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**IS INDIA'S BANKING SECTOR REFORM SUCCESSFUL?
-FROM THE PERSPECTIVE OF THE GOVERNANCE
OF THE BANKING SYSTEM-**

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**Is India's Banking Sector Reform Successful?
-From the Perspective of the Governance of the Banking System-**

November 23, 2001

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Abstract

Since financial reforms were launched in 1991, there have been several favorable changes in India's highly regulated and repressed banking sector. This paper assesses the results by examining (1) whether India's gradual approach to the privatization of dominant public sector banks has been successful, (2) what factors have contributed to improving the performance of the banking sector, and (3) whether foreign and private domestic banks perform differently from public sector banks. This paper shows that public sector banks have become more profitable and cost-efficient in the reform period; while diversification into nontraditional activities has improved the performance of the banking sector as a whole, investment in government securities has had the opposite effect; and foreign and private domestic banks performed better than public sector banks initially, but their differences have diminished over time.

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1. Introduction

Strengthening financial systems has been one of the central issues facing emerging markets and developing economies. This is because sound financial systems serve as an important channel for achieving economic growth through the mobilization of financial savings, putting them to productive use, and transforming various risks (Beck, Levin and Loayza [1999], King and Levin [1993]), Rajan and Zingales [1998], Demirgüç-Kunt and Maksimovic [1998]), Jayaratne and Strahan [1996]). In this context, many countries adopted a series of financial sector liberalization measures in the late 1980s and early 1990s, which included interest rate liberalization, entry deregulations, reduction of reserve requirements, and removal of credit allocation. In many cases, the timing of financial sector liberalization coincided with that of capital account liberalization; domestic banks were given access to cheap loans from abroad and allocated those resources to domestic production sectors.

Since the Asian financial crisis of 1997-1999, the importance of balancing financial liberalization with adequate regulation and supervision prior to full capital account liberalization has been increasingly recognized. The crisis was preceded by massive, unhedged, short-term capital inflows, which then aggravated double mismatches (a currency mismatch coupled with a maturity mismatch) and undermined the soundness of the domestic financial sector. A maturity mismatch is generally inherent in the banking sector, since commercial banks accept short-term deposits and convert them into relatively longer-term, often illiquid, assets. Nevertheless, massive, predominantly short-term capital inflows—largely in the form of inter-bank loans—shortened banks' liabilities, thus expanding the maturity mismatch. Further, a currency mismatch was aggravated, since massive capital inflows denominated in foreign currency were converted into domestic currency in order to finance the cyclical upturn of domestic investment in manufacturing equipment, real estate, and stocks (Asian Policy Forum and [2000] and Yoshitomi and Shirai [2000]).

In other words, many share the view that the proper sequencing of financial sector and capital account liberalization is one of the most important policies in preventing another Asian-type “capital account” crisis. It is now widely accepted that capital account liberalization should follow current account and domestic financial sector liberalization (Mckinnon [1973]). This sequence issue is even more important for countries such as the People's Republic of China and India, which have not yet launched full capital account convertibility and where public sector banks still remain dominant. In such countries, financial sector liberalization comes against more politically difficult issues than those that have already opened up their capital account to a substantial degree, since they have to first restructure predominant public sector banks.

This paper focuses on India's banking sector, which has been attracting increasing attention since 1991, when a financial reform program was launched. It assesses whether the reform program has been successful so far in restructuring public sector banks and if so, what elements of the program have contributed. This paper tackles the following fundamental questions. In what way has the reform program affected the behavior of public sector banks? To what extent have foreign and new domestic banks contributed to the performance of the whole banking sector? Has India's gradual approach to the privatization of banks been successful? What policy implications can we derive from India's experience?

II. Main Issues and Hypothesis

India's Pre-Reform Period and Financial Reform

Since 1991, India has been engaging in banking sector reforms, which aimed to increase the profitability and efficiency of the then 27 public sector banks that controlled about 90% of all deposits, assets, and credit. The reforms were initiated in the middle of a “current account” crisis that occurred in early 1991. The crisis was caused by poor macroeconomic performance, characterized by a public deficit of 10% of gross domestic product (GDP), a current account deficit of 3% of GDP, inflation rate of 10%, and growing domestic and foreign debt, and was triggered by a temporary oil price boom following the Iraqi invasion of Kuwait in 1990.

Prior to the reforms, India's financial sector had long been characterized as highly regulated and financially repressed. The prevalence of reserve requirements, interest rate controls, and allocation of financial resources to priority sectors increased the degree of financial repression and adversely affected the country's financial resource mobilization and allocation. After Independence in 1947, the Government took the view that loans extended by colonial banks were biased toward working capital for trade and large firms (Joshi and Little [1996]). Moreover, it was perceived that banks should be utilized to assist India's planned development strategy by mobilizing financial resources to strategically important sectors.

Reflecting these views, all large private banks were nationalized in two stages: the first in 1969 and the second in 1980. Subsequently, quantitative loan targets were imposed on these banks to expand their networks in rural areas and they were directed to extend credit to priority sectors. These nationalized banks were then increasingly used to finance fiscal deficits. Although non-nationalized private banks and foreign banks were allowed to coexist with public sector banks at that time, their activities were highly restricted through entry regulations and strict branch licensing policies. Thus, their activities remained negligible.

In the period 1969-1991, the number of banks increased slightly, but savings were successfully mobilized in part because relatively low inflation kept negative real interest rates at a mild level and in part because the number of branches was encouraged to expand rapidly. Nevertheless, many banks remained unprofitable, inefficient, and unsound owing to their poor lending strategy and lack of internal risk management under government ownership. Joshi and Little (1996) have reported that the average return on assets in the second half of the 1980s was only about 0.15%, while capital and reserves averaged about 1.5% of assets. Given that global accounting standards were not applied, even these indicators are likely to have exaggerated banks' true performance. Further, in 1992/93, non-performing assets (NPAs) of 27 public sector banks amounted to 24% of total credit, only 15 public sector banks achieved a net profit, and half of the public sector banks faced negative net worth.

Major factors that contributed to deteriorating bank performance included (1) too stringent regulatory requirements (i.e., a cash reserve requirement [CRR]¹ and statutory

¹ The CRR requires banks to hold a certain portion of deposits in the form of cash balances with the Reserve Bank of India. In the 1960s and 1970s, the CRR was 5% , but then rose steadily to its legal upper limit of 15% in early 1991. The SLR requires banks to hold a certain amount of deposits in the form of government and other approved securities. The SLR was 25% in 1970 and then increased to 38.5% in 1991—nearly to the level of its

liquidity requirement [SLR] that required banks to hold a certain amount of government and eligible securities); (2) low interest rates charged on government bonds (as compared with those on commercial advances); (3) directed and concessional lending; (4) administered interest rates; and (5) lack of competition. These factors not only reduced banks' incentives to operate properly, but also undermined regulators' incentives to prevent banks from taking risks via incentive-compatible prudential regulations and protect depositors with a well-designed deposit insurance system. While government involvement in the financial sector can be justified at the initial stage of economic development, the prolonged presence of excessively large public sector banks often results in inefficient resource allocation and concentration of power in a few banks. Further, once entry deregulation takes place, it will put newly established private banks as well as foreign banks in an extremely disadvantageous position.

Against this background, the first wave of financial liberalization took place in the second half of the 1980s, mainly taking the form of interest rate deregulation. Prior to this period, almost all interest rates were administered and influenced by budgetary concerns and the degree of concessionality of directed loans. To preserve some profitability, interest rate margins were kept sufficiently large by keeping deposit rates low and non-concessional lending rates high. Based on the 1985 report of the Chakravarty Committee, coupon rates on government bonds were gradually increased to reflect demand and supply conditions.

Following the 1991 report of the Narasimham Committee, more comprehensive reforms took place that same year. The reforms consisted of (1) a shift of banking sector supervision from intrusive micro-level intervention over credit decisions toward prudential regulations and supervision, (2) a reduction of the CRR and SLR, (3) interest rate and entry deregulation, and (4) adoption of prudential norms.² Further, in 1992, the Reserve Bank of India (RBI) issued guidelines for income recognition, asset classification and provisioning, and also adopted Basle Accord capital adequacy standards. The Government also established the Board of Financial Supervision in the RBI and recapitalized public sector banks in order to give banks sufficient financial strength and enable them to gain access to the capital markets. In 1993, the RBI permitted private entry into the banking sector, provided that new banks are well capitalized and technologically advanced, and at the same time prohibited cross-holding practices with industrial groups. The RBI also imposed some restrictions on new banks with respect to opening branches, with a view to maintaining the franchise value of existing banks.

As a result of the reforms, the number of banks increased rapidly. In 1991, there were 27 public sector banks and 26 domestic private banks with 60,000 branches, 24 foreign banks with 140 branches, and 20 foreign banks with a representative office.³ Between January 1993 and March 1998, 24 new private banks (nine domestic and 15 foreign) entered the market; the total number of scheduled commercial banks, excluding specialized banks such as the Regional Rural Banks rose from 75 in 1991-1992 to 99 in 1997-1998. Entry deregulation was accompanied by progressive deregulation of interest rates on deposits and advances.

legal upper limit of 40%. With respect to direct lending, the priority sector target of 33% of total advances was introduced in 1974, and the ratio was gradually raised to 40% in 1985. There were sub-targets for agriculture, small farmers, and disadvantaged sections.

² In 1998, the Narasimham Committee II recommended a convergence of developing financing institutions with commercial banks or nonbank financial institutions and an adoption of the integrated system of regulation and supervision, etc.

³ Representative offices may not be allowed to hold deposits or extend credit. Their main business is to develop business contacts between local firms and their head offices, and collect local information for their head offices.

From October 1994, interest rates were deregulated in a phased manner and by October 1997, banks were allowed to set interest rates on all term deposits of maturity of more than 30 days and on all advances exceeding Rs200,000. While the CRR and SLR, interest rate policy, and prudential norms have always been applied uniformly to all commercial banks, the RBI treated foreign banks differently with respect to the regulation that requires a portion of credit allocated to priority sectors. In 1993, foreign banks—which used to be exempted from this requirement while all other commercial banks were required to earmark 40% of credit—were required to allocate 32% of credit to priority sectors.

Drastic versus Gradual Privatization Approach

While India's financial reforms have been comprehensive and in line with global trends, one unique feature is that, unlike with other former planned economies such as Hungary, Poland, and Russia, the Indian Government did not engage in a drastic privatization of public sector banks. Rather, it chose a gradual approach toward restructuring these banks by enhancing competition through entry deregulation of foreign and domestic banks. This reflects the view of the Narasimham Committee that ensuring integrity and autonomy of public sector banks is the more relevant issue and that they could improve profitability and efficiency without changing their ownership if competition is enhanced.

Since this approach was introduced, some criticisms have been expressed (Joshi and Little [1996]). First, public sector banks continue to be dominant thanks to their better branch coverage, customer base, and knowledge of the market compared with newcomers. Second, public sector banks would find it more difficult to reduce personnel expenditure because of the strong trade unions. Third, the Government would find it difficult to accept genuine competition within public sector banks. In response to these concerns, the Government decided to gradually expand private sector equity holdings in public sector banks, but still avoided the transformation of their ownership. The 1994 amendment of the Banking Act allowed banks to raise private equity up to 49% of paid-up capital. Consequently, public sector banks, which used to be fully owned by the Government prior to the reform, were now allowed to increase non-government ownership. So far, only eight public sector banks out of 27 have diversified ownership.

Meanwhile, a consensus is emerging that state ownership of banks is bad for financial sector development and growth (World Bank [2001]). Based on data of the 10 largest commercial and development banks in 92 countries for 1970-1995, La Porta et al. (2000) have found that greater state ownership of banks in 1970 was associated with less financial sector development, lower growth, lower productivity, and that these effects were greater at lower levels of income. Barth et al. (2001a, 2001b) have shown 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 nonbank credit, even after taking into account other factors that could influence financial development. This suggests that greater state ownership tends to be anticompetitive, reducing competition both from banks and nonbanks. Barth et al. have also noted that applications for bank licenses are more often rejected and there are fewer foreign banks when state ownership is greater. Moreover, Caprio and Martinez-Peria (2000) have shown that greater state ownership at the start of 1980-1997 was associated with a greater probability of a banking crisis and higher fiscal costs.

With respect to privatizing banks, moreover, the World Bank (2001) takes the view that privatization can yield real benefits to economies provided that an appropriate accounting,

legal, regulatory infrastructure is in place. It should be noted that premature privatization may give rise to banking crises. Clarke and Cull (1998) have demonstrated that Argentina promoted privatization of public sector banks in a reasonably developed regulatory and infrastructure environment, and thus, privatized banks improved productivity remarkably.

Considering the implications derived from the above studies, this paper examines whether India's gradual approach has been successful so far by examining whether public sector (commercial) banks have improved their performance (profitability, efficiency, and soundness) in the reform period.

This paper adopts two hypotheses in this regard. The first hypothesis (H₁) is that the degree of concentration in the banking sector has been declining in the reform period. The second hypothesis (H₂) is that the performance of public sector banks may have deteriorated initially during the adjustment period, but performance improved later on. This paper adopts three types of performance indicators: (1) profitability, (2) cost efficiency, and (3) earnings efficiency.⁴ It tests this hypothesis by analyzing trend patterns and empirically testing the performance of public sector banks.

Diversification of Banking Activities

The second unique feature of India's banking sector is that the RBI has permitted commercial banks to engage in diverse activities such as securities-related transactions (e.g., underwriting, dealing, and brokerage), foreign exchange transactions, leasing activities, etc. The 1991 reforms lowered the CRR and SLR, enabling banks to diversify their activities. Diversification of banks' activities can be justified for at least five reasons. First, entry deregulation and resultant intensified competition may leave banks with no choice but to engage in risk-taking activities in the fight for their market shares or profit margins. As a result, risk-taking would reduce the value of banks' future earnings and associated incentives to avoid bankruptcy (Allen and Gale [2000]).

Second, banks need to obtain implicit rents in order to provide discretionary, repetitive, and flexible loans.⁵ Also, banks attempt to reduce the extent of information asymmetry by processing inside information on their clients and monitoring their performance. Such roles are unique to the banking system and important particularly for small and medium enterprises (SMEs), since information on them tends to be highly idiosyncratic. Without sufficient rents, however, banks are likely to cease providing these services and the implication for SMEs and economic development can be enormous. Thus, it is important for bank regulators to ensure adequate implicit rents to banks in order to encourage them to provide such unique services.

⁴ Profitability is likely to be positively correlated with efficiency and soundness. The correlation is expected to be greater for public sector banks that had long been performing poorly since the reform impact can be greater. For example, the average correlation coefficient between profitability and cost efficiency during 1993-2000 was -0.7 for public sector banks, -0.48 for private domestic banks, and -0.3 for foreign banks. The average correlation coefficient between profitability and soundness was 0.76 for public sector banks, 0.59 for private banks, and 0.37 for private banks.

⁵ For example, banks' clients are able to obtain refinance or to return loans earlier than maturity with relatively small fees. Further, if borrowers fall into financial distress, banks often make flexible choices as to whether to continue to supply loans or buy back ones that turn problematic (Gilson, John, and Lang [1990]; Hoshi, Kashyap, and Scharfstein [1990]). Also, banks may renegotiate with firms over lowering interest rates in order to prevent risk-taking, as pointed out by Stiglitz and Weiss (1981). Since most of these transactions cannot be written explicitly in loan contracts, these promises are regarded as implicit "insurance" that commercial banks provide to their borrowers.

Moreover, banks may lose an opportunity to collect implicit rents if their clients switch to capital markets once they become larger and profitable.⁶

Diversification of banking activities helps banks to mitigate the two problems raised above 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.

Third, banks can stabilize their income by engaging in activities whose returns are imperfectly correlated, thereby reducing costs of funds and thus lending and underwriting costs.

Fourth, diversification promotes efficiency by allowing banks to utilize inside information arising out of long-term lending relationships.⁷ Thanks to this advantage, banks are able to underwrite securities at lower costs than nonbank underwriters. Also, firms may obtain higher prices on their securities underwritten by banks because of their perceived monitoring advantages. Further, banks can exploit economies of scope from the production of various financial services, since they can spread fixed physical (i.e., branches and distribution channels) and human capital costs (Steinherr and Huvencers [1990]).

Fifth, diversification may improve banks' performance through diluting the impact of direct lending (through requiring banks to allocate credit to priority sectors). Direct lending reduces banks' incentives to conduct information processing and monitoring functions. As a result, this not only lowers banks' profitability by limiting financial resources available to more productive usages, but also results in a deterioration of efficiency and soundness by discouraging banks from functioning properly.

These five advantages, however, can be offset by the following disadvantages. First, public sector banks' engagement in securities business may promote a concentration of power in the banking sector, since the asset size of banks expands. This is partly because banks have a natural tendency to promote lending over securities, thereby indirectly deterring the development of capital markets. Further, the reputation and informational advantages enjoyed by public sector banks put them in an even more favorable position, preventing other banks and investment firms from competing on a level playing field.

Second, banks' engagement in underwriting services may lead to conflicts of interest between banks and investors. Banks may decide to underwrite securities for troubled borrowers so that the proceeds of the issue of securities can be used to pay off these banks' own claims to the companies. Banks may dump into the trust accounts they manage the unsold part of the securities they underwrite. Further, banks may impose tie-in deals on customers by using their lending relationships with firms to pressure them to purchase their underwriting services (e.g., using the threat of increased credit costs or non-renewal of credit lines). Banks may also use the confidential inside information that they possess when they

⁶ Patil (2001) reports that Indian firms increasingly raise funds through commercial paper and debentures, since the costs are much lower than for bank loans.

⁷ Through long-term relationships, banks already possess inside information about creditworthiness of borrowers and features of their investment projects that are not readily available to outsiders. Thus, banks do not need to use a lot of resources in collecting the information about their clients that is necessary for underwriting securities issued by them.

underwrite firms' securities in a way that the firms do not contemplate, such as disclosing the information directly or indirectly to the firms' competitors.⁸

Third, diversification may expose banks to various new risks. For example, banks may end up buying the securities they underwrite. They may also face greater market risks as they increase their share of securities holdings and market making activities. Further, derivatives involve higher speed and greater complexity, which may reduce the solvency and transparency of banking operations.

The presence of these three potential disadvantages suggests that measures are needed to balance the advantages and disadvantages. The RBI tries to cope with the disadvantages by encouraging banks to engage in securities business through subsidiaries, thereby putting in place firewalls between traditional banking and securities services.⁹ Also, the RBI prohibits cross-holdings with industrial groups to minimize "connected lending"—one of the causes of the East Asian crisis.

To assess the overall impact of banks' activities, this paper examines whether diversification improves bank performance. In particular, the impact of disadvantages can be assessed indirectly by examining how soundness is associated with diversification. It is also important to examine whether diversification has led to even greater dominance of public sector banks by examining whether banks' asset portfolios differ between public sector and private banks.

This paper examines the following three hypotheses with respect to diversification. The first hypothesis (H_3) is that banks' engagement in foreign exchange and securities business improves their performance. The second hypothesis (H_4) is that investment in government securities has worsened banks' performance, since it limits the realization of the diversification effect. The last hypothesis (H_5) is that lending to priority sectors and the public sector has lowered banks' performance.

Impact of Foreign and Private Domestic Banks

One interesting feature of India's banking sector is that some large public sector banks appear to have been performing reasonably well in the post-reform period. This could be attributed to (1) the importation of better risk management skills from foreign and private domestic banks, (2) intensified competition, (3) the diversification effect described above, (4) reorganization (e.g., mergers and acquisitions [M&As]), and (5) goodwill. In India, however, given the virtual absence of an exit policy, large-scale M&As among problematic banks have not occurred so far.

It is generally viewed that the entry of well-capitalized new banks is likely to improve the quality and variety of services, efficiency of bank management, and prudential supervisory capacity (Levine [1996], Walter and Gray [1983], Gelb and Sagari [1990]). The entry of

⁸ These conflicts of interest are likely to lower the quality of services offered by banks, and thus investors need special protection against such malpractices. Conflicts of interest can be exploited especially when (1) there is some monopoly power, as with tie-in deals; (2) there is an asymmetry of information between the contracting parties, as in the conflict between the bank's promotional and advisory roles; or (3) one of the parties involved is naïve, as when securities are issued to transfer bankruptcy risks to outside investors (Santos, 1998).

⁹ In a restricted way, banks are permitted to engage in investment banking, leasing, credit cards, etc., within the entity.

foreign banks tends to lower interest margins, profitability, and the overall expenses of domestic banks (Clarke, Cull, D'Amato, and Molinari [2000]; Claessens, Demirguc-Kunt, and Huizinga [2000]). Further, Claessens, Demirguc-Kunt, and Huizinga (2000) have reported that the number of entrants matters compared to their market share, indicating that foreign banks affect local bank competition upon entry rather than after they have gained a substantial market share. Moreover, these banks may be able to provide a source of new capital for enterprises and thus reduce government restructuring costs, especially when the domestic banking sector is devastated in the aftermath of a crisis. Some studies also find that foreign banks tend to go for higher interest margins and profitability than domestic banks in developing countries, while the opposite is true in developed countries (Claessens, Demirguc-Kunt, and Huizinga [2000]).

On the other hand, premature deregulation and foreign entry may cause some downside effects. First, they may increase the risk of a banking crisis in the presence of macroeconomic or regulatory weakness, as was experienced in Argentina, Brazil, and Chile in the 1970s (Demirguc-Kunt and Detragiache [1998]). Second, foreign banks may exhibit a home country bias, leading them to retreat promptly and massively at the first sign of difficulty. In the East Asian crisis, for example, it is widely believed that foreign banks, such as Citibank, played a major role in supporting the capital outflow without consideration as to the national damage caused.

This paper assesses whether their performance shows statistically different results from that of public sector banks through three steps: (1) analyzing trend patterns, (2) testing the null hypotheses that the average level of each indicator is the same between public sector and foreign and private domestic banks, and (3) using OLS regression. The first hypothesis (H_6) is that foreign and private domestic banks have performed better than public sector banks, and thus have contributed to an improvement in overall banking sector performance. The second hypothesis (H_7) is that new banks perform better.

III. Appraisal of Banking Sector Performance

India's financial market has been gradually developing, but still remains bank-dominated in the reform period. The extent of financial deepening measured by total deposits in GDP has risen only modestly from 30% in 1991 to 38% in 1999. Capital market development has also been quite sluggish. Outstanding government and corporate bonds as a share of GDP rose from 14% in 1991 to 18% in 1999 and from only 0.7% in 1996 to 2% in 1998, respectively, while equity market capitalization dropped from 37% in 1995 to 28% in 1999.

Nevertheless, the Government's commitment on restructuring the highly regulated banking sector appears strong. Since financial reforms were launched in 1991 and particularly when the entry of new banks was permitted in 1993, public sector banks appear to have become more conscious of the need for greater profitability and efficiency, suggesting that the reform has had a non-negligible favorable impact on India's financial market.

According to an analysis of the overall performance of state-owned, domestic, and foreign banks based on trend patterns in 1993-2000, the overall performance of public sector banks appears comparable to foreign and private domestic banks (Table 1). In general, foreign banks performed better than domestic banks (public sector and private domestic

banks) in terms of cost, earnings efficiency, and soundness. However, domestic banks overtook foreign banks in terms of profitability in 1999-2000. Moreover, all banks are comparable in terms of the scale of medium- to long-term credit and liquidity. These results are summarized as follows:

Profitability

Foreign banks' profitability (defined as the ratio of profits after tax to average assets [ROAA]) exceeded that of private domestic and public sector banks in 1993-1997, despite a declining trend.¹⁰ However, private domestic banks have become more profitable than foreign banks in 1999-2000. The International Monetary Fund (IMF) (2001) has also reported that foreign and new private domestic banks maintained higher profitability (about 1-2%) than public sector and old private domestic banks (0.6-0.8%) during 1995/96-1999/2000. Also, profits from securities and foreign transactions, and brokerage/commission services have increasingly contributed to profitability for all banks, suggesting that the diversification effect is positive.

Cost and Earnings Efficiency

Foreign and private domestic banks are generally more cost-efficient than public sector banks.¹¹ The ratio of operating expenditure to operating income (COST) in 2000 was 72% for foreign banks, 80-85% for domestic banks, and 84% for public sector banks. While foreign banks are more cost-efficient, their efficiency level has somewhat deteriorated. Instead, the latter two types of banks improved efficiency over the sample period.

As for earning capacity, foreign banks are generally better performers. The earning indicator proxied by the ratio of income to assets ($INCOME_1$) shows that foreign banks have consistently performed better than private domestic and public sector banks. However, foreign banks' income generating capacity deteriorated somewhat from 14.5% in 1993 to 12.5% in 2000, while the two other types of banks maintained their performance at a level of about 11%. The inferior performance of domestic banks relative to foreign banks can be attributed to (1) the larger share of credit extended to the public sector, (2) more stringent requirement imposed on direct lending, (3) a lesser degree of diversification, and (4) lower interest rate margins.

Implicit interest rate spread (defined as the difference between implicit lending and deposit rates [$INCOME_2$]) has been shrinking for all banks over the sample period. While foreign banks have received higher interest rate spreads than private domestic banks and public sector banks, their margins have become comparable in 2000. An alternative indicator (the difference between interest income and expenditure) shows that while all types of banks reduced interest rate margins over the sample period, those of public sector and private domestic banks have generally remained negative and recently even worsened. This suggests that domestic banks must obtain income from other activities to maintain profitability and thus extend credit to the private sector.

¹⁰ For example, the average profitability of Standard Chartered Bank in 1994-2000 was 1.38%, well above that of the State Bank of India (SBI) at 0.7%.

¹¹ For example, the average cost efficiency of Standard Chartered Bank in 1994-2000 was 80%, comparable to that of the SBI at 81.6. However, income divided by assets of the former was 12.6%, exceeding that of the latter at 10.6%.

Capital, Asset Quality, Management, and Liquidity

The balance sheets of foreign banks appear to be more structurally sound than those of domestic and public sector banks based on the following criteria: capital adequacy, asset quality, management, and liquidity.

First, on the capital adequacy ratio proxied by equity plus reserves over liabilities, the ratio of foreign banks increased from 7% in 1993 to 20% in 2000. While the ratios increased moderately for domestic banks, it still remains small. This suggests that foreign banks have greater incentives to lend prudently and remain well capitalized than the two other kinds of banks. This reflects that foreign banks steadily reduced their deposit dependence ratio from 67% of liability in 1993 to 47% in 2000, while the two other types maintained their dependence ratio at about 85% throughout the sample period. Nevertheless, IMF's report (2001) indicates that the risk-weighted capital ratio has been comparable among all banks and has improved from 1996/97 to 1999/2000: from 10.4% to 11.9% for foreign banks, from 11.7% to 12.4% for old private domestic banks, and from 10% to 10.7% for public sector banks, while that of new private domestic banks declined from 15.3% to 13.4%.

Second, by contrast, the assessment on asset quality based on (1) the ratio of contingent liabilities to assets, (2) asset growth, (3) the ratio of investment in securities to assets, (4) the ratio of provisions for NPA to assets (PROV), and (5) the ratio of medium- and long-term credit to assets reveal mixed results. The first indicator reports that the ratio of foreign banks (at around 25-30%) has been greater than that of domestic banks and public sector banks. While this indicates that foreign banks are more exposed to high potential losses in cases of default, this outcome may simply reflect that foreign banks provide more complex and sophisticated services than the two other types of banks, given that their activities are concentrated on urban areas, wholesale markets, and large clients.

The second indicator reports that foreign and private domestic banks faced rapid credit growth in 1993-1997, signaling some kind of risk-taking behavior. However, this may be explained simply by their early stage of establishment. The third indicator shows that all three banks invested about 30-40% of assets in securities in response to the SLR, indicating that all of them have a large cushion against NPAs. In particular, public sector and private domestic banks increased their share of investment in government bonds in assets during 1993-2000 from 21% to 23% and from 21% to 27%, respectively. This may be due to their preference for more liquid, safe assets as the Basle accord was applied.

The fourth indicator reports that foreign banks generally allocated greater provisions for NPAs. Given that more stringent accounting and auditing standards of their mother countries are applied to foreign banks, the foreign banks are more resilient to adverse shocks. IMF (2001) has reported that foreign and new private domestic banks maintained small NPA ratios (about 2-4%) during 1995-2000—below the level of public sector and old domestic banks, with the former declining from 9.2% in 1996/95 to 7.4% in 1999/2000 and the latter remaining at around 7%. The final indicator reports that foreign and private domestic banks increased medium- to long-term credit in 1993-2000 from 7.5% to 17% and from 10% to 13%, respectively, suggesting their increased confidence in India's financial market. Public sector banks maintained the same level of exposure throughout the sample period.

Third, management performance is assessed based on two indicators: (1) the ratio of credit to deposits, and (2) the ratio of equity and reserves to debt (inverse of leverage). The

first indicator reports that foreign banks attempt to improve their income by expanding their lending operations as compared with other domestic banks. The ratio of foreign banks surged from 56% in 1993 to 94% in 2000, while the two other types of banks maintained the ratio at about 40% over the same period. Given that foreign banks' ratio of credit to assets is similar to other domestic banks (about 35% of assets), however, this simply suggests that foreign banks lowered the deposit dependence ratio. Based on the second indicator, foreign banks are generally less leveraged than domestic and public sector banks.

Fourth, all three types of banks maintain a similar liquidity position, accounting for about 15% in terms of cash and balances with banks; and about 50% in terms of the sum of cash, balances with banks, and investment. This reflects the CRR and SLR.

Testing the Differential Behavior between Public Sector, Foreign, and Private Domestic Banks

As a second step, a statistical test was conducted to see whether the average levels of the following indicators are the same for public sector, foreign, and private domestic banks: ROAA, COST, INCOME₁, INCOME₂, and PROV. The results report that foreign banks have generally performed better than public sector banks in terms of all indicators (Table 2). A similar pattern is observed for private domestic banks against public sector banks. However, such differences were more pronounced in the earlier period compared to later periods. This may suggest that public sector banks have made greater efforts to improve their performance as reforms have progressed.

IV. Testing Hypotheses

This section assesses the extent of concentration in the banking sector and conducts empirical estimation to test seven hypotheses.

Concentration Index: Testing the First Hypothesis

This paper tests this hypothesis by adopting two approaches: (1) the m-bank concentration ratio adopted by Sarkar and Bhaumik (1998) and (2) Herfindahl Index adopted by Juan-Ramon, Randall, and Williams (2001). The m-bank concentration measures (a) one bank concentration ratio (market share of the largest bank or the State Bank of India [SBI]), (b) five-bank ratio, and (c) 10-bank ratio. This paper uses deposits to estimate the m-bank concentration indicator. The Herfindahl Index is defined as $100 \times \sum_{i=1}^{i=N} k_i^2$ where $k_i = K_i / \sum_{i=1}^{i=N} K_i$ and N=number of banks during the period under consideration. This indicator can be calculated for the whole banking sector as well as public sector, foreign, and private domestic banks, respectively. The higher the indicator, the greater the concentration of the banking sector. The lower limit of this indicator is obtained as 100 divided by N and the upper limit is 100.

The m-bank concentration indicator reports that the degree of concentration in the banking sector has barely changed during 1993-1999 (Table 3). Since most of these large banks are public sector banks, this indicates that public sector banks continue to be dominant and enjoy scale advantages over new banks. On the other hand, the Herfindahl Index reports that the degree of concentration has declined consistently in the whole banking sector, more or less in line with H₁. In addition, the concentration has declined even within foreign banks,

private domestic banks, and public sector banks. Since the lower limit (100/N) has also declined, this suggests that a number of new banks have entered the market and exerted some competition at the lower end.

Empirical Estimation

There are two studies that assess the impact of India's reform program. Based on data of 1993/94 and 1994/95, Sarkar, Sarkar, and Bhaumik (1998) have shown that foreign banks are more profitable than public sector banks, based on two indicators (profits divided by average assets and operating profits divided by average assets). Profitability of private domestic banks is similar to that of foreign banks, but private domestic banks spend more resources on provisions for NPAs. Second, foreign banks are more efficient than private domestic and public sector banks, based on two measures (net interest rate margins and operating cost divided by average assets).

Based on data of 1980-1997/98, Sarkar and Bhaumik (1998) have concluded that foreign banks, despite the superior quality of services they offer, have not been a competitive threat in Delhi, West Bengal, and Maharashtra, where their presence is greatest. This reflects that competition has emerged only at the fringe, since the entry of new banks has been at the lower end. Domestic private banks have gained some market share in these regions, but the impact on public sector banks was small and instead, gained at the expense of foreign banks. In Uttar Pradesh, Madhya Pradesh, Bihar, Orissa, Gujarat, and Punjab, public sector banks have been predominant before and since the reforms, thus no apparent impact of new entries was observed. In Tamilnadu, Kerala, Andhra Pradesh, Karnataka, Jammu and Kashmir, and Rajasthan, private domestic banks have been more concentrated than in other regions and have experienced an increase in market share at the expense of public sector banks. But the presence of foreign banks was small.

This paper investigates the progress of India's financial reforms via two steps. In the first step, it assesses the overall impact of the financial reforms on public sector banks by using pooled data. The performance measures adopted in this paper are ROAA, COST, and INCOME₁. Some of these indicators were employed from Claessens, Dmirguc-Kunt, and Huizinga [2000]; Dmirguc-Kunt and Huizinga [1997]; Sarkar, Sarkar, and Bhaumik [1998]; and Sarkar and Bhaumik [1998].

The time dummy (TIME) has been introduced to capture time differences in the sample. This paper includes five control variables that account for banks' specific features and behavior: (1) diversification (proxied by the sum of profits from securities and foreign exchange transactions and brokerage and commissions/assets [DIVERSE]), (2) investment in government securities/assets (GBOND), (3) lending to priority sectors (proxied by lending to priority sectors/assets [PRIORITY]), (4) lending to the public sector (proxied by lending to the public sector/assets [PUBLIC]), and (5) size of the bank (proxied by the log of each bank's asset size [SIZE]). This paper uses data from the Prowess database for 1993-2000 compiled by Center for Monitoring Indian Economy Pvt. Ltd. (CMIE), which includes most of the major banks in India.

The results from this estimation are reported in Table 4. A significant coefficient of the time dummy variable would indicate that the particular year was different, which could be due to numerous factors, including regulatory changes, if any, that happened during that year. First, the time effect on ROAA (and COST) given in columns 1 and 2 was negative (positive)

and statistically significant initially. Since many of the regulatory changes took place during the earlier period of reforms, the significance of the time effect could reflect the initial negative impact of the reform, which has disappeared in the later period. Based on these outcomes, the financial reforms appear to have had a non-negligible impact on the overall performance of public sector banks. While the reforms lowered their profitability and cost efficiency at the initial stage, this negative effect has disappeared later on as they have adjusted to a new environment, supporting H_2 .

Second, DIVERSE has exerted a statistically positive (negative) contribution to ROAA and $INCOME_1$ (COST), indicating that the diversification effect on the performance of public sector banks is favorable and thus H_3 is supported. The statistically significant and negative (positive) impact of GBOND on ROAA (COST) is present. This suggests that investment in government bonds limits banks in the diversification of their asset portfolios and thus H_4 is supported. On the other hand, PRIORITY has made a statistically significant and positive (negative) impact on ROAA (COST), contrary to H_5 . This implies that while lending to priority sectors is generally regarded as the cause of NPAs, some lending activities may generate high income and allow banks to improve cost efficiency.

As a next step, this paper examines the overall impact of the whole banking sector by using pooled data of all commercial banks for 1993-2000. In addition to the approach adopted above, this paper uses ownership dummy variables ([FOREIGN] and [PRIVATE]) to capture differences in ownership. FOREIGN (PRIVATE) equals 1 if the bank is foreign (domestic)-owned and equals 0 otherwise. Moreover, the age dummy (AGE) has been used to capture the differences between new and old banks. AGE is equal to 0 if the bank existed before 1991 and equals 1 otherwise.

The estimation results reported in Table 5 are summarized as follows. First, if the entry of foreign and private domestic banks brings in more skilled banks, the profitability and efficiency of the banking sector is expected to be higher. The results reported in columns 1-3 indicate that the coefficients of FOREIGN and PRIVATE in ROAA equation were statistically significant and positive, although their coefficients were not significant in the COST equation. Further, coefficients of FOREIGN are positive and statistically significant in $INCOME_1$ equation. These results suggest particularly that foreign banks perform better than domestic banks, and that ownership matters, thus supporting H_6 .

Second, the coefficient of TIME is negative (but statistically insignificant) initially in the ROAA equation of the whole banking sector, but is positive and statistically significant in 1995 and 1997. TIME coefficient was also positive and statistically significant in $INCOME_1$ equation.

Third, DIVERSE has improved profitability and the cost and earnings efficiency of the whole banking sector, in line with H_3 . The coefficient of DIVERSE shows that the diversification impact on ROAA and $INCOME_1$ (and COST) was positive (negative) and statistically significant.

Fourth, GBOND helps banks to increase holdings of safe, liquid assets, and thus improve their liquidity position. At the same time, however, it reduces the opportunity to allocate limited financial resources toward more needed sectors and hence profitability and cost and earnings efficiency. The results indicate that the coefficients of GBOND on ROAA (and COST) were negative (positive) and statistically significant, supporting H_4 . Contrary to our

expectations, however, the impact of GBOND on INCOME_1 was positive and statistically significant.

Fifth, lending to priority sectors and the public sector would be expected to lower the profitability and earnings efficiency of the whole banking sector, reflecting that this type of lending is characterized by direct lending. Despite the share of credit extended to priority sectors accounting for more than 20% of their total credit, the coefficients of PRIORITY and PUBLIC with respect to ROAA turn out to be insignificant, contrary to H_5 . Moreover, the coefficient of PRIORITY on COST was negative and statistically significant, implying that some types of those credits enhance cost efficiency. However, the coefficient of PUBLIC on INCOME_1 was negative and statistically significant, suggesting that such lending lowers banks' income earnings capacity.

Sixth, the coefficient of AGE with respect to ROAA and INCOME_1 was negative but statistically insignificant.

V. Conclusions

Since the financial reforms of 1991, there have been significant favorable changes in India's highly regulated banking sector. This paper has assessed the impact of the reforms by examining seven hypotheses. It concludes that the financial reforms have had a moderately positive impact on reducing the concentration of the banking sector (at the lower end) and improving performance.

The empirical estimation showed that regulation (captured by the time variable) lowered the profitability and cost efficiency of public sector banks at the initial stage of the reforms, but such a negative impact disappeared once they adjusted to the new environment. In line with these results, Tables 1 and 2 shows that profitability turned positive in 1997-2000, cost efficiency steadily improved over the reform period, and the gap in performance compared to foreign banks has diminished.

Moreover, allowing banks to engage in non-traditional activities has contributed to improved profitability and cost and earnings efficiency of the whole banking sector, including public sector banks. By contrast, investment in government securities has lowered the profitability and cost efficiency of the whole banking sector, including public sector banks. Lending to priority sectors and the public sector has not had a negative effect on profitability and cost efficiency, contrary to our expectations.

Further, foreign banks (and private domestic banks in some cases) have generally performed better than other banks in terms of profitability and income efficiency. This suggests that ownership matters and foreign entry has a positive impact on banking sector restructuring.

The above results suggest that the current policy of restructuring the banking sector through encouraging the entry of new banks has so far produced some positive results. However, the fact that competition has occurred only at the lower end suggests that bank regulators should conduct a more thorough restructuring of public sector banks. Given that public sector banks have scale advantages, the current approach of improving their performance without rationalizing them may not produce further benefits for India's banking sector. As 10 years have passed since the reforms were initiated and public sector banks have been exposed to the new regulatory environment, it may be time for the Government to take a further step by promoting M&As and closing unviable banks. A further reduction of SLRs and more encouragement for non-traditional activities (under the bank subsidiary form) may also make the banking sector more resilient to various adverse shocks.

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Table 1: Performance of the Banking Sector: 1993 – 2000

ROAA	1993	1994	1995	1996	1997	1998	1999	2000
All Banks	-0.1	0.1	1.1	0.8	1.1	1.0	0.5	0.4
Foreign	2.0	2.0	2.0	1.6	1.6	1.1	0.4	-0.2
Private	-0.2	0.5	1.2	1.2	1.3	1.1	0.7	1.0
Public Sector	-1.3	-2.3	0.1	-0.4	0.4	0.8	0.4	0.6
COST								
All Banks	81.5	78.4	82.6	162.7	84.8	76.8	83.8	78.3
Foreign	67.7	60.9	80.7	308.1	87.2	68.6	81.2	72.4
Private	86.4	83.9	80.3	80.1	80.5	80.1	85.0	80.0
Public Sector	93.8	92.2	87.3	88.1	86.7	84.9	86.6	85.3
INCOME₁								
All Banks	12.4	11.5	10.4	11.6	12.0	12.1	11.4	11.2
Foreign	14.5	12.9	12.1	13.2	13.3	13.8	12.3	12.5
Private	11.2	10.1	8.7	11.0	11.4	11.4	11.0	10.4
Public Sector	10.9	11.1	10.7	10.6	10.9	10.7	10.4	10.2
INCOME₂								
All Banks	7.6	7.3	5.0	5.5	6.3	5.8	5.3	4.0
Foreign	12.9	9.1	7.1	5.1	6.3	6.8	6.9	4.3
Private	5.2	7.6	3.9	5.1	6.5	5.6	4.2	3.7
Public Sector	3.5	5.1	4.1	6.4	6.3	4.7	4.2	3.6
DIVERSE								
All Banks	1.3	1.2	1.2	1.2	1.4	2.1	1.4	1.6
Foreign	1.8	1.6	1.4	1.5	1.9	3.2	2.0	2.1
Private	1.0	0.9	1.0	1.1	1.1	1.5	1.0	1.3
Public Sector	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1
GBOND								
All Banks	20.4	23.8	20.7	19.1	21.3	22.0	23.3	24.3
Foreign	19.5	24.4	20.5	16.3	18.0	19.4	21.6	22.4
Private	21.0	20.5	17.5	17.5	20.6	21.2	22.0	23.5
Public Sector	21.1	25.8	24.6	24.6	26.9	26.6	27.4	28.0
PROV								
All Banks	2.4	2.3	1.5	1.1	0.8	1.2	1.5	1.7
Foreign	3.8	3.0	2.3	0.9	0.8	1.9	2.7	3.0
Private	1.1	1.0	1.2	1.0	0.7	0.8	0.5	0.7
Public Sector	1.8	2.6	1.2	1.6	0.9	0.8	0.8	0.7
EQUITY								
All Banks	4.1	4.6	8.7	13.6	14.4	13.3	13.6	11.4
Foreign	6.8	7.9	17.4	25.0	28.4	25.2	25.4	20.3
Private	1.7	2.2	3.6	3.3	4.0	4.8	4.4	4.2
Public Sector	3.2	3.4	5.3	10.6	6.5	6.0	5.8	5.7

Source: PROWESS Database, Center for Monitoring Indian Economy Pvt. Ltd.

Note: All indicators are estimated from PROWESS Database with the available data.

Table 2: Testing the Differential Behavior between Public Sector and Foreign and Private Banks

	Foreign Banks vs. Public Sector Banks	Private Banks vs. Public Sector Banks		Foreign Banks vs. Public Sector Banks	Private Banks vs. Public Sector Banks
1993			1997		
ROA	4.213***	0.951	ROA	3.875***	3.537***
COST	-6.435***	-1.865*	COST	0.037	-2.745***
INCOME ₁	3.704***	0.301	INCOME ₁	1.414*	0.245
INCOME ₂	5.128***	1.274	INCOME ₂	-0.066	0.455
PROV	2.487**	-1.945**	PROV	-0.288	-1.812*
EQUITY	9.688***	1.469*	EQUITY	-0.008	0.263
1994			1998		
ROA	4.390***	2.637***	ROA	0.295	1.270
COST	-9.475***	-2.169*	COST	-5.456***	-2.266**
INCOME ₁	1.565*	-0.821	INCOME ₁	4.854***	1.089
INCOME ₂	3.957*	0.976	INCOME ₂	2.116*	2.861***
PROV	0.674	-3.785***	PROV	1.559	-0.184
EQUITY	4.435***	2.599***	EQUITY	0.541	1.436*
1995			1999		
ROA	6.684***	2.852***	ROA	0.057	1.355
COST	-0.530	-2.008**	COST	-0.835	-0.853
INCOME ₁	1.255	-1.694**	INCOME ₁	3.087***	0.967
INCOME ₂	4.392***	-0.395	INCOME ₂	2.615**	0.047
PROV	3.899***	0.037	PROV	1.608*	-2.008**
EQUITY	0.639	-0.231	EQUITY	0.687	0.025
1996			2000		
ROA	3.704***	2.870***	ROA	-1.299	2.361**
COST	0.971	-2.950***	COST	-4.127***	-2.797***
INCOME ₁	1.297	0.188	INCOME ₁	3.020***	0.351
INCOME ₂	-1.161	-1.637*	INCOME ₂	0.630	0.557
PROV	-2.024**	-2.026**	PROV	3.159***	0.065
EQUITY	-0.225	-0.461	EQUITY	0.273	0.234

Source: PROWESS Database, Center for Monitoring Indian Economy Pvt. Ltd.

Note: The values reported are t-test values and *, **, *** indicate significance at 10%, 5 % and 1% significance level respectively.

Table 3: Concentration Indicators: 1993 – 2000

M-Bank Concentration Ratio	1993	1994	1995	1996	1997	1998	1999	2000
1 bank concentration Ratio	24.7	24.3	22.0	22.2	21.9	21.7	23.7	24.2
5 banks concentration Ratio	50.2	48.5	47.3	47.4	46.9	46.7	47.7	48.1
10 banks concentration ratio	65.4	63.3	63.6	65.5	64.4	63.4	64.2	65.0
Herfindahl Index								
All Banks	11.2	9.9	7.9	7.2	6.6	6.5	7.1	7.0
Foreign Banks	14.1	12.6	11.5	11.9	10.8	10.9	11.7	12.2
Private Banks	11.3	10.8	7.8	5.8	4.8	4.6	4.8	5.2
Public Sector Banks	15.1	13.4	10.7	9.8	9.4	9.4	10.1	10.1

Source: PROWESS Database, Center for Monitoring Indian Economy Pvt. Ltd.

Note: All indicators are estimated from PROWESS Database with the available data.

Table 4: Regression Results of Public Sector Banks

EXPLANATORY VARIABLES	DEPENDENT VARIABLES		
	ROAA	COST	INCOME _t
Constant	-4.67 (-1.47)	119.91*** (10.15)	9.15** (2.43)
Time93	-1.87*** (-2.75)	9.65*** (4.16)	0.62 (0.84)
Time94	-2.67*** (-4.87)	5.55*** (2.68)	0.82 (1.24)
Time95	-0.38 (-0.72)	1.83 (0.91)	0.33 (0.51)
Time96	-0.85 (-1.63)	2.69 (1.37)	0.19 (0.31)
Time97	0.13 (0.27)	-0.05 (-0.02)	0.7 (1.16)
Time98	0.24 (0.51)	-0.14 (-0.07)	0.36 (0.61)
Time99	-0.04 (-0.09)	0.23 (0.13)	0.38 (0.66)
DIVERSE	1.24*** (3.12)	-10.92*** (-7.33)	2.27*** (4.77)
GBOND	-0.08*** (-3.18)	0.66*** (6.59)	0.004 (0.12)
PRIORITY	0.07** (2.48)	-0.49*** (-4.34)	-0.008 (-0.24)
PUBLIC	0.03 (1.08)	-0.15 (-1.45)	-0.03 (-0.91)
SIZE	0.32 (1.55)	-2.18*** (-2.84)	-0.09 (-0.38)
R²	0.36	0.53	0.14

Note: *** indicates significant at 1% significance level

** indicates significant at 5% significance level

* indicates significant at 10% significance level

Table 5: Regression Results of the Whole Banking Sector

EXPLANATORY VARIABLES	DEPENDENT VARIABLES		
	ROAA	COST	INCOME ₁
Constant	0.49 (0.46)	273.52** (2.28)	6.49*** (3.49)
Foreign	0.79** (2.05)	-60.36 (-1.36)	2.65*** (3.87)
Domestic	0.96*** (3.02)	-60.48 (-1.63)	0.58 (1.01)
Time93	-0.62 (-1.24)	3.22 (0.07)	1.69** (2.29)
Time94	-0.14 (-0.36)	-17.46 (-0.39)	0.64 (0.92)
Time95	0.72** (2.01)	4.18 (0.098)	0.14 (0.22)
Time96	0.25 (0.74)	100.99** (2.47)	1.27** (2.01)
Time97	0.67** (2.07)	13.87 (0.36)	1.44** (2.39)
Time98	0.30 (0.97)	15.70 (0.41)	0.82 (1.37)
Time99	0.12 (0.37)	8.32 (0.22)	0.62 (1.05)
DIVERSE	0.36*** (4.98)	-17.38** (-2.09)	0.79*** (6.20)
GBOND	-0.08*** (-5.46)	7.71*** (4.89)	0.08*** (3.29)
PRIORITY	-0.003 (-0.31)	-1.61* (-1.83)	-0.003 (-0.21)
PUBLIC	0.014 (0.99)	0.199 (0.12)	-0.04* (-1.74)
AGE	-0.23 (-0.93)	16.91 (0.59)	-0.77* (-1.73)
SIZE	0.08 (0.92)	-34.83*** (-3.56)	0.11 (0.71)
R²	0.15	0.07	0.17

Note: *** indicates significant at 1% significance level
 ** indicates significant at 5% significance level
 * indicates significant at 10% significance level