China Report

http://chr.sagepub.com

Impact of Global Economic Crisis on the Indian Economy

N.R. Bhanumurthy China Report 2009; 45; 163 DOI: 10.1177/000944550904500209

The online version of this article can be found at: http://chr.sagepub.com/cgi/content/abstract/45/2/163

Published by: SAGE http://www.sagepublications.com

Additional services and information for China Report can be found at:

Email Alerts: http://chr.sagepub.com/cgi/alerts

Subscriptions: http://chr.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.in/about/permissions.asp

Citations http://chr.sagepub.com/cgi/content/refs/45/2/163

Impact of Global Economic Crisis on the Indian Economy

N.R. Bhanumurthy

The sub-prime crisis that started in 2007 and limited to the US economy has created systemic problem throughout the global financial system following the collapse of a big investment bank. The real economic impact of this financial turmoil is expected to be very large. It has been officially stated that developed economies such as the US and the European Union are entering a recessionary phase. Even the world economic growth has been predicted to decline. The impact of this financial crisis on India is also going to be significant, as India is not decoupled with the global macroeconomic behaviour. The service sector, of which two sectors namely 'trade, hotels group' and the 'financing, insurance group', growth is strongly linked with the global economy. Hence, any decline in the global economic activity is expected to have adverse impact on the domestic services growth. On inflation front, this crisis indeed brought down the inflationary expectations as it led to decline in the world oil prices to around US\$ 70 per barrel after reaching a peak of US\$ 142 in July. This would have positive impact on the domestic economy through reduction in overall interest rate structure, which could stimulate domestic demand. On the external sector front, we might see a fall in the foreign exchange reserves due to outflow of short-term capital in the short term. Together with this, predicted fall in exports would result in weak rupee. But, given the strong domestic fundamentals, we do expect that this adverse impact is limited only to the short term and there would be resilience in the economy in the medium term once the demand and investments pick-up. On the reforms side, the significant adverse impact would be the possible shelving of much-awaited financial sector reforms that is expected to enhance financial inclusion.

In the post-1991 period, following structural adjustment and stabilisation programme, the Indian economy has witnessed a strong growth. In the very recent period (last five years until 2007–08), it has achieved an average annual gross domestic product (GDP) growth of 9 per cent. India was also one of the two fastest growing economies in the world with China being the other. The long run average growth has also gone up from 4 per cent to above 6 per cent. This rise in economic growth has also helped in bringing down the poverty rates and unemployment levels.

CHINA REPORT 45 : 2 (2009): 163–174 SAGE Publications Los Angeles/London/New Delhi/Singapore/Washington DC DOI: 10.1177/000944550904500209 The recent developments in the global economy (in particular, global financial markets) indeed would have a significant adverse impact on the India's economic performance in the current year and is also expected to extend to the next couple of years, depending upon the recovery in the global economy. At this juncture, it is necessary to understand the origins and nature of this crisis. It has its roots in the global imbalances with sharp rise in leveraged consumption levels and current account deficits in the US and other industrialised nations and high savings in China, India and rest of the countries in Asia. This has resulted in unsustainable current account deficit in the US with more than required accumulation of foreign exchange reserves (in US\$) in Asia. The quick diagnosis of the crisis suggests that the loose monetary policy adopted by the US Federal Reserve that kept the interest rates at low level (much below the interest rates based on Taylor rule) appears to have led to bubble in the housing market, which burst following the rise in defaults in the sub-prime market (see Taylor 2009).

How do these global developments affect India? What are the channels of crisis transmission? Although India might not experience a recession of the kind that is shown in US and other industrialised countries, the adverse impact had already shown up in major sectors such as industry and services, thus pulling the overall GDP growth to 6.7 per cent in 2008–09 compared to 9.1 per cent in 2007–08. This is largely because the Indian economy, particularly the service and manufacturing sectors, is increasingly getting integrated with the international economy. Hence, the recession in the developed economies would lead to decline in the Indian economic growth through fall in the exports of goods and services that reduces the aggregate demand.

There are two other channels through which crisis transmit: financial channel and, as Reserve Bank of India Governor says, confidence channel. In the post-Lehman period, the financial institutions, particularly the banks, have almost stopped sanctioning of credit as their risk and uncertainty perception even on worthy projects have increased quite sharply, thereby reducing the whole economic activity. Rather, banks have started diverting the funds from private credit portfolio to risk-free assets, such as government securities, to the Central Bank itself.

The financial sector channel is the one that had potential to disturb the whole financial markets in the short run. As the crisis unfolded, there was flight of foreign capital (in particular the Foreign Institutional Investors' [FII] capital flows) from the emerging market economies (including India). This trend has resulted in fall in the liquidity in the short-term money market in India and also led to the free fall in the Bombay Stock Exchange (BSE) Sensex to less than 10,000 points from above 23,000 points. This has also led to fall in the foreign exchange reserves from above US\$ 300 billions to US\$ 250 billions. But, the quick response from the financial regulators have mitigated this crisis and arrested any percolation of this to the real sector.

Similar to the developed economies, to mitigate the crisis impact and sustain the high growth, various measures have been taken domestically through both fiscal and monetary measures. Three fiscal stimulus packages have been introduced in addition to the large fiscal expansionary measures that are taken in the 2008–09 Union Budget,

such as farm loan waivers and the Sixth Pay Commission award for government employees, which are expected to enhance aggregate demand and help the economic revival. In a sense that the fiscal policy in India was much ahead of the curve as a countercyclical measure before the crisis hit the economy, although it may be largely due to elections. But, the fiscal measures after the Lehman Brother's collapse were largely for the export sector and through foregoing revenues due to tax exemptions and reduction in duty rates. These measures appear to have not shown any positive results as the external demand largely depends on the external economic environment rather than the domestic conditions. The most effective fiscal measures have been taken in the recent Union Budget: 2009-10, wherein a lot of impetus has been given by rising allocation to productive sectors such as infrastructure (both physical and social). It has also increased allocation to other important automatic stabilisers, such as National Rural Employment Guarantee Act, Bharat Nirman (meant for improving rural infrastructure) programme, and so on, that could increase aggregate demand. But, the worrying fact is that these measures have already pushed the fiscal deficit to more than 10 per cent of GDP (both centre and state together). This might have potential to crowd-out private investments through rising interest rates.

On the monetary policy side, following sharp fall in the inflation rates and international interest rates, the Central Bank acted swiftly and brought down the domestic policy interest rates by 400 basis points and eased the short-term liquidity shortage following foreign capital flight and also helped the banks to meet the credit demand. But, the transmission mechanism of interest rate reductions has been quite slow given the unusual circumstances. It is also necessary to understand that monetary policy transmission mechanism would be weak in crisis situations and it is only the fiscal policy that would be more effective. As the government borrowing programme has increased due to fiscal stimulus packages, the monetary authority appears to concentrate only on smoothening its negative impact on the private credit demand and controlling inflationary expectations.

But before we get into the assessment of impact of crisis and the subsequent policy changes, one needs to see whether in the absence of crisis what could have been India's outlook as this would help us in estimating the net crisis impact. Our own contention is that even before the global crisis, the Indian economy was already in the slowdown phase due to the presence of strong cyclical behaviour, which started to move downwards. Further, the international supply shocks that resulted in sharp rise in food/fuel and commodity prices could have also dampened down the growth. Hence, the crisis must have only resulted in deepening the slowdown phase. This article attempts to examine the following four issues:¹ (*a*) whether growth cycles were present in the Indian economy; (*b*) what is the impact of world oil and food price shocks; (*c*) how much growth drops due to current global financial crisis and (*d*) what could be the impact of fiscal and monetary policy changes in the coming years? To address

¹ Some of the findings are taken from our earlier work. See Bhanumurthy and Kumawat (2009).

all these issues, it is necessary to have a macroeconomic framework. Hence, this article uses a structural macroeconometric model based on quarterly data. In the next section, the model that is used for impact assessment is presented briefly.

IMPACT ASSESSMENT

To ascertain the impact of global economic crisis and the subsequent intermittent policy changes on Indian economy, India-LINK quarterly macroeconometric model has been used. As major policy reforms have been initiated in the early 1990s and would have led to structural shifts in most of the major economic variables, any data prior to this might increase the forecast errors of the model for the current and future period as well. Hence, this model considers only the data from the second half of 1990s. This is also due to non-availability of real sector data in quarterly frequency before 1996.

Like any model, this also has broad disaggregations with strong inter-linkages between each block. It has five blocks namely real sector, price, monetary, fiscal and trade sector. Within each block, based on the availability of data, we have further disaggregated. But, high-frequency models have their data limitations. As in the annual models, quarterly model lacks disaggregated investment equations, as the data on private and public investments are not available at the quarterly level. Hence, the gross fixed capital formation has been used as a proxy for the investments. Similarly, in the trade block, the disaggregation is limited only up to oil and non-oil, and in fiscal block, the disaggregation is limited at tax and non-tax revenues and total expenditure.

The model follows an eclectic approach with a mix of theoretical underpinnings, but largely Keynesian and neo-classical. The demand side behaviour is expected to follow the Keynesian approach, while in the supply side, it is the neo-classical approach. As we know that the economic behaviour is dynamic, to capture this, the model uses sufficient lead–lag relationships. It also includes expectations. As the purpose of this model is to capture the current macroeconomic behaviour, the model sufficiently incorporates open-economy–macroeconomic relationships. This will also help in understanding the international transmission mechanism and also the impact of current global economic developments on the Indian economy. Further, the model is capable of capturing exogenous shocks (both domestic and external) such as world oil prices and rainfall. It has twenty-nine estimated equations and it also takes care of time series properties and also the seasonality issues in the data with necessary adjustments.

One unique character of this model, compared to existing macro models in India, is that it introduces non-linear relationship between net domestic credit to commercial sector and the public expenditure. Theoretically, it is known that there could be some non-linear relationship between public and private investments. In other words, it is expected that any autonomous increase in the public expenditure initially would have positive effect on private investments through rise in the aggregate demand. This is the

whole intention of fiscal stimulus packages followed worldwide at present to restrain the economic slowdown. But, in the later stage, if the fiscal deficit exceeds the threshold level, it might crowd-out the private investments through rise in interest rates. In other words, there are limits to fiscal expansions. To sum up, this model, to some extent is capable of helping the fiscal policy regarding the extent of fiscal expansion that is sustainable in the medium to long term. As the economy has already entered into high deficits regime through large fiscal expansions in the recent Union Budget (2009–10), this dynamic and non-linear relationship between private and public investments could help in assessing the linkage between both, in the medium to long term.

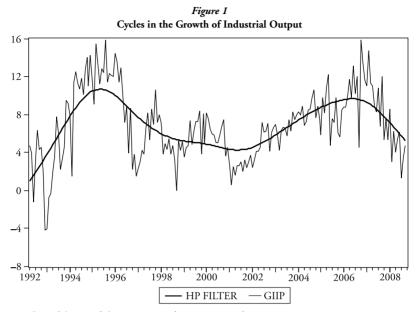
To capture the two transmission channels that are discussed above, the model has in-built some behavioural relationships. They are as follows: (*a*) fiscal stimulus packages affect consumption and credit of both public and private sector; (*b*) changes in interest rates (loose monetary policy) affect the system through its impact on private credit and the consumption and (*c*) changes in world economy initially affect exports, exchange rates and short-term foreign capital and second round impacts would be on the exchange rate, interest rates and prices.

The model also has exogenous variables such as real world output, world food inflation, international oil prices and international interest rates that allow undertaking simulations through changes in policy and the exogenous shocks. In addition to this, there are domestic policy variables such as public expenditure, taxes, repo rate and exchange rate to some extent. Here, public expenditure, although endogenously explained, is also used as an exogenous variable to capture the fiscal stimulus, which is in addition to endogenously determined values. For out-of-sample forecast purpose, the values for exogenous variables, such as world oil prices and world output, were taken from the World Bank and other international sources.

INDIAN ECONOMY WAS ALREADY IN A SLOWDOWN PHASE!

The global economic crisis is indeed expected to lead to deceleration in growth and other economic activities in India. But, based on trends in some economic indicators in the first quarter of 2008, it is perceived that the slowdown in India's growth story started much before the collapse of Lehman Brother's in September 2008. There are arguments that this slowdown is due to tight monetary policy adopted since 2007. But, in our opinion, this slowdown is largely due to the presence of sharp cyclical behaviour in India's growth movement, especially in the post-economic reform period, which was moving downwards. It may be noted in Figure 1 that although there are some smaller cycles, it is found that there are two large cycles in the growth of index of industrial production (IIP) movements since 1992.² The latest cycle, which started

² See India-LINK report, October 2008.



Source: Central Statistical Organisation and various press releases. Note: GIIP, growth rate of index of industrial production; HP FILTER, smoothened series derived using Hodrick-Prescot Filter.

in the year 2002, has continued up to the year 2007. This has been the longest ever growth cycle in India's recent history. And for the same reason, this cycle was expected to move downwards. The HP (Hodrick–Prescott) Filter shows that the IIP growth is indeed moving downwards even before the crisis set in.

With the help of a quarterly structural macroeconometric model, the first one in the case of India, an assessment has been made to see the actual impact of cyclical slowdown on India's growth. Based on the assumptions that there is no global economic crisis and the conditions in domestic and international economy remain same at the March 2008 situation, the model estimates a growth of 7.1 per cent for 2008–09 against 9.1 per cent in 2007–08. And for 2009–10, the GDP growth is projected to be at 7.3 per cent. This is also based on the assumption that there is no oil and food price shock that was experienced in the middle of 2008. This forecast only shows that in India, cyclical slowdown precedes global economic crisis. One of the main sources of this deceleration in the GDP growth cycle is the deceleration of exports growth cycle, which is moving down to single digit (5.3 per cent) in 2008–09 after attaining above 15 per cent annual growth since 2002–03.³

³ See reference in footnote 1.

In addition to the presence of export cycles, there is also presence of interest rate cycles. Empirical results show that the downward movement in interest rate cycle since the beginning of 2002 and the trough in the middle of 2005 is highly correlated with the peak in industrial cycle in that period, albeit with a theoretical lag.

The other shock is the one emanated through rise in global food and fuel prices. The international oil prices started increasing from middle of 2007 and have peaked to its historical height of US\$ 143 per barrel in the middle of 2008. This has resulted in rise in the world food prices as well as the agricultural activity shifted to producing biofuel, which resulted in increase in food prices as well. This sharp rise in the world food and fuel prices in 2007–08 has created large macroeconomic instability in most of the economies in the world. In particular, their impact on the domestic inflation in emerging market economies and the less developed countries is much higher compared to industrialised countries. Even in India, it has resulted in inflationary situation with Wholesale Price Index inflation rising to a height of 12.4 per cent in the second quarter of 2008–09. In order to control the inflationary situation, monetary authorities have been forced to adopt tight policy. But, although it helped in reducing the inflation, it has also resulted in curtailing demand and dampened down the overall economic activity.

In India, the impact of high world prices on output appears to be minimal and short lived. This is largely because the pass through high world oil prices to domestic prices is quite weak due to regulated oil prices. This has only resulted in widening of the current account deficit and also the government's oil subsidy bill in the short term. Further, the Indian monetary authority's response to this inflation and reduction in international interest rates was mild, as it has been perceived that the rise in inflation was not due to demand side reasons. Even this mild tightening of monetary policy through hike in interest rates was not expected to have adverse impact, as in India interest rate channel of monetary transmission mechanism is weak. It is the credit channel that is found to be effective in India. As a result, the overall net impact on GDP growth due to inflation was estimated to a fall of around 0.5 per cent for 2008–09. (The GDP growth in 2008–09 with cyclical slowdown and the inflation impact is estimated to be at 6.6 per cent.) As the world prices smoothened quickly, it is expected that it would indeed have higher positive impact on growth in 2009–10.

GLOBAL CRISIS AND INDIA

The sub-prime crisis that has started in the US has become systemic due to globalisation of factor markets. This has already pulled major economies in the world to the recession situation. India, which is increasingly getting integrated with the world markets, is not immune to these global developments and is expected to see some adverse impact on

the economy. But, as discussed earlier, the Indian economy was already in a downward movement due to cyclical factors even before the crisis set in.

Impact of global crisis on India needs to be understood through its transmission mechanism. As discussed earlier, there are two major channels through which the global crisis could pass through to India: through deceleration in export demand and fall in foreign capital inflow. As the global crisis has pulled down the world economic growth (Organisation for Economic Cooperation and Development [OECD] region growth has already reached to -1.5 per cent in the last quarter of 2008), this is expected to reduce the external demand. As we know that in the recent period, India has seen a robust export growth and is also considered as a biggest contributor for overall GDP growth, any deceleration in exports growth could reduce the production activity.

As the global crisis unfolded, both exports demand and the foreign capital have dwindled resulting to imminent slowdown in the economic growth. In 2008, FII have seen a net outflow of over US\$ 27 billions and this brought down the BSE Sensex to less than 9,000 points. Exports growth, which has averaged annually to about 22 per cent since 2002–03, has turned out to be negative in the last quarter of 2008–09. With these adverse conditions, it was expected that the overall GDP growth, without introduction of any policy measures, is estimated to be at 6.5 per cent. But, it may be noted that this decline in growth compared to the cyclical impact is not very significant. However, our macroeconometric model suggests that global crisis is going to have significant impact in 2009–10, where it is expected to pull down the GDP growth to 5.0 per cent. This implies that the net impact of crisis on India is going to be about 0.1 and 2.3 per cent in 2008–09 and 2009–10, respectively.

There are other effects of crisis other than adverse growth effects, which is more serious for the economic development. It is the impact of crisis on the employment and poverty. It is well known that, in India, in the recent period, the fall in poverty headcount is sharper compared to the pre-1991 period. This is largely due to the sharp upward shift in the overall growth process in the reform period, which has shifted from an average growth of less than 4 per cent (popularly known as Hindu rate of growth) to 5–6 per cent growth in the reform period. Further, in the recent five-year period, the average growth has in fact gone above 8 per cent. But, there are arguments that this growth was not pro-poor and it has resulted in increasing inequality and hence, drop in poverty headcount is not as much as it intended to be. Although this is a valid argument, but in the absence of high growth, India could have fared much worse than it had performed right now. Currently, with the crisis affecting the growth projections badly, given the transmission of growth–employment–poverty, we do expect that employment and poverty situation could also worsen.

As the recent growth process has resulted in more 'informalisation' of labour market, it is expected that within employment, it is the informal sector employment, with very less social security measures, that would be affected badly due to the crisis. A recent survey by Self-employed Women's Association on the informal sector labours

in Ahmedabad (Gujarat) in the post-crisis period explains the crisis transmission and plight of this segment of the labour market. One informal sector worker narrates her story of how crisis affected life:⁴

I am Samuben Bhaljibhai Mackwana. I work as construction worker ... Financial crisis? What a big name! I am an illiterate person. I do not know what it means. I only know that because of it, I am sharing my story with you.

Till a few months ago, I used to work for 25 to 28 days month and earn Rs 150 (about US\$ 3) per day. Now, since October last year, I have been getting work for only five days a month. Sometimes I agree to work for lesser wages though I know that the contractor is exploiting my helplessness.

The contractor tells me that because of the financial crisis, construction work has reduced considerably. The increasing cost of raw material also contributes to this reduction. Another major contributing factor is that the builders have locked their money in the share market, so the shortage of funds is leading to lesser investment in the construction sector. But ultimately we have to bear the brunt.

Other workers also complained that they are getting work only for 10-15 days in a month and daily wages have also reduced to a low of Rs. 90 (about US\$ 1.5). Some people are not lucky enough to even 15 days work in a month ... I have also heard that some workers committed suicide. I am truly frightened of this monster called financial crisis. It has devoured poor people like us. Is any one listening to our silent cries?

There are many similar experiences that may be seen in the informal sector, which could not be traced as the statistical information system in India does not have any mechanism to identify these cases. Although the share of informal sector is growing rapidly, quantifying this sector is done only once in a decade.

In terms of organised sector employment, it is understandable that the crisis which has transmitted to India largely through trade (both goods and services) channel with huge fall in both exports and imports, we expect that employment impacts might be more adverse in sectors that have more exposure to trade. A recent survey by the Ministry of Labour for the period April–June 2009 puts the job losses to nearly 0.131 million in eight important sectors that were surveyed.⁵ In the export-oriented sectors, such as textiles, gems and jewellery, IT/BPO and metals, the employment loss was around 0.21 million jobs, while non-export-oriented sectors, such as leather, automobiles and transport sectors, have indeed seen an increase in employment by

⁴ See 'Effect of Current Economic Meltdown on the Livelihood of Informal Economy', http://www.undp.org.in/images/fc/CaseStudies_FinancialCrisis.doc.

⁵ See 'Labour Bureau's Quarterly report on Effect of Economic Slowdown on Employment in India during April–June 2009', http://pib.nic.in/archieve/others/2009/aug/r2009080742.pdf.

nearly 0.04 million. These trends indicate that until the external economy rebounds, India continues to experience an adverse impact on both growth and development. This also puts to rest the debate of India (for that matter, BRIC [Brazil, Russia, India and China] nations) 'decoupling' with the international economy that was there in 2007–08. Global imbalances do affect countries, such as India and China, which are increasingly getting integrated (in terms of trade, capital and labour) with the rest of the world in the recent periods.

POLICY RESPONSE AND ITS IMPACT

To mitigate the crisis impact, which has created demand constraints, many countries in the world have followed expansionary fiscal policies through cash transfer, enhancing public expenditure and/or tax cuts. Further, as the inflationary situation also subsided (there are deflationary situation in some countries), monetary authorities have reduced the interest rates. All these measures were expected to boost the demand and ultimately bolster the production sectors. Despite these measures, as predicted by many agencies, the revival appears to be not in near future. The most optimistic projections are from the World Bank's 'The Global Economic Prospects, 2009', which predicts the global GDP growth of 0.9 per cent and OECD growth at –0.3 per cent for the year 2009.

Similar to the international trends, India also adopted both fiscal and monetary measures. But, in terms of fiscal measures, India was ahead of the curve as the expansionary fiscal measures started quite early in February 2008 itself (Union Budget: 2008–09). In addition to this, India has also adopted three fiscal stimulus packages in the post-September 2008 period. In terms of monetary measures, policy rates have been cut sharply and also reduced the Cash Reserve Ratio to help the liquidity situation in the short-term markets.

The impact of these measures on Indian economy appears to be not so substantial. In 2008–09, it is estimated that GDP growth would be at 6.4 per cent, an increase of meagre 0.2 per cent. As the external demand is not going to be revived due to continuation of sluggishness in the international economy and the continued crisis of confidence in the financial markets, the external sector appears to take some more time for revival. Nevertheless, the policy measures are expected to enhance domestic demand in the short run and could have some positive impact. But, in the medium term, it largely depends on the response of private investors following increase in public expenditures. The empirical results show that in the medium term, current fiscal stimulus packages might crowd-out private investments and hence, prolong the recovery process. The model shows a GDP growth of 5.8 per cent for the year 2009–10, which in other words implies that the policy changes could result in an additional growth of 0.8 per cent in 2009–10. Regarding other variables, while the inflation rate is expected to go up to its threshold level (of 4–4.5 per cent) by the end of 2009–10, exports growth is expected to be in the negative territory for the whole of 2009–10.

CONCLUSION

In the process of economic reforms, many measures have been taken to increase productivity and efficiency of service and manufacturing sectors through increase in openness and competition. This helped both the sectors to unleash their strengths and avail the opportunities to grow. But, agriculture sector has been left out of the overall growth process. It is well known that the dependency on the agriculture in terms of demand and employment is still higher even after these reforms. Hence, neglecting this sector would constrain the sustenance of high growth process.

Linking agriculture sector to other sectors of the economy and to the market is very much important to sustain the economic growth. There was some effort to address the issues in agriculture sector in the Union Budget: 2007-08 and both service and manufacturing sectors were allowed to grow on their own as they have become more competitive in the international market. Towards this effort, measures have been taken in the Eleventh Plan to improve the market access to agriculture sector through Bharat Nirman programme. Efforts were also made in agriculture sector to respond to price changes; in contrast, right now, they are still regulated through the Commission on Agricultural Costs and Prices. Commodity future markets, which are playing a major role in the international markets in helping both the farmers and the consumers, have been introduced in India. (But they are still in a nascent stage and policy interventions such as Commodity Transaction Tax are hindering their development.) All these measures are yet to show desired results. This is clear in the recent period where the impact of sharp rise in the commodity prices and the global financial crisis has not been seriously felt on the agricultural output in India. It only showed upon the farm subsidies. One inconsistent measure that was taken in the wake of rising global prices was India introducing ban on commodity futures trading and also on exports of agricultural commodities. This has only curtailed the development of commodity futures market and acted as disincentive to the agricultural sector.

As in the developed economies, linking the agriculture sector to industrial sector is quite pertinent to pass the benefits of globalisation to the farmers as well. In this context, providing incentives for the food processing industries would be desirable as it has both forward and backward linkages and help to sustain the higher economic growth despite the untoward global economic conditions. In other words, although integration of domestic economy with the world is necessary for high growth, integration among the domestic production sectors is also equally desirable to improve economic performance and also to be inclusive.

Other area that needs much more focus is the infrastructure (both physical and social) sector. In the current plan, it is estimated that nearly US\$ 500 billion would be invested in physical infrastructure under public–private partnership. There is a need for government intervention as these projects would create more forward linkages and enhance aggregate demand, which would be much higher than the demand created

through three fiscal stimulus packages, and it would also ensure fiscal discipline. The delay in these investments would only prolong the recovery and also increase the project costs.

To sum up, although in an open-economy context it is necessary to have stable and robust global economy, with a renewed focus on farm sector and infrastructure development, India can still sustain its strength even in the face of global economic disturbances. This would also remove the structural inconsistencies that Indian economy has been experiencing off-late and also make the overall growth process more inclusive.

REFERENCES

Bhanumurthy and Kumawat, 'Global Economic Crisis and Indian Economy', *Review of Market Inte*gration, 2009.

Taylor, John B., 'The Financial Crisis and Policy Responses: An Empirical Analysis of What Went Wrong', *NBER Working Paper* No. 14631, 2009.

Author's Address: National Institute of Public Finance & Policy, New Delhi, India. E-mail: nrbmurthy@gmail.com

China Report 45, 2 (2009): 163-174

174