	0.2	0.0	0.0	0.7
Net profit/ Total Equity (ROE)	10.6	15.8	18.2	17.7	9.1	7.2	2.1	-107.5	-8.3	5.9	-0.6	0.0	11.4

Privatized Banks

The return on assets of the privatized/denationalized banks is seen to be the lowest of all the 4 groups of banks examined here. It ranges from a low of minus 1.5 percent in 2000 to a high of 0.4 percent in 2002. This can again be attributed to the poor performance of the Allied Bank in this area. The profitability of this bank started declining after 1995 and became negative in 2000 due to the large losses of over Rs. 4 billion made that year, which offset the profits made by the other bank in the group – the Muslim Commercial Bank. However, the profitability of these banks started improving by 2002.

Looking at the return on equity for this group, a similar pattern is seen to emerge. The return on equity increased from 4.8 percent in 1991 to 11 percent in 1995 after which it suffered fluctuations becoming negative during 2000-2001.

Domestic Private Banks

For the newly established private sector banks, the return on assets shows improvement during the first half of the nineties (Table 5). Afterwards, the ratio

started declining due to a drop in earning assets to total assets. The return on assets and return on equity for this group of banks, however, remained above those for the public sector banks and the privatized banks during the most of the years between 1990-2002.

Foreign Banks
The profitability of foreign banks was much stronger during most of the nineties. However, a sharp fall in the ROA can be seen in 1998 when the foreign currency accounts were frozen, which were the mainstay of foreign banks.

Banking System
The profitability of the entire banking system recorded improvement only for a few years in the early nineties (Table 5). The ROA started deteriorating from the mid 1990s all the way towards the end of the decade. A revival in the profitability can be seen in 2002.

Liquidity and Sensitivity to Market Risk

Public Sector Banks
The liquidity risk posed to any financial institution can be assessed using the loans to deposit ratio. A rising loans to deposit ratio indicates liquidity problems for a bank. In case of the public sector banks this ratio shows a declining trend throughout most of the period under consideration (Table 6).

Interest rate risk is another very important risk likely to impact the assets and liabilities of a financial institution. This risk is measured using the gap between rate sensitive assets and rate sensitive liabilities. For public sector banks, the gap

Table 6. Indicators of Liquidity

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Public Sector Banks													
Loans/ Deposits	61.0	54.0	48.9	55.6	50.6	51.9	50.8	48.4	46.5	50.8	54.0	53.8	44.3
Privatized Banks													
Loans/ Deposits	-	54.7	49.4	48.8	50.0	53.5	53.8	53.6	52.7	54.9	65.8	57.3	52.4
Domestic Private Banks													
Loans/ Deposits	-	-	54.7	53.6	59.3	68.4	62.7	61.6	63.7	67.6	70.0	58.6	53.2
Foreign Banks													
Loans/ Deposits	69.5	57.5	50.6	54.3	56.6	57.5	50.6	54.3	56.6	68.2	71.5	66.8	71.5
Banking System													
Loans/ Deposits	61.6	54.9	49.6	54.2	52.4	54.1	52.2	51.8	51.2	55.9	60.5	56.9	51.2

is found to be negative and rising between 1990-2002, indicating that interest rate changes are more likely to affect them negatively.

Privatized Banks
The loans to deposit ratio for the privatized banks is seen to be at a similar level as that of the public sector banks (Table 6). However, the ratio shows a rising trend during the years as the loans advanced by these banks increased relative to their deposits, the loans to deposit ratio peaked at 6.8 percent in 2000.

The gap between the rate sensitive assets and rate sensitive liabilities measuring the susceptibility to interest rate risk is found to be negative and rising over the years for this group of banks.

Domestic Private Banks
The ratio of loans to deposits for the domestic private banks shows an increasing trend up to the year 2000 after which a decline in the ratio is witnessed (Table 6).

As far as interest rate risk is concerned, this group of banks was the least exposed to adverse movements in the interest rates, as compared to the other 3 categories of banks. The gap between the rate sensitive assets and rate sensitive liabilities for these banks was positive all the way up to 1997 after which it became negative (Table 7). However, the magnitude of the negative gap is the smallest of all the 4 categories of banks examined here.

Foreign Banks
In case of the foreign banks whose deposits mainly consisted of FCAs, the freezing of the FCAs in 1998 adversely affected their liquidity position. The loans

Table 7.Indicators of Sensitivity to Market Risk

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Public Sector Banks													
Gap = RSA - RSL	-37.6	-53.8	-59.4	-56.9	-72.2	-86.6	-111.2	-136.0	-152.6	-174.8	-167.7	-190.8	-106.6
Privatized Banks													
Gap = RSA - RSL	-	-8.3	-9.5	-13.7	-16.1	-20.0	-26.7	-22.3	-24.4	-34.6	-23.3	-26.9	-12.4
Domestic Private Banks													
Gap = RSA - RSL	-	0.3	1.2	4.6	3.5	1.7	-2.2	2.6	-5.1	-11.1	-33.9	-51.3	-32.9
Foreign Banks													
Gap = RSA - RSL	-2.4	-5.3	-4.9	-8.9	-13.4	-19.9	-29.5	-34.2	-34.9	-54.9	-27.9	-64.2	-26.1
Banking System													
Gap = RSA - RSL	-40.0	-67.1	-72.6	-74.9	-98.2	-124.8	-169.6	-189.9	-217.0	-275.5	-252.8	-333.3	-178.0

to deposit ratio increased substantially after 1998 (Table 6). Foreign banks were also exposed to greater interest rate risk as seen by the increasing gap of RSAs and RSLs (Table 7).

Banking System
Overall, the entire banking system saw a marginal improvement in terms of liquidity risk with a declining loan to deposit ratio throughout most of the period under review (Table 6). A negative and rising gap between the RSA and RSL during most of the period under study shows a higher exposure of the banking system as a whole to interest rate risk.

5. Conclusion

This study was an attempt to investigate the effects of privatization and liberalization on the performance of the banking sector in Pakistan, employing the CAMELS framework of financial indicators between the periods 1990-2002. The results obtained show little evidence of improvement in most of the indicators of financial health as a result of the privatization and liberalization policies pursued so far in the banking sector of the country. In particular, the performance of the privatized banks has been less than satisfactory due mainly to the poor showing of the Allied Bank, the ownership of which was transferred to its employees group. However, a marked improvement in a majority of the CAMELS indicators for the entire banking sector as well as for all the 4 groups of banks is seen during the last year of observation, i.e., 2002. This would suggest that the benefits of privatization in the form of improved performance indicators are likely to emerge over a longer period of time. Furthermore, by the end of 2002 – the cut off date in this study, the privatization in the banking sector was still an ongoing process and had not reached its conclusion. Therefore, the results of this study need to be interpreted with some caution.

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Appendix 1. Group-wise Composition of Banks (as on December 31)

1990	1991	1992	1993
Public Sector Banks			
Allied Bank Ltd	Bank of Punjab	Bank of Khyber	Bank of Khyber
Bank of Punjab	First Women Bank	Bank of Punjab	Bank of Punjab
First Women Bank	Habib Bank Ltd	First Women Bank	First Women Bank
Habib Bank Ltd	National Bank Limited	Habib Bank Ltd	Habib Bank Ltd
Muslim Commercial Bank	United Bank Ltd	National Bank Limited	National Bank Limited
National Bank Limited		United Bank Ltd	United Bank Ltd
United Bank Ltd			
Privatized Banks			
	Allied Bank Ltd	Allied Bank Ltd	Allied Bank Ltd
	Muslim Commercial Bank	Muslim Commercial Bank	Muslim Commercial Bank
Domestic Private Banks			
	Bank Al-Habib Ltd[a]	Askari Commercial Bank	Askari Commercial Bank
		Bank Alfalah Ltd	Bank Alfalah Ltd
		Bank Al-Habib Ltd	Bank Al-Habib Ltd
		Bolan Bank	Bolan Bank
		Metropolitan Bank	Metropolitan Bank
		Prime Commercial Bank	Prime Commercial Bank
		Soneri Bank	Soneri Bank
		Union Bank Ltd	Union Bank Ltd
Foreign Banks			
ABN Amro Bank	ABN Amro Bank	ABN Amro Bank	ABN Amro Bank
American Express Bank	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.
ANZ Grindlays	American Express Bank	American Express Bank	American Express Bank
Citi Bank N.A.	ANZ Grindlays	ANZ Grindlays	ANZ Grindlays
Credit Agricole Indosuez	Citi Bank N.A.	Citi Bank N.A.	Citi Bank N.A.
Deutsche Bank AG.	Credit Agricole Indosuez	Credit Agricole Indosuez	Credit Agricole Indosuez
Doha Bank	Deutsche Bank AG.	Deutsche Bank AG.	Deutsche Bank AG.
Emirates Bank	Doha Bank	Doha Bank	Doha Bank
Habib Bank AG Zurich	Emirates Bank	Emirates Bank	Emirates Bank
HSBC	Habib Bank AG Zurich	Habib Bank AG Zurich	Habib Bank AG Zurich
IFIC Bank	HSBC	HSBC	HSBC
Mashreq Bank Psc	IFIC Bank	IFIC Bank	IFIC Bank
Rupali Bank Ltd.	Mashreq Bank Psc	Mashreq Bank Psc	Mashreq Bank Psc
Standard Chartered Bank	Rupali Bank Ltd.	Rupali Bank Ltd.	Rupali Bank Ltd.
The Bank Of Tokyo	Societe Generale	Societe Generale	Societe Generale
	Standard Chartered Bank	Standard Chartered Bank	Standard Chartered Bank
	The Bank Of Tokyo	The Bank Of Tokyo	The Bank Of Tokyo

[a] This was the only private domestic bank which had begun its operations in 1991. However, as complete data on all the activities of the bnak was not available, it has been excluded from the calculation of the aggregate CAMELS ratios for this group of banks for CY91.

Cont…

1994	1995	1996	1997
Public Sector Banks			
Bank of Khyber	Bank of Khyber	Bank of Khyber	Bank of Khyber
Bank of Punjab	Bank of Punjab	Bank of Punjab	Bank of Punjab
First Women Bank	First Women Bank	First Women Bank	First Women Bank
Habib Bank Ltd	Habib Bank Ltd	Habib Bank Ltd	Habib Bank Ltd
National Bank Limited	National Bank Limited	National Bank Limited	National Bank Ltd
United Bank Ltd	United Bank Ltd	United Bank Ltd	United Bank Ltd
Privatized Banks			
Allied Bank Ltd	Allied Bank Ltd	Allied Bank Ltd	Allied Bank Ltd
Muslim Commercial Bank	Muslim Commercial Bank	Muslim Commercial Bank	Muslim Commercial Bank
Domestic Private Banks			
Askari Commercial Bank	Askari Commercial Bank	Askari Commercial Bank	Askari Commercial Bank
Bank Alfalah Ltd	Bank Alfalah Ltd	Bank Alfalah Ltd	Bank Alfalah Ltd
Bank Al-Habib Ltd	Bank Al-Habib Ltd	Bank Al-Habib Ltd	Bank Al-Habib Ltd
Bolan Bank	Bolan Bank	Bolan Bank	Bolan Bank
Gulf Commercial Bank	Faysal Bank Ltd	Faysal Bank Ltd	Faysal Bank Ltd
Metropolitan Bank	Gulf Commercial Bank	Gulf Commercial Bank	Gulf Commercial Bank
Prime Commercial Bank	Metropolitan Bank	Metropolitan Bank	Metropolitan Bank
Soneri Bank	Platinum Commercial Bank	Platinum Commercial Bank	Platinum Commercial Bank
Union Bank Ltd	Prime Commercial Bank	Prime Commercial Bank	Prime Commercial Bank
	Prudential Commercial Bank	Prudential Commercial Bank	Prudential Commercial Bank
	Soneri Bank	Soneri Bank	Soneri Bank
	Union Bank Ltd	Union Bank Ltd	Union Bank Ltd
Foreign Banks			
ABN Amro Bank	ABN Amro Bank	ABN Amro Bank	ABN Amro Bank
Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.
American Express Bank	American Express Bank	American Express Bank	American Express Bank
ANZ Grindlays	ANZ Grindlays	ANZ Grindlays	ANZ Grindlays
Citi Bank N.A.	Bank of Ceylon	Bank of Ceylon	Bank of Ceylon
Credit Agricole Indosuez	Citi Bank N.A.	Citi Bank N.A.	Citi Bank N.A.
Deutsche Bank AG.	Credit Agricole Indosuez	Credit Agricole Indosuez	Credit Agricole Indosuez
Doha Bank	Deutsche Bank AG.	Deutsche Bank AG.	Deutsche Bank AG.
Emirates Bank	Doha Bank	Doha Bank	Doha Bank
Habib Bank AG Zurich	Emirates Bank	Emirates Bank	Emirates Bank
HSBC	Habib Bank AG Zurich	Habib Bank AG Zurich	Habib Bank AG Zurich
IFIC Bank	HSBC	HSBC	HSBC
Mashreq Bank Psc	IFIC Bank	IFIC Bank	IFIC Bank
Rupali Bank Ltd.	Mashreq Bank Psc	Mashreq Bank Psc	Mashreq Bank Psc
Societe Generale	Rupali Bank Ltd.	Oman International Bank	Oman International Bank
Standard Chartered Bank	Societe Generale	Rupali Bank Ltd.	Rupali Bank Ltd.
The Bank Of Tokyo	Standard Chartered Bank	Societe Generale	Societe Generale
	The Bank Of Tokyo	Standard Chartered Bank	Standard Chartered Bank
		The Bank Of Tokyo	The Bank Of Tokyo

Cont…

1998	1999	2000	2001	2002
Public Sector Banks				
Bank of Khyber	Bank of Khyber	Bank of Khyber	Bank of Khyber	Bank of Khyber
Bank of Punjab	Bank of Punjab	Bank of Punjab	Bank of Punjab	Bank of Punjab
First Women Bank	First Women Bank	First Women Bank	First Women Bank	First Women Bank
Habib Bank Ltd	Habib Bank Ltd	Habib Bank Ltd	Habib Bank Ltd	Habib Bank Ltd
National Bank Ltd	National Bank Ltd	National Bank Ltd	National Bank Ltd	National Bank Ltd
United Bank Ltd	United Bank Ltd	United Bank Ltd	United Bank Ltd	
Privatized Banks				
Allied Bank Ltd	Allied Bank Ltd	Allied Bank Ltd	Allied Bank Ltd	Allied Bank Ltd
Muslim Commercial Bank	Muslim Commercial Bank	Muslim Commercial Bank	Muslim Commercial Bank	Muslim Commercial Bank
				United Bank Ltd
Domestic Private Banks				
Allied Bank Ltd	Askari Commercial Bank	Askari Commercial Bank	Askari Commercial Bank	Askari Commercial Bank
Askari Commercial Bank	Bank Alfalah Ltd	Bank Alfalah Ltd	Bank Alfalah Ltd	Bank Alfalah Ltd
Bank Alfalah Ltd	Bank Al-Habib Ltd	Bank Al-Habib Ltd	Bank Al-Habib Ltd	Bank Al-Habib Ltd
Bank Al-Habib Ltd	Bolan Bank	Bolan Bank	Bolan Bank	Bolan Bank
Bolan Bank	Faysal Bank Ltd	Faysal Bank Ltd	Faysal Bank Ltd	Faysal Bank Ltd
Faysal Bank Ltd	Gulf Commercial Bank	Gulf Commercial Bank	Gulf Commercial Bank	Gulf Commercial Bank
Gulf Commercial Bank	Metropolitan Bank	Metropolitan Bank	Metropolitan Bank	KASB Bank Ltd
Metropolitan Bank	Platinum Commercial Bank	Platinum Commercial Bank	Platinum Commercial Bank	Meezan Bank
Muslim Commercial Bank	Prime Commercial Bank	Prime Commercial Bank	Prime Commercial Bank	Metropolitan Bank
Platinum Commercial Bank	Prudential Commercial Bank	Prudential Commercial Bank	Prudential Commercial Bank	PICIC Commercial Bank Ltd.
Prime Commercial Bank	Soneri Bank	Soneri Bank	Soneri Bank	Prime Commercial Bank
Prudential Commercial Bank	Union Bank Ltd	Union Bank Ltd	Union Bank Ltd	Saudi Pak Commercial Bank Ltd.
Soneri Bank				Soneri Bank
Union Bank Ltd				Union Bank Ltd
Foreign Banks				
ABN Amro Bank	ABN Amro Bank	ABN Amro Bank	ABN Amro Bank	ABN Amro Bank
Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.	Al Barka Islamic Bank Ltd.
American Express Bank	American Express Bank	American Express Bank	American Express Bank	American Express Bank
ANZ Grindlays	ANZ Grindlays	ANZ Grindlays	Bank of Ceylon	Bank of Ceylon
Bank of Ceylon	Bank of Ceylon	Bank of Ceylon	Citi Bank N.A.	Citi Bank N.A.
Citi Bank N.A.	Citi Bank N.A.	Citi Bank N.A.	Credit Agricole Indosuez	Credit Agricole Indosuez
				Cont…

Foreign Banks ….*Contd*				
1998	**1999**	**2000**	**2001**	**2002**
Credit Agricole Indosuez	Credit Agricole Indosuez	Credit Agricole Indosuez	Deutsche Bank AG.	Deutsche Bank AG.
Deutsche Bank AG.	Deutsche Bank AG.	Deutsche Bank AG.	Doha Bank	Doha Bank
Doha Bank	Doha Bank	Doha Bank	Emirates Bank	Habib Bank AG Zurich
Emirates Bank	Emirates Bank	Emirates Bank	Habib Bank AG Zurich	HSBC Ltd
Habib Bank AG Zurich	Habib Bank AG Zurich	Habib Bank AG Zurich	HSBC Ltd	IFIC Bank
HSBC	HSBC	HSBC	IFIC Bank	Mashreq Bank Psc
IFIC Bank	IFIC Bank	IFIC Bank	Mashreq Bank Psc	Oman International Bank
Mashreq Bank Psc	Mashreq Bank Psc	Mashreq Bank Psc	Oman International Bank	Rupali Bank Ltd.
Oman International Bank	Oman International Bank	Oman International Bank	Rupali Bank Ltd.	Standard Chartered Bank
Rupali Bank Ltd.	Rupali Bank Ltd.	Rupali Bank Ltd.	Societe Generale	The Bank Of Tokyo
Societe Generale	Societe Generale	Societe Generale	Standard Chartered Bank	
Standard Chartered Bank	Standard Chartered Bank	Standard Chartered Bank	Standard Chartered Grindlays Bank	
The Bank Of Tokyo	The Bank Of Tokyo	The Bank Of Tokyo	The Bank Of Tokyo	

Appendix 2. Definition of CAMELS Ratios

Measures	**Ratios**	**Calculation**
Capital Adequacy	Capital to Liability	Total Capital/ Total Liabilities
Asset Quality	Earning Assets to Total Assets	(Net advances + Net investments + Money at call)/ Total Assets
	NPLs to Gross advances	Total NPLs/ Total Loans (gross)
Management Soundness	Total Expenses to Total Income	Total Expenses/ Total Income
	Earnings per Employee	Total Income/ Total No. of Employees
Earnings and Profitability	Return on Assets	Net Profit/ Total Assets
	Return on Equity	Net Profit/ Total Equity
Liquidity and Sensitivity to Market Risk	Loans to Deposits	Total Loans/ Total Deposits
	Gap = RSA - RSL	(Net advances + Net investments + Money at call) - (Deposits + Borrowings)