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Commodity Boom and Inflation Challenges for Bangladesh*

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Executive Summary

Following the low inflation regime in the 1990s and early 2000s, many economies (net commodity importing countries, in particular) around the world are now facing exorbitant price hike in fuel and non-fuel commodities. The current wave of inflation has been eroding purchasing power of the low and middle income people in Bangladesh, as they need to pay much higher bills for food grain and other commodities. The Exchequer of Bangladesh, which absorbs the petroleum price hike significantly, is also under severe pressure as oil prices are now hovering around US\$100 a barrel in the international market. According to the Bangladesh Bureau of Statistics, the overall inflation in Bangladesh was 8.66 percent on 12-month annual average and 11.21 percent on point-to-point basis in November 2007; whereas the food-inflation hit 13.83 percent in the same period. The concerned authorities in Bangladesh have taken several measures to contain the current inflation. However, some of their measures have proven to be countervailing and the ongoing inflation in the economy shows no sign of restrain.

The relationship between inflation and economic growth is a controversial one in economic literature as two schools of thought, namely, the monetarist and the structuralists, have opposite views on inflation-growth link. Nevertheless, based on existing literature and central bankers' growing affair with inflation targeting policies, it can be stated that a low to-moderate-inflationary regime is a *sine qua non* for the pursuit of economic growth with stability. For Bangladesh, a study on inflation-growth nexus shows that the threshold level of inflation is six percent and any rate beyond this negatively affects its economic growth.

Apart from global commodity boom, some internal factors such as drive against corruption, crop loss due to natural disasters, the Bangladesh Bank's (BB) exchange rate policies, and the expansion of broad money (M3) and credit have exacerbated the price hike of primary commodities in Bangladesh. Moreover in recent years, food grain production, except for *Boro* (high yielding variety), has been stagnant owing to the sluggish performance in the country's agriculture sector.

Several factors have induced the rise in fuel and non-fuel commodity prices in international markets. First, the demand for primary commodities has increased tremendously from major emerging economies in recent years. Secondly, increasingly more staple foods and oil seeds are being channeled toward bio-fuel and bio-diesel production of late. Thirdly, crop failures due to bad weather in some parts of the world have also caused the increase in cereals prices. Fourthly, oil price hike in recent years is widely blamed for *inter alia* supply disruptions in the Middle East and the Gulf of Mexico, geo-politics, market speculation, rise in demand (notably from emerging markets), and slides in the US dollar (USD). Fifthly, increasing transportation cost (due to oil price hike) is also playing a part in raising the prices of essential goods. Last but not least, following the US subprime crisis, current turmoil in the financial markets around the world has prompted investors to put their money on commodity markets.

Central banks around the world play a key role in managing prices and formulate monetary policies keeping price stability as a major objective. However, contrary to the BB's restrained monetary policies, both broad money and credit aggregates expanded to a large extent in 2007.

Exchange rate is another channel by which inflation can be transmitted to an economy. The exchange rate policies of the BB favours the country's export sector. There has been a persistent devaluation of the Bangladesh Taka (BDT), the country's domestic currency, since the inception of Bangladesh. Since 2003, the BDT has depreciated around 16-18 percent against the USD. However, in 2007, the domestic currency of Bangladesh witnessed a modest appreciation against the USD. Nevertheless, in recent months, the USD has seen significant decline against major currencies, including Bangladesh's major trading partners. As a result, the importers in Bangladesh have been paying higher import bills in terms of domestic currency that ultimately being pass-through to the consumers.

The nominal effective exchange rate (NEER) and real effective exchange rate (REER) indices show that the Bangladesh economy got some benefits from its undervalued currency for a decade. However, the ongoing high inflation regime has chocked out those advantages of late, particularly since 2007. To maintain the advantages of a competitive (undervalued) currency, central banks need support from fiscal authorities. Since maintaining a competitive currency requires a rise in domestic saving relative to investment, or a reduction in national expenditure relative to income. Otherwise, the competitiveness gains would be offset by rising inflation. The Asian Development Bank (ADB) projects that the fiscal deficit in 2008 could be 4.2 percent of Bangladesh's GDP, compared with 3.2 percent in the preceding year.

Bangladesh needs to adopt both long-term and short-term strategies to cope with the global commodity boom. Long-term policies are beyond the scope of this paper. The authorities in Bangladesh can consider some medium to short-run strategies to tame the reign of current inflation. First, the supply-side constraints in the commodity markets in Bangladesh have to be addressed so that international market prices can converge with its domestic prices.

Secondly, the BB's credit, interest rate and exchange rate policies are crucial to check inflation. The BDT is undervalued and the country is buying some degree of inflation from abroad, however, a large appreciation of the BDT might not be a feasible option at this stage as such a move might disrupt the country's export sector and labour market. Nevertheless, the BB should allow modest appreciation of the BDT so that it plays at least a small part in mitigating the currency-induced inflation. The BB should adopt restraint monetary policies to control money supply and the policies should be formulated carefully so that there is a reasonably stable linkage between interest rate, money supply and prices.

Thirdly, to keep the economy's fiscal balance in a comfortable zone, the concerned authorities should take prudent decisions on petroleum subsidies. The direct pass-through of the oil prices at this stage poses high political risk, as the economy is in the midst of skyrocketing inflation. There is a need for fuel cost economisation. Energy prices should be fixed based on the user categories where subsidies from high-end energy should be phased out gradually. However, the exchequer should continue to absorb substantial, if not full, the price hike of poor people's energy such as kerosene.

Last but not least, the current inflation in Bangladesh can not be explained solely on the macro-economic variables and numbers. To maintain price stability, the government must work on both the economic and non-economic factors that have instigated the ongoing inflation.

Introduction

Inflation, which some economists have dubbed as the “cruellest tax of all”, is eroding purchasing power of consumers, especially the fixed and low income groups of people in net commodity importing countries, around the world. Following the persistent high-inflation regimes in the late 1970s and early 1980s (largely due to two oil shocks), inflation rates have varied an average of two to three percent in the industrialised countries and fell to single-digit levels in many developing countries since the 1990s.¹ It is widely viewed that globalisation has had a positive impact on prices for over one and a half decade by heightening competition both on the demand and supply side. However, the specter of inflation has once again become a major concern for central bankers and policy makers around the world, as many countries have been experiencing high inflation largely owing to a notable increase in commodity prices. The prices of cereals, petroleum products, edible oil, and metals are skyrocketing in the international markets in recent years. Consequently, the commodity price indices have shown an upward trend lately (Figures 1 and 2).

In Asia, Bangladesh is one of the hardest hit by the current wave of agflation² and oil price hike. The economy has been observing double digit inflation growth on point-to-point basis since July 2007 (Figure 3). In Bangladesh, the correlation between per capita income and food weight in total Consumer Price Index (CPI³) is one of the highest in the world⁴ and the economy is vulnerable to a sharp hike in fuel and non-fuel commodity prices. An International Monetary Fund (IMF) study shows that the direct impact of food prices on headline inflation⁵ has been a staggering 55.9 percent in developing Asia in 2007, whereas the figure was 34.1 percent in the period of 2000-06.⁶

¹ Globalization and Inflation, IMF World Economic Outlook, 2006.

² The term is derived from a combination of the words “agriculture” and “inflation” which states an increase in the price of food that occurs as a result of increased demand from human consumption and use as an alternative energy resource (according to Investopedia, a Forbes media company).

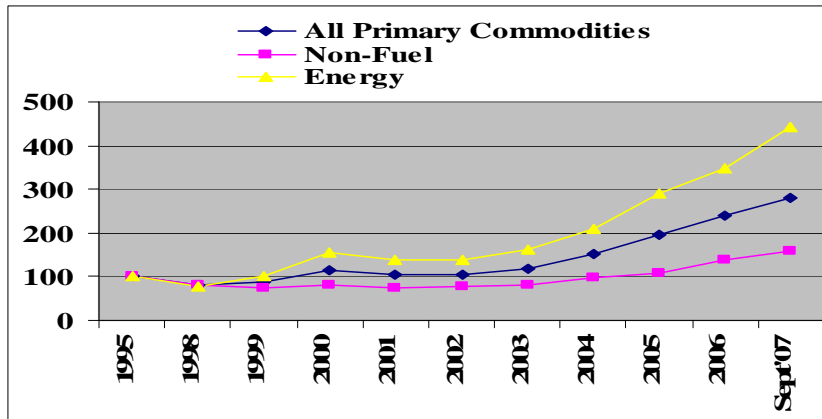
³ The Consumer Price Index (CPI) is an index number measuring the average price of consumer goods and services purchased by households. It is one of several price indices calculated by national statistical agencies. The percent change in the CPI is a measure of inflation. The CPI can be used to index (that is, adjust for the effects of inflation) wages, salaries, pensions, or regulated or contracted prices (www.wikipedia.com).

⁴ For details see World Economic Outlook, 2007, International Monetary Fund.

⁵ Core or underlying inflation is considered a more reliable indicator of medium-term inflationary pressure than overall inflation.

⁶ Ibid.

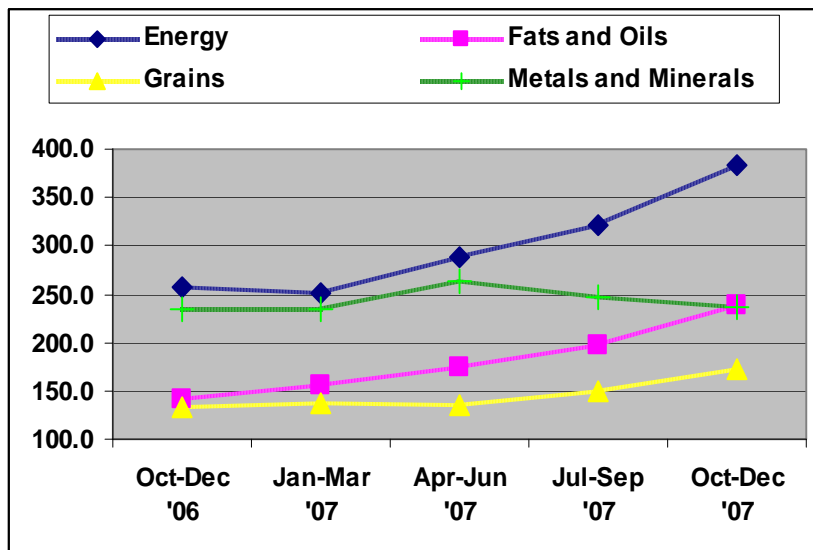
Figure 1: Indices of Primary Commodity Prices, 1995-2007



Note: 1995=100, Non-fuel commodities comprise of cereals, vegetable oil and protein meals, meat, sugar, bananas, oranges, Beverages, industrial inputs, agriculture raw materials, and metals.

Source: Based on International Monetary Fund's Primary Commodity Price data

Figure 2: Commodity Price Indices for Low and Middle Income Countries (2006-2007, Quarterly average)



Note: 1990 = 100

Source: Based on World Bank Commodity Price data

A few factors are believed to have contributed to the ongoing inflationary pressures in Bangladesh. The price hike of fuel and non-fuel commodities in the international markets is widely blamed for the current inflation. The depreciation in the country's currency unit, the BDT against its major trading partners, the expansion of M3 and credit have also played a part in raising prices. Bangladesh faced two major natural disasters (summer floods and cyclone *Sidr*) in 2007 which damaged standing crops, among others, and escalated food prices. The current caretaker governments' drives against corruption have exacerbated the problem. Last but not least, Bangladesh is not self-sufficient in terms of food production and

the country has had a long history of food problems, if not crises. Moreover, in recent years, growth in the agriculture sector has been sluggish.

The government of Bangladesh has taken several measures to curb the price hike. The import duties on a number of essential commodities, including rice and wheat, have been withdrawn. The BB has eased the Letter of Credit margin to encourage imports. The authorities have beefed up open market operations and have been selling the essentials in Dhaka and other major cities in relatively cheaper than the current market prices. However, the ongoing inflation in the economy shows no sign of abatement.

Against this backdrop, this paper investigates the major causes of the current inflation in Bangladesh. It also suggests some anti-inflationary measures for the economy. The rest of this paper proceeds as follows. Section Two briefly analyses the literature pertaining to inflation and economic growth. Section Three depicts the current state of inflation in Bangladesh. The factors behind the recent hike in fuel and non-fuel commodity prices in the international markets (that ultimately affected the price level in Bangladesh) are discussed in section Four. The role of the BB, the Central Bank of Bangladesh, credit and exchange rate policies are discussed in section Five. Section Six concludes the paper and suggests some policies that could be of help in mitigating the adverse impacts of inflation in Bangladesh.

II. Inflation and Economic Growth Nexus

The nexus between inflation and economic growth remains a controversial one in economic literature as both the monetarist and the structuralists have different opinion on the role of inflation on economic growth. The monetarists view inflation is detrimental for economic growth whereas the structuralists opine that it is essential for growth.

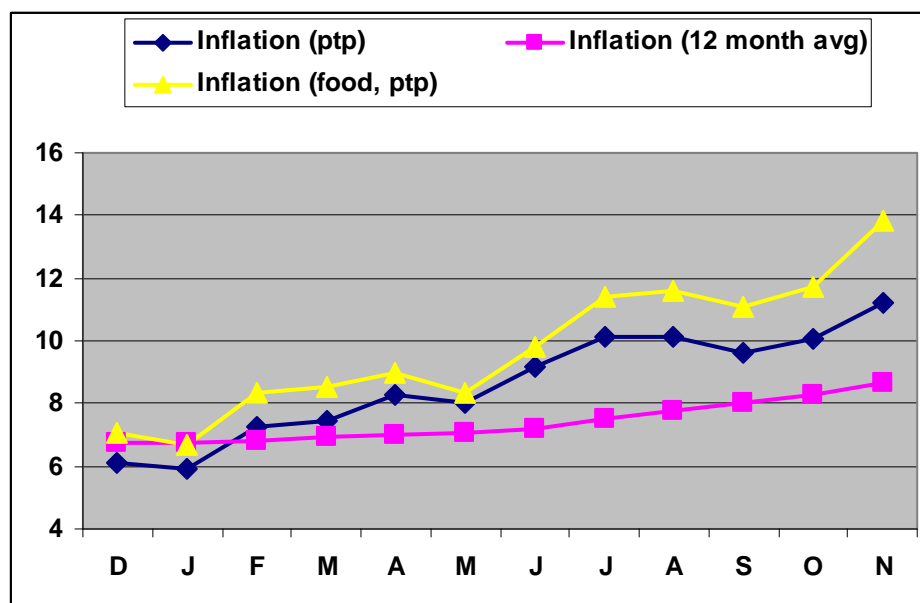
Bruno and Easterly's (1998) study supports the views expressed in Dornbusch and Reynoso (1989), and Levine and Renelt (1992) on inflation-growth nexus. Their investigation reports a robust empirical result that economic growth falls sharply during high-inflation regimes. Using data for around 100 countries from 1960 to 1990, Barro (1995) found that an increase in average inflation by 10 percentage points per year reduces the growth rate of real Gross Domestic Product (GDP) per capita by 0.2 to 0.3 percentage points per year and the ratio of investment to GDP falls 0.4 to 0.5 percentage points. His study also shows that although the adverse impact of inflation on growth sounds small, the long run effects on standards of living are substantial. Following a seminal work by Stanley Fischer (1993), there is a broader consensus amongst researchers that extreme inflation rates (for instance, above 40 percent per year), are associated with reduced economic growth. Using nonlinear estimation techniques, Khan and Senhadji (2001) has found a negative relationship between inflation and growth. Their paper shows that above a threshold level (one percent to three percent for industrial economies and 11 percent to 12 percent for developing economies) inflation considerably slows growth.

Ahmed and Mortaza (2005) shows there exists a statistically significant long-run negative relationship between inflation and economic growth in Bangladesh. Their model found that for Bangladesh six percent is the threshold level (that is, structural break point) of inflation. The paper concludes that any rate beyond this adversely affects economic growth in Bangladesh. In short, it can be said with some reservations that a low to-moderate-inflationary regime is a *sine qua non* for the pursuit of economic growth with stability.

III. The State of Inflation in Bangladesh

According to the Bangladesh Bureau of Statistics (BBS), the overall inflation in Bangladesh was 8.66 percent on 12-month annual average and 11.21 percent on point-to-point basis in November 2007; whereas the food-inflation hit 13.83 percent in the same period. Figure 3 reflects the inflation scenarios in Bangladesh. The trends clearly show that both the 12-month average and the point-to-point inflation are steady since January 2007.

Figure 3: Monthly CPI inflation in Bangladesh, December 2006-November 2007 (in percent)



Note: “ptp” stands for Point to Point Inflation.

Source: Based on *Bangladesh Bureau of Statistics* and *Bangladesh Bank* data.

Table 1: Prices Changes of Selected Commodities Sept’ 2006- Sept’ 2007

Commodities	Average Price increase (in percent)
Different Types of Rice	32.35
Flour	42.43
Edible Oil	53.78
Pulses	4.02
Milk Products	27.58
Fish	7.69
Meat	19.09
Spices	25.28
Vegetables	6.03

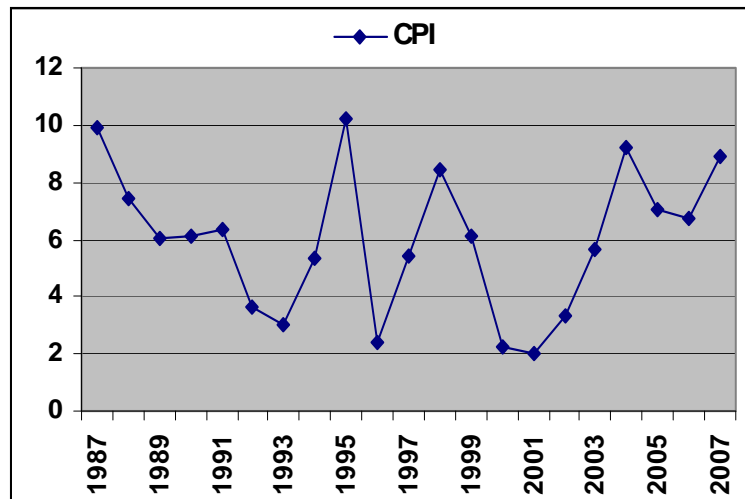
Source: Consumer Associations of Bangladesh

The current level of inflation has surpassed BB’s expectations. In its monetary policy statement (issued in July 2007), the BB targeted an annual average CPI within a range of 6.5-7.0 percent. The Economist Intelligence Unit (EIU) has revised its inflation figures forecast upwards for Bangladesh to 8.7 percent in 2008 (from 7.7 percent previously).

According to the Consumers Association of Bangladesh (CAB), the prices of different types of rice, flour, edible oil, milk-products, fish, meat, spices, vegetables and energy products have increased notably (Table 1) in Bangladesh from September 2006 to September 2007.

Bangladesh has had a history of price volatilities; nevertheless, the level of inflation declined in the economy since 2005 in line with other countries, though it has shown an increasing trend in recent months (Figure 4).

Figure 4: CPI Inflation in Bangladesh, 1987-2007



Source: Based on *Economist Intelligence Unit*

The low and middle group people in Bangladesh are primarily facing the burden of inflation. The exchequer of Bangladesh is also under severe pressure as oil prices are now hovering around US\$100 a barrel in the international market. The Bangladesh Petroleum Corporation’s monthly loss has already exceeded BDT2.50 billion (US\$36 million) per month as the state-owned entity sells petroleum products at much lower prices in the domestic market than their actual import costs. The difference (import price minus local market price) is being absorbed by the government exchequer as subsidies. The losses accumulated in the past have been financed through loans from the state-owned commercial banks.

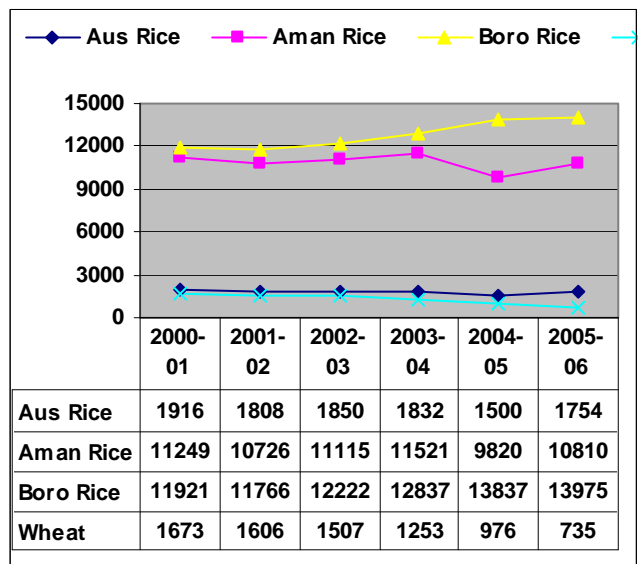
IV. Major Causes of Inflation in Bangladesh

Both internal and external factors have contributed to the current inflation in Bangladesh. As Bangladesh is not self-sufficient in terms of food production, the country depends on external markets for cereals (particularly wheat and rice), pulse, edible oil, milk-products and other essentials. In 2005-06, the country produced 31.45 million metric ton (MMT) food grain whereas it imported 2.56 MMT cereals. Apart from these food items, Bangladesh sources petroleum products and metals from international markets. Though Bangladesh has a sizeable amount of natural gas, the country produces only 10 percent of its oil consumption. It depends on international markets for oil and other petroleum products.

Internally, despite the fact that food production in Bangladesh has increased substantially over the years, however, they could hardly match the demand, which remains steady largely owing to the country’s growing population. In recent years, rice production in the country remains stagnant except for the *Boro*, high yielding variety rice. The production of wheat in

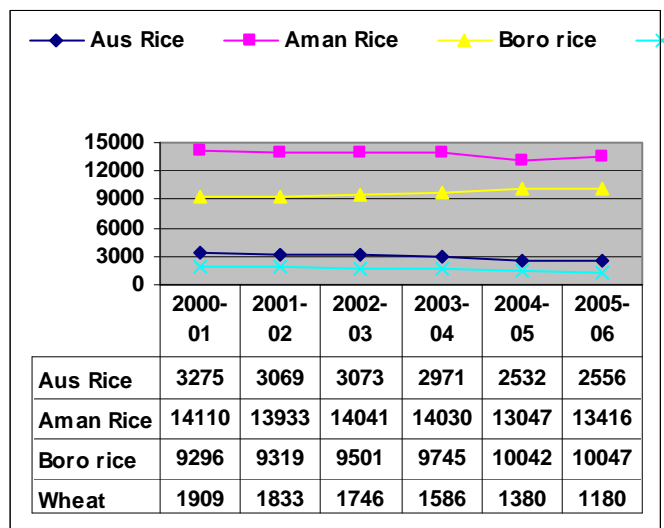
Bangladesh has declined drastically over the years (Figure 5). Further, except for the *Boro*, the areas of rice cultivation have declined in recent years (Figure 6).

Figure 5: Rice Production, 2000-01 to 2005-06 (in thousand tons)



Source: Based on Bangladesh Bureau of Statistics

Figure 6: Area of Rice Production, 2000-01 to 2005-06 (in thousand acres)



Source: Based on Bangladesh Bureau of Statistics

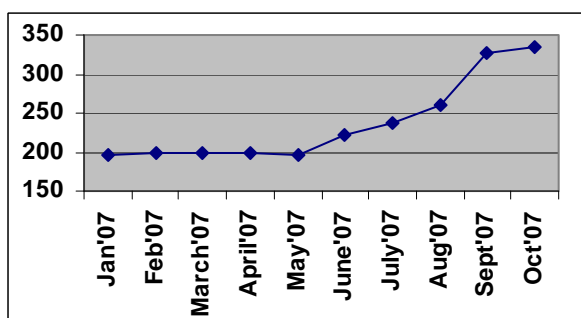
The production of pulses and oilseeds has also declined significantly; however, vegetable production has shown an increasing trend. Crop failures due to erratic weather (abrupt behaviour of South Asian monsoon, wrath of *El Niño* and *La Niña*, damages caused by cyclones, etc.) often create food shortages in Bangladesh. As the net domestic production of

food is not sufficient to meet demand,⁷ the demand-supply gap of cereals, edible oil and other food items are imported from external markets.

Further, in Bangladesh the market mechanism is highly distorted. The gap between retail and wholesale market prices is substantial and it is widely believed that a group of traders control the markets through syndication (oligopoly-type market). In order to break the monopoly of the commodity traders and unscrupulous businessmen who are engaged in hoarding activities, the current government has taken some stern actions. However, some of its measures have proven to be countervailing and indeed instigated the price hike. The drive against the so-called unscrupulous business people has greatly handicapped the commodity imports. Consequently, there has been a supply side constraint in the food grain market.

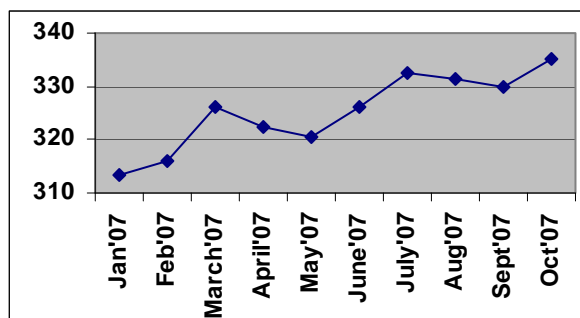
Moreover, a sharp depreciation of the BDT vis-à-vis the USD in recent years and the excess supply of money in the market are also believed to heighten the inflationary pressures. The role of credit and exchange rate policies of BB are discussed some details in the following section.

Figure 7.a: Wheat Prices, January - October 2007 (US\$ per mt)



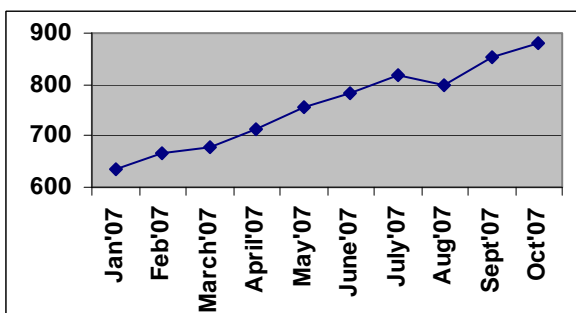
Note: No.1 Hard Red Winter, FOB Gulf of Mexico

Figure 7.b: Rice Prices, January - October 2007 (US\$ per mt)



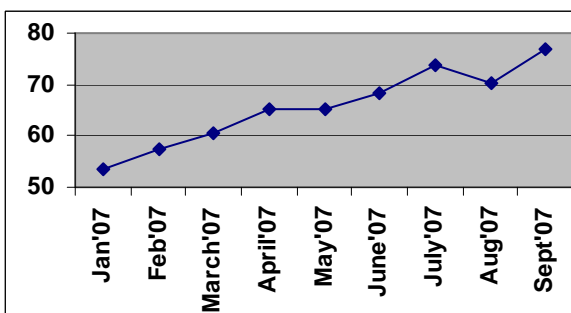
Note: Rice, Thailand nominal price quote

Figure 7.c: Soybean Oil Prices, January - October 2007 (US\$ per mt)



Note: Chicago Soybean Oil Futures (first contract forward)

Figure 7.d: Crude Oil Prices, January - October 2007, US\$ per barrel



Note: Crude Oil (petroleum), simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh

Source: Based on *International Monetary Fund's Primary Commodity Price* data

⁷ Population in Bangladesh has increased from 138 million in 2000 to 150 million (estimated) in 2007.

Externally, although the global commodity prices worked predictably in line with the Prebisch and Singer (1950) hypothesis which states that the prices of commodities relative to that of manufactured goods will tend to decline over time, however, the recent trends show that the ongoing upturn in the global commodity markets has been large and rapid (Figure 1, Figure 2, Figure 7(a-f) and Table A.1 in the Appendix) which matched with only two other periods during the last century.⁸ Nevertheless, commodity prices exhibit significant volatility and prices can deviate from its long term trends.

Table A.1 in the Appendix shows the actual market prices for selected fuel and non-fuel commodities. As can be seen from the table most commodity prices are in increasing trend and the prices of some commodities have soared more than 100 percent since 2004.

Figure 7(a-f) exhibits the recent price trends in selected commodities. As can be seen from the figures the prices of wheat, rice, soybean oil and crude oil has soared 70, 7, 39 and 55 percent respectively in recent months (January 2007 to October 2007) in the international markets.

A few factors have instigated the global commodity boom. First, the demand for primary commodities has increased tremendously from major emerging economies, notably from China. Historically, no country has played bigger role than China in increasing the prices of primary commodities.⁹

Secondly, the petrol tanks are competing with the human stomachs, as more and more staple foods and oil seeds are being channeled toward bio-fuel and bio-diesel production. The development of bio-fuel is not only increasing the prices of the agriculture inputs that are used for ethanol and bio-diesel, it also keeping pressures on other agriculture produces due to the substitution effects. Consequently, such developments have been costing higher food bill to net commodity importing countries.

Thirdly, crop failures due to bad weather in some parts of the world have also caused the increase in cereals prices. Scientists believe that global warming is also playing a part in changing the global weather patterns and the agricultural sector is closely linked to climate change. Fourthly, oil price hike in recent years is widely blamed for supply disruptions in the Middle East and the Gulf of Mexico, geo-politics, rise in demand (notable from emerging markets), and slides in the USD, *inter alia*.

Last but not least, increasing transportation cost (due to oil price hike) is also playing a part in raising the prices of essential goods. The ban on exports of some essentials such as rice, wheat, lentil and onion by neighbouring India has forced Bangladesh to procure these products from other parts of the world. As can be seen from Table 2, the ocean freight rates for grains has increased more than hundred percent since 2005-06. The higher energy cost also increased the domestic distribution cost of commodities.

⁸ In the last century, the world observed two major commodity booms in the 1930s and 1970s respectively. The 1930s boom reflected the recovery from the Great Depression and the 1970s boom was largely contributed by strong global demand and temporary supply disruptions.

⁹ For instance, the prices of most commodities were broadly flat vis-à-vis consumer and GDP prices when the US and Germany did witness the industrialisation in the early 20th century and Japan in the 1950s and 1960s. Increasing prosperity in China has been augmenting the consumption of energy, metal and food.

Table 2: Ocean Freight Rates for Grains (US\$/tonne)

From United States Gulf ports to:		
Period	EU¹	Bangladesh¹
<i>Annual (July/June)</i>		
2003/04	28.3	48.5
2004/05	34.5	65.4
2005/06	20.8	45.5
2006/07	32.3	57.8
<i>Monthly</i>		
2007 – Apr	37	60
2007 – July	48	79
2007 – Oct	75	96

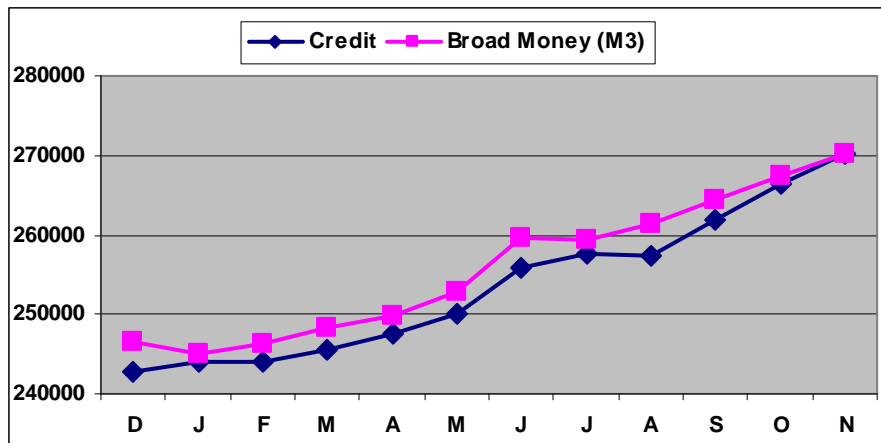
¹ Size of vessels: European Union over 40 000 tonnes; Bangladesh over 40 000 tonnes.
Source: Food Outlook 2007, Food and Agriculture Organization (FAO).

V. Bangladesh Bank's Credit and Exchange Rate Policies and Inflation

“Inflation is always and everywhere a monetary phenomenon” said by Nobel Prize winning economist Milton Friedman whose views are anchored in the quantity theory of money ($M.V=P.Q$, that is, excessive money creation spawns inflation). Economists by and large hold this view. The relative prices in an economy arise from productivity and competition (real factors) and quantity of money in circulation (absolute factor). In the long run, Friedman's theory prevails, however, in the short-run the relationship between money and inflation can be less obvious. In this section, we will discuss the role of credit and exchanges rate in checking inflation where the BB has a big role to play.

Contrary to the Bangladesh Bank's cautious, restrained monetary policies, both broad money and credit aggregates expanded substantially in 2007. According to the BB, M3 recorded an increase due to higher than envisaged growth in net foreign assets (due to increase in workers' remittances and export earnings). Figure 8 shows both M3 and credit growth in the economy has been steady in 2007.

Figure 8: Broad Money (M3) and Credit Growth, December 2006- November 2007 (Taka in Crore)



Source: Based on Bangladesh Bank data

As economies have been globalising steadily in recent decades, the role of exchange rate has become a critical factor in determining *inter alia* a country's competitiveness as traditional tools like tariff and quotas have become less effective, if not obsolete, to manage trade and finance. It also an important channel to keep an economy's major macro variables (such as balance of payment, inflation level, etc.,) in order. The case of the alleged undervaluation of the Chinese Yuan vis-à-vis the USD and the Euro is a classic example in this regard.¹⁰

Bangladesh adopted market-based floating exchange rate system from May 2003 abandoning the two-decade long BDT-USD peg. Although, the direct intervention in the foreign exchange market under the floating exchange rate regime is limited, at least theoretically. However, like many central banks, the BB does intervene in the market. Since 2003, the BDT has depreciated around 16-18 percent against the USD (Figure 9). In 2007, the BDT witnessed a modest appreciation against the USD (Figure 10). At the same time, the USD has seen a sharp depreciation against major currencies which is known as the USD index.¹¹ Further, apart from basket of foreign currencies, the USD depreciated sharply against the Indian Rupee, the Thai Bhat, the Singapore dollar, and the Australian dollar, among others, who are Bangladesh's major trading partners.

Figure 9: USD to BDT Exchange Rate, January 2003 to January 2008



Figure 10: USD to BDT Exchange Rate, January 2007 to January 2008

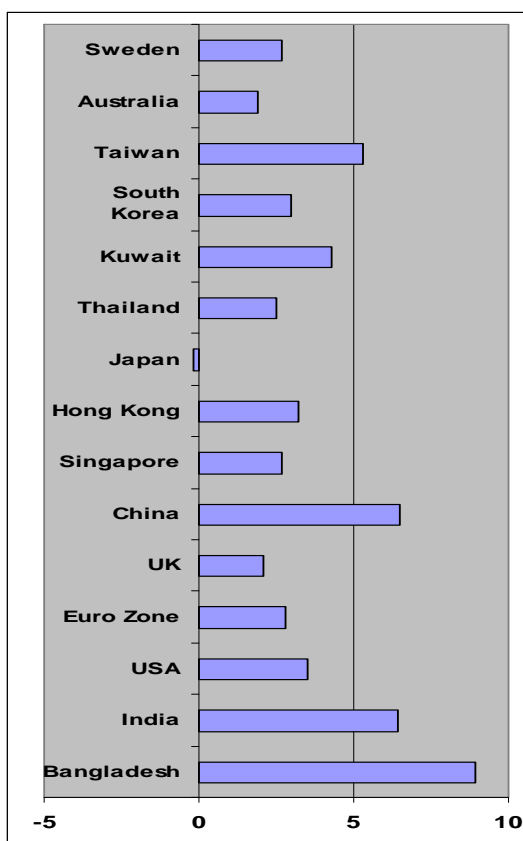


¹⁰ The United States and the European Unions (EU) allegations against China that significant undervaluation of the Yuan (Chinese currency) is contributing to global imbalances and the issue has become a major bone of contentions between China and US and the EU and China of late.

¹¹ The US Dollar Index is an index of the United States dollar relative to a basket of foreign currencies. It is a weighted geometric mean of the dollar's value compared to the Euro (56.6 percent), Japanese yen (13.6 percent), Pound sterling (11.9 percent), Canadian dollar (9.1 percent), Swedish krona (4.2 percent) and Swiss franc (3.6 percent) (http://en.wikipedia.org/wiki/United_States_dollar#US_Dollar_Index)

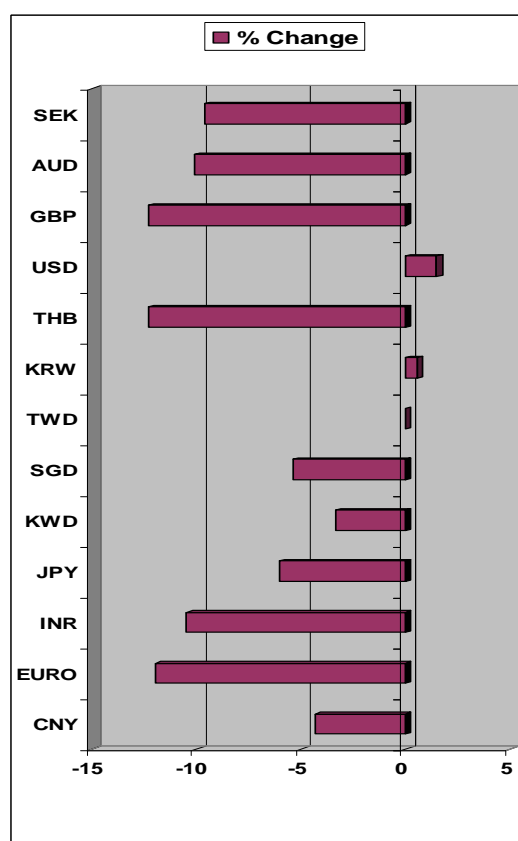
Moreover, as can be seen in Figure 12, the BDT depreciated vis-à-vis its trading partners' currencies. From October 2006 to November 2007, the value of the BDT did fall sharply against the Euro, the Indian Rupee, the pound sterling, the Thai bath, the Australian dollar, the Swedish Crone, the Singapore dollar, the Japanese yen and the Chinese Yuan, among others. In the same period, the BDT appreciated modestly against the USD and some other currencies that are pegged with the USD (the Kuwaiti dinar, the Hong Kong dollar and the Taiwanese dollar).

Figure 11: CPI Inflation in Bangladesh and in its Major Trading Partners, in September-October 2007 (in percent)



Source: Based on *The Economist*

Figure 12: Nominal Appreciation/Depreciation of Bangladesh Taka vis-à-vis its Major Trading Partners' Currencies, October 2006-November 2007



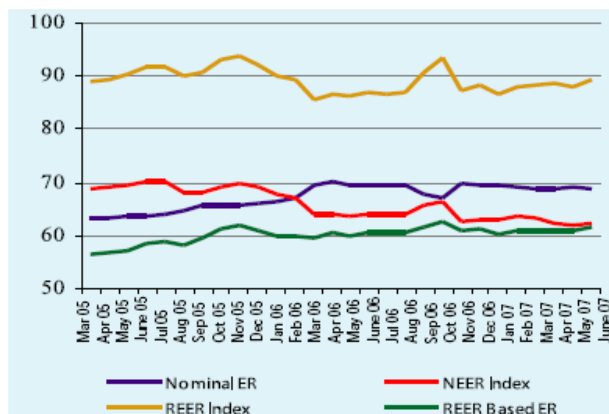
Source: *Foreign Exchange Map*, www.oanda.com and *The Economist*

As a result, the NEER index has been downward sloping in the corresponding period. Figures 13 and 14 also show that the NEER index is not only downward during 2006-2007, rather it also followed the same pattern (downward trend) before the said period, as the BDT experienced continual depreciations against its major trading partners' currencies in recent years.

In Figure 11, we can see that the CPI inflation in Bangladesh is higher than almost all of its trading partners' domestic inflation. Consequently, the nominal depreciation of BDT has been offset by high level of inflation in Bangladesh compared to its trading partners' which is reflected in upward trend of REER (Figures 13 and 14). One of the important findings of the open-economy macro literature is that NEER and REER move quite closely together, except in high inflationary environments. For example, the movement of NEER and REER of the

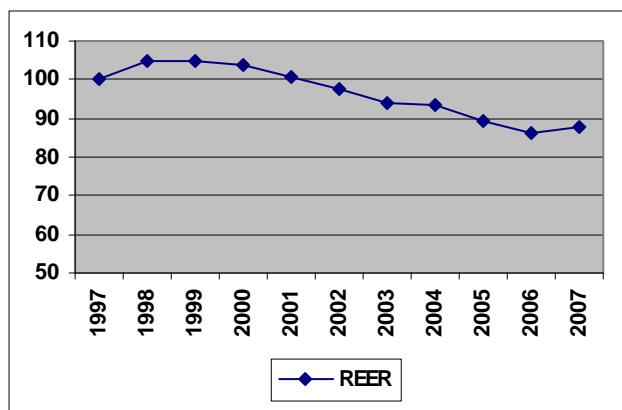
Indian Rupee moved in the same direction largely owing to a low to moderate inflation in India (Figure A.1 in the Appendix).

Figure 13: Exchange Rate Movements, March 2005- June 2007



Source: Bangladesh Bank

Figure 14: Real Effective Exchange Rate, 1997-2007



Source: Based on Economist Intelligence Unit

Based on the above facts, apparently the BDT is undervalued and cost of maintaining an undervalued exchange rate can be self-defeating. Economic theories show that if the nominal exchange rate does not allow sufficient appreciation, real exchange rate adjustment only happen through increase in the price level over time, relative to trading partners. In Figure 14, we can see that the REER index had been in declining trend since 1998 and it had maintained the same pattern till 2006. However, since 2006 the REER index has shown as upward trend. The behaviour of the REER index in the said period indicates that the Bangladesh economy got some benefits from its undervalued currency for a decade, however, the ongoing high inflation regime has chocked out those advantages in recent months.

When it comes to currency revaluation, the BB's dilemma is understandable. An undervalued exchange rate favours the country's exports and encourages overseas Bangladeshis to send

remittances. Consequently, the BB is reluctant to allow the BDT appreciating significantly against the USD and Bangladesh's other trading partners' currencies. However, it should be remembered that an undervalued currency also taxes consumption of tradables at home. The importers pass-through the excess domestic currency they pay for the import payments to the consumers. Consequently, the prices of tradables soar in the domestic markets. Further, it discourages people to save their surplus income, as high inflation erodes nominal interest rate gains. For instance, in Bangladesh currently the deposit rate on savings account is around 7 percent which is lower than the economy's current inflation rate.

On the other hand, currency appreciation makes the export sector uncompetitive and encourages consumption. In recent years, the export sector of Bangladesh has expanded considerably thanks to the boom in the apparel sector. Moreover, the growth of remittance flows in the country has been phenomenal since 2000. While the import growth has been moderate in the same period. These positive developments in the external sector have helped the BB to maintain a healthy foreign exchange reserves. The country's reserves accumulated to US\$6 billion as at March 2008.

It is worthwhile to note that many East Asian economies created wealth at their early stages of development *inter alia* keeping their exchange rates undervalued¹² (also known as mercantilism). Nevertheless, the East Asian economies gradually sought competitiveness through some other vehicles, such as institutional reforms and productivity gain.

Moreover, to maintain the advantage of a competitive (undervalued) currency, central banks need supports from fiscal authorities. As Rodrik (2007) opined: "*maintaining a competitive currency requires a rise in domestic saving relative to investment, or a reduction in national expenditure relative to income. Otherwise, the competitiveness gains would be offset by rising inflation. This means that the fiscal authorities have a big responsibility: to target a structural fiscal surplus that is high enough to generate the space needed for real exchange rate depreciation*".

Clearly, in Bangladesh the fiscal sector is also not in the comfort zone. According to the ADB, the fiscal deficit is projected at 4.2 percent of GDP for the fiscal year 2008, compared with 3.2 percent in the preceding year. In its latest projections, the ADB believed that "*the pressures on the fiscal balance are likely to be amplified because of a rise in expenditures for the relief effort, expansion of food-assisted safety nets, and imports of food grains and fertilizer.*"

Conclusions and Policy Notes

The global demand for commodities fluctuates in line with the business cycle, however, the disproportionate demand for fuel and non-fuel commodities generated by emerging markets might change the age-old trend of long-term commodity price indices (flat-shape of the curve) considering the fact that two emerging markets (China and India) alone make up almost two-fifth's of world's population. So, huge appetite for commodities could keep this upward trend of commodity indices in the near future. Further, climate change might change the global food production map substantially where Bangladesh is predictably the net loser, as climate change poses severe risk to the country's agriculture production. Consequently,

¹² For details, see Dany Rodrik's latest paper on The Real Exchange Rate and Economic Growth: Theory and Evidence, available at <[http://ksghome.harvard.edu/~drodrik/RER percent20and percent20growth.pdf](http://ksghome.harvard.edu/~drodrik/RER_percent20and_percent20growth.pdf)>

Bangladesh needs to adopt both long-term and short-term strategies to cope with the global commodity boom. In the long-run, Bangladesh needs to develop multi-pronged strategies to increase food production taking its food grain demand growth and climate change issues into account. Long-term policies are beyond the scope of this paper. Some medium to short-run strategies are suggested below:

First, coupled with higher commodity prices in the international markets, the supply-side constraints in the commodity markets in Bangladesh have further instigated the price hike. As discussed, the market mechanism in Bangladesh is highly distorted. As a result, there is a broad divergence between domestic and international market prices (as well as rural and urban market prices) of commodities. The World Bank's "doing business" statistics show that out of 178 countries Bangladesh ranked 92nd in terms of "ease of doing business". It takes 74 days to start a business in Bangladesh.¹³ The current government has made some progress in terms of reforms in some key areas of the economy; however, the country badly needs drastic institutional reforms to free the market from distortions.

Secondly, the role of the BB is critical in containing inflation in Bangladesh, as its credit, interest rate and exchange rate policies are crucial to check inflation. Apparently, the BDT is substantially undervalued and the country is buying inflation from abroad. Here is the huge policy dilemma for the central bank of Bangladesh. In an economy like Bangladesh where institutional bottlenecks and market failure are prevalent, currency undervaluation acts as a second best mechanism for alleviating these two drawbacks (for details see, Rodrik, 2007). As a result, a large appreciation of the BDT might not be a feasible option at this stage as such a move might disrupt the country's export sector and labour market.¹⁴ While the undervalued currency is necessary in the short-run, nevertheless, the country's exporters shall not solely depend on undervalued exchange rate as a means of competitiveness in the long-run. Further, as discussed earlier, to maintain the advantages of its undervalued currency, there is a need for co-ordination between the central bank of Bangladesh and the country's fiscal authorities. Nevertheless, the BB should allow modest appreciation of the BDT so that it plays at least a small part in mitigating the currency-induced inflation.

The BB should also use its key policy rates prudently so that the market does not have excess liquidities. The rehabilitation programmes followed by floods and cyclone Sidr are likely to exacerbate credit growth. The BB should adopt restraint monetary policies to control money supply. The monetary policy should be formulated carefully so that there is a reasonably stable linkage between interest rate, money supply and prices.

Thirdly, the concerned authorities should take prudent decisions on petroleum subsidies. It is understandable that the direct pass-through of the oil prices at this stage poses high political risk, as the economy is already experiencing sky-rocketing inflation. Nevertheless, financing the fiscal deficits through borrowing is in fact passing through the present fiscal burden to the generations to come which is not acceptable, at least ethically. The economy should economise the fuel costs. People should pay for the high-end energy products according to the usage. Instead of subsidising all kinds of consumers, it can increase the price of oil and

¹³ For details, see Doing Business < <http://www.doingbusiness.org/> >

¹⁴ Bangladesh's export to GDP ratios is 18 percent and millions of low and middle-income people depends on country's export revenue. Further, remittance is another burgeoning external sector of the economy and millions of people, especially in the countryside of Bangladesh, are increasingly relying on remittance income for their livelihood.

other high-end energy products gradually. However, it should continue to absorb substantial, if not full, the price hike of poor people's energy such as kerosene.

Last but not least, the current inflation in Bangladesh could not be explained solely on the economic numbers and graphs as some non-economic factors (drive against corruption, market distortions, low business confidence, political uncertainties, etc.) have also contributed to the price hike. So, the concerned authorities should take into account all these factors when they formulate policies to check inflation. To maintain price stability, the government must work on both economic and non-economic factors that have instigated the ongoing inflation.

Appendix

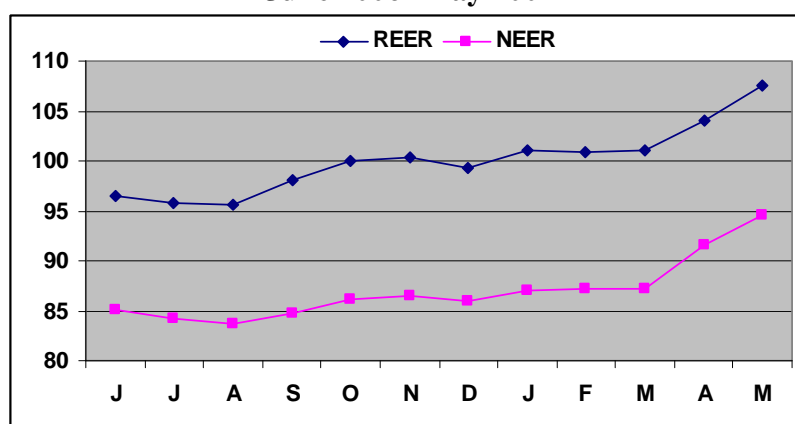
Table A.1: Actual Market Prices for Selected Fuel and Non-Fuel Commodities, 2004-2007

Commodities	Units	2004	2005	2006 Q4	2007 Q2	Sept 2007	Nov 2007*
<i>Cereals</i>							
Wheat	\$/MT	157	152	207	206	327	326
Rice	\$/MT	246	288	307	323	330	344
Maize	\$/MT	112	98	156	158	160	169
<i>Vegetable Oils & Protein Meals</i>							
Soybeans	\$/MT	227	223	235	285	348	368
Soybean Oil	\$/MT	590	496	604	751	853	930
Palm Oil	\$/MT	435	368	476	711	745	877
<i>Agriculture Raw Materials</i>							
Timber (Hardwood, Logs)	\$/M3	197	202	257	262	275	n.a
Cotton (Wool, Fine)	cts/kg	713	678	757	972	943	1101
Rubber	cts/lb	59	68	80	106	99	114
<i>Metals</i>							
Copper	\$/MT	2863	3676	7069	7649	7671	7660
Aluminum	\$/MT	1719	1901	2828	2768	2395	2500
Iron Ore	cts/DMTU	38	65	77	85	85	n.a
Zinc	\$/MT	1048	1381	4197	3681	2888	2805
<i>Energy</i>							
Spot Crude	\$/bbl	37.8	53.4	59.0	66.1	76.9	89.14
Dubai Brent	\$/bbl	33.5	49.2	57.3	64.7	73.3	83.73
Natural Gas (Indonesian in Japan)	\$/M3	123.9	148.0	159.4	171.2	181.2	181.2
Coal (Australian, export markets)	\$/MT	56.7	51.0	49.9	62.0	73.3	n.a

* Average weekly price, as of 02/11/2007

Source: Based on International Monetary Fund's Primary Commodity Price data

Figure A.1: Nominal and Real Effective Exchange Rate of Indian Rupee, June 2006- May 2007



Source: The Reserve Bank of India (RBI) Website < <http://www.rbi.org.in> >

References

Publications

Ahmed, Shamim and Mortaza, M. Golam (2005), "Inflation and Economic Growth in Bangladesh: 1981-2005", Working Paper Series: WP 0604, Policy Analysis Unit, Bangladesh Bank.

Barro, R., 1996. "Inflation and growth", Federal Reserve Bank of St. Louis Review, vol. 78, pp. 153-169.

Bruno, M. and W. Easterly, 1998. "Inflation crises and long-run growth", Journal of Monetary Economics, vol. 41, pp. 3-26.

Levine, R. and D. Renelt, 1992. "A sensitivity analysis of cross-country growth regressions", American Economic Review, vol. 82, pp. 942-963.

Mallik, Girijasankar and Chowdhury, Anis (2001), "Inflation and Economic Growth: Evidence from Four South Asian Countries", Asia-Pacific Development Journal, Vol. 8, No. 1, pp. 123-135.

Mohsin S. Khan and Abdelhak S. Senhadji (2001), "Threshold Effects in the Relationship between Inflation and Growth," IMF Staff Papers, vol. 48, pp. 1-21. An earlier IMF staff paper also found a negative, nonlinear relationship. See Atish Ghosh and Steven Phillips (1998), "Warning: Inflation May Be Harmful to Your Growth," IMF Staff Papers, vol. 45, pp. 672-710.

Prebisch, Raúl (1950), "The Economic Development of Latin America and its Principal Problems, reprinted in Economic Bulletin for Latin America, Vol. 7, No. 1, 1962, 1-22.

Stanley Fischer (1993), "The Role of Macroeconomic Factors in Growth," Journal of Monetary Economics, December, pp. 458-512. See also Michael Bruno and William Easterly (1996), "Inflation and Growth: In Search of a Stable Relationship (245 KB PDF)," Review, Federal Reserve Bank of St. Louis, May/June, pp. 139-46.

Bangladesh Bureau of Statistics, Statistical Bulletin- Bangladesh, Various Issues.

Consumers Associations of Bangladesh (unpublished data)

Website and Newspapers

Asian Development Bank, Quarterly Economic Update, Bangladesh, September 2007
<<http://www.adb.org/Documents/News/BRM/brm-200705.asp>>

Bangladesh Bank, Economic Trends, Various Issues
<<http://www.bangladesh-bank.org/>>

Bangladesh Bank Quarterly, Various Issues
<<http://www.bangladesh-bank.org/>>

International Monetary Fund (2006), “Globalization and Inflation”, World Economic Outlook
<<http://www.imf.org/external/pubs/ft/weo/2006/01/index.htm>>

International Monetary Fund (2007), World Economic Outlook
<<http://www.imf.org/external/pubs/ft/weo/2007/01/index.htm>>

International Monetary Fund Primary Commodity Price data
<<http://www.imf.org/external/np/res/commod/index.asp>>

Rodrik, Dani (2007), “The Real Exchange Rate and Economic Growth: Theory and Evidence”
<[http://ksghome.harvard.edu/~drodrik/RER percent20and percent20growth.pdf](http://ksghome.harvard.edu/~drodrik/RER%20and%20growth.pdf)>

Rodrik, Dani (2007), “An Undervalued Currency Gives Value to Economies” *Taipei Times*
August 14
<http://www.ksg.harvard.edu/ksgnews/Features/opeds/081407_rodrik.html>

World Bank, Commodity Price Data
<<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21148472~menuPK:556802~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>>

World Bank, Doing Business
<<http://www.doingbusiness.org/>>

<http://finance.yahoo.com/currency/convert?from=USD&to=BDT&amt=1&t=1y>

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