Contents

Annex I
Recent Pressure and Movements in Foreign Exchange and Money Markets[1]

1. Background

During the third quarter of FY05 the foreign exchange and money markets in Bangladesh experienced substantial pressure characterized by marked depreciation of the exchange rate and increase in the short-term interest rates combined with fluctuation of exchange and interest rates. Preliminary analysis shows that pressure in the foreign exchange market arose mainly from rapid growth in imports in the face of slowdown in export earnings and money market pressure emanated from rapid growth in private sector credit (partly induced by decline in real interest rates) which in turn fuelled import growth. This Annex provides a factual review of the movements in the foreign exchange and money markets during January-March 2005, the underlying causes and the policy response.

2. Movements in the Foreign Exchange Market

The weighted average Taka-Dollar exchange rate in the interbank market depreciated from about Tk. 60.5 per USD in December 2004 to about Tk. 61.6 per USD in January 2005, Tk. 63.2 per USD in February and further to Tk. 63.5 in March, representing cumulative depreciation of about 5.5 percent in three months (Table-1 and Chart-1). During the period under review there were, however, substantial intra-day and inter-month variations as exchange rate displayed a depreciating trend over time. After an increase in the month of December 2004 and February 2005, the fluctuation in rates measured by standard deviation decreased in March 2005.

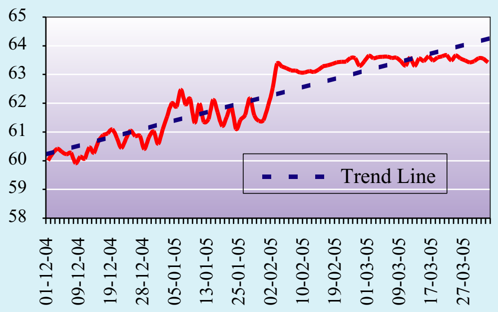
Average volume of foreign exchange transaction increased from about US$10 million in December 2004 to: about US$11 million in January 2005, about US$ 13 million in February 2005 and further to about US$16 million in March 2005 in line with increasing demand over time. At the same time, there was high degree of variation in daily volume of transactions as evidenced by size of the standard deviation and divergence between minimum and maximum level within a month. For instance the range for minimum-maximum daily transaction (in million US$) moved from 1.5 - 21.9 in January to 4 - 24.3 in February and further to 5.5 - 40.8 in March 2005.

Table 1: Movements in Foreign Exchange Market

Period	Ex. Rate (Tk/ US$)				Daily Volume (In million US$)			
	Max	Min	Avg.	SD	Max	Min	Avg.	SD
Dec'04-Mar'05	**63.7**	**59.9**	**62.2**	**1.6**	**40.8**	**1.4**	**12.5**	**6.6**
Dec'04	61.1	59.9	60.5	0.4	22.1	1.4	10.3	5.0
Jan'05	62.5	60.6	61.6	0.2	21.9	1.5	11.1	6.3
Feb'05	63.6	61.9	63.2	0.4	24.3	4.0	12.8	5.5
Mar'05	63.7	63.3	63.5	0.1	40.8	5.5	15.7	8.1

Source: Monetary Policy Department, Bangladesh Bank and authors' estimate.

Chart-1: Exchange Rate (Tk./US$)
(Inter-bank Forex Market: Weighted Average)



The major suppliers of foreign exchange in the inter-bank market were nationalized commercial banks and major source of demand were local private and foreign banks. Given the uncertainty there were occasions when some players in the market tend to withhold supply in anticipation of future depreciation. With a view to ease the supply situation and avoid buildup of speculative pressure giving rise to excessive volatility in rates, Bangladesh Bank intervened in the foreign exchange market by selling of about US$148

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million during the month of January and February 2005. As a consequence of that and partly due to improvement in foreign exchange inflows (induced by exchange rate depreciation) and monetary tightening, exchange rate stabilized somewhat since mid-March 2005.

3. Possible Explanation of Exchange Rate Movements

The underlying cause of pressure in the foreign exchange market and consequent depreciation of the exchange rate appear to be rapid growth in import demand in the face of marked slowdown in exports. During the first six months of FY05 (July-December, 2004) merchandise imports grew by 24 percent compared with same period in FY04 while merchandise exports registered a growth of about 15 percent (starting from a lower base than imports). As a result sizeable external current deficit emerged during October-December 2004 period as remittances earning was insufficient to cover trade and services account balance. This in turn put pressure on the external balance of payments position and foreign exchange market (Annex Table 2 and Chart-2) beginning end-December 2004. The pressure intensified during January-February when import growth accelerated in the face of marked slowdown in export growth and remittances.

It is evident from the data provided by EPB (Text Table V.6) that during July-March FY05 export earnings from a number of major products, declined substantially over last year's level which include frozen food (-39 percent), jute goods (-3 percent), raw jute (-2.8 percent), and other manufactured goods (-7.5 percent) while export earnings from woven garments and leather grew by only 3.8 percent and 7.8 percent respectively.

Rapid growth in merchandise imports, was propelled mainly by growth in capital machinery, intermediate goods and raw-materials reflecting growth in economic activity and investment

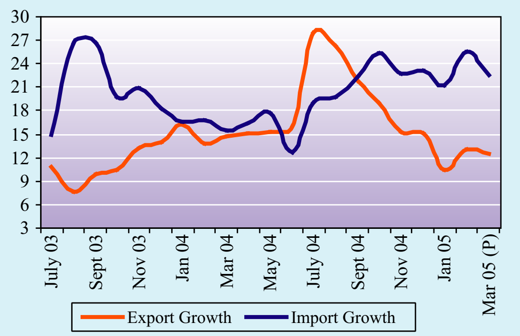
Table 2: Exports, Imports and Remittances

(In million US$)

Month	Exports	Imports	Trade Balance	Remittance
July 03	678.2	820.6	-142.4	258.8
Aug 03	636.9	746.6	-109.7	227.7
Sept 03	583.8	858.7	-274.9	248.3
Oct 03	516.5	808.4	-291.9	308.2
Nov 03	558.5	907.9	-349.4	245.4
Dec 03	625.8	850.2	-224.4	289.7
Jan 04	730.3	797.4	-67.1	257.1
Feb 04	462.8	840.8	-378.0	256.3
Mar 04	628.2	1236.8	-608.6	311.4
Apr 04	629.0	966.2	-337.2	283.3
May 04	717.4	1037.2	-319.8	278.1
Jun 04	835.7	1026.6	-190.9	307.7
July 04	868.1	976.6	-108.5	286.7
Aug 04	793.7	901.7	-108.0	271.7
Sept 04	650.1	1,091.7	-441.6	275.4
Oct 04	563.4	1,083.2	-519.8	297.0
Nov 04	551.9	1,034.4	-482.5	267.3
Dec 04	719.3	1,058.0	-338.7	379.2
Jan 05	638.6	877.9	-239.3	316.3
Feb 05	630.5	1,270.0	-639.5	329.1
Mar 05^P	681.5	1,323.4	-641.9	400.3

Source: Export Promotion Bureau and Statistics Department, Bangladesh Bank. P= Provisional

Chart-2: Export and Import Growth



demand, rise in commodity prices in the world market and higher level of foodgrains imports to meet domestic shortfall[2]. The rapid growth in import demand was assisted by sharp increase in the bank credit to private sector resulting partly from a decline in real interest rate.

[2] During first three quarter (July-March FY05) imports of food-grains increased by 44 percent petroleum products by about 82 percent iron, capital machinery by about 55 percent, steel and base metal by 35 percent, textiles fabric by 22 percent, yarn by about 21 percent, chemical products by 21 percent, crude oil by 22 percent.

4. Movements in the Money Market

As noted above money market also experienced substantial pressure leading to marked increase in call money rates, repo and reverse-repo rates as well as yield in 28-day treasury bill. There were also substantial fluctuations in daily call money rates and volume of transactions. Summary statistics on month-to-month movements in the weighted average call money rates along with volume of transactions are presented in Annex Table 3 and Chart 3. Average monthly call money rates increased sharply from 7.6 percent in December 2004 to 12.8 percent in January 2005 and then declined modestly to 11.9 percent in February 2005 before rising to 13.5 percent in March 2005. More critically, there were substantial fluctuation and variation in rates within a day and within a month. For instance the maximum call money rates peaked to 22 percent in December 2004, 31 percent in January 2005, about 30 percent in February 2005 before declining to 15.6 percent in March 2005. There was also substantial variation in observed daily rates charged to different banks and financial institutions.

While the average daily volume of transactions declined slowly from about Tk.27.9 billion in December to Tk.23.6 billion in January to Tk.19.5 billion in March, there were substantial variation in daily volumes within a month. In the month of December it varied from a minimum of Tk.20.5 billion to Tk.46.6 billion (SD of 4.8), in January it the range was Tk. 14.1-28.9 billion, in February the range was Tk.14.4-31.2 billion, and in March the range was Tk.12.8-26.8 billion.

As the average level of excess liquidity fall substantially, daily repo and reverse-repo rates went up sharply[3]. Repo rates for 1-2 day shown in Chart 4 indicate that the average rate went up from about 4.5 percent in November 2004 to 10 percent in January 2005, before coming down to 8 percent in February and further to about 7 percent in March, as liquidity situation improved over time. The weighted average reverse repo rate, on the other hand increased by 2-percentage

Table 3: Movements in the Call Money Rates

Period	Lending Rate				Daily Volume (In billion Tk.)			
	Max	Min	Avg.	SD	Max	Min	Avg.	SD
Dec'04-Mar'05	**31.0**	**3.8**	**11.5**	**5.5**	**46.6**	**12.8**	**23.8**	**5.2**
Dec'04	22.0	3.8	7.6	4.4	46.6	20.5	27.4	4.8
Jan'05	31.0	5.1	12.8	7.1	28.9	14.1	23.6	3.3
Feb'05	29.7	6.5	11.9	5.8	31.2	14.4	24.9	5.0
Mar'05	15.6	8.4	13.5	2.0	26.8	12.8	19.5	4.0

Source: Monetary Policy Department, Bangladesh Bank and authors' estimate.

Chart-3: Movement in Call Money Rates

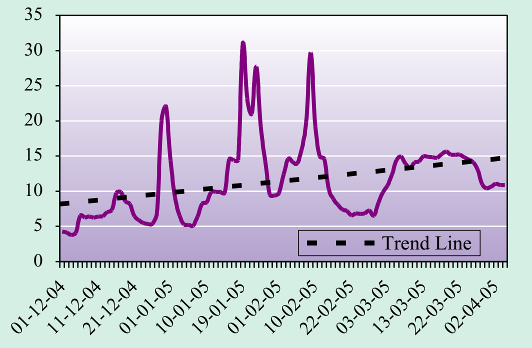
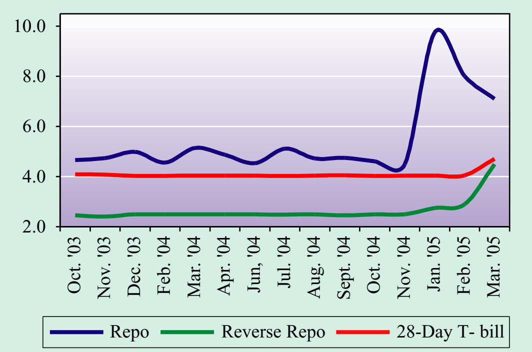


Chart-4: Repo, Reverse Repo and 28-Day T-bill Rates



points (200 basis points) from 2.5 percent of November 2004 to 4.5 percent at the end of March 2005. A higher reverse repo rate helped mop-up excess liquidity from in line with central bank's liquidity target.

Unlike repo and reverse repo rates, average yields for various T-bills other than 28-day bills did not

[3] While repo injects money in the system, reverse repo withdraws money from the system

change much during the first quarter. The yields for 28-day bills increased to about 5 percent in March 2005 after remaining stable around 4.0 percent on 12th December 2004 due some monetary tightening beginning March (Chart 4).

5. Possible Explanation of Movements in Call Money Rates

In a floating exchange rate regime, there is close nexus between money market and foreign exchange markets. Any pressure in the foreign exchange market can arise from or lead to pressure in the money market and vice-versa. Recent movements in both the foreign exchange and money markets also support the close association between the two markets. Sharp increase in credit growth and consequent decline in excess liquidity of banks not only put pressure in the money market but also fuelled rapid rise in the import payments and thus putting pressure in the foreign exchange market.

The main reasons for the rise in the call money market and its fluctuation include: (i) rapid expansion of bank credit to private sector and consequent reduction of excess liquidity of banks; (ii) seasonal pressure in the money market related high demand for cash during Eid-Festival (February); (iii) absence of significant repo operations by central bank to inject liquidity. In addition high demand for foreign currency in December-January related to the Hajj Pilgrimage as well as rise in imports bills also contributed to the rate increase.

Table 4 shows monthly movements in banking system's advances to private sector. It shows that during January-March 2005, advances to the private sector increased by about 20 percent in each month. Data on advances by economic purposes showing the sources of demand indicate that a large share of the advances goes to trade and working capital financing. During the period of January-March 2005, the share of banks' advances to trade and working capital financing were 33.8 percent and 19.3 percent respectively of total advances. The former was instrumental in fuelling rapid growth in import demand during the period (Table 5).

Table 4: Movements in Private Sector Credit

(In billion Taka)

Month	Private Sector Credit (PSC)	
	PSC (Level)	Growth*
Jan 04	877.9	10.0
Feb 04	878.1	9.1
Mar 04	892.0	9.8
April 04	913.5	11.5
May 04	928.2	12.6
June 04	946.3	14.2
July 04	947.2	14.5
Aug 04	961.0	15.8
Sept 04	977.1	14.3
Oct 04	990.6	15.6
Nov 04	1,003.2	16.5
Dec 04	1,037.2	18.1
Jan 05	1,046.4	19.2
Feb 05	1,053.5	20.0
March 05	1,065.6	19.5

Source: Monetary Policy Department, Bangladesh Bank.
* Over the same period last year.

Table-5: Bank Advances by Economic Purpose

Outstanding (in billion Taka)

Sectors	FY03 (June)	FY04 (June)	FY05 (March)	Share* (In %)
a. Agriculture	86.5	94.4	104.5	10.1
Of which: Crops	*82.2*	*88.9*	*98.9*	*9.6*
Others	*4.3*	*5.5*	*5.6*	*0.5*
b. Industry (Without working capital)	157.1	180.6	192.6	18.6
c. Working capital	122.4	154.6	200.0	19.3
d. Construction	52.9	62.8	70.5	6.8
e. Transport & comm.	11.7	11.2	12.9	1.2
f. Storage	8.7	8.4	7.8	0.8
g. Trade	265.4	309.1	350.0	33.8
h. Miscellaneous	76.6	88.6	95.9	9.3
Grand Total:	**781.3**	**909.7**	**1,034.2**	**100.0**

Source: Statistics Department, Bangladesh Bank.
Notes: * at end March FY05.

Rapid growth in credit meant that most banks exhausted their excess liquidity during the period under review. Table 6 shows that weekly excess liquidity position show a declining trend during December 2004-March 2005. The decline was particularly pronounced during the first three weeks if January and the declining trend in the excess liquidity continued till March 2005 albeit with some fluctuations. This trend is consistent with the rapid growth in the private sector credit demand. This is the basic underlying cause of rise in the call money rates. However, one should add two qualifications or refinement to the general analysis. First, the concept of excess liquidity used here also include taka equivalent of foreign currency deposits (FCD) held in banks. To the extent banks cant use the FCD to lend in US dollar, the effective levels of excess liquidity in banks were much lower than the data suggest. Second, the aggregate level of excess liquidity conceal the different situation in NCBs and PCBs. NCBs, in general had much higher levels of excess liquidity as the growth in their lending portfolio is restricted by Bangladesh Bank as part of the NCB reform strategy. The PCBs on the other hand had much lower level of excess liquidity as their credit growth was much higher than the NCBs and the industry average. During the period under review the NCBs in general had surplus funds, which they lent to FCBs and to NBFIs.

Table 6: Trends in Excess Liquidity (in billion Tk)

Week	Excess Liquidity	Change (week-to-week
02-12-2004	92.14	…
09-12-2004	97.05	4.9
15-12-2004	97.45	0.4
23-12-2004	96.84	-0.6
31-12-2004	105.15	8.3
06-01-2005	95.93	-9.2
13-01-2005	91.58	-4.3
19-01-2005	80.70	-10.9
27-01-2005	86.12	5.4
03-02-2005	82.77	-3.4
10-02-2005	83.04	0.3
17-02-2005	88.45	5.4
24-02-2005	89.59	1.1
03-03-2005	87.55	-2.0
10-03-2005	85.16	-2.4
17-03-2005	85.62	0.5
24-03-2005	84.62	-1.0
31-03-2005	83.16	-1.5

Source: Monetary Policy Department, Bangladesh Bank.Note: * Without specialized banks.

6. Policy Response

In response to the pressure in the foreign exchange and money markets, the monetary authority of Bangladesh took a number policy actions noted above and summarized below: **Firstly,** Bangladesh Bank intervened in the foreign exchange market through selling of about USD 148 million during January and February 2005 even though it meant some decline in the foreign exchange reserves. **Secondly,** with a view to contain monetary expansion and combat inflationary pressure, Bangladesh Bank tightened monetary policy somewhat since March through raising cash reserve ratio (CRR) for banks from 4 percent to 4.5 percent and raising repo and reverse repo rates in line with the market conditions. Consistent with BB's reserve money target, later on yield in short-term treasury bills were also raised. **Thirdly,** BB also selectively injected liquidity through its repo operations as and when needed to ease the market pressure. **Finally,** Since non-bank financial institutions lend long-term, as a prudential measure limit has been put on their borrowing of short-term funds from the interbank money market. Under the new regulation NBFI are allowed to borrow only up-to 15 percent of their net total asset from the call money market. These steps helped stabilize the financial markets.