



ADB Working Paper Series

Crisis, Imbalances, and India

Rajiv Kumar and
Pankaj Vashisht

No. 272
March 2011

Asian Development Bank Institute

Rajiv Kumar is director of the Indian Council for Research on International Economic Relations (ICRIER) in New Delhi, India. Pankaj Vashisht is a research associate at ICRIER.

The views expressed in this paper are the views of the authors and do not necessarily reflect the views or policies of ADBI, the Asian Development Bank (ADB), its Board of Directors, or the governments they represent. ADBI does not guarantee the accuracy of the data included in this paper and accepts no responsibility for any consequences of their use. Terminology used may not necessarily be consistent with ADB official terms.

The Working Paper series is a continuation of the formerly named Discussion Paper series; the numbering of the papers continued without interruption or change. ADBI's working papers reflect initial ideas on a topic and are posted online for discussion. ADBI encourages readers to post their comments on the main page for each working paper (given in the citation below). Some working papers may develop into other forms of publication.

Suggested citation:

Kumar, R., and P. Vashisht. 2011. Crisis, Imbalances, and India. ADBI Working Paper 272. Tokyo: Asian Development Bank Institute. Available: <http://www.adbi.org/working-paper/2011/03/29/4497.crisis.imbalances.india/>

Please contact the author(s) for information about this paper.

Asian Development Bank Institute
Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

© 2011 Asian Development Bank Institute

Abstract

With the revival of global economy, the issues of “exit policies” and rebalancing global growth have taken center stage in policy discussions. Since many emerging Asian economies presently have large current account surpluses, the issue of rebalancing has special significance for Asia. While India, like other Asian economies, suffered only an indirect impact from the financial crisis, its current policy challenges appear to be different from those facing the People’s Republic of China (PRC) and other East Asian economies, which have relied heavily on external demand and access to the US market for their growth momentum. With a negative contribution of net exports to gross domestic product growth along with foreign exchange reserves, which amount to a mere one-ninth of the PRC’s, the issue of Trans-Pacific rebalancing of economic growth does not have the same connotations for India as it does for other East Asian economies. However, this paper argues that, given its large domestic market, India could help other East Asian economies in their efforts to achieve greater export diversification and rebalancing of growth.

JEL Classification: G01, E66, F15

Contents

1. Introduction	3
2. Impact of the Crisis on the Indian Economy and the Role of the Services Sector	4
3. Policy Responses to the Crisis	9
3.1 Fiscal Stimulus.....	9
3.2 Monetary Policy Response	9
4. Short-Term Growth Outlook	10
5. Assessment of the Policy Responses and Issues of Exit Policy	13
6. Asian Economic Integration and India's Potential Role.....	14
7. India: A Different Growth Model	17
8. Restructuring and Reforms for Sustainable Growth.....	23
References	26

1. INTRODUCTION

After a year of sharp contraction, advanced economies have shown some signs of economic revival. A boom in United States (US) retail sales in late 2009, coupled with positive gross domestic product (GDP) growth in Japan, Germany, and France in the second half of 2009—and strong growth in the fourth quarter of 2009 and the first quarter of 2010 in the US—is indicative of the crisis having bottomed out, and a recovery being on its way. These positive developments have provided great relief to policy makers across the globe who implemented the largest coordinated fiscal stimulus in history, and a liquidity infusion to prevent the recession from becoming a depression. Thankfully, they succeeded, despite some concerns that with the tapering off of the stimulus in mid-2010, US economic growth could weaken significantly and pull the global economy down with it. The possibility of a double-dip recession, stagnating unemployment levels, and fears of sovereign defaults in Europe have forced policy makers to consider issues such as how and when to roll back the fiscal stimulus and other measures needed to achieve a more balanced global economic growth in the future. With an unsettled debate on the likely shape of the recovery, the issue of exit policy has recently gained purchase among policy discussions in mature economies.¹

Although India, like other Asian economies, suffered only an indirect impact from the global financial crisis, its current policy challenges appear to be different from those facing the People's Republic of China (PRC) and other East Asian economies, which have relied heavily on external demand and access to the US market for their growth momentum. With a negative contribution of net exports to GDP growth (see Table 2) along with foreign exchange reserves, which are a mere one-ninth of the PRC's, the issue of Trans-pacific rebalancing of economic growth does not have the same connotations for India as it might for other East Asian economies. However, given India's large domestic market, India could help other East Asian economies in their efforts to achieve greater export diversification and rebalancing of growth. Against this backdrop, this paper analyzes the impact of the crisis on India and examines its potential role in rebalancing global economic growth.

The paper is divided into eight sections. After summarizing the impact of the crisis on the Indian economy and role of the services sector in Section 2, Section 3 discusses the nature of India's policy response to the crisis. Section 4 discusses the likely prospects of economic recovery in India, while Section 5 deals with the issues of exit policy. Section 6 gives a brief outline of the Indian growth model and on that basis examines India's potential role in Trans-Pacific rebalancing (Section 7). Finally, in Section 8, we make some policy recommendations for achieving sustainable growth.

¹ Relying on traditional economic dynamics (a steep downturn producing a sharp rebound), some economists, led by Michael Mussa, are predicting a strong V-shaped recovery. They argue that businesses have cut their workforces far more than the decline in customer demand and are significantly understaffed. Therefore, a re-employment process is inevitable and will be much faster than in past recessions. According to these economists, the re-employment process will boost consumer demand, and, given its extremely low level, even a small increase in demand would ensure a strong V-shaped recovery. This hypothesis has been severely criticized by some renowned economists, including Joseph Stiglitz and Nouriel Roubini. Citing the low level of final demand as the principal reason, Roubini (2009) has predicted a weak U-shaped recovery. He attributes the recent upturn in assets markets to access liquidity that has resulted from the government's and central banks' initiatives to arrest the downturn. He further warns that if policy makers fail to work out a proper exit policy, the global economy may head towards a double-dip recession.

2. IMPACT OF THE CRISIS ON THE INDIAN ECONOMY AND THE ROLE OF THE SERVICES SECTOR

The Indian economy looked to be relatively insulated from the global financial crisis that started in August 2007 when the sub-prime mortgage crisis first surfaced in the US. In fact, the Reserve Bank of India (RBI) was raising interest rates until August 2008 with the explicit objective of bringing down the GDP growth rate, which had visibly moved above the rate of potential output growth and was contributing to the build-up of inflationary pressures.² But when the collapse of Lehman Brothers on 23 September 2008 morphed the US financial meltdown into a global economic downturn, the impact on the Indian economy was almost immediate. The impact of the global crisis on India can broadly be divided into two parts: (i) the immediate or direct impact on its financial sector and (ii) the indirect impact on economic activities.

Fortunately, India, like most of the emerging economies, was lucky to avoid the first round of adverse effects because its banks were not overly exposed to sub-prime lending. Only one of the larger private sector banks, the ICICI (formerly the Industrial Credit and Investment Corporation of India), was partly exposed, but it also managed to avoid a crisis because of its strong balance sheet and timely action by the government. The banking sector as a whole remained financially sound. In fact, during the third quarter of FY2008–2009, which was a nightmare for many large global financial institutions, banks in India announced encouraging results and witnessed an impressive jump in their profitability (Kumar and Vashisht 2009).

However, the indirect impact or the second round impact of the crisis affected India quite significantly. The liquidity squeeze in global markets following the collapse of Lehman Brothers had serious implications for India: it not only led to massive outflows of foreign institutional investment (FII) but also compelled Indian banks and corporations to shift their credit demand from external sources to the domestic banking sector. These events put considerable pressure on liquidity in the domestic market and consequently provoked a credit crunch. This credit crunch, coupled with a general loss of confidence, increased the risk aversion of Indian banks, which eventually hurt credit expansion in the domestic market.

On the top of that, given the recessionary conditions in many advanced economies, the demand for India's exports in its major markets almost collapsed. Merchandise exports shrunk by more than 17% from October 2008 to May 2009. Likewise, exports of services also faced a steep downturn. During the third quarter of FY2008–2009, growth in services exports declined to a mere 5.9%, as compared to 34% in the corresponding period the previous year. Earnings from travel, transportation, insurance, and banking services also suffered sharp contractions, while the growth of software exports declined by more than 21 percentage points. Yet, the real shock came in the fourth quarter of FY2008–2009, when services exports witnessed a contraction of 6.6% as compared to the same period a year back (Kumar and Vashisht 2009). This was the first quarterly decline in services since the fourth quarter of FY2001–2002.

² Several observers, led by Surjit Bhalla, have been pointing out since May 2008 that inflation, which had gone as high as 12.3% at the end of June 2008, was largely imported and a result of global commodity price hikes. Therefore, inflation had little to do with India's own rate of economic growth, which started to slow down in the third quarter of FY2007–2008 after reaching the highest level of 10.6% in the second quarter of the same fiscal year. See Bhalla (2008).

The impact of the global crisis on the real economy became even more evident in the second half of FY2008–2009, when, contrary to the optimistic official pronouncements, the Indian economy registered a modest growth of 5.8%, significantly lower than 9.0% achieved in the corresponding period in FY2007–2008, and after having achieved a GDP growth of 7.8% in the first half of FY2008–2009. However, this slump in the GDP growth rate was much lower when compared to the decline in GDP growth rate of several East Asian economies (see Table 1). Apart from the low trade-to-GDP ratios and a negative contribution of net exports to GDP growth (see Table 2), the relative importance of services, both in terms of their contribution to GDP and trade (see Table 3), differentiated India from most East Asian economies. It could be argued that since a large number of services are of a non-tradable nature, they are less vulnerable to an external crisis. Moreover, even in the case of tradable services, the impact of external shocks is expected to be relatively low as the demand for traded services is less cyclical (because they are not storable) and their production is less dependent on external finance (Borchert 2009). This hypothesis was well corroborated by the performance of India's service sector during the recent crisis, when India showed a remarkable resilience and maintained a growth rate of more than 8% (see Figure 1), which, though historically low by India's standards, was still fairly robust.

Table 1: Year-on-Year Quarterly GDP Growth Rates (%)

	2008				2009		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
India	8.6	7.8	7.7	5.8	5.8	6.1	7.9
People's Republic of China	10.6	10.1	9	6.8	6.1	7.9	8.9
Republic of Korea	1.1	0.4	0.2	-5.1	0.1	2.6	3.2
Singapore	6.66	2.51	0.04	-4.23	-9.51	-3.31	0.56
Thailand	5.97	5.28	3.90	-4.20	-6.73	-4.94	-3.51
Philippines	3.66	4.84	4.19	1.84	0.59	0.77	0.76
Malaysia	7.41	6.56	4.77	0.13	-6.25	-3.94	-1.25
Indonesia	6.25	6.42	6.40	5.18	4.45	4.04	4.21

Source: Central Statistics Office (2009–2010), National Bureau of Statistics, PRC; Central Bank of Korea (2009); and ASEAN Finance and Macro-economic Surveillance Unit Database (<http://www.aseansec.org/18135.htm> [accessed on 18 February 2010]).

However, similar resilience was not observed in some East Asian economies—such as Japan, Singapore, the Republic of Korea (hereafter “Korea”), and the Philippines—where the services sector has an equal or even larger share of GDP. One possible explanation could lie in the different composition of the services sectors in these countries. Due to the higher level of merchandise trade, the services sectors in the abovementioned economies have largely been dominated by foreign trade-related services, such as trade, transportation, storage, and other trade-related financial services, such as foreign trade financing and insurance. For example, in Singapore, where merchandise trade is as high as 386% of GDP (see Table 3), trade-related services account for more than 75% of total value added in services sector (see Table 4). With this high dependence of services on merchandise trade, the sector suffered along with merchandise trade in the face of a collapse in external demand.

In contrast, the dependence of services sector on foreign trade-related services in India is much lower, at around 62%.³ A disaggregated analysis of services sector growth shows that this lower dependence on merchandise trade has been critical in maintaining growth. As anticipated, trade-related services registered a significant decline during the period of crisis, while other services—including community, social, and personal services (17.5%), and financial, real estate, and business services (8.9%)—continued to grow at a healthy rate (see Table 5).

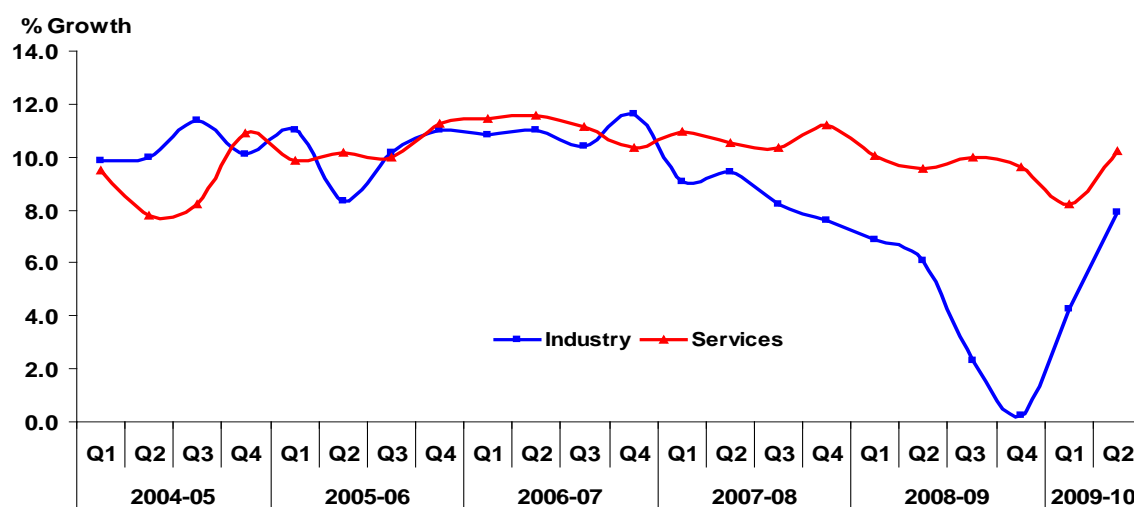
Just as in other emerging economies, manufacturing bore the real brunt of the crisis in India. In the wake of a decline in domestic and export demand, the manufacturing sector witnessed a contraction of 0.25% in the second half of FY2008–09, while growth in mining and quarrying slowed from 4.15% to 3.25%.

Table 2: Composition of GDP Growth (%)

	People's Republic of China (PRC)		India	
	1995–2000	2000–2007	1996–2001	2001–2007
Final consumption expenditure	66.1	38.3	76.9	53.2
Gross capital formation	27.1	48.3	20.4	57.3
Net exports	6.8	13.4	2.7	-10.5
Total	100.0	100.0	100.0	100.0

Source: Authors' compilation from CSO (2009) and NBS (2008).

Figure 1: Year-on-Year Quarterly Sectoral GDP Growth Rate (%)



Source: CSO (2009-10).

³ Here, it should be noted that the financial and business services also include software and business process outsourcing (BPO) services, which are not related to merchandise trade. In India, these services have grown rapidly. If we remove these services (which could not be done due to the lack of disaggregated data), the share of merchandise trade-related services would likely decline significantly.

Table 3: Composition of GDP and Outward Orientation

	Composition of GDP (2006)			Trade % of GDP	Merchandise Trade % of GDP	Services Trade % of GDP
	Agri	Industry	Services			
PRC	11.71	48.37	39.91	72.39	66.56	5.83
India	17.53	27.89	54.58	48.78	32.36	16.41
Japan	1.50	29.90	68.60	---	---	---
Indonesia	12.90	47.05	40.06	56.90	50.40	6.50
Republic of Korea	3.25	39.60	57.15	85.35	71.49	13.86
Malaysia	8.71	49.94	41.35	216.98	193.68	23.30
Philippines	14.18	31.63	54.19	94.01	83.84	10.18
Singapore	0.09	34.74	65.17	473.51	386.22	87.29
Thailand	10.70	44.62	44.68	143.53	125.73	17.80

Source: World Development Indicators 2008 (<file://localhost/Softarchives/WDI-2008/Tables/wdi2008home.html> [accessed 5 February 2010]).

Table 4: Composition of Services Sector (%)

	Singapore	India
Trade, Transportation & Storage	41.25	37.26
Hotels & Restaurants	2.90	2.79
Information & Communications	6.03	10.14
Financial & Business	34.19	26.23
Other	15.63	23.58

Source: Authors' compilation from CSO (2009) and Singapore Department of Statistics (<http://www.singstat.gov.sg/stats/themes/economy/natac.html> [accessed 5 February 2010]).

Table 5: Quarterly Estimates of GDP Growth (%)

	2007-2008			2008-2009			2009-10
	1st Half	2nd Half	Annual	1st Half	2nd Half	Annual	1st Half
Agriculture, forestry, and fishing	4.1	5.15	4.9	2.85	0.95	1.6	1.65
Mining and quarrying	1.95	4.45	3.3	4.15	3.25	3.6	8.7
Manufacturing	9.1	7.45	8.2	5.3	-0.25	2.4	6.3
Electricity, gas, and water supply	6.4	4.2	5.3	3.25	3.55	3.4	6.8
Construction	12.2	8.3	10.1	9	5.5	7.2	6.8
Trade, hotel, transport, and communication*	12	12.75	12.4	12.55	6.1	9	8.3
Finance, real estate, and business services	12.5	11.1	11.7	6.65	8.9	7.8	8.25
Community, social, and personal services	5.8	7.5	6.8	8.6	17.5	13.1	9.75
GDP	9.1	9.0	9.0	7.8	5.8	6.7	7.0

Source: CSO (2009-10).

* It should be noted that during the period of crisis, the communication sector continued to grow at a reasonable rate. This was the period when the number of mobile phone subscribers was growing at a reasonably high rate. Therefore, the real slump was in trade and transportation services.

3. POLICY RESPONSES TO THE CRISIS

3.1 Fiscal Stimulus

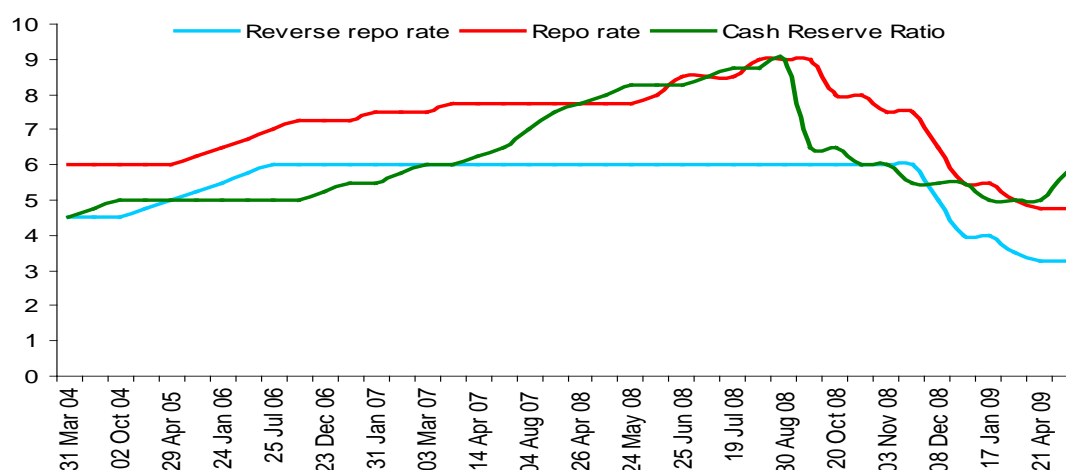
The Indian economy received a major fiscal stimulus as early as February 2008, when an election-oriented budget for FY2008–2009 was announced. The electoral cycle, often criticized for its deleterious effects on reforms and economic performance, on this occasion helped India to anticipate the global crisis and take advance action. The budget included massive increases in public outlays in support of employment guarantee schemes, farm loan waivers, pay hikes to government employees, and increases in food and fertilizer subsidies (Kumar and Vashisht 2009). This pre-election fiscal splurge resulted in the revenue deficit increasing from 1.1% of the GDP in FY2007–2008 to 4.5% in FY2008–2009. Yet, it also ensured that domestic aggregate demand did not slacken in the aftermath of the Lehman meltdown; compensated for the collapse in external demand; and, as described above, helped sustained overall GDP growth at a reasonable 5.8%. Having inadvertently anticipated the crisis due to the electoral cycle, the government found that it did not have much fiscal space to take any further steps to counter the impact of the global downturn.

However, some fiscal stimulus was still provided, primarily as a response to the global call for coordinated action by the G-20 Summits. Three fiscal stimuli packages—one in December 2008, after the Washington, DC, G-20 Summit, and one each in January and March 2010, just preceding the London Summit—were announced. These stimulus packages were in large measure focused on optics, as they included the full value of staggered outlays on infrastructure, reduction in indirect taxes, and some assistance for export-oriented industries. To boost spending on infrastructure, clearly the most desirable modality for delivering the fiscal stimulus, the Indian government announced an increase in planned spending by US\$4 billion and also allowed the state governments an additional US\$6 billion in market borrowing. Apart from this, the India Infrastructure Finance Company, Limited (IIFCL), established in 2007, was allowed to issue interest-free bonds worth US\$6 billion for refinancing long-term loans for infrastructure projects.

A real push for demand came from a rate reduction in central excise duties from 14% to 8% and a lowering of the services tax rate from 12% to 10%. Exporters were given relief by reducing their interest costs by up to 2%, subject to a minimum rate of 7% per annum. Another US\$240 million was allocated for a full refund of terminal excise duty or central sales tax, wherever applicable, and US\$80 million for beefing up various export incentives schemes. In aggregate, the fiscal stimulus, under all three packages, came to about 2% of total GDP. This figure looks rather small in comparison to the size of the stimulus in some other economies, such as the PRC or the US. However, if we include the stimulus provided in the FY2008–2009 budget, the size of the fiscal stimulus in FY2008–2009 can be estimated at around 6% of GDP, comparable to the efforts made by other governments.

3.2 Monetary Policy Response

Joining the global trend, the Reserve Bank of India (RBI) has, since October 2008, injected considerable liquidity into the economy through a series of policy rate cuts. The cash reserve ratio (CRR) was brought down from 9% to 5%, and the repo rate by 425 basis points. Further, in order to discourage banks from parking overnight funds with the RBI, the reverse repo rate was reduced from 6.0% in November 2008 to 3.25% in April 2009 (see Figure 2). The statutory liquidity ratio (SLR) was also lowered by one percentage point from 25% to 24%. Apart from this, some special refinancing schemes were announced to improve liquidity for certain sectors (Kumar and Vashisht 2009). The CRR reduction of 400 basis points since September 2008 alone resulted in a liquidity injection of US\$32.7 billion. In addition, another sum of US\$12.9 billion was injected by unwinding the market stabilization scheme (MSS). As of April 2009, nearly US\$80 billion had been pumped into the system.

Figure 2: Monetary Policy Changes, March 2004 through January 2010

Source: Reserve Bank of India (2009-2010).

As a result of these policy rate cuts, the prime lending rates of commercial banks came down from 13.75–14.0% in October 2008 to 12.0–12.5% in January 2009. They softened further during 2009 as the demand for commercial bank credit fell due to the slowdown in growth. Several banks ended up with huge liquidity overhangs and parked liquid funds with the RBI in overnight deposits that earned them low returns of 3–3.5% depending on the reverse repo rate at the time. The call money rates have also remained stable at low levels and the overnight money market rate has remained within the liquidity adjustment-facility corridor.⁴

RBI also liberalized the external commercial borrowings (ECBs) and FII-related norms to attract foreign capital. The FII limit on corporate bonds was increased from US\$6 billion to US\$15 billion. At the same time, real estate developers were permitted to raise ECBs for integrated townships projects, while non-banking financial companies (NBFCs) dealing exclusively with infrastructure financing were allowed to access ECBs from either multilateral or bilateral financial institutions.

The three fiscal stimuli and monetary policy measures reinforced the significant fiscal expansion undertaken in the FY2008–2009 budget. However, in hindsight, it is clear that the fiscal measures which effectively transferred substantial purchasing power to the rural sector were more effective in shoring up aggregate demand than monetary policy measures, whose traction has been evidently weak—perhaps because of underutilized capacities and the uncertain external demand conditions, both of which kept investment demand rather subdued until September 2009, when demand began to rise as reflected in the upturn in capital goods imports and growth in commercial bank credit. The expansionary budget of February 2008, together with subsequent policy measures, ensured that the downturn in GDP growth was not as steep as some of the advanced and major emerging economies, ultimately suggesting that the economy could be brought back to its potential growth path in the short term.

4. SHORT-TERM GROWTH OUTLOOK

The Indian economy recovered fairly quickly from the downturn that saw the GDP growth slump to 5.8% in both the third quarter of FY2008–2009 (October to December 2009) and

⁴ With the economy picking up in the second half of 2009, the situation began to change and the non-food credit off-take improved significantly in the first three months of 2010, rising to 16.9% by the end of March 2010.

the fourth quarter of FY2009–2010 (January to March 2009; see Table 5 above). It achieved 6.1% growth in the next quarter and was growing at 7.9% in the second quarter of FY2009–2010. This was in line with global trends and clearly a result of the expansionary fiscal and monetary policy measures taken in the wake of the global recession. The government's (CSO's) advanced estimate for economic growth for FY2009–2010 (April 2009 to March 2010) was 7.2%. The growth momentum is likely to continue in the current year (FY2010–2011) as well, with both the government and the RBI now estimating GDP growth in FY2010–2011 to be around 8%. The key question is whether GDP growth can be maintained in the face of strong prevailing inflationary pressures, and without a further worsening of the fiscal and current account deficits.

We have made our own forecasts for the non-agriculture sector GDP growth in FY2010–2011 on the basis of an index of leading economic indicators (LEIs).⁵ Using the leading economic indicator index to forecast GDP growth, we found that the LEI with a five-quarter lag explains the variation in non-agricultural GDP growth most precisely.⁶ However, since the selected leading indicators do not capture the impact of external shocks such as the information technology (IT) boom-bust in FY2000–2001 and the recent US financial meltdown, both of which directly and indirectly impacted the Indian economy, we used a dummy variable to capture their impact. The LEI with a five-quarter lag and the shock represented by a dummy variable (equal to “1” with shock and “0” without) are used to forecast India's non-agricultural GDP growth. The estimated equation for forecasting non-agriculture GDP (given below) is satisfactory with an adjusted r-squared value of 0.55 and all the coefficients being statistically significant at a 99% confidence level.

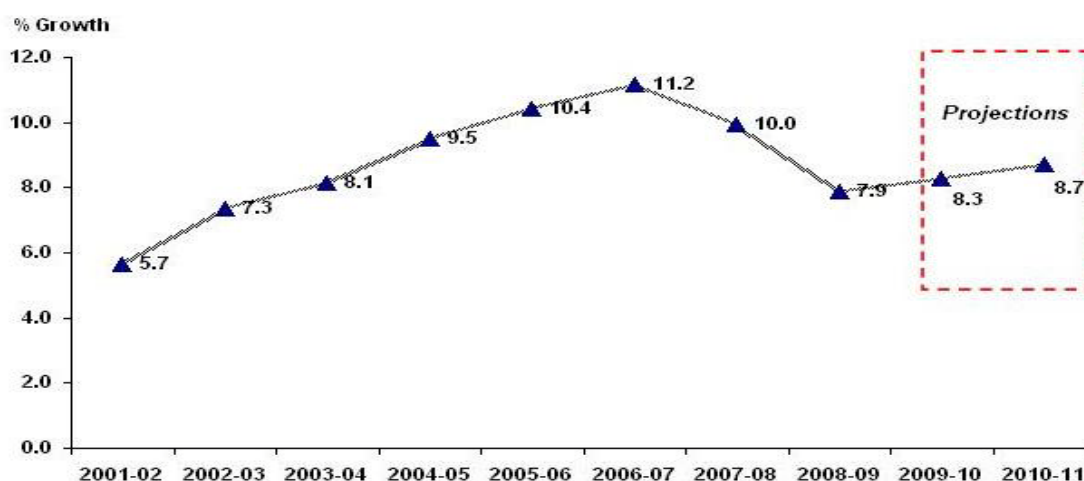
$$\text{GRNon-agriGDP}_t = 8.72 + 1.54 \text{LEI}_{t-5} - 3.13 \text{Dummy}$$

(5.67) (-5.72)

Based on this model, the LEIs suggest that perhaps the Indian economy bottomed out in the first quarter of FY2009–2010 and economic activity is on the upturn. According to this model, the non-agricultural GDP will grow by 8.3% in FY2009–2010, while it will rise by 8.7% in FY2010–2011 (see Figure 3). Thus, the recovery seems to be well underway. And if macroeconomic stability can be achieved in India, the economy could be on its potential growth trajectory by FY2011–2012.

⁵ Leading economic indicators (LEI) are variables that are considered to have significant influence on the future level of economic activity in the country. These indicators give advance signals about the likely future growth rate. Generally, they are used to identify inflection points in the business cycles which can be done with some accuracy as the change in direction of the principal leading indicators would result in a similar directional change in the overall economic activity. The predictive quality of these indicators has given them the appellation of being “leading” indicators. For constructing the leading indicators index, the following nine indicators have been selected, after testing their correlation with and predictive quality for overall economic activity: (i) production of machinery and equipment, (ii) non-food credit, (iii) railway freight traffic; (iv) cement sales, (v) net sales of the corporate sector, (vi) fuel and metal prices, (vii) real rate of interest, (viii) the BSE Sensex, and (ix) export growth. A composite index has been constructed for the period 1997–2008 with the quarterly series of growth of these variables (except for the real rate of interest, where the level, and not the growth, has been used) using the “principal component index” (PCI) method.

⁶ We have been using the leading economic indicator (LEI) index for GDP forecasting for three years. Using LEI methodology, for example, we predicted a growth of GDP at 9.2% for 2007–2008 in November 2007. Most other agencies had predicted a lower growth rate of 8.5% or below for that year as against the actual growth rate of 9%.

Figure 3: Actual and Forecasted Quarterly Non-Agricultural GDP Growth

Source: CSO (2009) and authors' own estimates.

The economic downturn lasted for two years, FY2008–2009 and FY2009–2010, when the GDP growth came down to 6.7% and 7.2% respectively from the average rate of 9% achieved in the previous five years. The slowdown in FY2008–2009, as discussed earlier, was partially a result of policy tightening (until August 2008), and partially due to the second-round effects of the global recession. Recovery in FY2009–2010 was hampered by the monsoon, which affected the main *khariff* (winter) crop and is expected to bring down the rate of growth of agriculture GDP to about negative 2–4%. On the basis of their estimate for agriculture growth, Mathew et al. (2009) forecast the FY2009–2010 GDP growth at 6.8%. Other development organizations—the IMF, World Bank (2010), and the Asian Development Bank (ADB, 2009), among others—have also estimated Indian GDP growth in FY2009–2010 at similar levels (7.0%) in their latest forecasts.

With stronger industry growth being indicated for FY2010–2011 and a better external environment, we might expect higher GDP growth in FY2010–2011. According to our LEI, non-agriculture sector GDP growth for FY2010–2011 is likely to be 8.7%. From all accounts, monsoons are expected to be normal this year. With the advantage of a low base and a normal monsoon season, agricultural growth in FY2010–2011 is expected to be about 4%. This will yield an overall GDP growth rate of nearly 8% for FY2010–2011—an estimate similar to that made recently by the RBI (RBI 2010).

There are three potential risks to this growth forecast for FY2010–2011. The first is the continuing inflationary pressure in the economy, with the wholesale price index (WPI) rising to 9.9% by the end of March 2010 and expected to remain in double digits until October 2010. Although it is expected to decline to between 5–6% by March 2011, that expectation is premised upon a normal monsoon season, stability in global commodity and oil prices, and significant improvement in food availability. Moreover, even if the reduction in fiscal deficit as announced in the FY2010–2011 budget is achieved, the government's borrowing program still remains very large and has to be financed almost fully by issuance of new securities, which will require the RBI to keep the liquidity at comfortable levels if the market interest rates are not to shoot up. This will also add to inflationary pressures.

Second, FY2009–2010 is expected to end with an external sector imbalance reminiscent of the crisis years of 1990–1991, when the country faced an external payments default. The current account deficit is expected to be nearly 4% of GDP in FY2009–2010 as compared to only 2.4% in the previous year and 3.1% in 1990–1991. This may also prompt the RBI to raise interest rates in an effort to dampen investment demand, and slow the rise in imports, which increased by 66% in February 2010—pushed up to a large extent by capital goods imports. Additional complications may arise from the appreciation in the rupee's exchange

rate due to higher capital inflows, which may further worsen the current account deficit. An appreciating rupee also means that the economy may not be able to benefit from an increase in export demand. Finally, the global economic recovery, it is argued, could falter as the expansionary effects of the fiscal stimulus begin to wear off mid-year. This could mitigate the US rebound and, in the event the Euro Area and Japan experience a sluggish recovery, further dampen external demand. Overall, therefore, we tend to believe that the 8% GDP growth has a downward bias rather than an upward one as stated by the RBI in its recent macroeconomic policy review (RBI 2010).

5. ASSESSMENT OF THE POLICY RESPONSES AND ISSUES OF EXIT POLICY

The Indian fiscal policy response to the crisis can best be summarized as having been preempted by political considerations. This resulted in a fiscal expansion ahead of the global crisis. While clearly inadvertent, it proved to be master stroke, as it effectively anticipated the crisis and prevented the collapse of domestic and specifically rural demand at a time when external demand had virtually disappeared. But with the combined fiscal deficit of the Center and States (the federal government and the regional or provincial governments) reaching 8.5% of GDP, it left only limited fiscal space to respond in the aftermath of the crisis. This is reflected in the size of the post-December 2008 fiscal stimulus packages. Being smaller than expected, the burden fell largely on monetary policy.⁷ The post-crisis fiscal stimulus, though small in size as compared to other countries', worsened the fiscal deficit, increasing it to 9.7% of GDP in FY2009–2010 (see Table 6). This implied a significant increase in government borrowing, which increased from Rs126,912 crore (US\$25.3 billion) in FY2007–2008 to Rs284,396 crore (US\$63.1 billion) in FY2008–2009, and further to Rs419,622 crore (US\$93.1 billion) in FY2009–2010. This raised the debt-to-GDP ratio from 71.6% to 73.2% in 2009–10. Debt servicing, which accounted for about 50.8% of total revenue receipts in FY2008–2009 went up to 54.5% in FY2009–2010 and is expected to be around 56% in FY2010–2011. The rise in fiscal deficit could have engendered a significant downgrading of India's sovereign credit.⁸ However, the risk of the downgrade has for the time being been averted by the government's commitment, as announced in the most recent union budget, to bring down the fiscal deficit in FY2010–2011 by 1.2 percentage points from 6.7% of GDP in FY2009–2010 to 5.5% of GDP in FY2010–2011.

Table 6: Key Fiscal Indicators as Percentage of GDP

Year	Fiscal Deficit			Debt-to-GDP Ratio		
	Center	State	Combined	Center	State	Combined
2007-2008	2.5	1.5	4.1	57.3	26.8	72.0
2008-2009	6.0	2.6	8.5	65.7	26.2	71.6
2009-2010 (RE)	6.7	3.2	9.7	57.0	26.5	73.2
2010-2011 (BE)	5.5	---	---	56.9	---	---

Source: RBI (2010)

Note: RE stands for revised estimates and BE stands for budget estimates.

⁷ It is argued by some observers that the policy response was delayed because the government was initially in a state of denial, believing that the global crisis would not affect the Indian economy since its banking sector was not at all affected. It was argued that the net contribution of trade-to-GDP growth is negative and hence the turmoil in the global market would not have any major impact on India. However, a sharp deterioration in some key sectors soon changed this perception and the government's policy response started in December 2008.

⁸ Due to the deteriorating fiscal position, leading credit rating agencies like Standard & Poors (S&P) and Moody's put India on negative watch list in March 2009.

In contrast to the constrained fiscal policy response, the monetary policy response was more robust and aggressive, as the authorities had significant policy space created by the monetary policy tightening undertaken since October 2005. The RBI brought down the repo and reverse repo rates by 4.25% and 2.75% points, respectively, between October 2008 and April 2009, and reduced the CRR by 4 percentage points. However, the sharp increase in government borrowings to finance the high fiscal deficit has generated an upward pressure on market interest rates. This is also reflected in the 10-year bond yield rate going up along with the announcement of the new stimulus package (Kumar and Vashisht 2009). The monetary policy's traction has been limited not only because of the government's large borrowing requirement, which has kept market interest high, but also because of the fragmented domestic credit markets and a large part of the economy still operating outside the formal banking system. As a result, policy rate cuts have not filtered into the retail credit market, with commercial bank lending rates coming down by only about 200 basis points despite the RBI having slashed its repo rate by as much as 450 basis points. Consequently, the growth in non-food credit, a leading and significant indicator of investment demand, remained significantly below past trends—at least until the last quarter of FY2009–2010, when it picked up to reach almost to the same level as in FY2008–2009 (16.9% as compared to 17.3%), but still noticeably lower than 22% growth in FY2007–2008. In the Indian context, where there is apparently a relatively high structural floor to fiscal deficit, and where monetary policy has limited traction, macroeconomic policy measures can be expected to have a somewhat limited impact on sustaining rapid growth along with macroeconomic stability. Unlike the People's Republic of China (PRC), which has been able to achieve both rapid growth and stable prices, India seems to run rapidly into the trade-off between rapid growth and macroeconomic stability. Thus, cyclical upswings are fairly short-lived. The longest upswing during FY2003–2004 to FY2007–2008 was largely a result of the most benign and expansionary global economic conditions. For the future, India must focus on completing its program of structural economic reforms to sustain rapid and inclusive growth along with macroeconomic stability.

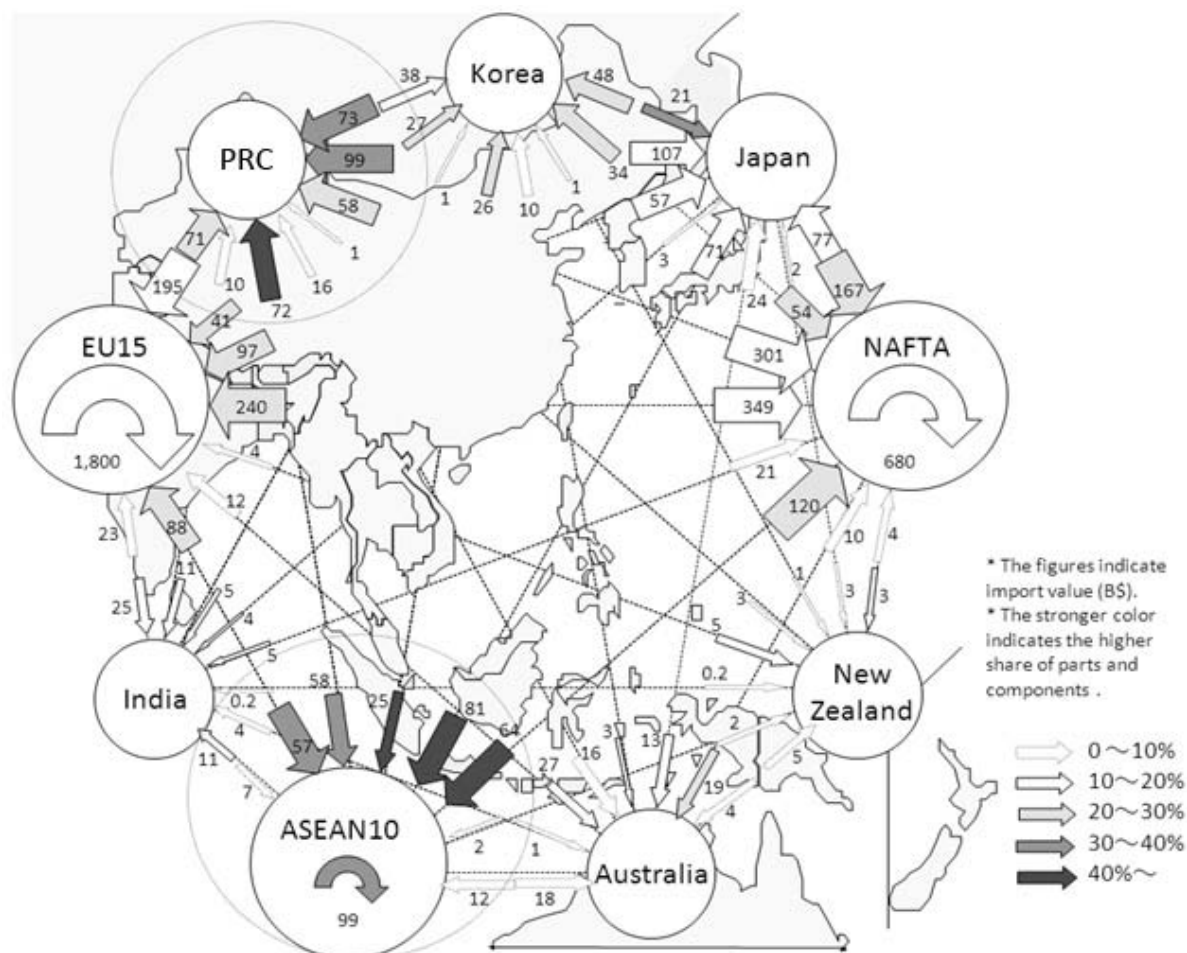
6. ASIAN ECONOMIC INTEGRATION AND INDIA'S POTENTIAL ROLE

The economic rise of Asia is one of the most noticeable facts of last few decades. First, the impressive growth of East Asian economies—mainly the so-called East Asian tigers in late 1960s and 1970s,⁹ and the phenomenal rise of the People's Republic of China (PRC), followed more recently by India—has ensured Asia's emergence as perhaps the principal engine of global growth. Noticeably, all successful Asian economies, excluding India, used an export-oriented growth model, which, while generating higher growth rates for these economies, also increased their dependence on access to advanced economy markets for absorbing these exports, in turn making them more vulnerable to any negative development in these economies. Figure 4, which shows the current global trade and production networks in Asia, clearly shows that the People's Republic of China (PRC) has emerged as the major production hub within Asia, with the ASEAN economies providing the necessary intermediate inputs and components and the Euro Area and North America representing the major markets for the final products. These two major markets absorbed nearly US\$1.03 trillion worth of exports from this East and Southeast Asian production system just prior to the Lehman crisis—about 33% of the total exports from the PRC and the ASEAN economies. The region had clearly become vulnerable to any downturn in these markets, as

⁹ The success of the Asian tigers not only highlighted Asia on global map but also brought a radical change in economic policies worldwide. Until 1965, structural schools of thought, which put great emphasis on import protection, dominated policy circles. However, since the success of East Asian economies was based on an open economy model, it gave a great boost to the neoclassical schools of thought.

demonstrated rather spectacularly in the post-Lehman period. The need to reduce the region's dependence on external demand and achieve more balanced growth has become evident. The rather sharp recoveries in the PRC and in other Asian economies in 2009 suggest that efforts to raise the share of indigenous demand in sustaining the region's growth may already be yielding the desired results. This process of reducing Asia's dependence on external markets can be further strengthened with the expansion of the production networks and markets beyond East and Southeast Asia to South Asia.

Figure 4: Global Trade Map



Source: Reproduced from Hiratsuka (2008).

Given its potentially large domestic market, ample supply of skilled labor at relatively low wages, and dynamic entrepreneurial class, India can play an important role in the rebalancing of Asia-Pacific economic growth in future. Until recently, India's interaction and integration with the South and East Asian economies has not been substantial. However, this changed with the launching of India's "Look East Policy" in 1992, with the avowed goal of achieving far greater integration with its dynamic neighbors in Southeast and East Asia. Major initiatives included a free trade agreement (FTA) with Thailand, a comprehensive economic partnership agreement with Singapore and Korea, and a recently concluded FTA between India and ASEAN, which, for the time being, is limited only to goods. The positive outcome of these initiatives is reflected in a sharp increase in bilateral trade between India and the PRC and ASEAN economies (see Table 7). However, somewhat paradoxically, India's trade has increased most rapidly with the PRC, which does not have any trade agreement with India. The two-way trade between India and the PRC went up from US\$2.7 billion in 2001 to US\$41.7 billion in 2008, while in the case of ASEAN it increased from

US\$6.7 billion to US\$39.6 billion during same period. Within ASEAN, India's trade has increased substantially with Singapore and Thailand, which have signed trade pacts with India (see Table 8). Similarly, India's trade with the eight countries of the South Asian Association for Regional Cooperation (SAARC), Japan, and Korea has also increased, though at lower rates. India is increasingly becoming integrated with Asia, which has emerged as its major trade partner, replacing the erstwhile dominant role of the US and Europe in India's external linkages.

However, despite the recent growth, India's current trade with the abovementioned economies is far below potential. In an empirical investigation, De (2009) found that India's trade with the PRC, Singapore, Thailand, Malaysia, Indonesia, Viet Nam, and Myanmar is 5–15% lower than its potential, while for the Philippines, Brunei, Cambodia, the Lao People's Democratic Republic (Lao PDR), Bangladesh, and Pakistan, the gap between actual and potential trade is much higher, ranging from 53% to 93%. Thus, there is sufficient scope for India to continue with its efforts to integrate more closely with its Asian partners.

In line with growing trade, India's investment relations with Asia have also recently improved. Foreign direct investment (FDI) from Asia to India, which was just US\$304 million in 2004, increased to US\$6.15 billion in 2009 (see Table 9), registering an annual compound growth rate of 87%. Likewise, FDI from India to Asia has also increased from US\$461.4 million in 2004 to US\$5.99 billion in 2008, thereby increasing Asia's share in total Indian outbound FDI from 16.46% to 27.1% during the same period.

Table 7: India's Two-way Trade with Selected Asian Economies (US\$ billion)

	ASEAN		SAARC		PRC		Japan		Korea	
	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
2001	6.7	7.5	2.7	3.0	2.8	3.1	3.3	3.7	1.6	1.8
2002	8.0	7.7	2.9	2.8	4.2	4.0	3.9	3.8	1.9	1.8
2003	9.9	7.8	4.5	3.6	6.2	4.9	4.0	3.2	3.1	2.4
2004	13.6	8.2	5.5	3.3	10.1	6.1	4.8	2.9	4.3	2.6
2005	17.9	7.8	6.8	3.0	17.3	7.6	6.1	2.7	5.9	2.6
2006	25.1	8.8	7.7	2.7	23.5	8.2	7.5	2.6	7.2	2.5
2007	30.0	8.6	9.6	2.8	34.0	9.8	9.0	2.6	7.9	2.3
2008	39.7	8.3	12.3	2.6	41.7	8.7	11.4	2.4	12.1	2.5

Source: UNComtrade database (<http://comtrade.un.org/db/default.aspx> [accessed on 10 February 2010]).

Table 8: Share of ASEAN countries in India's Trade in 2008 (%)

Year	Exports	Imports
Brunei	0.1	1.2
Cambodia	0.3	0.0
Indonesia	13.7	24.1
Lao PDR	0.0	0.0
Myanmar	15.6	28.0
Malaysia	1.2	0.9
Philippines	3.9	0.9
Singapore	45.6	31.1
Thailand	10.3	10.0
Viet Nam	9.3	1.4

Source: UNComtrade database (<http://comtrade.un.org/db/default.aspx> [assessed on 10 February 2010]).

Table 9: Value and Share of Asia in India's Total Inbound and Outbound FDI (US\$ million)

Year	Inbound FDI		Outbound FDI	
	Value	Share	Value	Share
2004	304.8	8.00	461.4	16.46
2005	655.1	14.97	535.0	18.71
2006	1,146.2	10.3	1,855.1	12.3
2007	2,548.3	13.2	9,944.6	43.1
2008	5,097.0	15.8	5,993.6	27.1
2009	6,150.4	20.2	---	---

Source: Authors' compilation from Ministry of Commerce (2007, 2010) and Ministry of Finance (http://finmin.nic.in/the_ministry/dept_eco_affairs/icsection/Annexure_5.html [accessed: 1 April 2010]).

7. INDIA: A DIFFERENT GROWTH MODEL

India has recently emerged as one of fastest growing Asian economies, but with a growth model that is quite distinct from the export-oriented strategy adopted by other rapidly growing Asian economies. While all East Asian economies have derived a predominant part of their growth from external sources, both in terms of foreign capital and export market, India's growth has mostly come from its internal sources. This is shown rather dramatically by comparing the contribution of net exports to GDP growth in the People's Republic of China (PRC) and India (see Table 2). India has managed to grow at reasonably high rates despite consistently generating a large trade deficit, which has been made up principally by the surplus on the invisibles account (see Table 10). This highlights the role that services exports, principally software exports, have played in maintaining an external sector balance for India and in sustaining high GDP growth rates as well.

Table 10: India's Balance of Payments (US\$ million)

	2006-2007	2007-2008	2008-2009
Exports	128,888	166,162	189,001
Imports	190,670	257,629	307,651
Trade balance	-61,782	-91,467	-118,650
% of GDP	-6.5	-7.4	-9.8
Invisible receipts	114,558	148,875	163,534
Invisible payments	62,341	73,144	73,612
Invisibles, net	52,217	75,731	89,922
% of GDP	5.5	6.2	7.4
Current account	-9,565	-15,736	-28,728
% of GDP	-1.0	-1.3	-2.4
Capital account (net)	46,171	107,901	8,648
% of GDP	4.9	8.8	0.7
Foreign direct investment (FDI)	7,693	15,893	17,498
Portfolio investment	7,060	27,433	-14,030
External commercial borrowings	16,103	22,609	7,941
Short-term trade credit	6,612	15,930	-1,909
External assistance	1,775	2,114	2,637
NRI deposits	4,321	179	4,290
Other banking capital	-2,408	11,580	-7,535
Other flows	5,015	12,163	-244
Change in Reserves (-increase; +decline)	-36,606	-92,165	20,080

Source: Reserve Bank of India (2009a).

The overall current account deficit has been managed at fairly low levels, ranging from between 1.5% to 2.5% of GDP, except in certain years. This implies that the domestic savings-investment gap has been kept at low levels, and that India has managed to finance a predominant part of its capital formation from domestic savings (see Figure 6). At the same time, unlike the PRC, it has also not generated excessive savings, which, despite their exceptionally high levels, have not been absorbed in domestic investment, and have to be exported, as revealed in the persistent current account surplus in the PRC.

Taken together, a small current account deficit and only a modest level of foreign exchange reserves had until recently (2002) implied a rather limited inflow of foreign capital into India. As Table 11 shows, foreign capital inflows, both portfolio and direct equity varieties, ranged from between US\$103 million to US\$6.79 trillion between 1991 and 2001. These were hardly a fraction of the FDI and portfolios that the PRC managed to attract during the same period. However, this changed significantly in 2003, when the combined FDI and portfolio capital inflows jumped up to US\$15.7 trillion and marked the beginning of an upward trend. Given the low current account deficit during these years (and a very small surplus in 2002–03), these enhanced capital inflows have enabled India to build up sizable foreign exchange reserves. As shown in Table 11, these are now US\$279.1 trillion at the end of FY2009–2010, a level which is still only a fifth of the PRC's reserves but which affords India ample insurance against external shocks. This is evident by recognizing that India's reserves represent 121% of its total foreign debt and 73% of its total annual current account liabilities.

Table 11: India's Foreign Capital Inflows and Foreign Exchange Reserves (US\$ million)

Year	Direct Investment	Portfolio investment	Total (I+II)	Foreign Exchange Reserves
1990-91	97	6	103	5,834
1991-92	129	4	133	9,220
1992-93	315	244	559	9,832
1993-94	586	3,567	4,153	19,254
1994-95	1,314	3,824	5,138	25,186
1995-96	2,144	2,748	4,892	21,687
1996-97	2,821	3,312	6,133	26,423
1997-98	3,557	1,828	5,385	29,367
1998-99	2,462	-61	2,401	32,490
1999-00	2,155	3,026	5,181	38,036
2000-01	4,029	2,760	6,789	42,281
2001-02	6,130	2,021	8,151	54,106
2002-03	5,035	979	6,014	76,100
2003-04	4,322	11,377	15,699	112,959
2004-05	6,051	9,315	15,366	141,514
2005-06	8,961	12,492	21,453	151,622
2006-07	22,826	7,003	29,829	199,179
2007-08	34,362	27,271	61,633	309,723
2008-09	35,168	-13,855	21,313	251,985
2009-10	---	---	---	279,096

Source: RBI (2009a) and Weekly Statistical Supplements (http://www.rbi.org.in/scripts/BS_ViewWSSEExtract.aspx [accessed 10 February 2010]).

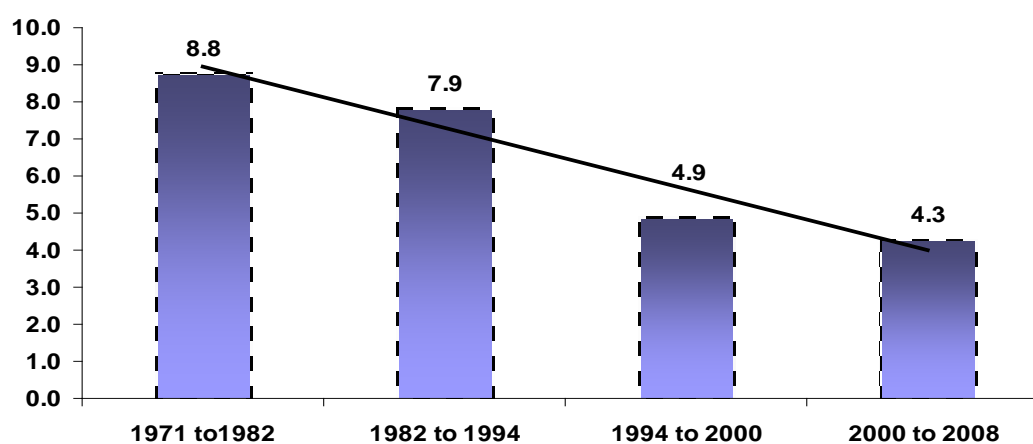
There has been a major debate about the beginning of India's high growth trajectory.¹⁰ This debate, in our view, is somewhat misplaced because, irrespective of when India's high-

¹⁰ Some economists like Subramaniam (2008) argue that the foundation of India's high growth was laid down in the 1980s, and perhaps even earlier when it acquired a skilled workforce and industrial experience. However, Panagariya (2008) attributes India's success entirely to the market-friendly reforms of the 1990s.

growth phase started, it could not have been sustained without the major structural reforms undertaken by the Narasimha Rao government from 1991 to 1995. These reforms significantly increased India's openness to the global economy and reduced the level of government controls and licenses, which have clearly become dysfunctional (Purcell 2007, Panagariya 2008). By lowering policy-induced entry barriers, the reforms also greatly increased the level of competition in domestic markets and encouraged the import of new and much needed technology. The growing openness, increasing domestic competition, and greater space for private sector activity in the manufacturing and services sectors virtually redefined the macroeconomic fundamentals of the economy and put India on a new growth trajectory essentially by raising the rate of growth of its potential output. As Figure 5 and 6 below show, after the reforms of the early 1990s, India was able to achieve much lower rates of inflation; significantly higher rates of domestic savings, which increased from 21% of GDP in FY2001–2002 to 33% in FY2007–2008; and consequently a higher level of investment as well. An improved domestic savings rate coupled with increased inflow of foreign capital, both in terms of FDI and ECBs, eased the domestic cost of capital,¹¹ which declined in nominal terms from 19% in 1993 to 11.75% in 2006. These changes have been the fundamental basis for India's having achieved a higher sustained GDP growth in the post-reform period.

If sustained, the reforms will help to raise India's rate of growth of potential output, and may even enable the country to catch up with the People's Republic of China (PRC) in the coming decades. Figure 7 shows the average annual GDP growth rate achieved by India and the PRC in their post-reform periods. We take 1978 as the initial year for the PRC's reforms and 1991 for India¹². The trend growth rate achieved by India in its shorter post-reform period is not very different from the PRC's. This holds out the hope that even following the rather distinctly domestic demand driven growth strategy, India could achieve a sustained rapid growth that could match the PRC's in the coming years.

Figure 5: Average Rate of Inflation

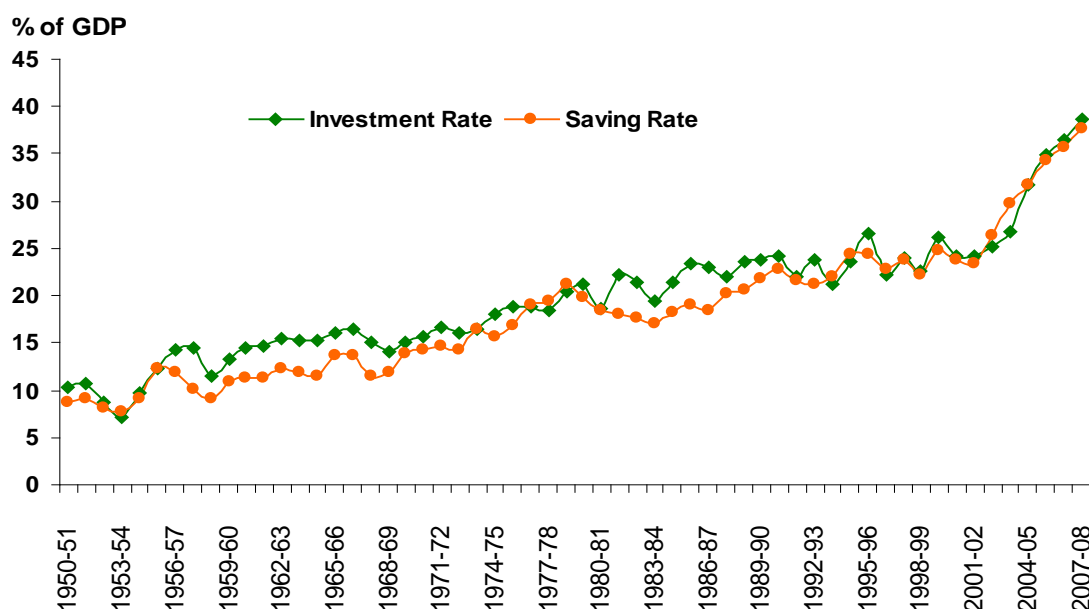


Source: RBI (2009a).

¹¹ Prime lending rate (maximum).

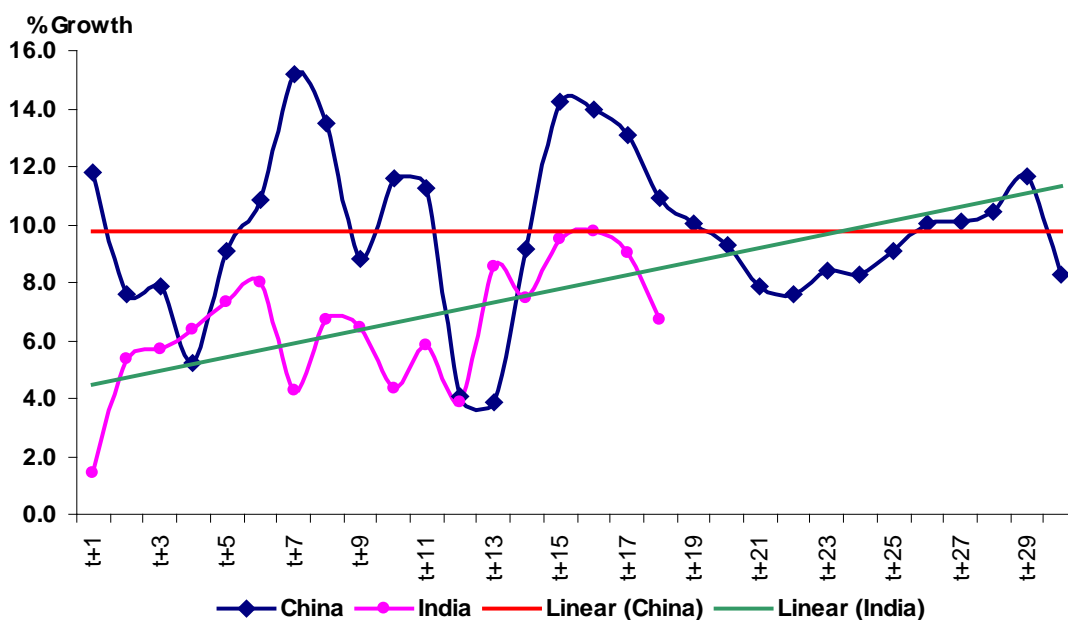
¹² 1978 was the year when PRC started its process of liberalization. In the same way, India embarked on the path of liberalization in 1991.

Figure 6: Domestic Savings and Investment Rate



Source: RBI (2009a).

Figure 7: Post-Reform Growth Rates, People’s Republic of China (PRC) versus India (t=1978 for China and 1991-92 for India)



Sources: RBI (2009) and NBS (2008).

Table 12: Sectoral Average Decadal Growth and Share

	1980s		1990s		2000s	
	Growth	Share	Growth	Share	Growth	Share
Agriculture	2.97	35.04	3.34	28.40	3.20	20.45
Industry	6.41	18.66	6.63	20.09	7.24	19.43
Services*	6.35	46.30	7.32	51.51	9.74	60.12

Source: CSO (2009).

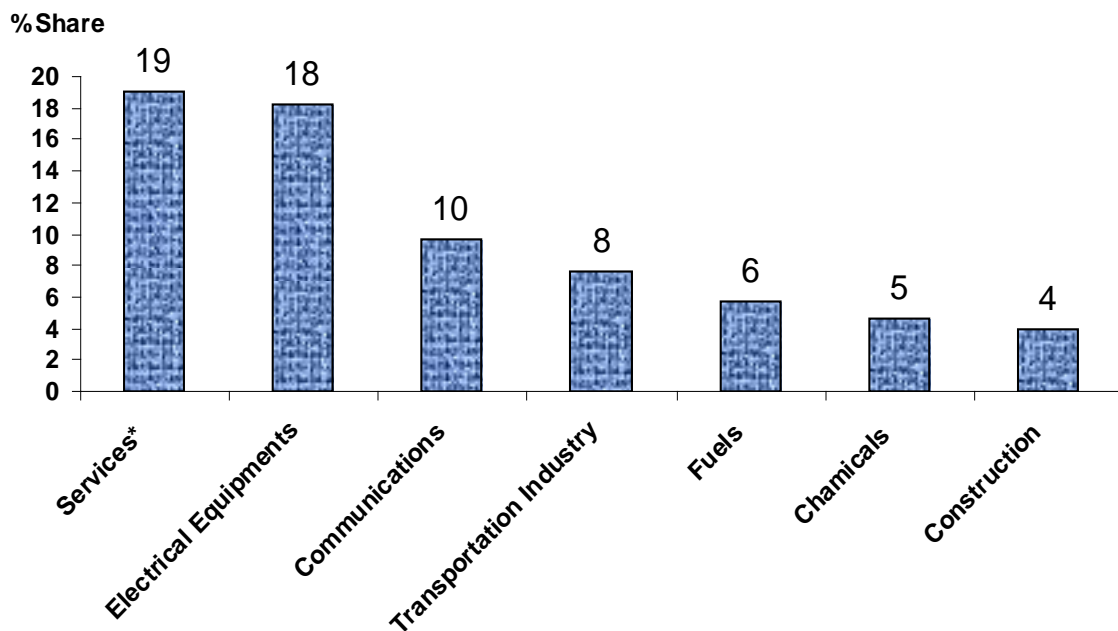
* Construction is included in services.

The post-1991 high GDP growth has largely been attributed to the spectacular performance of the services sector, especially the software and IT-enabled services sector, in India.¹³ The relative success of India's services sector, at least prior to 1980, can be entirely attributed to its education system, which until recently was biased towards secondary and higher education. The bias toward higher technical education proved fortuitous, as it provided India with a first-mover advantage in the US software market when it opened up in a big way during the mid-1990s and faced a huge manpower shortage as the US completed the transition of its IT-based equipment to the new century, which required a massive effort to rewrite existing software.

This was also reflected in the services sector's success in attracting FDI (see Figure 8). The surge in FDI to services ensured a wholesale movement in technological upgrading. The surge in software and services growth, premised as it was on technological breakthroughs, was greatly facilitated by the major reforms in the telecommunications sector. Prior to the reforms of the 1990s, the telecom sector was a dysfunctional government monopoly, unable to satisfy the rising demand, as reflected in the country's abnormally low tele-density level of 0.8% in 1992. The sector was characterized by extensive rationing and the generation of rents and high tariffs. But with the economic reforms of the 1990s, specifically due to privatization and the entry of foreign players, the communication sector became the fastest growing sector of the Indian economy. Since then, tele-density has increased to nearly 50%, and India has emerged as the fastest growing market for mobile phones, with new connections increasing at a phenomenal rate of more than 12 million per month. The sector also emerged as a major contributor to GDP growth, with its average contribution rising to 12.2% in 2001–2008 (see Table 12). In a similar manner, other services sectors—such as the financial and non-financial sectors, which have received a large amount of FDI—have also contributed significantly to GDP growth.

The positive contribution of the services sector to India's GDP growth rate in the past two decades is unequivocal. The question is whether this rather imbalanced growth, which has seen the manufacturing and agriculture sectors lag behind significantly (as reflected in their stagnant and declining shares in the GDP), can help India achieve the necessary growth rate in employment and sustain its overall rate of economic activity. It is estimated that for all its burgeoning exports and rapid expansion, the software and information technology enabled services (ITES) sector have generated only 1.63 million employment opportunities (Illiyan 2008). This is clearly inadequate for a country with 65% of its population below the age of 25, and with a workforce that expands annually by more than 12 million people. A growth model that does not generate sufficient employment opportunities cannot be sustained. Evidently, India has to undertake a form of rebalancing of its growth strategy by making the sources of growth more broad-based so that more employment is generated and inequalities are not allowed to increase. India's democratic, diverse, and pluralistic society will not be able to sustain an imbalanced and jobless growth. To achieve the necessary balance, India needs to concentrate its policy attention on completing the next phase of structural reforms. These are briefly discussed in the next section.

¹³ Though the Indian services sector hogged the limelight after the economic reforms of 1980s and 1990s, its relative success can in fact be traced back to the pre-independence period. In an interesting analysis, Broadberry (2008) compared the productivity gap between Britain and India for all three sectors—agriculture, industry, and services—and found it to be smaller in services than in industry or agriculture since the First World War.

Figure 8: Sectors Attracting the Highest Level of FDI (Percent Share in Total FDI)

Source: Ministry of Commerce (2007–2009).

* Financial and non-financial services.

Table 12: Relative Contribution of Different Sectors to GDP Growth

Sectors	Average Contribution to Growth (2001–08)	Average Share in GDP (2001–08)
Agriculture including Livestock	4.55	19.1
Forestry and Logging	0.22	0.83
Fishing	0.56	0.96
Mining and Quarrying	1.65	2.17
Registered Manufacturing	11.68	10.19
Unregistered Manufacturing	4.6	4.93
Electricity, Gas, and Water Supply	1.42	2.26
Construction	9.12	6.45
Trade	16.64	13.96
Hotels and Restaurants	1.91	1.39
Railways	1.17	1.19
Transport by Other Means	6.48	5.07
Storage	0.02	0.07
Communication	12.24	3.6
Banking and Insurance	8.11	6.12
Real Estate, Ownership of Dwellings, and Business Services	8.53	7.57
Public Administration and Defense	2.82	5.98
Other Services	8.25	8.21
Total	100	100

Source: Authors' compilation from CSO (2009).

8. RESTRUCTURING AND REFORMS FOR SUSTAINABLE GROWTH

As discussed above, while India has so far managed to grow without a rapid expansion of its manufacturing sector, such growth is certainly not a viable option in long run. Given the vast pool of unskilled labor along with the inability of the services sector to generate adequate employment opportunities, a strong and dynamic manufacturing sector is a prerequisite for sustainable growth. The failure of the manufacturing sector in generating employment could exacerbate the growing economic inequalities, which is already causing considerable social stress. With wage rates beginning to rise in the PRC, India has fair chances of attracting foreign investment in labor-intensive industries. However, for this to happen, India urgently needs to initiate another round of structural reforms that will improve the investment climate; continue to improve its physical infrastructure as has been done over the past ten years; remove the impediments for the growth of small and medium enterprises (SMEs); expand enrollment in secondary, vocational, and higher education; and improve the quality of education at all levels.

Being concentrated in labor-intensive and often in export-oriented industries, SMEs have faced the brunt of the collapse in external demand during the current crisis. SMEs presently suffer from having to face a plethora of official procedures and licensing and regulatory requirements that raise their transaction costs significantly, making them uncompetitive in global markets and unable to withstand import competition in domestic markets. The government will do well to review all the policies that have an impact on “doing business” in India with the clear objective of improving the investment climate, specifically for SMEs.¹⁴

The other major area for structural reforms is the education sector. The sector is presently characterized by massive capacity constraints, an acute shortage of adequately trained teachers, and poor curriculum quality. Investment is constrained due to extensive entry barriers, dysfunctional institutions, and pervasive rent-seeking due to the License-Permit Raj¹⁵. Quality is confined to the top few institutions; in the remaining schools, curricula are outdated, pedagogical skills are deficient, facilities are poor, and there is a singular student focus on passing examinations. The sector needs policy attention as urgently as the industry and trade sectors did at the end of the 1980s. Without these reforms, India will miss the oft-touted demographic dividend. Instead, the addition of ill-trained and unemployable entrants to the workforce every year could create the conditions for major social conflict and unrest.

India cannot possibly hope to compete effectively in the emerging global knowledge economy if the country's education sector remains underdeveloped (see Dahlman and Utz 2005). A comparison with the People's Republic of China (PRC) is instructive. India's adult literacy is 61%, compared with the PRC's 91% (see World Bank 2008). Expenditure on education as a percentage of total public expenditure is 10.7% and 12.8%, respectively, in India and the PRC. The latter has 708 researchers per million people as compared to 119 in India. In 1985, the number of PhDs in science and engineering in India was 4,007 and just 125 in the PRC; but by 2004, the PRC had 14,858 PhDs while India had increased the number to only 6,318. In 2007, Indians filed 35,000 patents compared to 245,161 patents by the Chinese. The PRC allocated 1.34% of its GDP in 2005 on R&D (which incidentally is well below 3.6% in Korea), compared to barely 0.61% in India. The country has only 12,000

¹⁴ The evidence for this would be best reflected in an improvement in India's rankings in the World Bank's “Doing Business” surveys this coming year.

¹⁵ Raj is a local word that means regime.

vocational training institutes compared to nearly 500,000 in the PRC, which sends more than 19% of its youth onto higher education. In India, on the other hand, just 11–12% of students attend colleges and universities (Guruswamy 2010).

Reforms are long overdue. India must ensure that education is accessible to all by multiplying the number of scholarships a hundred-fold and, more importantly, making commercial bank credit for all levels of education more readily available. In short, a social movement may be necessary to ensure that the right to education is actually achieved. If successful, India will be on a sustainable path of rapid growth. Governance reforms, discussed above in the context of SMEs, and an overhaul of the education sector are perhaps the two most critically needed structural reforms. The payback on them could well be even higher than those from industrial and tariff or telecom sector reforms.

The agriculture sector, which employs up to 50% of the working population but contributes less than a fifth of the GDP, is lagging behind the rest of the economy. There is a growing gap between rising per capita incomes and per capita availability of food grains (Kumar et al. 2010). This could make inflation sticky and make macroeconomic stability more difficult to achieve. Inadequate availability of wage goods (food and other essential commodities) could lower the potential growth rate as monetary policy will have to remain tight in the face of inflationary expectations. Inflation, being an insidious tax on the poor, is also a politically sensitive issue. Urgent attention is needed to address the structural constraints that currently afflict Indian agriculture. In short, the agriculture sector needs to be modernized with the infusion of new technologies, modern cultivation practices, and more efficient logistics chains to move food from the farm gate to consumers with minimal waste and higher incomes for the farmers. This can only happen if private capital is attracted to agriculture and brings in new technology for raising yields. This calls for new approach to the agriculture sector that will make it far less dependent on government subsidies, support prices, and other government interventions, which are currently pervasive in the sector. Government policy may be directed toward creating a set of incentives for attracting private investment to the sector both in production and logistics. The experience of contract farming, which is essentially an attempt to overcome the fragmented nature of agriculture holdings, should be reviewed, and lacunae identified and addressed. The modernization of retail trade, with its extensive backward linkages to agriculture, should also be considered for giving farmers a higher return and as an instrument for the introduction of new technologies and infrastructure in agriculture.

The other major area for reform lies in the delivery of public services, starting with law and order and including primary health, urban facilities, and better connectivity in the rural sector. This would essentially depend on the success in undertaking governance reforms and making public administration more accountable. India's Right to Information Act, enacted in 2005, could play an important role in improving accountability, as it will allow the potential beneficiaries to follow the trail of public expenditure and ensure its efficient utilization. Accountability would also be increased by empowering local rural and urban governments, as is being attempted under the provisions of the Panchayati Raj (Local Rural Government) bill that is now 18 years old. A further impetus for public sector accountability could come from moving to a well designed performance-based or outcome-based budgetary process¹⁶ and the creation of a unified, all-India economic space by implementing the Generalised Services and Goods Tax (GST) as recommended by the Kelkar Task Force and more recently by the Thirteenth Finance Commission. This would reduce the tax burden, thereby

¹⁶ A start was made in this direction by Finance Minister Chidambaram, who mandated the establishment of certain performance criteria for all the line ministries of the government, and compiling this together in an "outcome budget." However, the outcomes themselves were simply the targets the ministries wanted to achieve, and there was no attempt to monitor or audit the progress towards achieving these targets and relate budgetary allocation to them. Rather than build upon this admittedly modest stratum, unfortunately, the process has since been abandoned.

generating higher demand and allowing for an easier flow of capital and labor across the country—in turn reducing transaction costs and encouraging a more rational allocation of investment. This set of “second-generation” reforms is necessary for India to achieve the necessary rebalancing of its economic activity so that it can achieve not only a rapid but also inclusive and sustainable growth in the coming period.

REFERENCES

- Agarwal, P. 2006. Higher Education in India: The Need for a Change. Indian Council for Research on International Economic Relations (ICRIER) Working Paper 180. New Delhi: ICRIER.
- Asian Development Bank (ADB). 2009. Asian Development Outlook. Manila: ADB. <http://www.adb.org/documents/books/ado/2009/Update/default.asp>
- Bhalla, S. 2008. Inflation Control Chokes Growth. *Business Standard*, 17 October.
- Borchert, I., and A. Matto. 2009. Resilience of Services Trade. World Bank Policy Research Working Paper No. 4917. Washington, DC: World Bank.
- Broadberry, S., and B. Gupta. 2008. The Historic Roots of India's Booming Services Economy. Vox web site, 9 May. <http://www.voxeu.org/index.php?q=node/1122>
- Central Bank of Korea. 2009. Quarterly Bulletin: Quarter 2. Seoul: Central Bank of Korea. <http://eng.bok.or.kr/>
- Central Statistical Organization (CSO). 2009. National Account Statistics. New Delhi: CSO.
- . 2009-2010. Press Release on India's GDP Growth, May 2009-February 2010. India: CSO. Available: http://www.mospi.nic.in/mospi_press_releases.htm.
- Dahlman, C. J., and A. Utz. 2005. *India and the Knowledge Economy: Leveraging Strengths and Opportunities*. Washington, DC: World Bank.
- De, P. 2009. Global Economic and Financial Crisis: India's Trade Potential and Future Prospects. ARTNeT Working Paper No. 64. Bangkok: Asia-Pacific Research and Training Network on Trade.
- Deardorff, A. 1998. Fragmentation in Simple Trade Model. Presented in a session on Globalization and Regionalism: Conflict or Complements? North American Economics and Financial Association, Chicago, IL.
- Guruswamy, M., and Z. D. Singh. 2010. *Chasing the Dragon: Will India Catch up with China?* New York, NY: Pearson.
- Hiratsuka, D. 2008. Production Fragmentation and Network in East Asia Characterized by Vertical Integration. In *Vertical Specialization and Economic Integration in East Asia*, edited by D. Hiratsuka and Y. Uchida. Tokyo: Institute of Developing Economies, JETRO. http://www.ide.go.jp/Japanese/Publish/Download/Report/pdf/2007_01_08_05.pdf
- Illiyan, A. 2008. Performance Challenges and Opportunities of India Software Export. *Journal of Theoretical and Applied Information Technology* 4(11): <http://www.jatit.org/volumes/research-papers/Vol4No11/11Vol4No11.pdf>
- Joseph, M. 2010. Did India have its Worst Current Account Deficit in 2009–10? Macro Perspective and Updates. New Delhi: ICRIER. <http://www.icrier.org/page.asp?MenuID=699&SubCatId=700&SubSubCatId=730>
- Joseph, M. and K. Singh. 2009. The Impact of Monsoon Failure on GDP Growth 2009–10. Macro Perspective and Updates. New Delhi: ICRIER.
- Kumar, R. M., D. Joseph, P. Alex, P. Vashisht, and D. Banerjee. 2009. The Outlook of Indian Economy 2008–09 and 2009–10. ICRIER Working Paper No. 235. New Delhi: ICRIER.

- Kumar, R., and P. Vashisht. 2009. *Global Economic Crisis: Impact on India and Policy Response*. ADBI Working Paper 164. Tokyo: ADBI.
- Ministry of Commerce and Industry, Government of India. 2007–2009. *SIA Newsletter*. New Delhi: Ministry of Commerce and Industry. http://siadipp.nic.in/publicat/pub_mn.htm
- National Bureau of Statistics of China (NBS). 2008. *China Statistical Year Book*. Beijing: NBS. <http://www.stats.gov.cn/english/statisticaldata/yearlydata/>
- Panagariya, A. 2008. *The Emerging Giant*. Oxford, UK: Oxford University Press.
- Pursell, G., N. Kishor, and K. Gupta. 2007. *Manufacturing Protection in India Since Independence*. ASARC Working Paper 2007/07. Canberra: Australia South Asia Research Centre.
- Reserve Bank of India (RBI). 2009. *Macroeconomic and Monetary Development in First Quarter 2009–2010*. Mumbai, India: RBI.
- . 2009a. *Handbook of Statistics on Indian Economy 2008–09*. Mumbai, India: RBI. <http://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>
- . 2010. *Macroeconomic and Monetary Development in 2009-10*. Mumbai, India: RBI.
- Roubini, N. 2009. The Road Ahead for the Global Economy. *RGE Monitor*, 23 July.
- Subramanian, A. 2008. *India's Turn: Understanding the Economic Transformation*. Oxford, UK: Oxford University Press.
- World Bank. 2008. *World Development Indicators*. Washington, DC: World Bank. [\\dataserver\Softarchives\WDI-2008\Tables\wdi2008home.html](http://dataserver\Softarchives\WDI-2008\Tables\wdi2008home.html)
- . 2010 *Global Economic Prospects*. Washington, DC: World Bank <http://web.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/EXTGBLPROSPECTSAPRIL/0,,menuPK:659178~pagePK:64218926~piPK:64218953~theSitePK:659149,00.html>