India's Post-Crisis Macroeconomic Challenges

By

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I thank Professor Aditi Abhyankar for the opportunity for being a part of such a distinguished panel and share my thoughts with the young audience. As the future of the country, you have a great stake in the performance of our economy in a globalised world: the opportunity it provides, the promise it holds and the challenges we face. Therefore, the focus of my talk today is on the recent macroeconomic performance of the Indian economy.

As you know the Indian economy experienced an acceleration in growth in the early 2000s which was dented by the global financial crisis, particularly after the collapse of Lehman Brothers in September 2008. Though the world economy has recovered from the recession in 2009, it continues to be buffeted by problems. Apart from the uncertainties in the global economy, Indian economy faces challenges from several other domestic factors.

Against this background, I sequence my presentation as follows. First, I will situate India in the global economy under the rubric of emerging and developing economies (EDEs). Second, I compare and contrast the macroeconomic performance in the post crisis 4-year period of 2008-12 with the preceding high growth 5-year period of 2003-08. Third, I highlight a few key challenges that the Indian economy needs to overcome to regain its growth momentum. Finally, I conclude with the conjecture: when can India become a high middle-income country, for your inquisitive minds to ponder over?

India in the World

The global economic landscape has changed substantially over the past decade with the share of EDEs in the global GDP rising from about 20 per cent in 2000 to 36 per cent by 2011 in terms of US dollar at market exchange rate. In terms of purchasing power parity (PPP), the share rose from 37 per cent to almost 49 per cent. Thus, at the current juncture, the global economic weight is equally split between the EDEs and advanced economies (AEs). But, what is interesting is that the EDEs will continue to grow faster than the AEs, even under adverse economic conditions. This will increasingly tilt the global economic balance in

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[*] Speech by Shri Deepak Mohanty, Executive Director, Reserve Bank of India, delivered at the Ruia College, Mumbai, on 28th August 2012. The assistance provided by Rajeev Jain and Binod B. Bhoi in preparation of the speech is acknowledged.

favour of EDEs. Hence, the focus has shifted from AEs to EDEs in sustaining global growth. Concurrently, the resilience of growth in the major EDEs such as Brazil, Russia, India, China and South Africa – popularly known as BRICS – has been at the centre of such an assessment.

Over the period 2000-11, India's share in world GDP rose from 1.5 per cent to 2.4 per cent in terms of US dollar, and from 3.8 per cent to 5.7 per cent in terms of PPP. This achievement, however, looks small considering India's large share of about 17.4 per cent in the global population.

The growth dynamics looks strikingly different when a comparison is made between the pre-crisis 5-year period with the post-crisis 4-year period. Between these two periods, the drop in India's real GDP growth was less pronounced as compared to the fall in global GDP growth. Thus, despite growth moderation, India's contribution to world growth rose from about 10 per cent to almost 16 per cent over the same period (Table 1).

Table 1: India in the World Economy

1	2	3	4	5
Item	**2002**	**2003-07**	**2008-11**	**2011**
1. GDP in US $ terms (% Share in World)	1.5	1.8	2.3	2.4
2. GDP PPP Based (% Share in World)	3.8	4.3	5.3	5.7
3. Contribution to World Growth (%)	8.7	9.9	15.7#	13.7
4. GNI Per Capita (US$)	470	728	1,213	1,410
5. GDP Per Capita PPP Based (US$)	1,673	2,225	3,282	3,694
6. World: GDP Growth (%)	2.9	4.7	2.8	3.9
7. India: GDP Growth (%)*	4.6	8.6	7.7	7.1

2009 is excluded as world GDP growth was negative.
*Calendar year growth as per the IMF.
Source: World Economic Outlook (IMF) and the World Bank.

The initial phase of high growth enabled India to raise its per-capita gross national income (GNI) to cross the threshold of US$ 1025 for the first time in 2008 and be classified by the World Bank as a lower-middle income country. Subsequently, the per capita income rose at a slower pace to US $ 1,410 by 2011 during the post-crisis period. While at the current level, India's per capita income is the lowest amongst the BRICS nations, it is noteworthy that successively India has taken less and less number of years to double its real per-capita

income: 40 years since 1950-51; 15 years since 1991-92 and going by the current trend, it may take about 10 years to double the real per-capita income by 2017-18[1].

Let me now turn to the key drivers of India's economic growth and the factors leading to the growth moderation during the post-crisis period after 2007-08.

Pre-Crisis Growth Upswing

India recorded real GDP growth of 8.7 per cent per annum during the 5-year period 2003-08, contributed by all the three major sectors: agriculture, industry and services (Table 2). This marked a significant upward shift in the growth trajectory. While the high growth in industry and services sector was supported by past reforms and conducive global economic environment, agricultural growth was partly aided by favourable monsoons. Though the share of agriculture in the economy is progressively shrinking, it is important to recognise that the above-trend agricultural growth not only provided some upward momentum to the overall growth but also enabled domestic price stability by helping to keep food prices low.

Table 2: Real Economy

Item	2002-03	Pre-crisis (2003-08)	Post-crisis (2008-12)	2011-12
1	2	3	4	5
			(Percentage Change)	
1. Overall Real GDP	**4.0**	**8.7**	**7.5**	**6.5**
1.1 Agriculture	-6.6	4.9	2.7	2.8
1.2 Industry	6.9	8.8	5.6	2.6
1.2.1 Manufacturing	6.9	9.7	6.0	2.5
1.3 Services	7.1	9.8	9.3	8.5
2. Expenditure Side Aggregates				
2.1 Private Consumption	2.9	7.5	7.0	5.5
2.2 Government Consumption	-0.2	5.8	9.4	5.1
2.3 Fixed Capital Formation	-0.4	16.2	5.8	5.5
			(Per cent)	
3. Share in GDP				
3.1 Agriculture	20.1	18.4	14.8	14.0
3.2 Industry	20.6	20.3	19.9	19.2
3.3 Services	59.3	61.3	65.4	66.8

Another way to analyse sources of GDP growth is the expenditure approach. From the expenditure side, the higher economic growth was enabled by a surge in overall investment rate largely driven by the private corporate sector. Investment was financed mostly by higher

[1] See Mohanty, Deepak (2011), "Indian Economy: Progress and Prospects", Speech delivered at the Harvard Business School, Boston on September 27.

domestic saving (Table 3). Private sector investment grew on the back of increased availability of resources reflecting reduction in public sector's draft on private saving following the rule-based fiscal consolidation. The attraction of higher growth made it easier to access foreign sources of funding. The corporate sector also generated higher internal resources through enhancement of its own retained earnings. This was made possible by greater profitability reflecting improved productivity, lowering of tax rates as well as lower debt servicing costs enabled by lowering of nominal interest rates[2]. The reduction in nominal interest rates, in turn, was facilitated by the moderation in inflation brought about by prudent fiscal and monetary policy.

The reduction in the overall interest rate structure also enabled the Government to reduce its debt servicing burdens, which partly contributed to a step-up in public sector saving. More importantly, the perseverance with the rule-based fiscal policy under the FRBM Act 2003 led to significant moderation in all the deficit indicators. Centre's fiscal deficit fell to 3.6 per cent of GDP during the high growth phase from 5.9 per cent during the 1990s. The primary deficit turned into a marginal surplus. Consequently, public sector saving increased to 2.9 per cent of GDP during 2003-08 from a dis-saving of 0.8 per cent in the preceding five years.

Table 3: Saving and Investment

Item	Pre-crisis (2003-08)	Post-crisis (2008-11)
1	2	3
(As a ratio to GDP at current market prices)		
1. Gross Domestic Savings	**33.3**	**32.7**
1.1 Household Saving	23.2	23.9
1.1.1 Financial assets	11.2	11.0
1.1.2 Physical assets	12.0	12.9
1.2. Private Corporate Sector	7.2	7.8
1.3. Public Sector	2.9	1.0
2. Gross Domestic Capital Formation (GDCF)#	**33.6**	**35.3**
2.1 Household	12.0	12.9
2.2 Private Corporate Sector	12.5	12.0
2.3 Public Sector	7.8	9.1
3. Saving-Investment Gap	**-0.3**	**-2.6**
Memo:		
4. ICOR*	**3.9**	**4.8**

#: GDCF includes valuables as also errors and omissions and therefore may not tally with the sum total of the three sectors. *: Ratio of real investment rate and real GDP growth.

[2] For a detailed discussion see Mohan, Rakesh (2008), "The Growth Record of the Indian Economy, 1950-2008: A Story of Sustained Savings and Investment", Speech delivered at the Conference "Growth and Macroeconomic Issues and Challenges in India" organised by the Institute of Economic Growth, New Delhi on February 14.

Another feature was the sustained increase in household financial saving. This largely financed the saving-investment gaps in the corporate and the public sector. With the deepening of the financial sector, there was greater access to bank credit by households, especially housing finance, which was reflected in the increase in household investment rate.

The overall gross domestic saving rate of 33.3 per cent of GDP during the high growth phase facilitated the increase in overall investment rate to 33.6 per cent without much recourse to external borrowings. Concurrently, the productivity of capital was also high as reflected in the incremental capital-output ratio (ICOR) of a shade below 4. Provisional estimates from the India Productivity Report 2012, suggest an appreciable increase in total factor productivity (TFP) at the economy level to 1.9 per cent per annum during 2000-2008 from about 0.7 per cent per annum during 1980-1999. Thus, the growth acceleration was contributed by high domestic saving accompanied by improvement in productivity.

Post-Crisis Growth Moderation

The onset of global financial crisis in 2008 interrupted India's growth trajectory. Despite being located far away from the epicentre of the crisis, India could not remain insulated from the adverse impact of the crisis. The knock-on impact of the global financial crisis was felt through all the channels - finance, real and more importantly, the confidence channel[3]. Initially the impact was visible on India's financial markets – equity prices fell reflecting withdrawal of global investment, currency depreciated reflecting global risk aversion, and money and credit markets came under pressures with substitution of external sources of funding with domestic sources. Reflecting greater global integration, the Indian trade and business cycles had also become increasingly synchronised with global cycles[4]. Consequently, the adverse impact of external demand shocks was manifested in terms of a moderation in Indian economic growth from 9.3 per cent in 2007-08 to 6.7 per cent in 2008-09. Following expansionary monetary and fiscal policy response, growth recovered quickly during 2009-10 and 2010-11, before slumping again to 6.5 per cent in 2011-12. GDP growth is expected to be around 6.5 per cent in 2012-13 also.

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[3] Subbarao, D. (2009), "Impact of the Global Financial Crisis on India: Collateral Damage and Response", Speech delivered at the Symposium on "The Global Economic Crisis and Challenges for the Asian Economy in a Changing World" organised by the Institute for International Monetary Affairs, Tokyo, February 18.

[4] Mohanty, Deepak (2009), "Global Financial Crisis and Monetary Policy Response in India", RBI Bulletin, December.

Despite the predominant domestic nature of Indian growth story, volatility in growth has brought to the fore the debate on the potential rate of growth and the role of macroeconomic policies in stabilising growth around the potential. Analysis of the sectoral composition of growth reveals that the growth moderation during 2008-12 has been driven largely by manufacturing and agriculture sectors. On the expenditure side, growth was led by both private and government consumption expenditure as investment growth moderated. Productivity growth has slackened as reflected in increase in ICOR to 4.8 from 3.9 in the pre-crisis period. Domestic saving has moderated driven by significant fall in public sector saving as government revenue deficit increased. More worrying has been a sharp deterioration in household saving in financial assets.

While full saving estimates for 2011-12 are not available, preliminary estimates suggest that household financial saving has plummeted to 7.8 per cent of GDP in 2011-12 from an already low of 9.3 per cent in 2010-11 as compared with an average of 11.6 per cent in the high growth phase. In an inflationary environment, households have tried to protect their real value of consumption by dipping into their saving. Moreover, increasing household preference for gold has also dented financial saving.

The saving-investment gap has widened which was filled through greater recourse to foreign saving. This was reflected in the widening of the current account deficit (CAD) to 3.0 per cent of GDP during 2008-12 from 0.3 per cent during the high growth phase. In fact, the CAD was record high at 4.2 per cent of GDP in 2011-12.

The sharp increase in imports of gold and crude oil – the latter reflecting in parts increase in global prices and incomplete domestic price pass-through – largely contributed to the deterioration in CAD. As much of the gold demand is met through imports, this not only created leakages from the banking system but also contributed to the widening of the CAD beyond the sustainable level of around 2.5 per cent of GDP[5]. With net capital flows turning insufficient to finance CAD, there was a drawdown of reserves during crisis years – 2008-09 and 2011-12. Reflecting these developments, there was deterioration in external vulnerability indicators: ratio of short term debt to total debt increased and import cover of reserves fell. Net international investment position (IIP), another indicator of sustainability of external position, deteriorated during post-crisis period (Table 4).

[5] RBI's Macroeconomic and Monetary Developments for the First Quarter Review 2011-12 estimated that with GDP growth of 7 per cent, CAD-GDP ratio of about 2.5 per cent is sustainable.

Table 4: External Vulnerability Indicators (Per cent)			
	Pre-crisis (2003-08)	**Post-crisis (2008-12)**	**2011-12**
1	**2**	**3**	**4**
Balance of Payments			
1. Merchandise Export Growth	25.3	17.8	23.7
2. Merchandise Import Growth	32.3	18.8	31.1
3. Current account balance/GDP	-0.3	-3.0	-4.2
4. Net Capital Flows/GDP	4.6	3.0	3.7
External Debt			
1. Debt-GDP Ratio	17.7	19.1	20.0
2. Short-term Debt to Total Debt	13.6	20.8	22.6
3. Debt Service Ratio	8.3	5.1	6.0
4. Reserves to Debt ratio	113.7	100.9	85.1
5. Import Cover of Reserves (in Months)	14.0	9.4	7.1
Openness			
1. Export plus Imports of Goods and Services/GDP	40.8	51.7	55.7
2. Gross Capital Inflows plus Outflows/GDP	36.8	50.5	48.2
3. Current plus Capital Receipts and Payments /GDP	83.5	108.4	109.6
Net IIP/GDP	-6.4	-10.6	-13.2
: Indicates deficit			

Role of Monetary Policy

During the high growth phase of 2003-08, inflation was low and stable. All the measures of inflation – WPI, CPI and GDP deflator – hovered around 5 per cent. This was facilitated by the rule-based fiscal policy which enabled monetary policy to effectively focus on inflation control and expansion of credit in a non-inflationary manner. In line with the growing investment demand in the economy, non-food bank credit increased significantly during 2003-08 to 26.7 per cent per annum from an average of 15.4 per cent during the 1990s (Table 5). Monetary policy gave significant weight to the analysis of sectoral credit growth and pursued macro-prudential policies to contain overheating concerns in the economy while at the same time ensuring increasing credit flow to finance investment. Financial stability objectives became an integral part of monetary policy making. Money supply growth was made consistent with the projections of inflation and growth in order to maintain the resource balance consistent with the needs of a fast growing economy.

Table 5: Monetary and Inflation Indicators (Per cent)			
	Pre-crisis (2003-08)	**Post-crisis (2008-12)**	**2012-13 (Latest)**
1	**2**	**3**	**4**
Money & Credit			
1. Growth in Reserve Money (M_0)	20.4	11.6	7.1
2. Growth in Broad Money (M_3)	18.6	16.4	13.9
3. Growth in Non-food Bank Credit	26.7	18.3	16.2
4. Credit-GDP Ratio	39.3	50.8	-
5. Money Multiplier (M_3/M_0)	4.6	4.9	5.3
Inflation			
1. Wholesale Price Index	5.5	7.6	6.9
1.1 Food Articles	5.2	11.8	10.1
1.2 Fuel Group	7.3	9.0	6.0
1.3 Non-Food Mfg.	5.0	4.8	5.4
2. CPI- Industrial Workers (IW)	5.0	10.1	10.1
2.1 CPI- IW Food	5.5	10.9	10.5
GDP Deflator based Inflation	5.3	7.7	-

The lower inflation rate during pre-crisis high growth phase resulted in lower nominal lending rates. Even as real lending rate was significantly high, averaging around 7 per cent per annum, it did not deter private investment as stable inflation reduced inflation risk premia. In any case, the real lending rates were lower than the average real GDP growth of 8.7 per cent during 2003-08 and hence was sustainable. More importantly, the substantial positive rate of return on loans enabled banks to offer significantly positive real rates of return on term-deposits which helped raise household financial saving (Table 6).

Table 6: Nominal and Real Interest Rates (Per cent)									
	Lending Rates			**Policy Rates (Repo)**			**Deposit Rates (3-5 yrs)**		
	Nominal	Real (based on)		Nominal	Real (based on)		Nominal	Real (based on)	
	WALR	WPI	GDP Deflator	Policy Rate	WPI	GDP Deflator	Deposit Rate	WPI	GDP Deflator
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
2003-08	12.4	6.9	7.1	6.8	1.3	1.5	6.9	1.4	1.6
2008-12	11.3	3.7	3.6	6.5	-1.0	-1.2	8.2	0.6	0.4
2012-13 (latest)	-	-	-	8.0	0.5	-	8.9	1.4	-

WALR: Weighted average lending rate. WPI: Wholesale price index.
- Not available.
Note: Real rates are derived as nominal rates *minus* the inflation rates based on WPI and GDP deflators.

During the post-crisis phase of 2008-12 while growth generally moderated, inflation rose complicating the task of monetary management. The Reserve Bank began exiting from the crisis-driven accommodative monetary policy stance in October 2009, first by phasing out all the unconventional measures and then raising interest rates. Overall, headline WPI inflation increased to an average of 7.6 per cent during 2008-12 largely reflecting near double digit inflation for most months during January 2010 - November 2011 period. WPI inflation has since moderated to around 7.0 per cent but remains above 5.5 per cent observed during the pre-crisis period. Growth moderation, coupled with signs of thawing of WPI inflation since December 2011, prompted the Reserve Bank to cut the repo rate by 50 basis points to 8.0 per cent in April 2012.

A disaggregated analysis of the sources of inflation during post-crisis period suggests that the increase in inflation was contributed by more than doubling of food price inflation to 11.8 per cent during 2008-12 (Table 5). This was, in turn, driven by sharp increase in the prices of protein-rich food items, reflecting higher demand for these items complicated by inadequate supply response. Fuel group inflation also increased reflecting increases in global crude prices. The persistence of food price inflation, in turn, widened the divergence between WPI and CPI based inflation during this period, at times complicating the assessment of inflationary pressures for monetary policy purposes.

A major factor from the demand side contributing to the persistence of food price inflation, which caused generalisation of inflation and fuelled inflationary expectations, was the sharp increase in rural wages. While the share of agriculture and allied activities was only 14.0 per cent of GDP, rural population constitutes 68.0 per cent of total population and accounts for 52.0 per cent of workforce. Hence, rural demand has a significant impact on food inflation and thus overall inflation.

The annual growth in nominal wages in both rural agricultural and non-agricultural sectors almost tripled during the post-crisis period as compared to the earlier high growth phase. In fact, increase in real wages was significantly higher than the rate of growth of GDP in the agriculture and allied sector (Table 7).

While this partly reflected labour market tightening as evident in reduction in work participation rate (WPR), the increase in higher minimum wage for public works under various government programs could also have contributed to rising real wages during the post-crisis period. Available information suggests that urban wages have also increased

significantly. Hence, food inflation which emanated from the supply side persisted supported by higher wages. Thus, it has acquired a structural character in absence of adequate supply response. This period also coincided with general increase in food prices globally.

Table 7: Employment and Wages

(Per cent)

	Pre-crisis (2003-08)	**Post-crisis (2008-12)**
1	**2**	**3**
Rural Wage Growth		
1.Nominal Wages		
1.1. Agricultural	7.0*	17.2
1.2 Non-agricultural	4.9*	14.9
2. Real Wages #		
2.1 Agricultural	0.8*	6.0
2.2 Non-agricultural	-1.2*	4.0

*: Averages for 2005-06 to 2007-08 for which data are available.
#: Deflated by CPI for Agricultural Labourers.
Source: Labour Bureau for data on employment and rural wages.

Overall, despite inflation remaining high, average nominal policy rates were lower at 6.5 per cent during the post-crisis period. In real terms, the policy rates turned negative while the real lending rates almost halved to around 3.7 per cent during the post-crisis period (Table 6). Despite lower real interest rates, investment has slackened reflecting the role of non-monetary factors in the growth slowdown. While the heightened uncertainties following the eurozone crisis could have dampened investment climate, the slowdown in investment could have been partly driven by the high inflation environment itself. Thus, what is desirable is a low real interest rate environment as an outcome of a low inflation environment for promoting investment and growth. Concurrently, as highlighted in the RBI Annual Report for 2011-12, there is a need to address other constraints to investment, such as domestic policy uncertainties and structural impediments in the infrastructure space.

Challenges Ahead

Let me now turn to some of the challenges for the Indian economy to regain the growth momentum.

First, as the past-experience suggests, rule-based fiscal policy becomes absolutely important to afford the space for monetary policy to contribute to the improved

macroeconomic performance. Fiscal prudence is also required to alleviate the resource constraints by boosting domestic saving crucial for raising domestic investment rate.

Second, monetary policy needs to focus on containing inflation and anchoring inflation expectations. This is essential to usher in a low interest rate environment which is crucial for raising the overall investment.

Third, there is a need to increase agricultural productivity and improve supply elasticities. Without adequate agricultural supplies, inflation management is going to be a difficult task, given the transition of a significant part of the population into the consumption stream.

Fourth, lower household financial saving as observed over the last two years can pose a resource constraint for growth in coming years. It could be due to several factors, *viz.,* entrenchment of household consumption levels, persistently high inflation and consequent lower real return on financial assets, and increasing popularity of gold as an investment option. Therefore, control of inflation and improving the real return on financial assets become important so that growth prospects do not suffer due to inadequate supply of domestic saving.

Fifth, the current account deficit, recorded at historically high of 4.2 per cent in 2011-12 is not only unsustainable but also does not augur well for growth potential of the economy. Increasing vulnerability of India's external sector can deter confidence of global investors and impair financial flows required to meet the domestic saving-investment gap. Therefore, there is a need to improve competitiveness of the domestic economy while ensuring that the policy environment remains conducive for investment. In this context, price stability is also important for exchange rate stability.

Sixth, we often talk about the demographic dividend that some EDEs like India may enjoy in the medium to long-run. In the absence of reforms aiming at improving the quality of human capital, such demographic features may not have the desired impact on growth and development of Indian economy. Policy emphasis on social sector development and skill improvement is required to help to absorb excess labour from farm sector to industrial and services sectors.

Seventh, India needs to enhance investment in social and physical infrastructure in order to sustain the growth momentum. Given the limited space for public sector for infrastructure investment, incentivising private investment in infrastructure is critical.

Eighth, efforts towards easing the access of poor and under-privileged to the organised credit market need to be intensified so as to enable their participation in growth and development process. This will raise India's credit-GDP ratio, which is relatively low by global standards. As nominal credit grows faster than nominal GDP, the possible inflationary impact of this process in the short-term needs to be carefully managed.

Conclusion

Let me conclude. The growth acceleration that we have seen over the last decade, notwithstanding some moderation in the recent years, has propelled India to the position of the third largest economy globally after the US and China in terms of PPP GDP and has improved its global ranking in terms of per capita income. However, India's per capita income (GNI per capita in current US$) at US$ 1,410 is quite low as compared with other BRICS such as Brazil (US$ 10,720), Russia (US$ 10,400), China (US$ 4,930) and South Africa (US$ 6,960).

If India were to progress towards upper-middle income category of countries – as per the extant World Bank definition of GNI per capita income of more than US$ 4035 at 2011 US$ – it has to regain the growth momentum which has been lowered by the global financial crisis and several domestic challenges, some of which I have highlighted here. With appropriate policy response, India could emerge as a upper- middle income country by the middle of the next decade, *i.e.,* 2025. However, the growth process, itself, is not free from risks and challenges which need to be recognised and addressed as we move along.

Thank you.