Sources of Inflation in Bangladesh

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Abstract

The paper investigates the sources of inflation in Bangladesh and finds both demand-side (growth of money supply, increase in private sector credit, high government borrowing from the banking system, and growth in remittances) and supply side (exchange rate movement, increase in food and fuel prices in the world market, and noncompetitive market behavior) factors behind the recent inflationary trends in the economy. The paper makes several policy recommendations for dealing with the high inflation. The suggested demand-side measures include the control of money supply, restrictions on credit and government borrowing from non-bank sources instead of from the banking system. On the supply side, the paper recommends for building sufficient buffer stock of food grains, raising agriculture sector production, expanding the present public food distribution system (PFDS) and breaking up any collusive oligoplistic power exercised by the private sector.

1. Introduction

The secular rise in consumer prices in Bangladesh since FY03, and food prices in particular, has drawn the attention of all stakeholders. The country has experienced double-digit inflation rate on point-to-point basis since July 2007. The soaring prices of essential commodities especially, food prices, acutely hurt the poor and worsen equity. Persistent high inflation may unleash forces that jeopardize macroeconomic stability and economic growth. From a policy perspective, it is of utmost importance to explore the sources of the recent inflationary trends in Bangladesh and design appropriate measures to deal with the prevailing situation. With this background in mind, this study attempts to

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understand the forces working behind the recent inflationary trends in the economy of Bangladesh. Policy options are explored as well.

2. Review of Selected Literature

A brief review of four studies conducted in 2007 (Table 1) suggests that both demand and supply side factors constitute the relevant sources of the inflationary process in Bangladesh. Based on the review of these four studies, this study highlights some demand and supply side factors explaining inflation in Bangladesh.

Table 1 : Demand and Supply-Side Factors Explaining Inflation in Bangladesh

Studies	**Demand-Side Factors**	**Supply-Side Factors**
Ahmed and Das	▪ M2 growth ▪ Private sector credit growth ▪ Growth of market capitalization ▪ Inflation inertia	▪ Exchange rate change
Bangladesh Bank	▪ M1/M2 growth ▪ Private sector credit growth ▪ Growth of government borrowing ▪ Growth of market capitalization ▪ Remittances growth	▪ Fluctuations in world food prices ▪ Domestic diesel price change
Centre for Policy Dialogue (CPD)	-	▪ Non-competitive market behavior (market syndicate)
International Monetary Fund (IMF)	▪ M2 growth ▪ Private sector credit growth ▪ Inflation inertia	▪ Exchange rate change

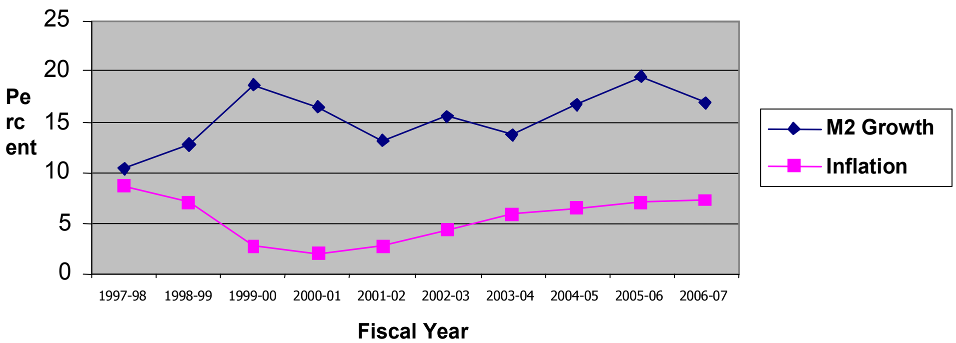
***Source**: Author's compilation*

3. Some Demand-Side Factors

3.1 Growth of money supply

"Inflation is always and everywhere a monetary phenomenon." So wrote Milton Friedman. The Quantity Theory of Money leads us to agree that the growth in the quantity of money is the primary determinant of the inflation rate. The excessive growth of money supply (M2) causes rising inflation by generating excessive pressure of demand in the economy. Since FY03, rising inflation in Bangladesh has generally been associated with accelerated growth of M2 (Figure 1).

Figure 1: Money Growth and Inflation in Bangladesh



Source: Bangladesh Bank (2007b), Economic Trends, August 2007

The relatively fast growth of M2 (on average 17.12% during FY04-FY07) vis-à-vis nominal GDP growth (11.68%) had a bearing on the domestic price level.

Reserve money is created by the central bank through the operation of a balance sheet.

RM = NFA + NDA

Where RM stands for reserve money
NFA for net foreign asset of the central bank
NDA for net domestic asset of the central bank

The money supply (M2) is an increasing function of reserve money (monetary base or high-powered money) and money multiplier (mm).

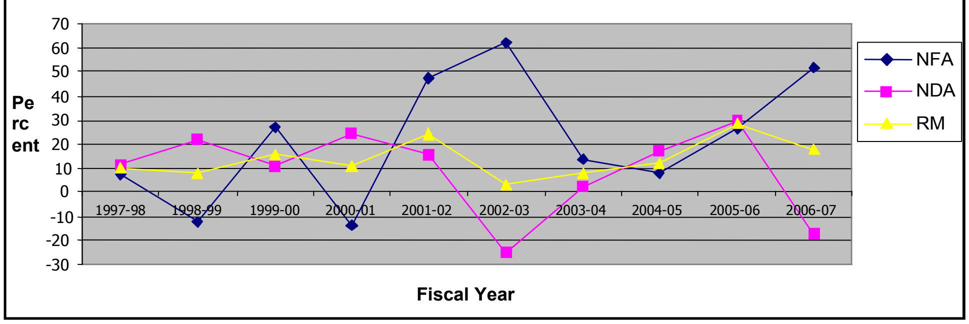
M2 = RM x mm

Money supply will increase by

- an increase in NFA
- an increase in NDA
- an increase in mm

In recent years, most of the expansion of reserve money came from NFA rather than NDA. In FY07, the growth of NFA was 52 percent (Figure 2). In the BOP, change in NFA is equal to the current account balance + net foreign borrowing + net investment by foreigners.

Figure 2 : Sources of Reserve Money Growth

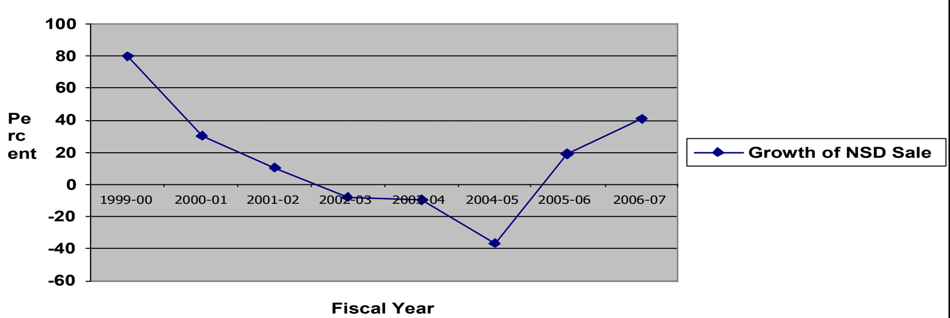


Source: *Bangladesh Bank (2007b), Economic Trends, August 2007*

3.2 Growth of government borrowing (non-bank financing of budget deficit)

Net government borrowing through National Savings Directorate (NSD) certificates showed a declining trend from FY00 to FY05, plummeting in FY05 (Figure 3). Less investment in NSD certificates implies more disposable income

Figure 3: Growth of Net Sale of NSD Certificates

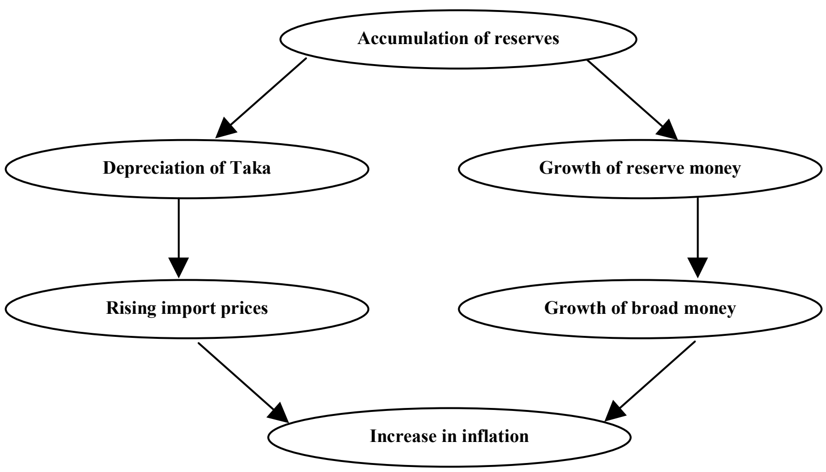


Source: *National Savings Directorate* in the hands of the people, which might have contributed to the inflationary pressure through increased demand.

3.3 Increased inflow of workers' remittances

Money supply for some years has been rising at a rapid rate due to accumulation of foreign exchange reserves. A robust growth of exports and a sharp increase in the flow of workers' remittances have made foreign exchange reserves strong. The transmission mechanism of foreign exchange reserves is depicted in Figure 4.

Figure 4 : Transmission Mechanism of Reserve Accumulation



On the one hand, the accumulation of reserves has added to reserve money by expanding the NFA holding of Bangladesh Bank, which in turn has led to faster money supply (through money multiplier).

On the other hand, the accumulation of foreign exchange reserves has caused Taka to ***depreciate***, which have added an upward pressure on inflation:

Table 2 : Sale and Purchase of US Dollar by Bangladesh Bank (million US$)

Particulars	FY04	FY05	FY06	FY07
Sale	Nil	459.50	413.00	Nil
Purchase	314.00	70.10	77.00	649.50

Source: *Bangladesh Bank*

- Bangladesh Bank pursues somewhat interventionist exchange rate policy, which is reflected in Table 2.
- In recent years, the foreign exchange market experienced excess demand for US Dollar arising mainly from continued price hike of oil and other major imported commodities.

3.4 Inflation inertia

Inflation inertia is found to have significant effect on inflation. A month's inflation contains the influence of all previous months' shocks, which form inertia for the following month. For example, the domestic market takes time to adjust to the falling prices of commodities in the international market.

4. Some Supply-Side Factors

4.1 Rising world food prices

The economy of Bangladesh is dependent on imports for most of the essential food items. Any increase in international prices is, therefore, expected to be passed on to domestic prices through the import channel. We notice a secular increase in the prices of four major food items (rice, wheat, soybean oil and sugar) in the international market during 2003-2007 (Table 3).

Table 3 : Prices of Four Food Items in the International Market

Commodities	2003	2004	2005	2006	2007	
					Q1	Q2
Rice (US $/MT)						
Thailand	248.8	270.0	308.5	346.4	358.7	…
Wheat (US $/MT)						
Australia	165.5	167.1	163.4	169.4	209.0	…
Soybean oil (US $/MT)						
All Origins (Dutch Ports)	500.3	590.5	495.8	551.5	660.0	751.0
Sugar (US cents/pound)						
Free Market	6.9	7.5	10.1	14.8	10.6	9.3

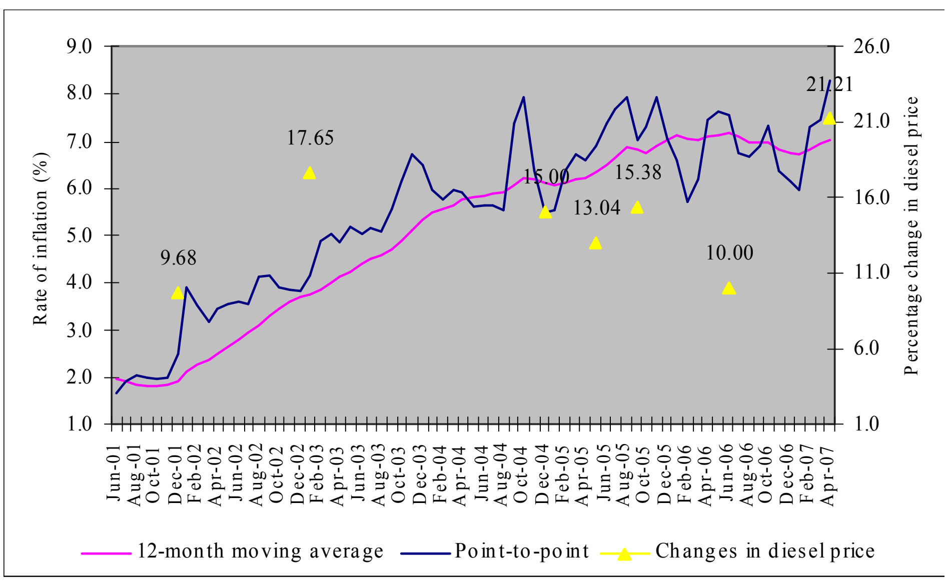
***Source**: IMF (2007b), August 2007, International Financial Statistics*

Since Bangladesh is an import–dependent small economy, a positive relationship is expected to exist between world food prices and domestic inflation. As the weight of food items in the consumption is 58.84 percent at the national level, rising world food prices would influence overall inflation in Bangladesh.

4.2 Changes in diesel prices

Global oil prices have been rising steadily having macroeconomic impact on our economy. Recently, UNDP (2007) has rated Bangladesh as one of the high oil price vulnerable countries. However, two factors are pertinent to assess the impact of oil price change on inflation. Firstly, the current regime of administered pricing of petroleum products[1] has involved significant lags in adjusting to world prices. Secondly, the existing construction of CPI excludes diesel, which constitutes more than 60 percent of total annual import of petroleum products. Consequently, its major impact is indirect through transport fares and irrigation costs. From Figure 5, we observe that generally every hike in diesel price is followed by a rising trend of point-to point inflation in one to three months lag.

Figure 5: Change in Diesel Price and Inflation



***Sources**: Bangladesh Bank*

1 The pass-through coefficient of diesel is 0.43 meaning that 43 percent of diesel price increase has been passed on to consumers (UNDP, 2007).

4.3 Exchange rate fluctuations

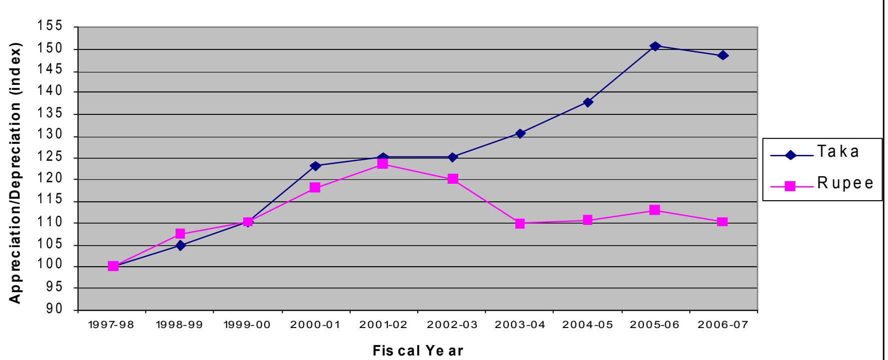
Among supply-side factors, exchange rate is found to be significant in explaining inflation in Bangladesh. A depreciation of exchange rate translates into a rise in the cost of imported commodities by making foreign goods more expensive, and thus induces an increase in the domestic price level. There is a close association between exchange rate fluctuations and inflation.

Exchange rate depreciates => increases the prices of imported commodities => increases the inflationary rate

Since the adoption of a floating exchange rate regime in May 2003, any depreciation of the exchange rate has been associated with a pickup in inflation by increasing the prices of imported goods.

It is evident from Figure 6 that Bangladesh Taka shows a depreciating trend while Indian Rupee displays an appreciating trend during the period from FY98 to FY07. The depreciation of Taka makes imported commodities more expensive having a bearing on the domestic price level.

Figure 6 : Exchange Rate Fluctuations in Bangladesh and India (Local currency per US$)



***Sources**: Bangladesh Bank and Reserve Bank of India*

4.4 Non-competitive market behavior (market syndicate)

The problem of high inflation in Bangladesh is not only due to demand-supply gap of some essential food items but also because of imperfect market conditions. Market syndicate argument goes like this:

Concentrated market power ? price fixing (above the competitive level) ? inflation

For example, the top five importers of eight essential commodities[2] have almost monopolized the import of these commodities and can make undue profits because the demand for such commodities is relatively inelastic. Moreover, in the supply chain of rice, millers alone are usurping more than 23 percent[3] of the retail price (CPD, 2007).

5. Conclusions and Policy Options

The above analysis suggests that both demand and supply side factors constitute the sources of the recent inflation in Bangladesh. Based on these facts, the chance of declining inflationary trend in Bangladesh is slim in the near future. In order to keep inflation under control, the government has already taken some measures.[4] However, the government needs to take more measures to contain the price spiral. This paper makes a number of policy recommendations for dealing with high inflation. These policy recommendations are divided into demand-side and supply-side policy measures.

5.1 Demand-Side Policy Measures

- To contain inflationary pressure in the economy, the growth of broad money should be in line with the estimated real GDP growth and a target for the inflation rate.
- As the government borrowing from non-bank sources is mainly non-inflationary, the government may prefer to borrow more from non-bank sources (national savings schemes) by reinstalling/introducing some long-term savings schemes as were in force earlier.
- Measures may be taken to make the exchange rate responsive to that of neighboring countries especially India by shunning the interventionist exchange rate policy of Bangladesh Bank.

2 These commodities are raw sugar, refined sugar, crude soybean oil, crude palm oil, wheat, rice, lentil and onion.

3 The annualized figure would be more than 60 percent of the retail price.

4 The government measures include enhancing and improving the existing public food distribution system, running the alternative market by the BDR, undertaking regular market surveillance, a cut in the interest rate, reduction/exemption of tariff for import of some essential food items, reducing L/C margins for encouraging small importers, approving in principle the Consumer Rights Protection Ordinance 2007 etc.

- The growth of reserve money arising from reserve accumulation may be offset by sterilization. Bangladesh Bank may sell government securities for which it will have to pay interest.
- We may take lesson from the Indian experience in controlling excess liquidity, thereby containing inflation in FY07. For example, India increased Cash Reserve Requirement (CRR) for scheduled banks with the central bank by 100 basis points in FY07 alone and by another 50 basis points in April 2007, while CRR has remained unchanged in Bangladesh since October 2005. An increase in reserve requirement raises the reserve-deposit ratio and thus lowers the money multiplier and the money supply.

5.2 Supply-Side Policy Measures

Short-term Measures

- The government should maintain sufficient buffer stock of food grain (rice and wheat) in order to meet any kind of shocks. This will instill confidence in people.
- The existing information dissemination system on the prices of essential commodities may be strengthened by using electronic and print media.
- The surveillance on the part of the government may be enhanced through weekly monitoring of domestic and international prices of essential commodities.
- To inject competition in the market, the government should promote small and medium traders along with big importers for import of essential commodities, and help them get credit from commercial banks.
- The existing public food distribution system (PFDS) including targeted food transfer programs, ration sale to essential priority (EP) and other priority (OP) groups and open market sale (OMS) program is too small (about 7% of food grain requirement) to make any impact on the prices of essential food items. Therefore, the government should expand PFDS to the people worst affected by price spiral.

Medium/Long-term Measures

- The government should promote the establishment of producers' cooperatives, which will work towards ensuring fair prices of their products, and at the same time help eliminate unnecessary agents in the supply chain. This will help stabilize the market price.

- More investment in the agriculture sector is needed to undertake research and extension work in order to invent/upgrade modern technology to boost agricultural production, strengthen capacity in storage, marketing and management along with setting up of agro-based industries.
- Like the Indian state trading agencies, the government should use the experience of Trading Corporation of Bangladesh (TCB) by strengthening its capacity with skilled manpower to break up any collusive oligopolistic power exercised by the private sector and thus improve the competitiveness of the distribution network.

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