

# ISAS Insights

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## Inflation, Growth and the 3D: South Asian Perspectives

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### Abstract

*While inflation and economic growth, the two fundamental issues of macroeconomics, are often addressed from fiscal and monetary policy perspectives, this paper argues that there is a limitation to the extent they can contain headline inflation and remove barriers to growth. In this connection, the paper suggests that such issues also need to be viewed through a 3D (density, distance and divisions) prism. If addressed properly in the light of the 3D, individual countries of South Asia as well as the region can solve many fundamental problems concerning inflation and growth.*

### Introduction

The spectre of inflation is back in South Asia. While core inflation<sup>2</sup> has spiked moderately, headline inflation<sup>3</sup> in most countries is now double digit. This is also happening at a time when many parts of the global economy are fighting deflation. People in advanced economies

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<sup>2</sup> Core inflation is a measure of inflation that excludes certain items—notably food articles and energy—that face volatile price movements. It is often calculated by taking the Consumer Price Index (CPI) and excluding certain items from the index, usually food products and energy, [www.investopedia.com](http://www.investopedia.com) Accessed on 20 August 2010.

<sup>3</sup> Also known as top-line inflation, headline inflation is a measure of price inflation that takes into account all types of inflation that an economy can experience, including changes in the price of food and energy.

generally ignore headline inflation (as do central banks) owing to the low weight of food and energy in their household budget. For South Asia, home to the world's largest number of poor people, however, it is too important to be ignored, given the higher share of income being allocated to food articles.

Generally, supply shocks, or higher demand, or a combination of both push prices up. However, a closer look gives us a different picture. The total stock of food grains with the Food Corporation of India and other government agencies, for instance, increased to 58.4 million tonnes in July 2010.<sup>4</sup> The stock was much above buffer norms. Yet food inflation in India has been double digit for several months. One might argue that this is due to high inflation expectations. Based on available data and the forecast by the Indian Meteorological Department, the country will experience a near-normal monsoon.<sup>5</sup> The Reserve Bank of India (RBI) projected that the agriculture sector is likely to grow at least 4.0 per cent in 2010-11, which is much higher than in the previous fiscal year.<sup>6</sup> So shortage in agricultural supplies is probably not the reason behind high food inflation.

Similar stories can be traced elsewhere in South Asia. In Bangladesh, for instance, there is a wide gap between international and local prices of imported commodities, even if one separates tax, tariff and subsidy distortions, and transport costs. Prices of grains and other food articles between different locations in Bangladesh are highly divergent<sup>7</sup>, despite the fact that the country is geographically dense.<sup>8</sup>

While monetary policy can be quite useful to contain core inflation, its role as far as headline inflation is concerned has proven to be less potent. Upward adjustment in traditional monetary tools such as policy rates or currency appreciation might not have a profound effect on inflation. Moreover, short-term interest rates are generally guided by the core inflation rate.

One of the key premises for ignoring changes in food and energy prices, particularly in developed countries, is that although these prices have significant effects on the overall index,

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<sup>4</sup> Macroeconomic and Monetary Developments, Reserve Bank of India, 26 July 2010. Accessed on 12 August 2010.

<sup>5</sup> India Meteorological Department, [www.imd.gov.in/](http://www.imd.gov.in/). Accessed on 19 August 2010.

<sup>6</sup> RBI (2010). –Macroeconomic and Monetary Developments, Reserve Bank of India, 26 July 2010. Accessed on 12 August 2010.

<sup>7</sup> Poor infrastructure, extortion and collusion in the commodity supply chain, among others are blamed for commodity price distortions in Bangladesh.

<sup>8</sup> With 144,000 square kilometres, Bangladesh is geographically smaller than Orissa of India and slightly larger than Wisconsin of the United States. The country is home to 160 million people - making it one of the most densely populated countries in the world.

they are often quickly reversed. As a result, they do not require a monetary policy response.<sup>9</sup> Under this circumstance, an impotent monetary policy allows the supply shock to be passed through into a higher price level as it generally does not have any mechanism to address headline inflation.<sup>10</sup> Nevertheless, food inflation in India and elsewhere in South Asia remains persistently high. The respective central banks responded by rising policy rates, *inter alia*. However, as in the past, such an action may not dampen the prices in a meaningful way.

### **Costs of Economic Growth**

Then there are issues concerning growth. Bangladesh's gross national savings, for instance, is 35 per cent of its GDP, but it invests only 25 per cent. Its incremental capital output ratio (ICOR)<sup>11</sup> is approximately 4. With this ICOR, it should have grown at the rate of 9.0 per cent. Economic growth rate is the ratio of investment to ICOR. However, it has been growing at approximately 6.0 per cent for the past five years. What then explains Bangladesh's inability to grow at 9.0 per cent? Energy shortages, higher economic distance (despite lower Euclidean distance<sup>12</sup>), inadequate infrastructure, and poor regional connectivity, among others, bar Bangladesh from growing at 8.0 to 9.0 per cent. Similar conclusions can be drawn from other South Asian economies as far as cost of growth is concerned.

### **Growth and Inflation in 3D Prism**

It might be more useful to see the aforesaid problems in 3D prisms. 3D is an acronym for Density, Distance, and Division. The concept received much attention following the publication of the World Development Report (WDR) 2009 titled 'Reshaping Economic Geography' by the World Bank, although the idea originated from Paul Krugman, recipient of the 2008 Nobel Prize for Economics. According to Krugman, economies of scale and declining transport costs

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<sup>9</sup> FRBSF Economic Letter, 97-11; 18 April 1997, Federal Reserve Bank of San Francisco. [www.frbsf.org/econsrch/wklyltr/el97-11.html](http://www.frbsf.org/econsrch/wklyltr/el97-11.html). Accessed on 19 August 2010, Accessed on 17 August 2010.

<sup>10</sup> Ibid.

<sup>11</sup> ICOR is defined as:  $ICOR \text{ for year } t = \text{Investment in year } t / \text{Increase in value of output in year } t$ , [www.jstor.org/pss/2229085](http://www.jstor.org/pss/2229085). According to the Harrod-Domar Growth Model, a country with an investment rate of 4.0 per cent of GDP and an ICOR of 4 will experience growth of 1.0 percent per year. See William, Easterly (1997), 'The Ghost of Financing Gap: How the Harrod Domar Growth Model Still Haunts Development Economics', The World Bank Development Research Group, Policy Research Working Paper WPS 1807, p.5.

<sup>12</sup> The Euclidean distance or Euclidean metric is the 'ordinary' distance between two points that one would measure with a ruler, and is given by the Pythagorean formula. For details, see [http://en.wikipedia.org/wiki/Euclidean\\_distance](http://en.wikipedia.org/wiki/Euclidean_distance). Accessed on 21 August 2010.

encourage concentration of production in certain places and this, in turn, leads to new trade patterns.<sup>13</sup>

Countries can increase the ‘density’ by concentrating economic activity in a few areas – coastal areas are prime candidates. The ‘distance’ between markets can be shortened through an expansion of transport services. Correct policies should be adopted to reduce barriers to the movement of goods and services, helping to eliminate ‘divisions’.

According to the WDR 2009, density is the first of the geographic dimensions of development that underlies the economic mass or output generated on a unit of land. The economic merits of density are profound. Literally no country has developed without the growth of its cities. Examples are abundant – from ancient Rome to modern day’s Seoul or Shenzhen, which did not even exist 30 years ago. Paris generates 28 per cent of France’s GDP using only 2.0 per cent of its land.<sup>14</sup> According to the WDR 2009, denser concentrations of economic activity increase choice and opportunity. They ensure greater market potential for the exchange of goods, services, information and factors of production.

The next critical factor is distance. Economists measure distance between two places based on economic distance, and not Euclidean distance. The distance between Dhaka and Gazipur (where many apparel industries are located), for instance, is merely 26 kilometres (km). It should take less than an hour to commute between these two places, but the travel time is on average 2 to 3 hours. From Gazipur, a consignment of goods needs half a day, if not a day, to reach Chittagong port, a mere 208 km distance. In China people from Shanghai can travel to Wuhan (a distance of 682 km) in 2 to 3 hours. China’s high speed trains run between 260 km/hour to 350 km/hour, connecting the coastal areas to inland cities. This shows how continental China has narrowed the gap between economic and Euclidean distance by rapidly developing its infrastructure.

Poor infrastructure in Bangladesh and elsewhere in South Asia inhibits products and people from moving freely between cities and the countryside. The cost of high economic distance is enormous. Prices of grains or other soft commodities vary widely between the countryside and cities due to higher economic distances in South Asia, prohibiting prices from converging at least within the country, if not across the region.

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<sup>13</sup> Krugman, Paul (1991), ‘Increasing Returns and Economic Geography’, *Journal of Political Economy*, 99(3): 483-499. Fujita, Masahisa and Jacques-François Thisse (2008), ‘New Economic Geography: An Appraisal on the Occasion of Paul Krugman’s 2008 Nobel Prize in Economics’, CEPR Discussion Paper #7063.

<sup>14</sup> World Development Report (2009), The World Bank. <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/EXTWDR2009/0,,menuPK:4231145~pagePK:64167702~piPK:64167676~theSitePK:4231059,00.html>. Accessed on 24 March 2010. Accessed on 24 March 2010.

Economic borders are narrow elsewhere in the world barring South Asia and Africa. Landlocked Nepal, for example, is just a few kilometres away from the Bangladesh border. But the economic distance between these two neighbours is few hundreds, if not thousand, kilometres. People from both sides have to travel via India to conduct trade and commerce. This brings the issue of ‘divisions’ in the picture. There are tariff and non-tariff barriers<sup>15</sup> across the region and beyond the borders. High economic distance and divisions restrict the flow of goods, capital, people, and ideas in South Asia.<sup>16</sup>

Bangladesh shares a 4,098 km border with India, particularly with the state of West Bengal and north-east India. The people of north-east India are closer to Bangladesh than to those in the Indian mainland – irrespective of their geography, history, culture and language, to name just a few aspects. However, the economic isolation between north-east India and Bangladesh has made the border between the two countries a ‘safe heaven’ for separatists and terrorists. The economic isolation of over 200 million people encourages illicit trade, fuels terrorism and increases tensions along the border. Yet they could have been natural trading partners, exploiting the comparative advantages of their respective regions. Bangladesh’s economic growth is severely constrained due to energy shortages, while there is surplus hydro-power in Bhutan and north-east India that could be diverted to Bangladesh’s power grid. Energy-starved Bangladesh can invest in Nepal’s underutilised hydropower sector. Bangladesh has two sea ports and it is a connecting point between South Asia and ASEAN countries; its advantageous geographical location could have been exploited for the benefit of landlocked north-east India and Himalayan countries such as Nepal and Bhutan.

There is a tendency in India and elsewhere in South Asia to seal borders to control the flow of already restricted goods and services if there is inflation or inflation expectations.<sup>17</sup> This deprives poor farmers getting the right price for their produce on one side of the border and the poor, on the other side of the border, seeing inflation eroding their real income. This adversely affects agriculture production – with a lag affect.<sup>18</sup> The economic literature on this is abundant. It also bars the poor from breaking the vicious circle of poverty. There are more poor people in India than Sub-Saharan Africa and nearly one-third of Bangladesh live below the poverty line.

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<sup>15</sup> Non-tariff barriers include, among others, a wide range of operating practices such as bureaucratic delays in processing request for permits.

<sup>16</sup> ‘Non-tariff barriers hindering export to India’, *The Dawn* (24 February 2010); ‘Dhaka sends list, asks Delhi to remove non-tariff barriers’, *The Financial Express* (26 August 2010).

<sup>17</sup> India banned exports of certain commodities following the commodity price hike in 2007-08 and 2010.

<sup>18</sup> If farmers do not get the right price for their produces in the current year (Yt) this affect their farming decision in the next year (Yt+1) and often have adverse impact on agriculture production.

For politicians and bureaucrats, it is more convenient to seal borders than address fundamental issues. Bangladesh and India also share borders with Myanmar. Although Yangon and New Delhi (or Dhaka) are governed by different rulers, the outcomes are no different. While many parts of the world are virtually borderless, India is now constructing a 4,000 kilometre fence to seal the India-Bangladesh international border.

One might cite recent developments in India-Bangladesh relations as a success so far as South Asia's regionalism is concerned. Such optimism is nothing new, if the history of Indo-Bangla relations is any guide. India has recently offered some development assistance to Bangladesh and the latter has promised not to allow terrorism along the borders. The ruling government in Dhaka has also promised to allow India to use Bangladeshi territory for transit. It apparently looks like a win-win situation for both stakeholders. However, the core issues concerning the two countries are not addressed in this *ad hoc* deal. Unless New Delhi allows natural trade between north-east India and Bangladesh, fundamental issues concerning India-Bangladesh relations will not be resolved. Hence, despite recent developments, the comparative advantages between these two close neighbours remain unexploited. So, such occasional spikes of hope – this time thanks to the personal chemistry between Sheikh Hasina, Prime Minister of Bangladesh and Pranab Mukherjee, Finance Minister of India<sup>19</sup> – might die down when there are changes in government or ideology in Delhi and Dhaka. The opposition party in Bangladesh has already renounced the deal. New Delhi must find a way to develop relationships with Bangladesh as a whole and not with individual parties.

While South Asian economies, both individually and regionally, have not looked at development in the 3D prism, China has followed Krugman's theory profoundly. In recent years, the press and academics alike have been highly vocal against China's undervalued currency that is believed to be a cause of major restraint in the global economy. Krugman has also joined the bandwagon with his columns in the *New York Times*.<sup>20</sup> Rebutting Krugman's allegations, Yukon Huang, World Bank's country director for China (1997–2004), argued that China's three-decade spectacular development is based on the 3Ds and not by the aid of its undervalued currency.<sup>21</sup> More precisely, Deng Xiaoping, the architect of China's reforms, started economic reforms by using ideas similar to those developed by Krugman; undervalued currency was not in Deng's mind, Huang argued. China increased the 'density' of economic activity by concentrating production in a few coastal cities geared to exports. It cut the 'distance' between markets through

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<sup>19</sup> They address each other as *brother* and *sister*.

<sup>20</sup> 'Taking On China', *New York Times* (14 March 2010). [www.nytimes.com/2010/03/15/opinion/15krugman.html?\\_r=1](http://www.nytimes.com/2010/03/15/opinion/15krugman.html?_r=1), Accessed on 15 March 2010.

<sup>21</sup> 'Watch China's Coasts, Not its Currency', *The Financial Times* (10 August 2010).

an expansion of transport services. It undertook to reduce barriers to the movement of goods, helping to eliminate 'divisions'.<sup>22</sup>

## Conclusion

So, the solution to growth constraints or the control of inflation does not merely depend on fiscal or monetary policies or similar economic tools. The state of the 3Ds in South Asia tells us why most countries in the region are growing at 5.0 to 6.0 per cent and not 8.0 to 9.0 per cent consistently, or why the law of one price hardly prevails in the region.

However, if the region follows the Chinese example (or designs policies based on the theory developed by Krugman and captured in the WDR 2009), individual countries or the region can narrow the gap between economic and Euclidean distances. Bangladesh, north-east India and Nepal could increase the 'density' of economic activity by concentrating production in a few border cities geared to exports. Bangladesh's land and port can be used to export the produce in the region and beyond. Barriers to the movement of goods and services have to be addressed that could eliminate 'divisions', making South Asia a more integrated region. Haphazard initiatives, as one notices in the case of the recent India-Bangladesh relations, will not eliminate the 'divisions' and will not fundamentally reduce 'economic distance', and the region's comparative advantages will remain unexploited.

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<sup>22</sup> This explains how China is removing the barriers to the movement of goods helping to eliminate 'divisions'. This, including its rapidly developing infrastructure, could help the country to see the 'law of one price' works across the country. For case studies, see World Development Report, 2009, The World Bank, <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTWDRS/EXTWDR2009/0,,menuPK:4231145~pagePK:64167702~piPK:64167676~theSitePK:4231059,00.html>. Accessed on 24 March 2010.