The Inflation Debate

By

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The rise in the inflation rate has prompted two views of the sources of higher inflation in Bangladesh. One is the *cost-push inflation* which is typically caused by supply shocks such as flood, draught and oil price hike. The other is the *demand-pull inflation* that occurs when the aggregate demand (AD) in an economy outpaces the aggregate supply (AS). This article has two objectives: first, it identifies the leading source of the current inflationary pressure in Bangladesh using economic data and the famous AD-AS model. Second, it argues that more aggressive contractionary monetary policy is needed to pull down the inflation rate below 2%.

Before progressing any further, let us briefly review the AD-AS model. In the AD-AS model, the AD curve is downward sloping because when the price level (P) rises, the aggregate quantity (Q) demanded falls. The components of the aggregate demand are consumption spending, investment spending, government expenditure and net exports (exports less imports). By contrast, the short-run AS curve slopes upward because firstly, we assume that the prices are somewhat flexible in the short-run and secondly, to induce firms to supply more output, the price level has to rise. The short-run equilibrium price and output are determined by the intersection of AD and AS curves (the point where the aggregate demand equals the aggregate supply). See Fig. 1 for a graphical representation of the AD-AS model.

Cost-push inflation (also known as supply-shock inflation) basically means that prices have been pushed up by increases in costs of factors of production, such as oil. Globally, oil price has increased from mere $25 per barrel in mid-2003 to over $70 as of this writing. This has prompted Bangladesh's government to raise the domestic fuel prices gradually including the most increase by Tk. 7-9 per litre in April 2007. Meanwhile, the share of oil imports as a percentage of the country's total import bill rose from 9.2% in 2004/05 to 13.6% in 2006/07. We can analyze the impact of such an oil-price shock using the AD-AS model. Suppose, prior to the oil-price shock, the economy was operating at the equilibrium point E_0 with aggregate output at Q_0 and price level at P_0 – see Fig. 1. As the oil-price shock hits Bangladesh economy, the cost of production increases leading to a decrease in the aggregate amount of output supplied by the firms. Graphically this can be seen by a leftward shift in the AS curve from AS_0 to AS_1. As a result the economy moves from equilibrium E_0 to E_1. At the new equilibrium E_1, output decreases to Q_1 while price level increases to P_1, implying that oil-price shock has contributed to inflation and negative output growth.

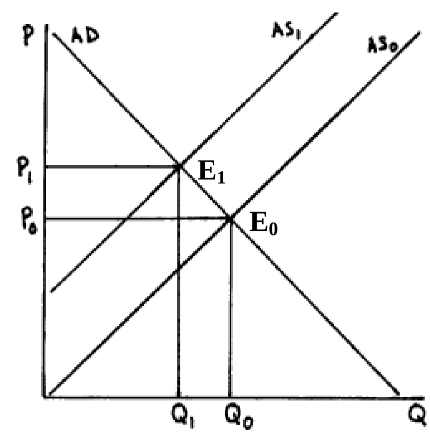

Fig. 1: Cost-push inflation

If we match the predictions of this model arising from an oil-price shock with recent data on real GDP growth rate and inflation rate, we will find a contradiction. The annual average CPI inflation increased from 5.83% in 2003 to 7.02% (12-month annual average) in April 2007. While the real GDP growth rate over the same period increased from 5.3% to 6.6% (estimated). Thus, supply shock alone cannot explain the persistence inflationary pressure in Bangladesh. This analysis also contradicts the view expressed by CPD economist Debapriya Bhattacharya, who has recently said that "inflation rate is increasing due to problems on supply side, not for increased demand as explained by the IMF" (The Daily Star, July 15, 2007). Below we argue that demand shocks have played a larger role in the persistent inflationary pressure in Bangladesh.

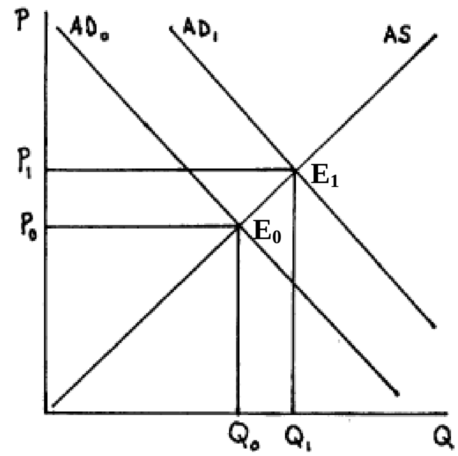

Fig. 2: Demand-pull inflation

One can easily see that despite the record high oil and other commodity prices, the real GDP growth has been increasing over the years (from 5.3% in 2003 to 6.6% in April 2007). This feature coincides with the proposition of demand-pull inflation which argues that inflation arises when aggregate demand in an economy outpaces aggregate supply. In recent years, strong export demand, expansionary fiscal policy, large inflow of remittances and higher growth rate of money supply have contributed to strong aggregate demand for goods and services in Bangladesh. The year-on-year growth rate of broad money (M2) increased from 11.9% in June 2004 to 18.2% in May 2007. This excessive growth in money kept the real interest rate (actual cost of borrowing after adjusting for inflation) relatively low. The lower real interest rate in turn has stimulated consumption, investment and government spending, resulting an overall increase in the aggregate demand for goods and services.

In the AD-AS model, an increase in the aggregate demand can be shown by a rightward shift in the AD curve from initial AD_0 to AD_1. As a result, the equilibrium moves from E_0 to E_1 – see Fig. 2. At the new equilibrium (E_1), the price level increases to P_1, while the output level increases to Q_1. Therefore, a positive demand shock leads to both higher inflation and higher economic growth. Clearly, these two features are consistent with the actual data reported above. In fact, Bangladesh's economy has been affected by both adverse supply shocks and positive demand shocks. However, based on the AD-AS analysis and macro data we can argue that the demand shocks have been stronger than the supply shocks. This leads us to conclude that increased demand being the leading factor behind the persistent inflationary pressure in Bangladesh.

In the presence of inflationary pressure, central banks generally pursue contractionary monetary policy to fight inflation. Under a contractionary monetary policy, a central bank decreases money supply in order to raise the interest rate. Higher interest rate reduces consumption and investment spending. As a result, aggregate demand falls causing both inflation and output to decline. In the short-run there is a trade-off between inflation and real GDP growth. If we want to reduce inflation, we will have to forgo higher output growth in the short run. Over time as people revise their inflationary expectations downward, the output growth will increase. That is, in the long-run there will be no trade-off between inflation and real GDP growth rate.

The Bangladesh Bank (BB) claims that it was following tight monetary policy over the period from January 2006 to June 2007, and shall continue to follow the same for next 6 months effective from July 2007. According to July 2007 Monetary Policy Statement, Bangladesh Bank's "monetary policy is accordingly designed around a projected real GDP growth rate, and moderate level of CPI inflation attainable/sustainable without unduly depressing output." Real GDP growth rate is projected to be 7% in 2008. To achieve this growth target, "BB's monetary policy will target an annual average CPI within a range of 6.5-7.0% for FY08". For BB higher rate of economic growth is the first priority. Bangladesh Bank is NOT aiming to pull down the inflation rate. Despite the hue and cry among the public, we are surprised to see that the Bangladesh Bank is basically trying to keep the inflation rate at the level which has prevailed in past 3 years. In the fiscal years 2004 and 2005, the average annual CPI inflation rates were 6.49% and 7.16%, respectively. This rate was 7.02% in April, 2007. Since BB is knowingly sustaining the inflation rate around 7%, the BB as well as the government (because BB's policy is influenced by the government) should take the responsibility of the current inflationary pressure in the economy.

We think that under the veil of "cautious and restrained" monetary policy, BB was basically undertaking expansionary monetary policy to validate or support government's expansionary fiscal policy especially during the period from January 2006 to June 2007. The expansionary nature of BB's monetary policy is evident from the growth rate of broad money. The year-on-year percentage change in the broad money increased from 14.2% from June 2005 to 18.2% in May 2007. As a result, the real interest rate decreased to approximately zero or negative, leading to higher consumption and investment spending, huge government borrowing, and thus higher inflation. For instance, the nominal interest rate (yield) on 364-day treasury bills in June 2007 was 8.48%. The expected CPI inflation, reported by Economist Intelligence Unit, in 2007 on average is 7.5%. Therefore, the real interest rate, which is calculated by taking the difference between nominal interest rate and expected inflation rate, is approximately 1%. However, the real interest rate of 1% overestimates the actual cost of borrowing. If we consider the expected rate of change in the domestic currency, we see that the value of taka against the U.S. dollar decreased by an annual average rate of 4.03% over the period from July 2005 to June 2007. Adjusting for the domestic currency depreciation and the premium for the risks associated with investing in Bangladesh, the real interest rate drops well below zero.

The evidence of negative real interest rate on 364-day treasury bills shows that the government itself has the incentive to keep the inflation rate high so that it can borrow money from the public and the banking system free of cost. No wonder we are not seeing any aggressive contractionary monetary policy from Bangladesh Bank by solely targeting to pull down the inflation rate below 2%!

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