

Macroeconomic Outlook for 2014-15 Based on India-LINK Macroeconometric Model

India-LINK Team*

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*These forecasts, developed as part of World Project Link, are based on the India-LINK (earlier known as CDE-DSE and IEG-DSE) macro-econometric model for India. This model is maintained at the Centre for Development Economics, Delhi School of Economics by the Principal Coordinators, Prof Pami Dua (Delhi School of Economics) and Prof. N.R. Bhanumurthy (National Institute of Public Finance and Policy), Research Associate, Dr. Lokendra Kumawat (Ramjas College), with advisory support from Professor V. Pandit (Sri Sathya Sai University, Prasanthinilayam).

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Forecast Highlights of the India-LINK Model for India

In our last round of forecasts in March 2014, we predicted GDP growth of 6.2 percent for the year 2014-15. Since then, there have been changes in many of the assumptions that are made. Significant changes have taken place in our assumptions on rainfall, world GDP forecasts, world oil and commodity prices, as well as foreign capital flows. With the updates on these assumptions available, the model has been used to reassess the forecasts for the year 2014-15. Based on these changes in assumptions, we revise our GDP growth forecast for 2014-15 downwards to 5.9 percent as compared to the initial estimate of 6.2 percent. However, one may note that India-LINK revised forecasts continue to be more optimistic compared to other agencies. A sharp downward revision is seen in agricultural output growth as the assumption on rainfall (which was assumed to be normal in March 2014) has been revised substantially. Given declining international oil prices, our model predicts much lower inflation of 4.6 percent by the end of March 2015.

The current forecasts are based on the following assumptions on major exogenous variables in the model:

- Rainfall is assumed to be 12% below normal. In our earlier projections, we had assumed a normal monsoon for the whole year.
- World oil prices are expected to remain stable at \$100/barrel (on average)
- Policy interest rates are assumed to be constant for the rest of the year.
- World non-oil commodity prices, which have been declining since 2012, are expected to decline further by 2.5% (Global Economic Prospects, World Bank)
- Advanced countries' GDP is to grow at 1.8% and 2.3% in 2014 and 2015 respectively (as per the IMF's World Economic Outlook)

Key Economic Indicators 2010-11 to 2014-2015 (All in growth rates)

| Year | 2010-11 | 2011-12 | 2012-13(RE) | 2013-14 (P) | 2014-15 (F) |
|--------------------|----------------|----------------|--------------------|--------------------|--------------------|
| Agriculture | 7.9 | 3.6 | 1.4 | 4.7 | 1.3 |
| Industry | 6.8 | 2.7 | 1.2 | 0.6 | 5.1 |
| Services | 9.2 | 7.9 | 6.8 | 6.6 | 7.2 |
| Real GDP | 9.3 | 6.2 | 4.5 | 4.7 | 5.9 |
| WPI | 9.6 | 8.9 | 5.7 | 5.0 | 4.6 |
| Exports | 40.5 | 21.8 | 4.9 | 8.4 | 8.4 |
| Imports | 28.2 | 32.3 | 6.6 | -2.5 | 15.0 |

#: Industry includes Manufacturing, Mining & Quarrying, Electricity, Gas & Water supply. Construction sector is part of services group (RBI classification)

RE is First revised estimates. P is Provisional estimates; F-Forecasts from the quarterly India-LINK macroeconomic model.

Introduction

For the past two consecutive years, India has clocked growth below 5 percent and has also experienced the most volatile period since major economic reforms were initiated in 1991. While the slowdown has been contributed by the domestic economic environment, trends in the international economy have also played a major role. Some of the domestic factors that resulted in lower growth are large fiscal deficits (above the sustainable level), high inflation rates (much above the threshold levels), widening current account deficit as well as policy inconsistencies (contributed by both the government as well as the institutions). On the international front, weak recovery in the industrial countries and sharp fall in foreign capital inflows as well as uncertainty in the QE tapering timing led to transmission of volatility through the financial markets. Based on these factors, the prospects of recovery in the Indian economy remain weak.

However, from May 2014, with the new Government in place there appears to be a building up of some optimism in the economy. With recent policy changes in labour and fuel reforms, thrust towards infrastructure development, fiscal consolidation, clearance of investment backlogs, as well as assurances of FDI from US, Japan and China, prospects for growth in the Indian economy have improved. With this background, in this report, an attempt is made to understand the trends and assess the prospects for the Indian economy for the year 2014-15.

It may be noted that for the year 2014-15, we had projected growth of 6.2 percent in March 2014 based on the assumptions and estimates (particularly of the exogenous variables) that were available at that time. Some major assumptions that were made were: recovery in the advanced countries; subdued international commodity prices; normal monsoon and a stable government. However, the monsoon in India turned out to be below normal and the recovery in the advanced countries was fragile, thus, warranting a relook at the forecasts.

Trends in the Indian Economy

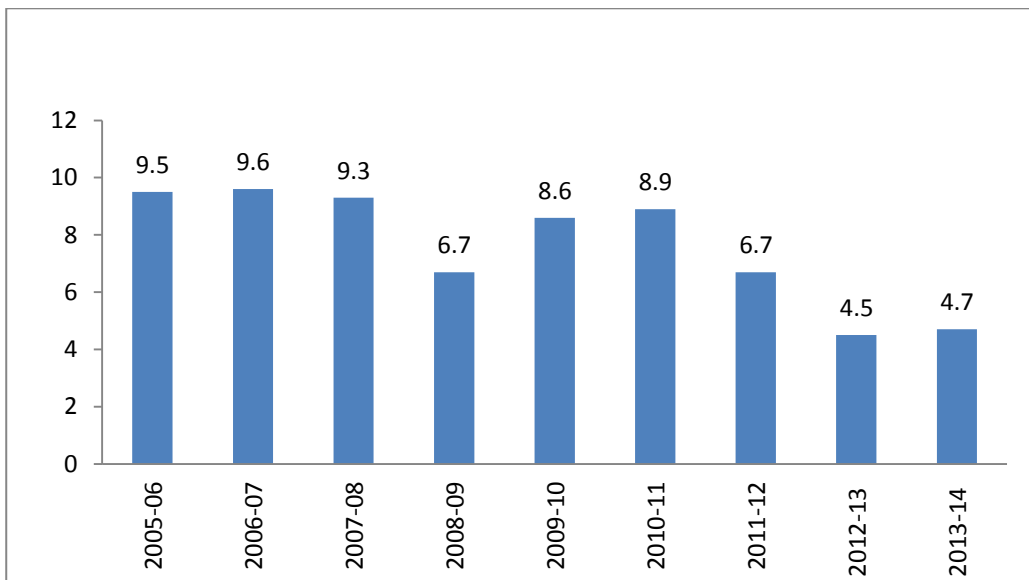
Provisional estimates from CSO show that the Indian economy registered 4.7 percent growth in 2013-14, compared to 4.5 percent achieved in 2012-13, indicating a deep slowdown in the Indian economy. These growth rates are even lower than the growth during the global crisis period (see Chart-1), where despite the crisis, the economy did manage to grow at 6.7 percent. The slowdown in the last two years is visible across the sectors with a sharp slowdown (negative growth) in the industrial sector. The services sector continues to grow at above 6 percent while there is a sharp recovery in the agricultural growth to 4.7 percent compared to 1.4 percent in 2012-13.

A further disaggregation of GDP shows that the mining & quarrying sector, which has a strong forward linkage with the core sector growth, continues to register negative growth for the second consecutive year while the manufacturing sector registered growth of -0.7 percent in 2013-14. This indicates that the slowdown in the industrial sector is so deep that even the manufacturing sector registered negative growth for the first time since the industrial slowdown in the late 1990s.

The latest data for GDP for the first quarter of 2014-15 (April-June 2014) appears to reverse the slowdown trend with a modest growth 5.7 percent. This growth is higher than 4.6 percent growth in the previous quarter and also compared to the same period in 2013-14. Charts 3 and 4 suggest that India may be on a recovery path with pick up observed especially in the industrial sector in the latest quarter at 4 percent compared to -0.5 percent in the previous quarter. Within the industrial sector, after a long period of negative growth, the mining sector registered positive growth at 2.1 percent compared to -3.9 percent in the same period last year. The construction sector has also

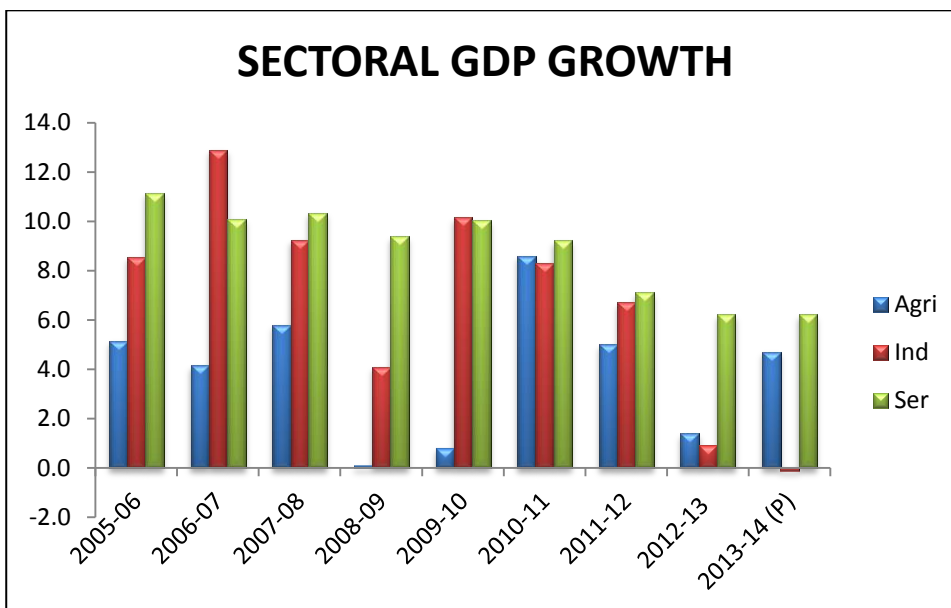
revived with growth of 4.8 percent against 1.1 percent last year. Such trends indicate that the recovery seems to be across the board.

Chart-1: Annual Growth Rate of GDP (Percent)



Source: Reserve Bank of India, Database on Indian Economy

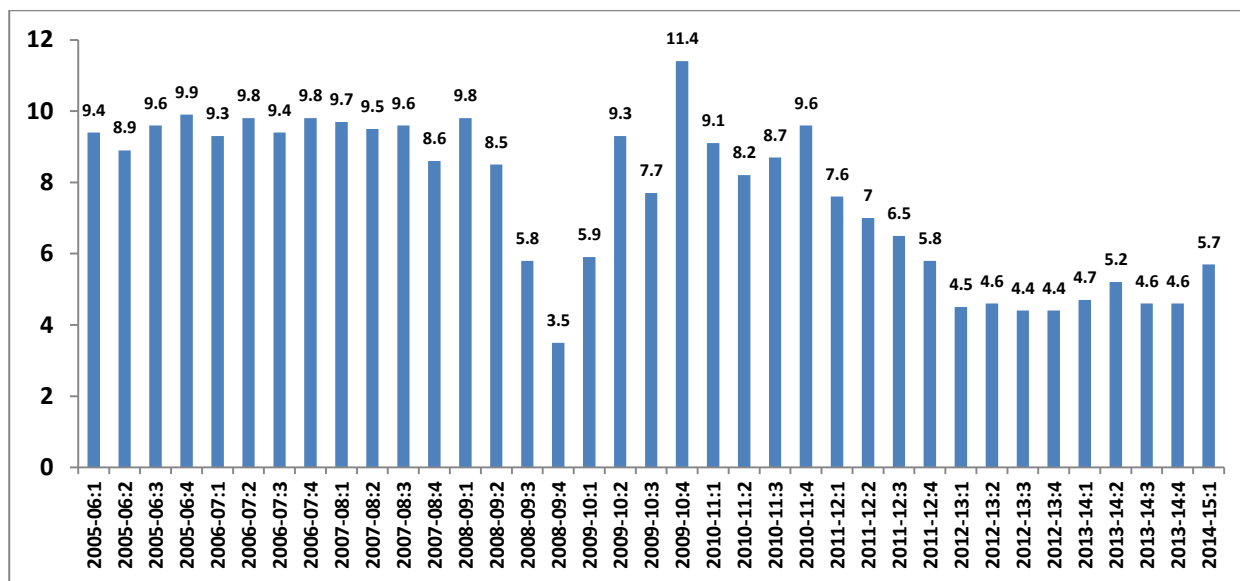
Chart-2: Trends in India's GDP Growth Rates (at 2004-05 prices)



Source: Reserve Bank of India, Database on Indian Economy

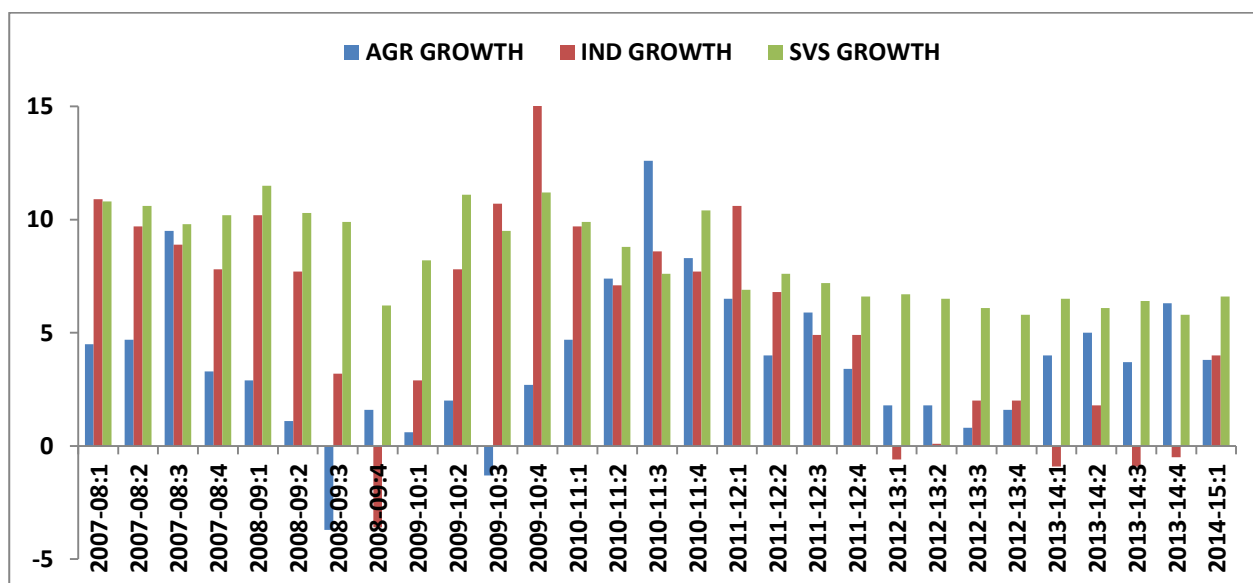
There are some positive trends on the demand side in the first quarter of 2014-15. Gross investment appears to be increasing while the share of valuables (mostly gold) has declined from 2.1 percent of GDP to 1 percent. Exports growth, which was negative in 2013-14 Q1, has witnessed positive growth of nearly 12 percent. Further, imports growth has become negative in this period.

Chart-3: Quarterly Growth Rate of Real GDP (Percent)



Source: Reserve Bank of India, Database on Indian Economy

Chart-4: Quarterly Sectoral Growth Rates



Source: Reserve Bank of India, Database on Indian Economy

Agriculture

After slow growth in 2012-13, the agriculture sector registered growth of 4.7 percent in 2013-14 and continues to grow at that pace even in the first quarter of 2014-15. While the monsoon turned to be below normal in the current year, the negative effects of such poor monsoon would reflect in the kharif output that comes by the end of 2014. As argued in our earlier report, Indian agriculture of late has been responding to prices, the higher food inflation as well as higher MSP is expected to lead to higher output. The initial trends in area under cultivation, as shown in Chart-6, support such view. The positive trends in agricultural growth are also reflected across all the food grain items (see Table-1) where after a decline in 2012-13, positive growth is seen in both cereals and pulses.

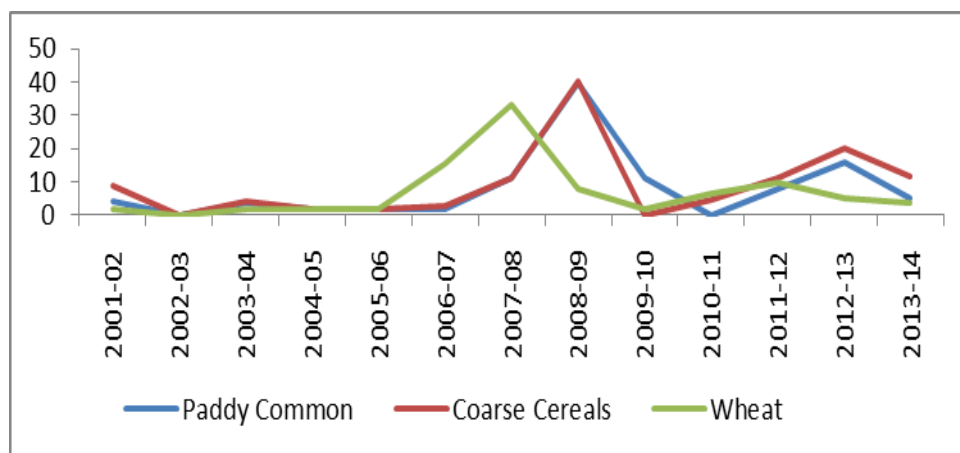
The expected positive trend in both food grain production as well as hike in minimum support prices should balance the food inflation in the coming quarters. This should also break the circularity of high MSP, high food inflation, high wages (wage-price spiral) and result in lower economy-wide inflation.

Table 1: Food Grain Production in India since 2001-02 (in million tonnes)

| Year | Cereals | | | | Pulses | Total Food grains |
|---------|---------|-------|----------------|---------------|--------|-------------------|
| | Rice | Wheat | Coarse Cereals | Total Cereals | | |
| 2001-02 | 93.34 | 72.77 | 33.38 | 199.48 | 13.37 | 212.85 |
| 2002-03 | 71.82 | 65.76 | 26.07 | 163.65 | 11.13 | 174.77 |
| 2003-04 | 88.53 | 72.16 | 37.60 | 198.28 | 14.91 | 213.19 |
| 2004-05 | 83.13 | 68.64 | 33.46 | 185.23 | 13.13 | 198.36 |
| 2005-06 | 91.79 | 69.35 | 34.07 | 195.20 | 13.38 | 208.60 |
| 2006-07 | 93.36 | 75.81 | 33.92 | 203.08 | 14.20 | 217.28 |
| 2007-08 | 96.69 | 78.57 | 40.75 | 216.02 | 14.76 | 230.78 |
| 2008-09 | 99.18 | 80.68 | 40.04 | 219.90 | 14.57 | 234.47 |
| 2009-10 | 89.09 | 80.80 | 33.55 | 203.45 | 14.66 | 218.11 |
| 2010-11 | 95.98 | 86.87 | 43.40 | 226.25 | 18.24 | 244.49 |
| 2011-12 | 105.30 | 94.88 | 42.01 | 242.19 | 17.09 | 259.29 |
| 2012-13 | 105.24 | 93.51 | 40.04 | 238.79 | 18.34 | 257.13 |
| 2013-14 | 106.54 | 95.91 | 43.05 | 245.50 | 19.27 | 264.77 |

Source: Department of Agriculture & Cooperation

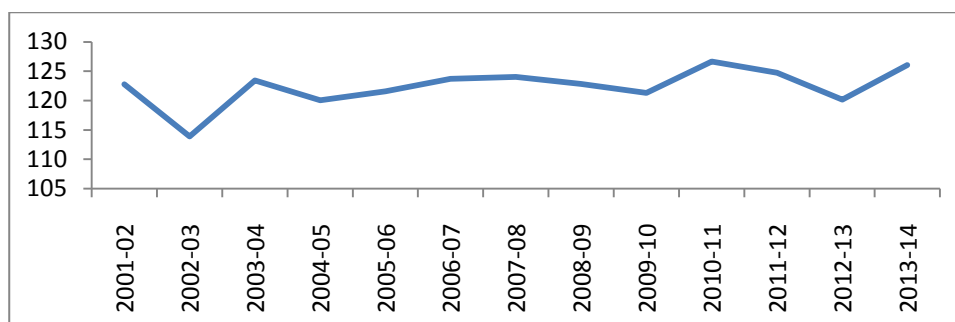
Chart-5: Growth of Minimum Support Prices for Selected Commodities (in %)



Source: Reserve Bank of India, Database on Indian Economy

This year lower agricultural growth is expected due to the bad monsoon. However, given subdued international commodity prices, a sharp rise in food prices (high food inflation) is not expected. This should have a positive impact on the overall macroeconomic stability in the country.

Chart-6: Trends in area under cultivation (in million hectares)



High food inflation and volatility in food grain production in the recent period has brought the issue of food security and food management to the core of public policy that resulted in introduction of the National Food Security Act. Significant factors for this trend are declining productivity in the agricultural sector as well as large loopholes in the overall food management (buffer stock and distribution policy) in the country that need an overhaul.

Table-2: Trends in Food Management (in million tonnes)

| Year | Procurement | Offtake | stocks |
|---------|-------------|---------|--------|
| 2001-02 | 41.75 | 31.3 | 51.02 |
| 2002-03 | 38.03 | 49.84 | 32.81 |
| 2003-04 | 36.58 | 49.33 | 20.65 |
| 2004-05 | 40.83 | 41.47 | 17.97 |
| 2005-06 | 41.48 | 42.25 | 16.62 |
| 2006-07 | 35.53 | 36.77 | 17.93 |
| 2007-08 | 37.42 | 37.43 | 19.75 |
| 2008-09 | 55.53 | 39.5 | 35.58 |
| 2009-10 | 57.98 | 48.86 | 43.36 |
| 2010-11 | 56.79 | 52.87 | 44.35 |
| 2011-12 | 66.35 | 56.28 | 53.44 |
| 2012-13 | 71.67 | 62.78 | 59.79 |
| 2013-14 | 32.93 | 12.24 | 67.38 |

Source: Reserve Bank of India, Database on Indian Economy

As may be noted in Table-2, in the recent period there has been a large divergence in the food grain production, procurement, as well as buffer stock policy. Food stocks are much higher than the stocks stipulated by buffer stock norms. At the same time, ironically, food inflation continues to be high. It may be noted from Table-2, that stocks continue to swell each year while food prices are also increasing over the period.

Industry

The industrial sector has experienced very low growth of 0.9 percent in 2013-14. The slowdown seems to be across the board in all sub-sectors except in the electricity group. The mining sector, due to policy inconsistencies as well as due to governance issues in the allocation policy, continues to register negative growth for the second consecutive year. Manufacturing sector, which has a largest weight in the industry group, registered negative growth of -0.7 percent, suggesting that the slowdown is deep (see Table-3). However, the trends in first quarter of 2014-15 and the monthly IIP (Index of Industrial Production) growth show a mixed picture.

Table-3: Growth in Components of Industrial Production (Percent)

| Year | Mining & Quarrying | Manufacturing | Electricity | General |
|---------|--------------------|---------------|-------------|---------|
| 2006-07 | 7.5 | 14.3 | 9.3 | 8.5 |
| 2007-08 | 3.7 | 10.3 | 8.3 | 12.9 |
| 2008-09 | 2.1 | 4.3 | 4.6 | 9.2 |
| 2009-10 | 5.9 | 11.3 | 6.2 | 4.1 |
| 2010-11 | 6.5 | 8.9 | 5.3 | 10.2 |
| 2011-12 | 0.1 | 7.4 | 8.4 | 8.3 |
| 2012-13 | -2.2 | 1.1 | 2.3 | 6.7 |
| 2013-14 | -1.4 | -0.7 | 5.9 | 0.9 |

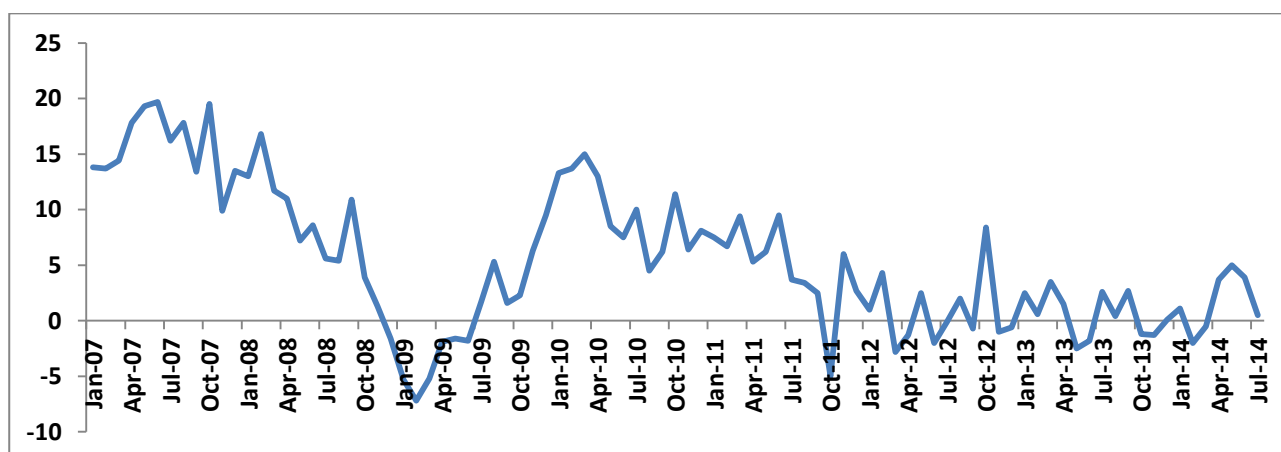
Source: Reserve Bank of India, Database on Indian Economy

What drives industrial growth? Empirical results suggest that both external demand as well as credit availability should result in higher industrial growth. Going by the recent trends as well as outlook in advanced countries' GDP (as per IMF projections), it appears that it may take time for the external demand to pick-up. Even in the case of credit availability, given that domestic banking industry is struggling with bad assets and their reconstruction, the recovery in credit growth appears to be taking longer than anticipated. Further, as discussed in our earlier report, mining sector (coal) has a large forward linkage with the overall industrial sector and given that the sector itself has been caught in the policy maze, the recovery in the industrial sector in the near future appears to be difficult. Although some companies were importing coal, limits on the current account appear to have constrained domestic industry in importing sufficient mining resources.

Index of Industrial Production (IIP) Sectoral Growth

The trends in monthly data are consistent with the annual trends. It may be noted from Chart-7 that except for the month of May 2014 where IIP growth went up to 5 percent, the slow growth that started in late 2011 continues till date. During several months, the IIP growth was negative or close to zero.

Chart-7: Growth of Index of Industrial Production (Percent)

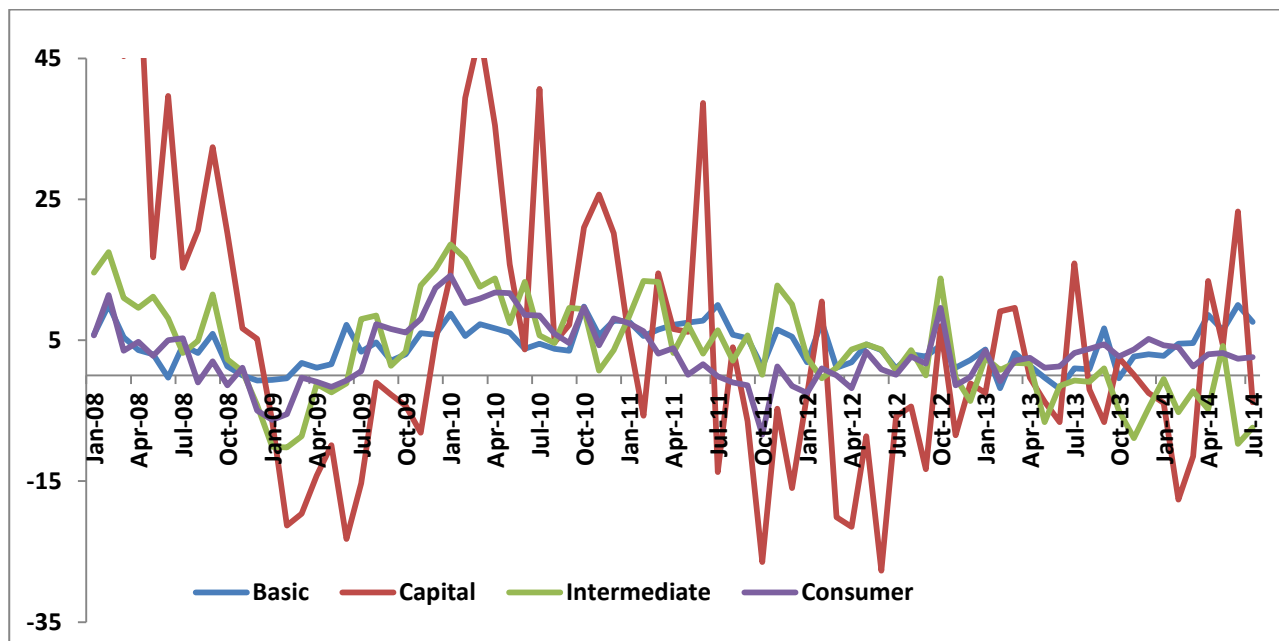


source: www.mospi.nic.in

At the disaggregated level, there are some signs of recovery in capital goods (see Chart-8). However, the volatility in its growth presents some uncertainty in the robustness of the sector's recovery. However, going by the trends in imports, which is a strong indicator for industrial

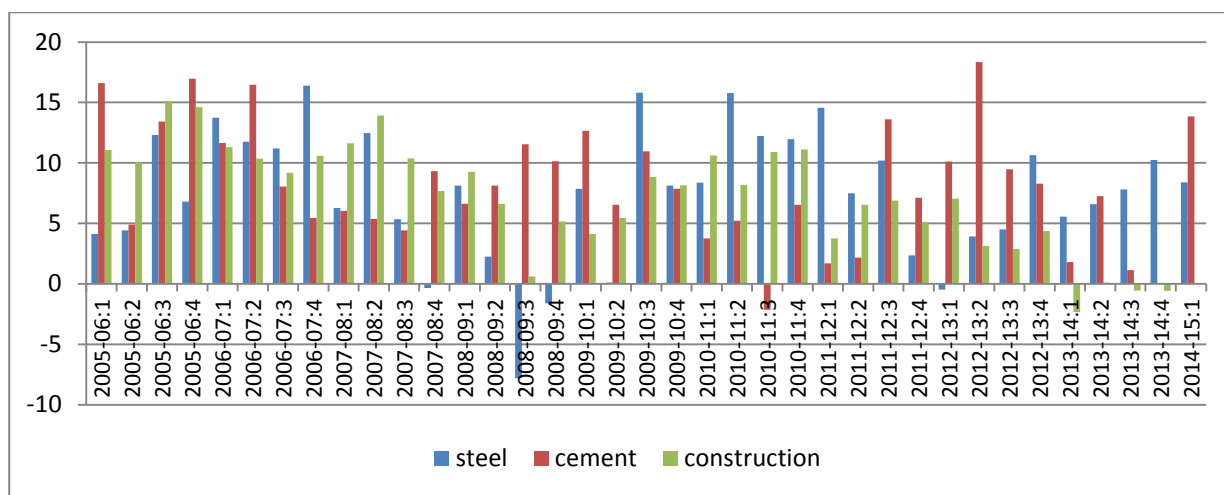
demand, one may infer that IIP may register decent growth in the coming quarters. Electricity, steel and cement are other sub-sectors showing strong recovery (see Chart-9). This also indicates expansionary signs in the industrial sector.

Chart-8: Growth in Components of Industrial Production (Percent)



Source: Reserve Bank of India, Database on Indian Economy

Chart-9: Trends in Core Sector Growth



Source: mospi.nic.in

The change in the government as well as new policy measures (such as on labour laws, diesel price deregulation, gas pricing, etc.) could help the recovery to some extent. However, large policy ambiguities in the rest of the sub-sectors such as mining appear to hamper further recovery in the core sector growth.

Services Growth

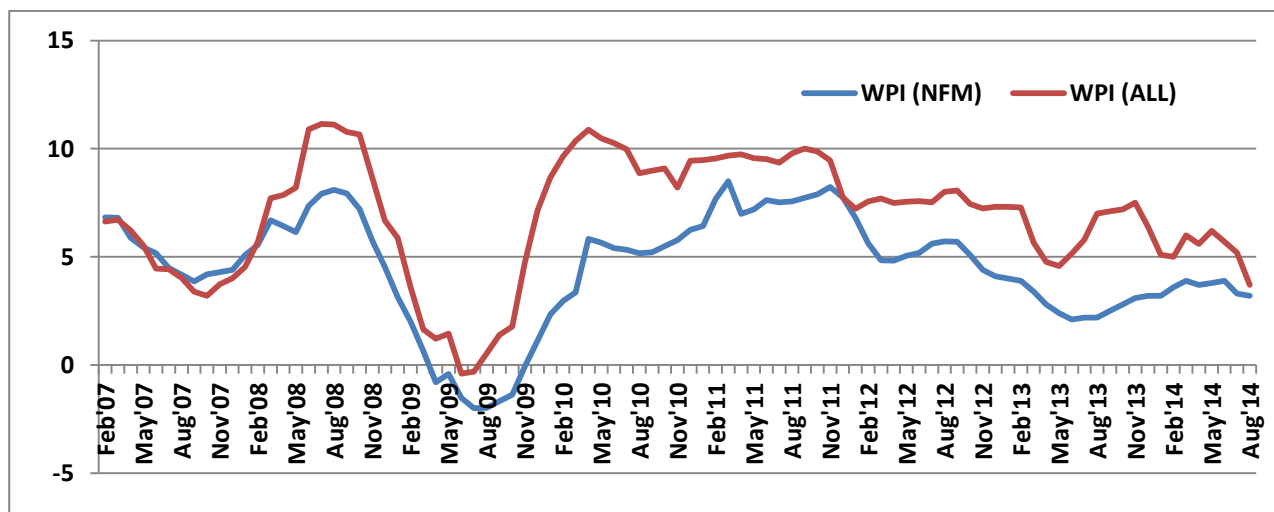
With contribution of 67 percent to the overall GDP, services sector is the largest sector of the economy. Further, this is the sector which has consistently registered high growth rates since the reforms. Even during the global crisis, the services sector registered growth of 9.2 percent. However, since 2010-11 there is deceleration in this sector with an average annual growth of about 6.5 percent. For the year 2013-14, the services growth is at 6.2 percent.

Figures for the first quarter of 2014-15 depict growth of 6.6 percent. However, at the disaggregated level, both the finance group as well as community services show a marginal decline compared to the first quarter of 2013-14. Both the construction sector as well as the trade services group show marginal recovery in growth. As external demand conditions and exports of goods are among the main determinants of service sector growth (besides the exchange rate), any recovery in global growth should result in recovery in the services sector. However, as the outlook for the global growth moderated in the recent period, recovery in services growth may be delayed.

Inflation

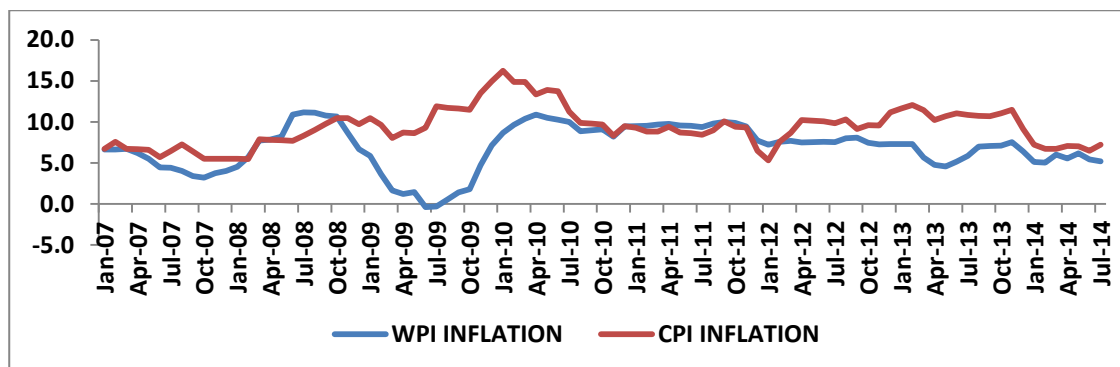
One of the biggest risks that India has been facing for the past three years is inflation much higher than the threshold inflation of about 5 percent. At the disaggregated level, the main driver of such high headline inflation is due to double-digit inflation in the food group. Such trends are reflected in both WPI as well as CPI (see Chart-11). However, in the recent period, WPI inflation has seen sharp deceleration and is currently at 3.7 percent with core inflation (WPI(NFM)) being lower at 3.6 percent in August 2014 (see Chart-10). This slowdown is largely contributed by a decline in both food inflation as well as the fuel group inflation following a reduction in petroleum prices. This declining trend is also reflected in CPI inflation. The recent decline in the international oil prices to US\$ 82 per barrel has resulted in reduction of petroleum prices and no further hikes in the diesel prices. In addition to this, the government's decision to deregulate diesel prices resulted in reduction in the retail diesel prices also brought down overall inflation. Overall, the trends in domestic inflation as well as the outlook for international commodity prices have brought down the inflation expectations sharply, which may force the RBI to relook at the inflation target of 8 percent that it has fixed itself for January 2015.

Chart-10: Inflation Cools Down Sharply



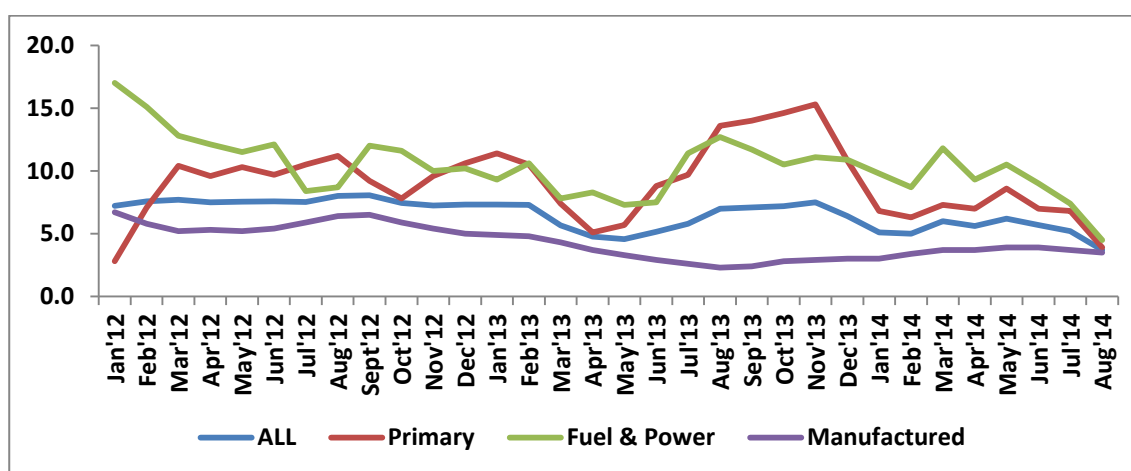
Source: mospi.nic.in

Chart-11: WPI and CPI Inflation



Source: Reserve Bank of India, Database on Indian Economy

Chart-12: Components of WPI inflation



Source: Reserve Bank of India, Database on Indian Economy

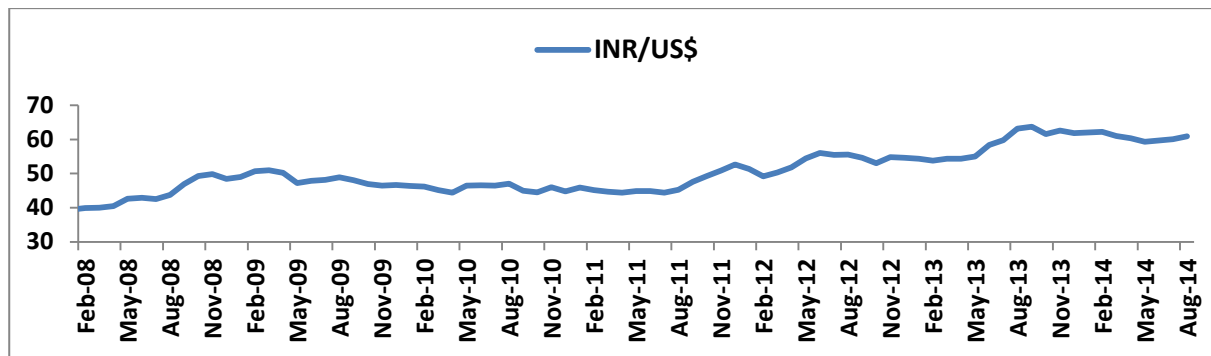
Going forward, the bad monsoon this year suggests that the fall in food inflation that is shown in Chart-12 may not be permanent. There may still be re-emergence of higher food inflation due to expected low food production in the Kharif period. However, lower international oil prices and subdued global commodity prices should dampen inflationary expectations to some extent. Overall, in our view, inflation for the year end (March 2015) should be much lower than RBI's target of 8 percent. Whether RBI will reduce interest rates is something that needs to be seen.

Money and Interest Rates

With declining headline inflation and its expectations, the RBI may have to relook its hawkish stance on monetary policy and also its inflation target of 8 percent by January 2015. There appears to be some headroom for the RBI to cut interest rates. However, whether a cut in policy rates translates to cuts in bank lending rates is something that needs to be assessed. In our view, given that the banks are currently struggling with large bad assets, any reduction in policy interest rates may not lead to a reduction in lending rates, but to a reduction in the deposit rates. The better way to ease monetary policy is to use liquidity measures to boost credit supply. Clearly, at the moment the interest rate channel of monetary policy transmission may be weak. One may look at other channels in order to revive the investment cycle in the economy.

While inflation may be cooling down, there are other factors that RBI needs to look at before it relaxes monetary policy. Tapering of QE by US Fed, increasing imports of gold, widening CAD and weak recovery in the global economy are some of the issues that need to be considered. While the exchange rate stabilized in the recent period (see Chart-13), a sharp increase in gold imports in the month of September (by over US\$ 3 billion) suggest that the external sector risk through gold imports could come back once the focus is reduced.

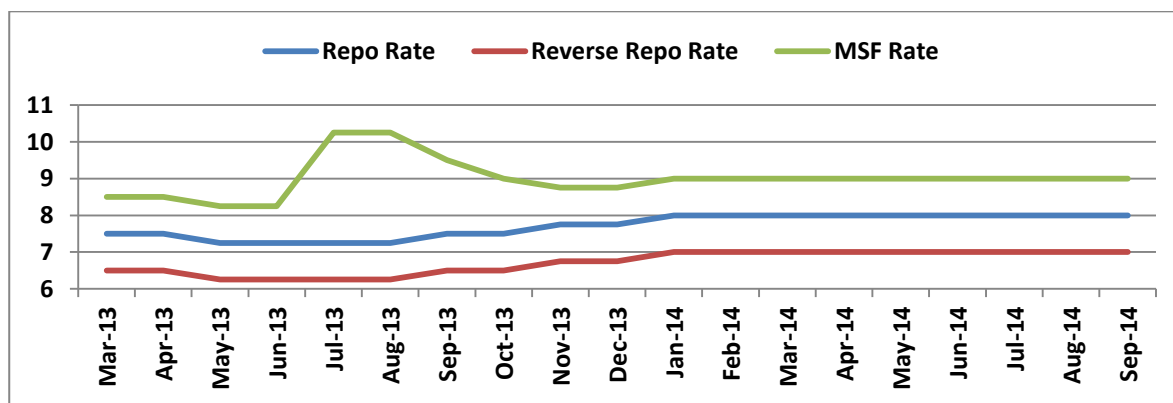
Chart-13: Exchange Rate appears to stabilize but the risks remain



Source: Reserve Bank of India, Database on Indian Economy

Following high inflation and with the inflation target of 8 percent, the RBI retained the high interest rate structure for a long time with very little relaxation of the liquidity measures to meet the temporary demand (see Chart-14). Now that inflation has been identified as a nominal anchor for monetary policy, the interest rate decisions are expected to depend on the future inflation trajectory. At the moment, with the sliding inflation rates as well as declining industrial growth, the RBI might be forced to look at other possibilities of reducing policy interest rates in the coming months.

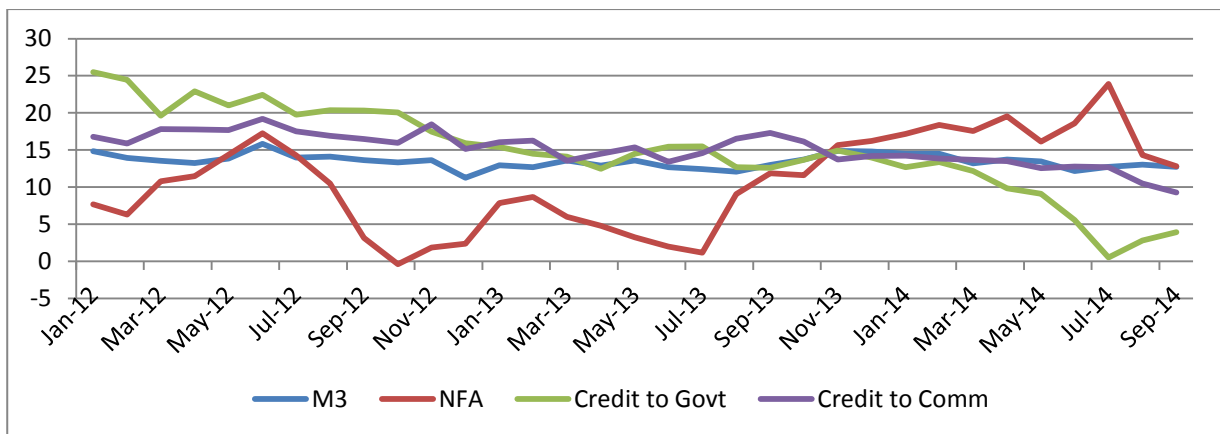
Chart-14: Policy Interest Rates Unchanged for Long



Source: Reserve Bank of India, Database on Indian Economy

On the money supply side, one may note from Chart-15 that money supply growth is almost stable at around 12-13 percent. However, at the disaggregated level, one can notice a divergence in credit to government as well as in net foreign exchange assets. At the same time, there is a clear declining trend in the growth of credit to commercial sector. With increase in credit to government, there seems to be decline in credit availability to commercial sector. In other words, it appears that government borrowing from market seems to reduce the credit availability to commercial sector (crowding-out private investment). (This has been discussed at length in our previous issue).

Chart-15: Components of Broad Money (in growth rates)



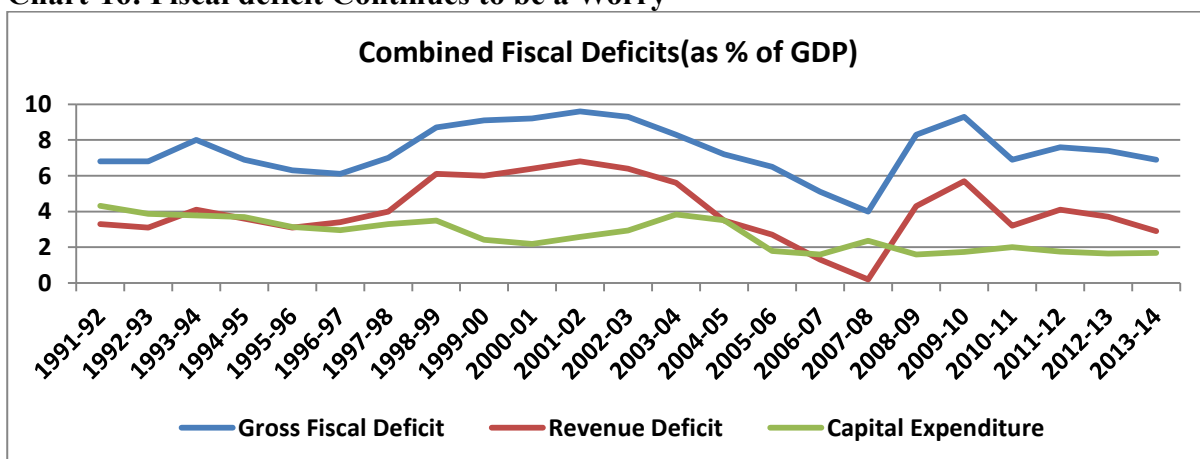
Source: Reserve Bank of India, Database on Indian Economy

How can private investments be revived? The new government’s decision to stick to the revised fiscal consolidation targets, deregulating the diesel prices, improvement in credit rating should help contain the fiscal deficit and, hence, government’s demand on the private savings. This is expected to result in higher private investment in the coming months. In addition to this, market friendly measures such as changes in labour laws, speedy environmental clearances, etc., should also help revive private investment.

Public Finance

Two major issues that India was grappling with since the global crisis were large structural fiscal deficits and inflation. While inflation appears to be moderating, the issue of high fiscal deficit issue is still not resolved. Sticking to the target of 4.1 percent for fiscal deficit at the Centre for 2014-15 while slowing fiscal deficits at the states is good news for the economy. But to bring it down to the pre-crisis levels will take at least couple of years more. It may be noted in Chart-16 that the current combined fiscal deficits are higher than even those during the 1991 economic crisis. The measures that may be taken to reduce such high deficits are reduction in subsidy burden, increasing disinvestment, consolidation of social sector programs, improving public expenditure efficiency, etc. While some of the measures (such as consolidation of social sector programs) are already being taken, reducing the subsidy and increasing disinvestment may take a longer time.

Chart-16: Fiscal deficit Continues to be a Worry

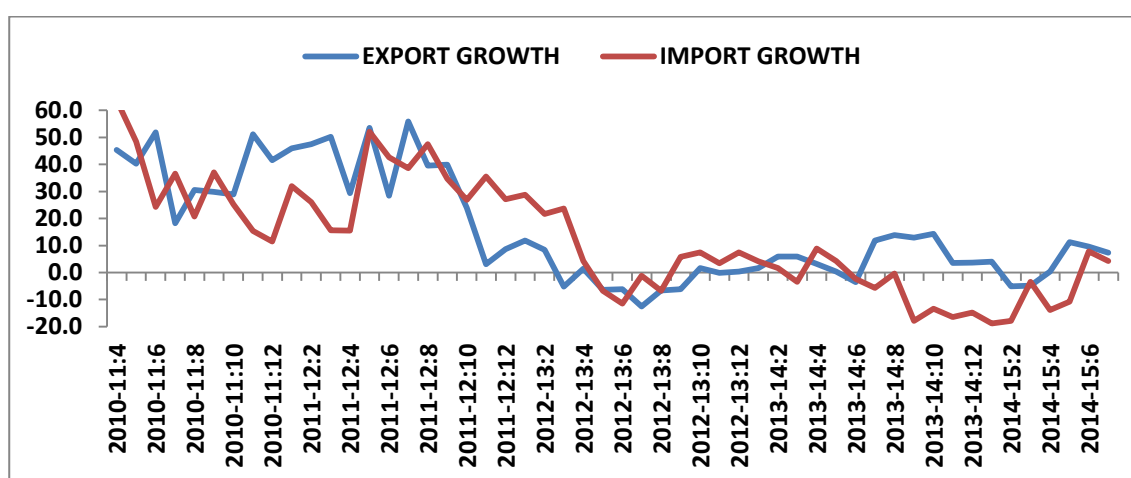


Source: Reserve Bank of India, Database on Indian Economy

External Sector

Following a weak and uneven recovery in the global economy, India's trade position has not improved. The revival in exports growth that was seen in early 2014-15 appears to have ended with very low growth in September 2014 (see Chart-17). On the other hand, imports growth, which was negative for a long time, has revived with growth of nearly 26 percent in September. This is despite declining international oil prices that has brought down the oil import bill substantially. As discussed earlier, imports growth is widely considered as an indicator of revival in the industrial demand. Going forward, while recent developments in the US and other advanced countries, where growth prospects are revised downwards, could hamper India's exports growth, the new government's focus on 'Make in India' may improve India's competitiveness in the international market and can help revive exports. However, services exports, in which India is highly competitive, may moderate slightly due to a downward revision in advanced countries' GDP.

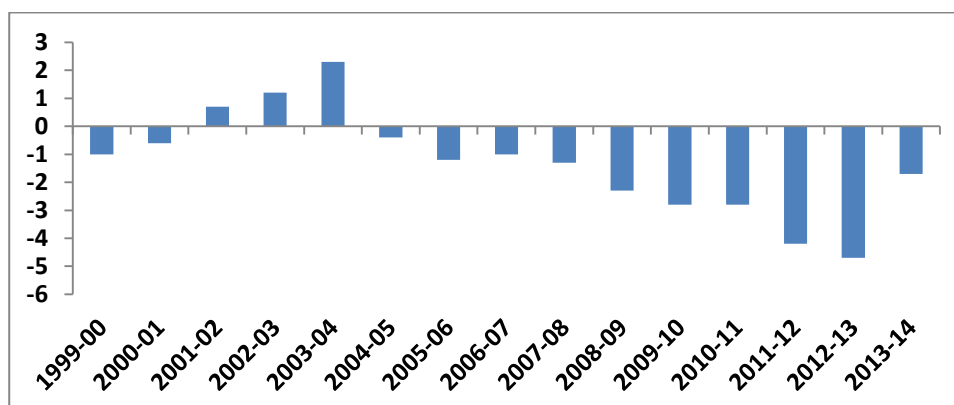
Chart-17: Growth of Merchandise Trade



Source: Reserve Bank of India, Database on Indian Economy

As discussed earlier, trends in imports and its components are crucial for growth recovery. At the aggregate level, imports growth is showing some signs of recovery. However, the disaggregated data indicates that this trend must be looked at with caution. In the month of September 2014, gold imports increased by US\$ 3 billion despite various import restrictions. Such imports could bring back the external risks that India faced in mid-2013, through increase in current account deficit without any increase in growth potential.

Chart-18: Marginal Improvement in the Current Account Deficit (CAD as percent of GDP)



Source: Reserve Bank of India, Database on Indian Economy

The declining trend in exports and imports is also reflected in the declining current account deficit (see Chart-18). For the year 2013-14, the CAD stood at 1.7 percent of GDP. However, one pertinent question here is whether this level of CAD is consistent with 4.7 percent growth achieved in 2013-14. The sharp rise in CAD in mid-2013 was partly due to an increase in demand for gold imports, not just for consumption but also as a zero risk investment asset. This trend was also reflected in the National Accounts where the 'valuables' (within gross capital formation) increased sharply by 93 percent in the first quarter of 2013-14 and also resulted in a sharp depreciation of the rupee. Since then, the government has taken measures to contain gold imports leading to a reduction in CAD. Going by the recent trends and expectations, a widening of CAD might happen again. However, this time around, given that world oil and commodity prices are subdued, the rising CAD may be due to an increase in intermediate goods that help in improving industrial output as well as exports. In other words, the sustainability of CAD depends on the extent of growth capacity that it creates in the economy.

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