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Interest Rate Spread in Bangladesh: An Analytical Review

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Abstract

Lower *spread* is a vital indicator of the efficiency and competition in the financial system and conducive to higher economic growth of a country via investment spending. In Bangladesh, the *spread* in the banking sector has been persistently high over the years. The inefficiency originated from the government's 'interventionist policies' of the past and inadequate technical skills in the arena of risk and portfolio management, which caused the high *spread* in the banking system. If this situation continues indefinitely, private sector investment may be jeopardized. Therefore, lowering of the high banking *spread* would require substantial improvement in the current situation of limited competition, overstaffing, high administrative costs, the burden of NPLs, and above all, congruence between monetary and fiscal policy stances.

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1. Introduction

Lower financial intermediation cost is a vital indicator of the efficiency and competition in the financial system and conducive to higher economic growth of a country via investment spending. In this connection, interest rate *spread* characterizes a critical feature of the financial intermediation process in the economy. It is basically the difference between weighted average lending and deposit rates, a crude measure of the cost of efficient resource intermediation in the financial system. Historically, least developed countries (LDCs) with financial market imperfections have been characterized by higher *spreads* due to factors such as absence of competition, burden of non-performing loans (NPLs), high administrative costs, etc.[1]

To reduce the financial intermediation cost and achieve higher economic growth, the developing countries of Latin America (e.g., Argentina, Brazil, Mexico, Columbia, Chile, and Uruguay) and Asia (e.g., Malaysia, Indonesia, Philippines, South Korea, Thailand, India, Pakistan, and Sri Lanka) have implemented various Financial Sector Reform Programs (FSRPs) beginning from the mid-1970s. In this regard, Bangladesh is not an exception which initiated the FSRP in the early 1990s. One of the objectives of this comprehensive program was to provide a better return on deposits and create conditions for the efficient allocation of credit in the financial market by moving towards a market based interest rate regime from an administered regime (Islam and Begum, 2004). This paper explains the persistently high *spread* even in the currently liberalized regime. Besides, it examines the likely modality (e.g., relative scope of monetary policy tools vis-à-vis medium term public borrowing) by which high *spread* is maintained in the banking system on the basis of empirical research.

2. Evolution of Interest Rate Policy

2.1 Past Regime

Immediately after independence in 1971, Bangladesh Bank (BB) adopted an administered interest rate policy which continued to the end of 1980s. The whole objective of this comprehensive policy of controls on the level as well as the structure of interest rates was to limit the cost of financial intermediation with a view to enforcing a reasonable structure of lending and deposit rates both generally as well as that directed to priority sectors. In practical terms the interest rates were generally kept at a low level in the 1970s; indeed rates on fixed deposits (except for FY76 and FY77) were below the rate of inflation. Consequently, the real rates of return on term deposits were negative in most of the years during this decade. Besides, the *spread* between lending and deposits rates remained about 7-percent on average over the same period. Considering sustained negative real rates on deposits over the years, in October 1980, BB revised upward the nominal rates on term deposits in order to correct the situation. As a result, the nominal rates on deposit were kept at a higher level during the 1980s. However, this rate increase was not fully in line with the changes in inflation rates, causing real rates on deposits to be negative again for most of the 1980s (except for FY89). During the 1980s, generally, more and more exceptions were introduced or special lending categories were identified for directed credit. Therefore, the interest rate as well as the credit structure was

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distorted and competition was totally absent; allocation of resources was therefore inefficient in the banking system reflected by the large *spread* of about 6-percent on average between borrowing and lending rates in the decade.

In view of the shortcomings of the administered interest rates and to reduce financial intermediation cost, a market oriented interest rate policy was introduced in January 1990 under the FSRP. Initially, interest rate bands were established for 11 exhaustive categories determined by the government. For lending below a *shadow market rate* determined by BB, the government paid subsidies to the scheduled banks, mainly nationalized commercial banks (NCBs), thus making these transparent (Islam and Begum, 2004). The reform measures in general allowed scheduled banks to freely set both lending and deposit rates as long as they remained within the bands determined by BB. However, a floor and ceiling for savings and fixed deposit were established. At that time the directed lending regime was redesigned; BB initiated a rediscount facility essentially for lending to the scheduled banks at a uniform rate, thereby replacing the entire menu of refinance rates. In 1992, the prescribed bands for lending rate were removed from all but three sectors, namely agriculture, export and small-industry sectors. Floors on savings and fixed deposit were continued but ceilings were removed. In 1997, the floor rates of deposits were also removed. Finally, in August 1999, interest band on agriculture and small and medium enterprises (SMEs) loans were also removed. It is important to mention that even after all of these policy changes, the *spread* between lending and deposits rates remained about 7-percent on average during the 1990s.

2.2 Current Regime

Although most of the formal restrictions on the interest rate have been removed by the late 1990's, lending and deposit rates are still not fully responsive to the market conditions. One major shortcoming here is the continuation of directed lending to certain sectors (especially state owned enterprise (SOE) in energy and civil aviation) which are mediated by NCBs, as well as more generally at the government owned specialized banks (SBs). Of course, it is the mandate of BB to influence lending and deposit rates in the desired direction through the monetary policy instruments such as open market operations (including repo and reverse-repo auctions), setting of the bank rate, statutory liquidity ratio (SLR), cash reserve requirement (CRR), and the like. But, these polices have had an uncertain impact on the structure of borrowing and lending rates prevailing in the financial system.

In the recent Bangladesh experience, public (non-bank) borrowing through the National Savings Directorate (NSD) certificates has served as a source of an occasional shock to the credit market equilibrium. Historically these instruments offer non-market rates of return to depositors, and thus whenever the NSD rates are re-evaluated by Ministry of Finance (MOF), the market experiences a jolt. Subsequent adjustments in the structure of deposit rates (and thus lending rate as well) reverberate throughout the financial system until a new equilibrium is reached. In this regard, empirical results reveal that over the past several years, the NSD rate as well as monetary policy instruments of BB have more or less influenced lending and deposit rates in the banking system (Annex Table).

The NSD rates were increased most recently in December 2005 by 1.5 percentage points. While deposits of less than six months (particular at foreign commercial banks (FCBs)) have yet to experience much of a general adjustment, those of six months and longer have gone up by at least one full percentage point at most banks. Private commercial banks (PCBs) appear to have raised deposit rates across the board.[2] While this may have helped to move the real deposit rate in the positive arena, but this has not been the motivating factor. During the first 5-

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[2] These statements are based on the *Economic Trends* (February/March, 2006).

months of FY06, the net sale of NSD certificates had been at BDT 5.66 billion as against 7.95 billion in FY05, about 29 percent less. Clearly an increase was necessary to induce sales. Question remains if the scale of the increase was necessary to induce the anticipated amount of additional borrowing. Ordinarily it would be expected that on account of the perceived low risk of investing in government issued instruments, the NSD certificates should attract sizeable investments if the offered rate were close to the rate prevailing in the banking system on deposits of comparable maturity. Presumably this practice will disappear once the borrowing requirements moderate.

3. Recent Persistence of High Spread

3.1 Weighted Average Spread

Table 1 illustrates the weighted average *spread* of all banks as well as sector wise behaviour of the *spread* pattern between June 2003 and March 2006. The *spread* for SBs has declined during FY04, but stabilising at about 4-percent over the past 12 months or so, the lowest *spread* among all the major bank groups in the country. Conversely, the *spread* for FCBs has gradually increased from the fourth quarter of FY04 for the next six quarters before easing a bit (but still in the 8-percnt range) in December 2005 and again increased above 8-percent in the third quarter of FY06. Moreover, it is the highest among all bank groups over the same period. Finally, while the *spread* had moderated for most of FY04, both PCBs and NCBs have followed a rather similar and stable path (i.e., about 6 percentage points) over the past seven quarters of so. While historically NCBs charged a slightly lower *spread* than PCBs, it is no longer so as of December 2005.

Table 1: Interest Rate Spread (quarterly weighted average in percent)

Quarter	All Banks	NCBs	SBs	PCBs	FCBs
June '03	6.48	6.14	6.00	6.63	7.61
September '03	6.23	5.90	5.67	6.45	7.43
December '03	6.11	5.77	4.71	6.55	7.32
March '04	5.40	4.79	4.29	5.89	6.94
June '04	5.36	4.88	3.64	5.85	7.22
September '04	5.22	4.70	3.66	5.67	7.36
December '04	5.27	4.87	3.70	5.54	7.46
March '05	5.16	4.80	3.66	5.29	7.82
June '05	5.31	5.14	3.58	5.25	7.93
September '05	5.24	5.08	3.56	5.10	8.34
December '05	5.38	5.42	3.66	5.08	7.87
March '06	5.34	5.26	3.34	5.22	8.25

Note: In the above figure, Islamic banks (IBs) are also included in the PCBs group.
Source: BB Quarterly (various issues) and authors' calculation.

It is hard to compare the weighted average *spread* internationally as consistent data is not typically available for this indicator. In India, nominal prime lending rates of public sector banks and deposit rates of various maturities were within the range of 10.25 to 11.25 percent and 2.75 to 7-percent respectively during December 2005. India's *spread* had been the lowest in South Asia in 2005 (Table 2). In contrast, although Pakistan has the lowest lending and deposit rates in nominal terms as well as real terms among the South Asian countries starting from June 2003, the *spread* of the banking system however remains the highest in the region as the rate on deposit has been too low. The nominal lending and deposit rates in Sri Lanka have been the highest in the region since August 2005, therefore, the *spread* of the banking system remains in a high single digit. Though based on incomplete data, on the basis of the evidence

cited above, the Bangladesh *spread* behaviour does not appear to be much of an outlier, though it is a good deal higher than that in India, which boasts as the more competitive of the banking systems in the region.

Table 2: Interest Rate Spread in South Asia

Year	Pakistan	India	Sri Lanka	Bangladesh
2003	6.63	6.09	4.34	6.11
2004	6.33	5.17	4.4	5.27
2005	6.40	4.50	5.99	5.38

Notes: 1. All the figures have been taken for the month of December in each period except the figure for Pakistan in 2005 has been taken for the month of June.
2. For India, deposit and prime lending rates are the mid-points of the range where the rates relates to five major banks. Moreover, deposit rates are for more than one year maturity. Bangladesh, Pakistan, and Sri Lanka figures are weighted average.
Source: Reserve Bank of India Bulletin (various issues), International Financial Statistics (2005), and authors' calculation.

3.2 Net Interest Margin (NIM)[3]

The figure in Table 3 indicates that while the overall pattern of the interest margin is comparable between Bangladesh and India, there are major differences along market segments. Given that reforms have been deep rooted in India, it would be particularly interesting to compare the PCB segment in the two countries, as they are generally free of pubic directives. While in Bangladesh the margin has declined in each year for both PCBs and FCBs, which is encouraging, by contrast there has been a shift up in the Indian figures across the board in 2004. Importantly the private banks (as well as FCBs) in India are seen to be more efficient than in Bangladesh. Though FCBs in both countries exhibit the highest *spread*, the figures in Bangladesh while having moderated dramatically in 2004, have been significantly higher than in India. It would be interest to see how the figure evolves in 2005, i.e., whether the 2004 decline was sustained or not. It would thus appear that there is room for efficiency gains via enhanced competition among PCB and FCBs.

Table 3: Net Interest Margin of Major Bank Groups: Comparison with India[4]

	Bangladesh				India			
Year	All Banks	NCBs	SBs	PCBs	FCBs	All Banks	Public Banks	Private Banks	FCBs
2002	2.65	1.25	2.25	3.88	7.11	2.57	2.73	1.58	3.25
2003	2.70	1.47	1.48	3.71	6.76	2.48	2.52	1.96	3.36
2004	2.17	1.00	1.12	3.27	3.84	2.87	2.97	2.24	3.47

Note: Data for Bangladesh are at the end of December of respective years, while data for India are at the end of March of respective years.
Source: Statistics Department and Off-site Department, Bangladesh Bank and Mohan (2005).

The overall pattern of NIM is driven by the robust figure for the public sector banks which still account for nearly 75 percent of banking assets in India, and which are on the whole rather profitable. In contrast the NCBs in Bangladesh exhibit low *spread* on account of various restrictions that are imposed on their priority lending as well as to the relevant interest rates

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[3] NIM is typically defined as the difference between 'interest expenses' and 'interest income' per unit of 'total bank assets'. This is believed to be an important an indicator of intermediation efficiency. In the wider banking literature, the alternative concept of NIM is more prevalent.

[4] The Bangladesh figures are similar to those reported by Mian (2004) though the latter uses a different methodology.

they can charge of these clients. NIM behavior lends easily to an international comparison. Mohan (2005, p18) cites a set of figures for a number of countries which indicate that the *spreads* for 2003 was below 2-percent for both Thailand and China, and higher for Korea (2.5 percent), Philippines (2.3 percent) and Indonesia (4.22 percent). Thai figure primarily reflecting private banks can only be compared with that relevant to the private sector banks only (PCBs and FCBs in the present acronyms) in Bangladesh and India. Seen in this light the Bangladesh figures appear to be on the high side.

How high are these rates? This can only be known with precision if one knew the true costs of intermediation in the financial sector. Note that the figures in Table 4 are a mere fraction of the weighted average *spread* discussed above, and also below the NIM applicable for each bank group. Overall, however, these figures are lower than those in India (2.2 percent in 2004, and stable over the past decade).[5] Internationally China (1.01 percent), Korea (1.38 percent), Malaysia (1.61 percent), and Thailand (1.71 percent) yield lower costs than other Asian countries (Mohan, 2005, p18). Interestingly here Bangladesh comes out among the leaders, although not having access to the data behind the foreign figures the exact comparability remains to be further explored.

Table 4: Costs of Intermediation (Operating Expenses as % of Total Assets) in Bangladesh

Year	All Banks	NCBs	SBs	PCBs	FCBs
2001	1.83	1.53	1.94	1.93	3.21
2002	1.77	1.43	1.55	2.08	2.71
2003	1.92	1.58	1.88	2.14	2.72
2004	1.87	1.54	1.91	2.06	2.49
2005	1.76	1.61	1.08	1.96	2.21

Source: Bangladesh Bank Annual Report (various issues) and Off-site Supervision Department, Bangladesh Bank.

4. Causes and Consequences of the High Spread

Before analysing the reasons behind the high *spread*, it is worth mentioning that SBs featuring a variety of government interventions are not meant to form an efficient and competitive financial sector, therefore, the analysis into the causes of high *spread* may largely ignore this segment of the market. Besides, for the present discussion it is also kept in the background that the deposit rate in the banking industry is sort of exogenous to the market due to public sector borrowing requirements via the NSD certificates and similar instruments offering non-market yields. In particular, empirical results presented in the Annex Table suggest that 3-year NSD rate-increase in general triggers shift in deposit rate (i.e., weighted average rate on all types of deposits), savings deposit rate and rate on fixed deposit with 1-year to less than 2-year maturity in the positive direction. In turn, deposit rate and quarterly import growth also influence lending rates offered by the scheduled banks. Apart from 3-year NSD rate, bank rate set by the BB has been generally successful in influencing deposit and savings deposit rates.[6]

An interpretation of the persistence of high *spread* may therefore proceed as follows.

a. If the banking industry were believed competitive, the high *spread* would be indicative of high costs of intermediation. Here the high volume of NPL may figure as an explanation. Clearly high NPL faced by NCBs (and even higher by SBs) do not permit these institutions to

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[5] In the Indian case, all figures are close to each other across the bank groups, such that none of the figures fall below 2-percent (Mohan, 2005, p12).

[6] The other monetary policy instruments such as SLR, CRR, Treasury bill auctions have not been considered in the empirical estimation to keep the analysis simple.

make full use of their assets in earning the required return unless the lending rates are relatively high in relation to deposit rates. The question that arises is why competition among PCBs do not lead to a lowering of the *spread* in their segment of the market, and thus in the banking industry.

b. Another argument that may be put forward in explaining the high *spread* is that given the 'high' deposit rates in the banking industry, the addition of even a 'normal' intermediation costs would render the final break-even lending rate 'high', though this by itself does not explain high *spread*. However, potential investors would have to be imaginative in the use of money as they need to earn a high enough return to be able to pay the bank off. Thus if they undertake riskier than usual projects which on average yield higher returns, given the risks of default, the prudent lender has to take that into account as well in setting the 'break-even' lending rate. In this mechanism high deposit rate leads to a ratchet effect on the high lending rate, and hence the high *spread*. The above argument holds *a fortiori* in a non-competitive setting. Note that the high deposit rate which serves as a trigger in this construction may originate from the high rates available on public debt (Annex Table).

c. The remaining hypothesis is that the market is non-competitive, and the *spread* is mainly indicative of 'monopoly' profit. This view primarily rests on the market segmentation hypothesis, namely that each segment of the market (i.e., NCBs, PCBs, and FCBs) have distinct demand features which are catered only by the respective segment. The recent FCB behaviour is supportive of market segmentation; not only does this part of the market display a much higher *spread* than the rest, the differential seems robust, actually having risen substantially over the past two years (Table 1). Competition would have brought about the opposite trend.

The convergence of the *spread* between NCBs and PCBs over time may give an appearance of competition between these two segments of the market. However, the knowledge that the NCBs will not be allowed to exit the market simply on grounds of their losses would permit one to interpret *the observed spread in the NCB-PCB segment of the market as the minimum necessary to meet the cash flow requirements of NCBs just to keep the latter functioning.*[7] It is thus plausible that the more efficient firms among them (typically PCBs) enjoy some market power, and they exploit the advantage (i.e., earn excess profit) by adhering to the *spread* below which NCBs simply cannot operate. In other words, these better-run banks do not play the competitive game by paring the *spread* in order to win market share. The overall behaviour may then appear as one of tacit collusion within the PCB sector.

5. Conclusion

To a degree the high *spread* reflects institutional inefficiencies. The inefficiency originated from the government's 'interventionist policies' of the past and inadequate technical skills in the arena of risk and portfolio management. In this regard, Mahmud (2004) has argued that Bangladesh adopted financial liberalization without preparing for adequate regulation and supervision. It is important to mention that if this situation of high *spread* continues indefinitely, private sector investment may be jeopardized. Given the preponderance of debt financing in the country, increases in the borrowing rates raise the cost of investment nearly proportionately and thus eliminates many possible investment projects that were at the margin of acceptance. Here the absolute level of the (real) lending rate matters more than the *spread*. Further, the resulting high cost of borrowing also puts strains on the government by increasing

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[7] Note that the current income of NCBs, high *spread* notwithstanding, does not permit them to make adequate provisions for bad and doubtful debts as required under BB regulations. They do not maintain the capital adequacy ratios either.

the cost of servicing public borrowing from commercial banks as well as that from the non-bank public (Mahmud, 2004). Therefore, lowering of the high banking *spreads* would require substantial improvement in the current situation of limited competition, overstaffing, high administrative costs, the burden of NPLs, and above all, congruence between monetary and fiscal policy stances.

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Annex Table: Determinants of Lending and Deposit Rates (1997-2006)[8]

Dependent Variable: Lending Rate of			
Independent Variables	All Banks	PCBs	FCBs
Bank Rate	0.114	0.051	0.020
	(0.089)	(0.121)	(0.112)
Deposit Rate (of)	1.127*	0.7223*	0.507*
	(0.176)	(0.250)	(0.142)
Import Growth Rate	0.002***	0.002	0.000
	(0.001)	(0.001)	(0.001)
Adjusted R^2	0.981	0.955	0.885
Sample Size	37	37	37

Dependent Variable: Deposit Rate (all types) of			
Independent Variables	All Banks	PCBs	FCBs
Bank Rate	0.344***	-0.073	0.227
	(0.168)	(0.345)	(0.140)
3-Year NSD	0.223*	0.070	0.297*
Certificate Rate	(0.065)	(0.086)	(0.055)
1-2 Day Repo Rate	0.019	0.012	-0.079**
	(0.031)	(0.040)	(0.026)
Adjusted R^2	0.665	0.628	0.761
Sample Size	15	15	15

Dependent Variable: Savings Deposit Rate of			
Independent Variables	All Banks	PCBs	FCBs
Bank Rate	0.678**	0.352	0.306
	(0.234)	(0.290)	(0.557)
3-Year NSD	0.245**	0.075	0.055
Certificate Rate	(0.092)	(0.079)	(0.138)
1-2 Day Repo Rate	0.002	-0.003	-0.034
	(0.042)	(0.035)	(0.065)
Adjusted R^2	0.749	0.845	0.835
Sample Size	15	15	15

Dependent Variable: Fixed Deposit Rate (1 year to less than 2 years) of			
Independent Variables	All Banks	PCBs	FCBs
Bank Rate	-0.225	-0.363	-0.413
	(0.374)	(0.440)	(0.250)
3-Year NSD	0.370**	0.205***	0.454*
Certificate Rate	(0.147)	(0.109)	(0.098)
1-2 Day Repo Rate	0.091	0.053	0.063
	(0.066)	(0.051)	(0.047)
Adjusted R^2	0.422	0.742	0.487
Sample Size	15	15	15

Notes: 1. *,**, and **** means significant at 1-percent, 5-percent and 10 percent levels respectively.
2. Standard errors in the parentheses are corrected for serial correlation.

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[8] All estimations have been performed based on quarterly data set retrieved from various publications of BB for the period of January-March 1997 to January-March 2006. Besides, the variables are stationary in level based on Augmented Dickey-Fuller (ADF, 1981), Phillips-Perron (PP, 1988), and Kwiatkowski-Phillips-Schmidt-Shin (KPSS, 1992) tests. For '1-2 Day Repo Rate', unit root tests have not been performed due to small number of observations (i.e., only 15).