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India International Centre

Sustaining Growth and Reducing Inflation: Challenges in 2011–12

NCAER–IIC Mid Year Review of the Economy

November 5, 2011

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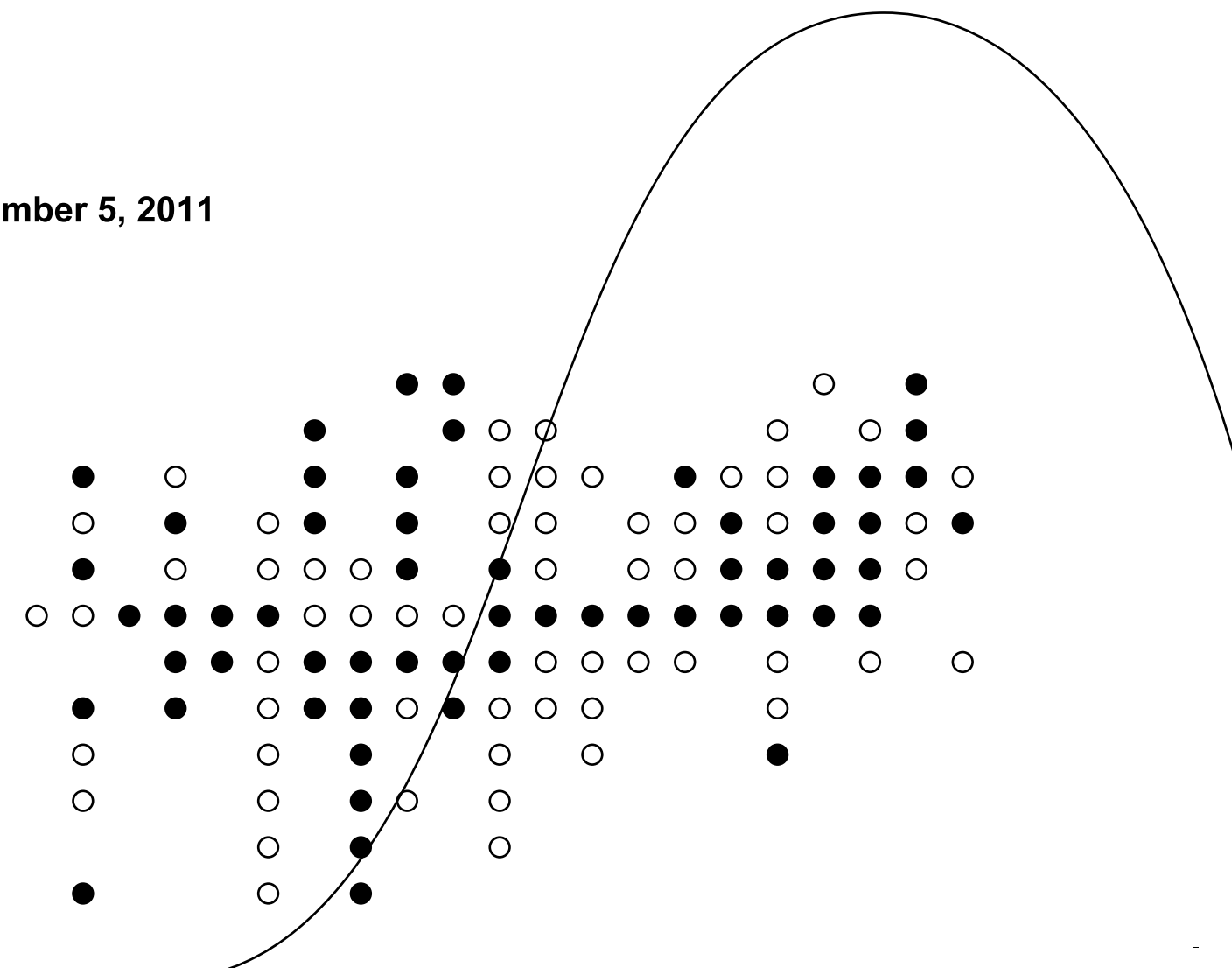

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Foreword

The global economy is yet to recover from the global financial crisis of 2008 and its aftermath. While the enormous fiscal and monetary stimulus provided by individual countries and coordinated to some extent by the G20 process helped the global economy recover in the first instance, US GDP growth still remains at around 1.5 per cent. In the Euro area, GDP growth in 2012 is projected to decline to -0.3 per cent according to the IMF projections of April 2012. Unemployment rates in the advanced economies remain at all-time highs. India came out of the 2008 financial crisis faster and with less severe impact than feared. The GDP growth rate in 2009–10 was 8.4 per cent, as compared to 6.7 per cent of 2008–09. China too maintained the momentum of a relatively high rate of growth. China registered a GDP growth rate of 9.2 per cent in 2011.

Against this backdrop of changes in the global economy and in India, the India International Centre in New Delhi invited NCAER to do the Malcolm S. Adisheshiah Mid-Year Review of the Indian Economy at IIC for 2011. This Mid-Year Review of the Economy at IIC began back in 1975 under the leadership of the late Malcom S. Adisheshiah. NCAER had last presented these reviews in 2002 and 2003. NCAER, under the very able leadership of Senior Research Counsellor Dr Shashanka Bhide, readily took up the challenge and is proud to be associated with this long-standing tradition and with the name of as eminent an economist as Dr Malcolm S. Adisheshiah.

The 2011 Mid-Year Review was presided over on November 5, 2011 by Dr Bimal Jalan, former Governor of the Reserve Bank of India, former President of the NCAER Governing Body and Member of the Rajya Sabha. Dr Jalan pointed to the uncertain political environment and rising concerns about corruption affecting economic growth. Prof. Sudipto Mundle, National Institute of Public Finance and Policy; Prof. B.N. Goldar, Institute of Economic Growth; and Dr S.K. Ghosh, Federation of Indian Chambers of Commerce and Industry, participated in the seminar as invited discussants and commented on the various themes affecting the performance and course of the Indian economy.

As we know now, India's relatively better performance after the global financial crisis has slipped and not carried through into 2012. India's growth rate in 2011–12 is estimated to have been 6.5 per cent, even lower than that of 2008–09. China too is facing a reduction in its growth rate. In November 2011, while there were signs of a weakening investment climate and deceleration in industrial growth, the likelihood of a bare 2.5 per cent increase in GDP from manufacturing during the year was not anticipated. Industrial growth as a whole, including construction, has now been placed at 3.4 per cent for the year by official estimates. The second issue facing the economy in November 2011 was the high rate of inflation, particularly food inflation. This declined to 7.5 per cent towards the end of the financial year 2011–12. Monetary policy measures were put in place by RBI to bring down the inflation rate. But economic growth dropped as the cost of funds increased and the demand for automobiles and housing slowed down. Slower growth led to lower revenue collection and much larger fiscal deficit for 2011–12 than budgeted.

The fiscal deficit spilled over to the current account deficit. A rising petroleum bill combined with the slower growth of exports led to a higher current account deficit of 3.6 per cent of GDP in 2011-12. Weak investment sentiments globally also had an adverse impact on capital inflows and the rupee came under pressure. The rupee depreciated by over 10 per cent between March 2011 and March 2012.

While the macroeconomic forecasts discussed at the 2011 Mid-Year Review did not prove durable as the economy slowed down substantially in 2012, the sector and thematic chapters included in the Mid-term Review provide an in-depth discussion on three issues that are likely to challenge policy makers in the coming years: the challenge of keeping inflation in check while enabling higher growth, the challenge of accelerating the growth of manufacturing, and the challenge of improving rural service delivery through panchayats.

This volume documents the presentations made at the 2011 Mid-Year Review. In a brief postscript to the first chapter, it draws attention to the slippages in the projections for 2011–12 made in November 2011 as compared to actuals, a point that was presaged by some commentators at the seminar.

We are grateful to the India International Centre for providing NCAER the opportunity to present the 2011 Malcolm S. Adisheshiah Mid-Year Review and look forward to continuing our partnership with the IIC on this important event.

New Delhi

Shekhar Shah
Director-General
NCAER

Preface

Each year we pay tribute to Dr Malcolm Adiseshiah, development economist and educator, who was committed to eradicating poverty and illiteracy and fostering growth in a modern economy. He wore many hats, earned several awards, and contributed his expertise to innumerable institutions. Among them, the Madras Institute of Development Studies was closest to his heart. More than 30 years on, it still retains his vision of a vibrant, rigorous and liberal space for advanced research in economy, polity and society. He continued his support to teaching and research in these areas even after his death in 1994, willing all his finances to the setting up of a Trust—The Malcolm and Elizabeth Adiseshiah Trust was born in 1999.

Dr Adiseshiah was associated with UNESCO for over 25 years and over this period he transformed it from a group of developed nations to a global association concerned with science, culture, education and the development of all nations. His engagement with the India International Centre dates back to the 1960s when he played a major role in getting UNESCO affiliation to the Centre. He became a member of the Centre, of its Council for Cultural Studies, and was later elected Life Trustee.

The IIC became his hub when he was in Delhi. In the 1980s he chaired a committee that was entrusted with the task of reviewing the functioning of the Centre from its inception.

In 1983, Dr Adiseshiah initiated the Mid-Year Review of the Indian Economy which remains one of the definitive surveys of India's growth projection. Since 2001, the Trust has supported an annual seminar at the Centre, followed by the publication of a book based on its proceedings— the Mid-Year Review of the Indian Economy, which has been one of our more prominent publications.

The Mid-Year Review is an attempt to examine the course of macroeconomic trends for the first half of the year and provide an assessment of the prospects of the economy for the full year. There are some variables that are key to the course of the economy, such as the nature of the monsoon which affects agriculture and price trends; monetary and fiscal policy developments; and global conditions which affect external trade.

The year 2011-12 is unusual and significant. Six months ago, we talked of 'India rising'; today, corruption, disenchantment and policy paralysis have been a set-back. Yet, the scenario is not as gloomy as it appears, and there is a mix of the positive and the adverse. This year's Review analysed both the weaknesses and strengths of contemporary Indian economy. High inflation, stagnant growth, poor governance, corruption, slowdown in manufacturing and a turbulent global scenario are juxtaposed with high foreign investment inflows, higher reserves, good savings and rising exports.

The NCAER team of researchers made four presentations. After a detailed overview that posed the

significant question—Where are we today—three focused presentations examined the primary indicators of growth: inflation and growth; manufacturing and services; and the institutional framework for the public distribution system.

As the Review shows, we are at a crossroads. The bottom-line is that India is in a good place today. We have opportunities and resources, but unless we seize the day, the adverse indicators might just outweigh the positive.

Dr Kavita A. Sharma
Director
India International Centre

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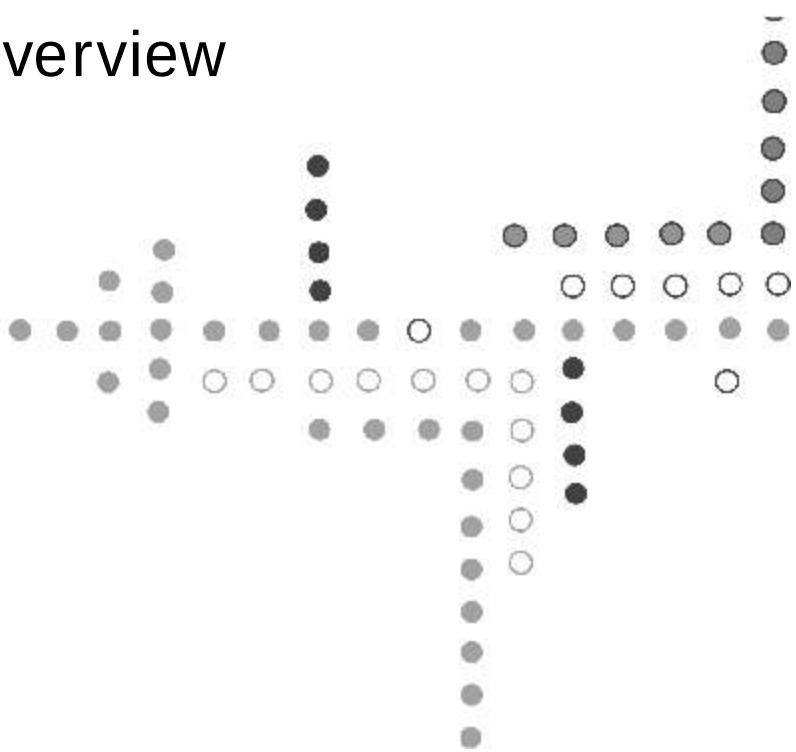
Mid Year Review of the Economy 2011–12

Part A: Overview



I. Overview of the Issues

By Shashanka Bhide[1]

1. Macroeconomic challenges of sustaining a high rate of economic growth

It has been a turbulent year for the economy. There was relief and satisfaction that the impact of the global financial crisis of 2008-09 was overcome quickly and with mild impact on output growth. However, the continued weakness of advanced economies has now become a source of concern and the persistence of high inflation is an unexpected twist in economic fortunes. The initial shock of the global crisis of 2008 to the Indian economy came at a time when there was already a strong building up of confidence among investors and consumers following a period of GDP growth of 9 per cent for three successive years. The rate of investment had climbed to 38 per cent of GDP in 2007-08. There was, thus, considerable momentum of growth in economic activity when the crisis hit us. After the decline in GDP growth rate to 6.8 per cent in 2008-09 the economy recovered quickly in 2009-10 to a growth of 8 per cent.

The continued weakness in the economies of the advanced countries is now making the process of sustaining the recovery difficult. The impact of this second shock appears to be as significant as that of the first one, contributing to the loss of support to investor sentiments in capital markets and the growth momentum. The Index of Industrial Production (IIP) for the period April-August increased by 5.5 per cent compared to a growth of 8.6 per cent for the same period in the previous year. The decline in growth rate was more dramatic in the case of the capital goods and consumer durables sectors. Surprisingly, the current weakness in the advanced economies did not bring down the growth rate of merchandise exports during April-August 2011. The dollar value of merchandise exports actually increased by 50 per cent during April-August 2011 over the same period in 2010. The increase in the same period in 2010 was 31.7 per cent. Part of the reason for the large increase appears to be the depreciation of the US dollar with reference to other currencies.

Persistence of a high rate of inflation

While some of the fundamentals continued to be strong and the monsoon rains were benevolent, the high inflation rate has persisted for well over seven quarterssince the last quarter of 2009-10.Based on the monthly average Wholesale Price Index (WPI), the annual rate of inflation remained above 8.5 per cent for the period January 2009 to September 2011 except for the month of November 2010 when it was 8.2 per cent. The Consumer Price Index for Industrial Workers (CPI-IW) remained above 8 per cent every month between July 2008 and August 2011- a period of three years. In the case of the CPI for Agricultural Labour (CPI-AL) the run of a high inflation rate of over 8 per cent was even longer: April 2008 to August 2011 with interruptions for the two months of November-December 2010, or a total of 39 months. Food inflation (comprising the WPI of food articles and food products) and petroleum prices are at the core of the high inflation period. The WPI for food (which comprises food articles among the primary articles and food products among manufactured goods) remained at 8 per cent or above, year-on-year, in all the months except for three during the period April 2009 to September 2011. In 19 of 29 of these months, the annual food inflation rate was above the 10 per cent mark.

[1] Senior Research Counsellor, NCAER.

Anemic recovery from the crisis in advanced economies

The differential rates of economic recovery across the world were characterised by the International Monetary Fund (IMF) in its World Economic Outlook (WEO) for April 2011 as the "two-speed recovery" reflecting the slow recovery in the advanced economies and the quicker pace of recovery in the emerging and developing economies (EDEs), particularly in Asia. Going forward, while the recovery in the advanced economies was expected to be slow, capital flows to emerging and developing economies where growth was reviving was expected to be affected adversely by policy-rate tightening and geopolitical uncertainty. Stronger recovery in the US and uncertainty in the Euro area was also seen to temper capital flows to EDEs. In the WEO of September 2011, the IMF noted that global economic recovery has become more uncertain. Besides slower than expected recovery in the advanced economies, it also referred to 'the increased fiscal and financial uncertainty which has become more pronounced since August'.

The World Economic Outlook noted "projections indicate that global growth will moderate to about 4 per cent through 2012, from over 5 per cent in 2010". Talking about the prospects of an anemic pace of expansion in the advanced economies, the WEO qualifies, "this assumes that European policy makers contain the crisis in the Euro area periphery, that US policy makers strike a judicious balance between support for the economy and medium-term fiscal consolidation, and that volatility in global financial markets does not escalate".In the emerging and developing economies "emerging capacity constraints and policy tightening, would lower growth rates to a still very solid pace of about 6 per cent in 2012.The risks to economic prospects are downside."

2. The meta policy prescriptions

Again, referring to the WEO September 2011 of the IMF, the adjustments needed to achieve sustained recovery of the global economy are two-fold: rebalancing of external demand between the surplus and deficit economies and rebalancing of aggregate demand between private and public sectors. The ability of political leadership to achieve these goals obviously cannot be taken for granted. The adjustments needed especially on the fiscal front are large. The overall government debt as a percentage of GDP has increased from 84.6 per cent in 2009 to a projected 99.5 per cent in 2011 and is expected to rise to 111.8 per cent in 2016. In Japan, the numbers are even more astronomical. In the debt-troubled economies of Greece, Italy, Portugal and Spain the choice between the austerity needed to keep the fiscal position sustainable and maintaining social harmony in the face of high levels of unemployment has been a difficult one.

With high levels of unemployment, attempts to bring down government spending while raising taxes to achieve fiscal stability are not likely to be popular. The experience so far shows that transition from crisis to sustainable recovery is not painless.

The broad tenor of recommendations flowing from the prescription of weak recovery and fragility of the financial system is illustrated in Table 1 below.

Table 1: Road to Sustained Economic Recovery from Crisis

Country	Issues	Monetary policy measures	Fiscal policy measures
US	High unemployment; weak housing; slow economic growth recovery; rising rate of saving	Accommodative policy framework: low interest rate	Job creation; medium-term fiscal sustainability
Euro area (main)	High unemployment; slow recovery	Low interest rate	Medium-term fiscal sustainability
Periphery Euro area	High unemployment; high sovereign debt; high levels of borrowing; no fiscal maneuverability	Low interest rate	Austere fiscal position; credible measures towards fiscal sustainability
Emerging & Developing Economies: Asia	High external surpluses; slower growth	Appreciate currency	Medium-term fiscal sustainability; more private demand and less public sector spending
Emerging & Developing Economies: Latin America	Higher external deficit; slowing growth	Depreciate currency	Reduce public spending

Source: Derived from WEO September 2011 (IMF).

India's position falls somewhere between the Asian EDEs and the Latin American EDEs. A stable currency rate and switching from public spending to private expenditures appears to be the recommended middle path forward. The challenges to political leadership are the same as in the other countries: to maintain fiscal stability while protecting recovery of growth.

3. Policy challenges for India

In the India context, a variety of measures have been taken to rein in high inflation. The *Economic Survey for 2010-11* released in February 2011 notes the monetary policy measures, fiscal measures and administrative measures. The monetary measures included absorption of excess liquidity, raising interest rates, reducing the exposure of banks to sectors affected by speculative pressures and raising concerns over fiscal slippages. Fiscal measures included reduction in import tariffs on a number of agricultural commodities (pulses, onions) and food products (edible oils and raw sugar).

Administrative measures applied were: the removal of levy obligations on imported raw sugar and white/refined sugar which increased the supply of sugar in the open market; banning exports (non-basmati

rice, onions, edible oils except coconut oil and forest-based oil) and pulses (except Kabuli chana); raising minimum export prices (basmati rice, onions); suspension of futures trading in rice, urad and tur; and stocking restrictions. There was also the subsidised retail sale of onions by NAFED and NCCF.

There were also a number of initiatives to address some of the long-term constraints: support to improve agricultural markets, strengthening the PDS, review of APMC reforms, facilitating investments in the supply chain for perishable food items and a number of measures to improve decision-making to ease supplies.

The various measures have not been entirely ineffective. The rate of increase in the overall price index of primary articles did come down starting from April 2010. The problem is that the level of price increase in primary articles is still well above 10 per cent on an annual basis. Compounding the problem is the increase in the price of energy in 2010-11. The WPI for fuel, light and lubricants has increased in 2010-11 and so far up to September 2011 by more than 10 per cent, year-on-year, and manufactured products have begun to see an increase in prices particularly in 2011-12.

Food inflation has remained intractable in the last two years. It is, however, important to point out that the drivers of the price increase within food have alternated in this phase of price rise. Sugar and foodgrains drove food inflation in the period 2009-10 and up to the first half of 2010-11. However, these two major food groups dropped out of the driver's list because of their relatively low rate of price increase in the second half of 2010-11, where they have remained since. We may also note that it was mainly pulses that were driving up the price of foodgrains; edibles oils showed no signs of serious imbalances in supply-demand until the third quarter of 2010-11, but have experienced a price rise of 10-15 per cent for three successive quarters since then. The intractable items on price rise have been fruits and vegetables; milk and dairy products; eggs, fish and meat; and the residual 'other food articles' comprising tea and coffee among other items.

The contribution of non-cereal items, therefore, has been the driving force behind food inflation. While cyclical factors can create sudden spurts in prices(as they have in the case of sugar and condiments and spices), the sustained increase in the prices of livestock products, fruits and vegetables point to the need for greater attention to improving the supply of these items of consumption. The edible oil price situation has remained somewhat moderate until the recent spurt, because of the availability of imports to supplement domestic production. While raising domestic production remains important, it is also necessary to develop channels of imports to maintain price stability in essential items of consumption.

Monetary and fiscal policy measures are more likely to be effective in reining in inflation without hurting growth when there are additional sources of supply, particularly through imports. The administrative measures are likely to be effective only in the short term.

The patterns of price changes, output growth, trade and monetary conditions are discussed in greater detail in the specific sections of Part II of this Review.

4. The monetary policy response

The main instrument that has been used to rein in high inflation during the last year has been monetary policy. First, steps were taken to improve the transmission mechanism for policy actions on the interest rate front and then policy measures were applied. The excess liquidity was first absorbed from the system. As the

RBI's second quarter review for 2011-12 notes, the Repo rate, at which banks borrow from the RBI, was increased by 5 percentage points since February 2010. The Repo rate, now at 8.25 per cent, is at the same level as it was in January 2008 when the inflation rate was also in double digits. The inflation rate then had dropped quickly as a result of the collapse of commodity prices globally. While a similar global scenario may unfold yet again, the impact of tight monetary policy is evident in the investment spending and spending on consumer durables, particularly automobiles.

However, it has been argued that the monetary policy response in terms of raising interest rates has not been an appropriate one given the supply-side nature of inflation. The fact that a high inflation rate persisted even when interest rates were being tightened, has lent support to this argument. There was also a view that the increase in rates was too mild and taken in 'baby steps'. Nevertheless, it is recognized that monetary policy has kept in view inflation and growth dynamics, and has not focused on inflation alone. In the current year, the monetary tightening through interest rates has been more aggressive.

5. Fiscal policy response

Fiscal policies were activated to aid in the recovery from the crisis of 2008-09. The tax concessions and spending on welfare and infrastructure projects acted as a significant stimulus to demand. The fiscal expansion was sought to be gradually withdrawn in the budget for 2011-12: for the Centre, the fiscal deficit was budgeted to be reduced to 4.6 per cent of GDP in 2011-12 from its revised estimate of 5.1 per cent in 2010-11. The total expenditure of the Centre was budgeted to increase by just 3.3 per cent in 2011-12 over the previous year.

The slower pace of economic growth is of course affecting tax revenue collections. It is also affecting the realisation of non-tax revenue targets such as disinvestment proceeds. Until August 2011, just about one-third of the targeted non-tax revenue of Rs 125 thousand crore had been realised. Expenditures on subsidies has been rising, particularly the under-recoveries of petroleum-marketing companies under the administered pricing regime. Although the prices of petrol and LPG were raised significantly in 2011-12, the price of diesel is yet to be adjusted to reflect the rise in the price of crude. Depreciation of the rupee further increases the under-recoveries unless retail prices are raised. Only a fall in oil prices in the international markets can help restrain these subsidies in the current scenario.

The need to keep expenditures under control has meant pressure on restraining investment spending. Plan expenditures and capital expenditures show a decline for the period April-August 2011 compared to the same period in 2010.

Although the debt position of the government is not under threat, the current scenario of slower growth and high rate of inflation requires that investment activity is not crowded out by the rising current expenditures of the government.

6. The external balances

The current account deficit has widened in the first quarter of 2011-12 to $14.2 billion, compared to $12.1 billion in Q1:2010-11. Although export growth on a BOP basis has increased by $25 billion in Q1:2011-12

over the same period in 2010-11, there is an increase in imports by $29 billion during this period. Net invisibles have made up for some of the higher trade deficit but not fully. There is some concern going forward. The weakness in the advanced economies does not raise prospects for strong export demand: net invisibles may also come under pressure as the demand for service exports would also slow down.

The capital inflows required to finance the current account deficit have been strong in Q1: 2011-12 on the back of FDI inflows. Sustaining a positive investment climate would be important for sustaining FDI inflows while FII inflows will continue to be subject to the pulls of short-term financial market uncertainties. The data from RBI's second quarter review for 2011-12 shows that foreign exchange reserves at the end of June 2011 have remained at nearly the same level as in end-June 2010 relative to import requirements. However, a significant portion of the external debt is in the form of ECBs and NRI deposits ($146 billion out of $316 billion) and the cost of this debt is affected by global financial market conditions.

7. An assessment for 2011-12

The Second Quarter Review 2011-12 released on October 24, 2011 by the RBI notes that "Growth in 2011-12 is likely to moderate below trend. Agriculture prospects remain encouraging with the likelihood of a record Kharif crop. However, moderation is visible in industrial activity and some services, mainly construction and community, social and personal services".

From India's perspective, the increased uncertainty of growth and financial markets at the global level can hardly be favourable. Rising commodity prices in the interim have exacerbated inflationary conditions. The major currencies appreciated against the US$ between April and October 2011[2] : the Euro appreciated by 2.8 per cent, the pound sterling by 1.9 per cent, yen by 8.3 per cent and yuan by 2.8 per cent. In contrast, the Indian rupee depreciated by more than 9 per cent. Rising commodity prices because of the depreciation of the dollar, and the depreciation of the rupee with reference to the US$ has put further pressure on domestic prices. In the case of the energy sector, the WEO September 2011 projects that the price of crude oil in international markets would rise by 30.6 per cent in 2011 following an increase of 27.9 per cent in 2010. There is some relief going forward as prices are projected to decline by 3.1 per cent in 2012. Nevertheless, in 2011 and 2012, the average price of crude in international markets is expected to remain above $100 per barrel.

RBI also notes in its Second Quarter Review that "Risks to global growth have amplified with business and consumer confidence dampening on the back of the deepening sovereign debt crisis in Europe". It points to the widening current account deficit in Q1: 2011-12 and problems that may rise when capital inflows become uncertain in financing an increasing current account deficit.

The weakening of the investment climate as the year has progressed has been reflected in a number of indicators. The quarterly surveys of business expectations carried out by NCAER also capture this situation. The NCAER-MasterCard Index of Business Confidence declined by 13 per cent in September 2011 against its level in July 2011, and by 22 per cent over September 2011. The Political Confidence Index has remained stable at a low level after declining for the last four successive quarters.

[2] The trend, however, had reversed in October relative September. The US dollar was appreciating with respect to the other currencies.

We have attempted to provide an assessment of the key macroeconomic parameters for the economy based on two approaches: (1) an analysis based on a quarterly model of the economy, and (2) analysis based on an annual macro model. The analysis is based on a set of assumptions which we believe are reasonable.

Taking into account the current status of various exogenous parameters, the two approaches provide a range of outcomes.

Overall GDP growth is projected at 7.9-8.0 per cent. The growth performance is projected to be slightly better in the second half of the year compared to the first half. The WPI-based average inflation rate for the year is projected at 7.9-8.4 per cent. The fiscal deficit of the Centre is projected to rise to 5.1 per cent compared to the budgeted rate of 4.6 per cent. The current account deficit is projected at 3.1 per cent.

8. The development policies

The Eleventh Five-Year Plan had articulated the need for a focus on 'inclusive growth' even as it aimed to raise the overall rate of GDP growth over the five-year period. The 'growth dividend' of resources available for building infrastructure and investments in health and education of the population is an integral part of the calculus of inclusive growth. While the numbers points to the feasibility of raising resources for expanding the ambit of programmes for the welfare of the lower-income population, actual implementation often runs into constraints of inadequate institutional support. The issue is also one of aligning the incentives of the consumers and providers of public services.

The government has indicated its desire to provide food security cover to the population in terms of access to foodgrain at a relatively low price. Implementation of this proposal will require an improvement in the supply of grain and a mechanism to ensure supplies at the subsidised price. Assuming that the supply of cheaper grain increases, there will be an increase in the demand for foodgrain and other food products. Besides the challenge of managing the expanded PDS and procurement, the need for raising agricultural productivity would be equally critical for the success of these initiatives.

The Right to Education has also increased demands on the infrastructure for delivering primary education. It is not only the expansion of school infrastructure that requires attention but infrastructure for the schooling system as a whole. How will the system work in the rural and urban areas? What will act as the incentive for households to participate in this national endeavour?

A number of institutional changes have occurred over the years in response to the need to reach the entire population for participative governance. Decentralisation of rural governance was institutionalised through the Panchayati Raj system two decades ago. Delivery of public services such as health, education and the PDS can be facilitated by decentralised systems of governance. In one of the sections in this Review we examine the experience of households as recipients of public services under the Panchayati Raj Institutions (PRIs). We have covered education and water supply as two cases for specific analysis.

Inclusive growth has the connotations of expanding the benefits of growth to all the sections of society. An important dimension of this clearly is the generation of employment and livelihood opportunities in much larger numbers than has been possible so far. A recurring theme of debate in the Indian context has been

whether we have missed the opportunity to create such employment opportunities more efficiently through growth of the manufacturing sector as against the reliance on services. The unveiling of the new National Manufacturing Policy brings back the focus on this issue, and is a step forward in taking action to push industrial growth. In one of three separate sections in Part III, we present a discussion on the prospects for balanced development of industry and services.

9. Governance, security and institutions

Any discussion of the developments during the course of this year that have implications for the economy would be incomplete without reference to the challenges to be faced by the country in terms of governance, internal security and the development of institutions to facilitate sustainable expansion of the economy. Demands for separate states have been met in the past under different conditions. The present situation with respect to Telengana has again raised the need for regional balance in development.

The application of new technologies in the area of IT and communications has expanded the potential for monitoring and verification of the flow of information and services. It is expected that the expansion of this technology in governance and public service delivery will have a positive impact on the quality of governance and efficiency of service delivery. The scourge of corruption and unaccounted money provide perverse incentives and make the system inequitable. While the law alone would not be enough to reduce corruption or black money, it is hoped that technology will be a significant strength behind the new legal measures.

The challenge of Naxalism to the state has been a deterrent to investments in mining and power specifically, but also to development programmes in general in areas where the challenge is significant. A solution to this issue is necessary to achieve faster development.

Extensive dialogue with the various stakeholders is becoming increasingly critical for taking any significant development step. The land acquisition process for infrastructure development has encountered several constraints and became a major hurdle for several industrial and infrastructure projects. The new bill on land acquisition and relief, and rehabilitation is likely to clarify the way forward for the use of land for alternative uses. The Mining Bill is another example of the need for an integrated approach to utilising natural resources where benefits are shared equitably. Policies on sharing of natural resources by different sectors of the economy and society require constant monitoring and development.

10. The opportunities and way forward

The uncertainty of global markets and expanding role of the private sector in the economy have raised the need for systematic monitoring and regulation where the consequences of failure can be great. The risks are not only market related. Whether it is the challenge of dealing with climate change or ensuring sustainable use of natural resources, efforts to develop institutions that facilitate an appropriate choice of strategies will be necessary.

However, this is also an opportunity for change. The positives at this point are that the month-over-month patterns in the inflation rate do not point to further deterioration in the situation. Improved inflows of FDI in recent months illustrate the long-term opportunities the economy presents. With a favourable

agricultural harvest in the offing and the likelihood of a softening of global commodity prices, this is an opportunity for fresh policy momentum.

The perception of policy complacency after the successful management of the impact of the global financial crisis of 2008-09 has to change. The perception may be remedied by new initiatives or new momentum for the initiatives underway. Whether it is urban development initiatives, manufacturing policy initiatives, policies for improving conditions for investments in food processing, or moving ahead with infrastructure projects, the benefits from these would be significant. While the global scenario cannot be influenced, improving domestic policy processes can revive investment sentiments. The way forward would have to be one of seeking growth with minimal risk of high inflation. This will have to include strengthening social safety nets, removing infrastructure bottlenecks and providing efficient public services. Continuing with measures of tax reform, rationalisation of expenditures and a sustainable medium-term fiscal strategy are also critical elements of the way forward. A renewed policy momentum and its impact are also likely to influence the political scenario in the coming months.

A Postscript

The economic scene changed dramatically during the course of the year 2011-12. The overall GDP growth (factor cost in 2004-05 prices) is now officially estimated at just 6.5 per cent for 2011-12 as per the Revised Estimates of CSO released on May 31, 2012, full 1.5 percentage points below the projections made in this review. The major sector that brought down the growth rate was the services, where growth rate of GDP turned out to be just 3.4 per cent as per the revised estimates. In the case of services, the revised estimates place growth at 8.9 per cent as compared to the projection of 9.2 per cent in this Mid-Year Review. All components of aggregate demand recorded slower growth in 2011-12 as compared to 2010-11. The decline was sharp in capital formation both in fixed capital and inventories. Export growth also declined from 22.7 per cent in 2010-11 to 15.3 per cent in 2011-12 taking into account both goods and services and in constant prices. The decline in investment growth has had its many explanations including the tightening of monetary policy during 2011-12 which in turn was rooted in the high rate of inflation. The high rate of headline inflation, WPI, remained at 9.4 per cent or more between January 2011 till November 2011. The inflation rate dropped to 7.7 per cent in December 2011 and stayed around this figure till the end of the year. The overall WPI based inflation rate was 8.9 per cent for 2011-12 as compared to the projected 7.9 per cent in the Mid-Year Review.

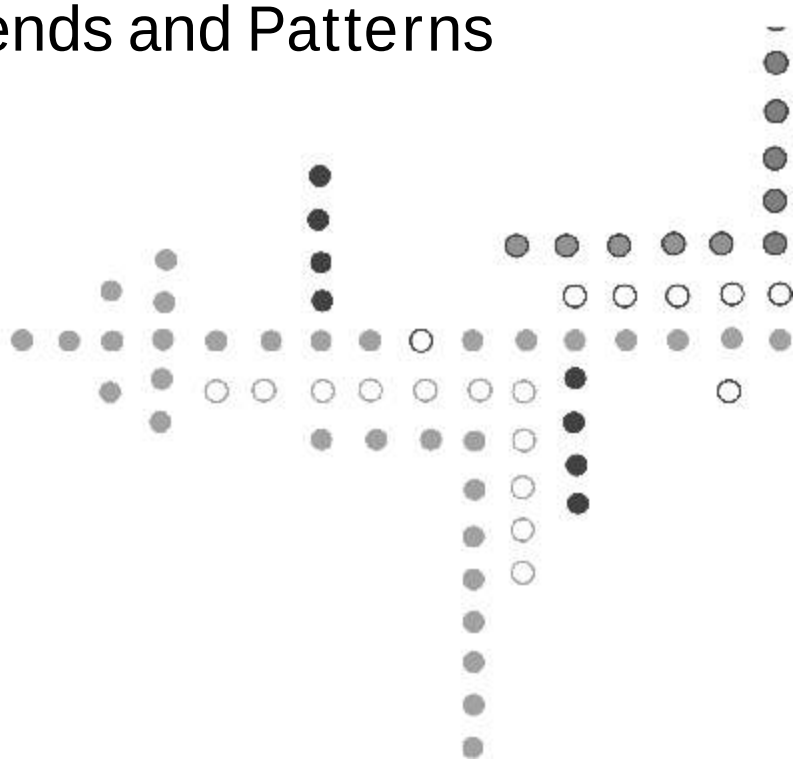
The Euro area crisis has continued well into 2012-13 and has led to much financial market uncertainties and therefore capital flows into emerging markets including India. Investment climate was adversely affected by the global uncertainty, tightening monetary policy and the policy pauses caused by allegations of corruption and inadequacy of processes in allocating rights to resources, especially in the mining sector.

The resolution of the political uncertainty and the processes of allocating rights to the use of limited natural resources can be expected to be a slow process, but the global markets have also not recovered from the shocks of 2008. Fiscal imbalance deteriorated much more than anticipated in the Mid-Year Review as revenues slipped and expenditures did not. The current account deficit became a concern as capital flows declined leading to a drawdown of foreign exchange reserves. The rupee depreciated by over 10 per cent between March 2011 and March 2012.

The set back to growth and investment climate has raised concerns over sustaining high rate of economic growth over longer term. Restoring confidence in the fair and transparent processes in governance would be critical in bringing back investor confidence in a sustained manner. Maintaining a sustainable fiscal stance is also equally important in providing incentives to private capital formation. Favourable external environment that supports export growth is also critical for sustaining reasonably high rates of India's economic growth. The experience in 2011-12 has shown that high rates of growth cannot be taken for granted.

Mid Year Review of the Economy 2011–12

Part B: Recent Trends and Patterns



I. AGRICULTURE

By Anil Sharma[3]

1. The Southwest Monsoon

The southwest monsoon arrived a few days early this year, on May 29, 2011, three days before its usual date of arrival. This year's forecast for the onset of the monsoon by the India Meteorological Division (IMD) was reasonably accurate.

After its early arrival, the advancement of the monsoon during the month of June to other parts of the country was also along normal patterns. Three main regions of the country – the east, west, and north - witnessed excess rainfall during this month, while the southern region experienced rainfall slightly below the normal level (Table I.1). As a result, during June, the monsoon rain for the country as a whole turned out to be in excess of its normal level.

As the season progressed, there was a weakening of the rainfall situation in July. Consequently, in two of the four regions – the east and south - there was decline in cumulative rainfall. There was some improvement in the second half of July, but the deficiency in rainfall in the eastern region remained high at the end July (16 per cent). The somewhat subdued rainfall activity during the month of July is also reflected in the rainfall deficiency for the country as a whole. In two regions of the country, the west and north, however, rainfall remained above normal.

During August most of the subdivisions received normal or excess rainfall, apart from four subdivisions in the northeast (Arunachal Pradesh; Assam and Meghalaya; Nagaland, Manipur and Tripura; and Orissa) and two subdivisions in the north (west UP, Haryana Chandigarh and Delhi). The cumulative rainfall, therefore, improved significantly in all four regions during August.

In September, barring the southern region, rainfall was above normal in the other three major regions - the east, west and north. In these three regions normal-to-excess rainfall during September led the country to receive excess rainfall. Thus, the cumulative monsoon rainfall for the season as a whole was 4 per cent below normal in the east, 10 per cent above normal in the west and north, and 5 per cent below normal in the south.

For the country as a whole, monsoon rainfall was above normal as actual rainfall measured as an index in the June-September period of the current year was 4.4 per cent above its normal level. Of the total 36 agro-meteorological sub-divisions, 33 (which constituted about 92 per cent of the total area of the country) received excess-to-normal seasonal rainfall and the remaining 3 sub-divisions (Arunachal Pradesh; Assam and Meghalaya; and Nagaland, Mizoram, Manipur and Tripura, constituting approximately 8 per cent of the total area of the country) received deficient season rainfall.

The spatial distribution of overall seasonal rainfall was also comparatively better than last year, which is reflected in the shares of the sub-divisions as well as the districts of the country that received normal-to-

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excess rainfall (Figure I.1). Evidently, in comparison with last year as well as with 2007 and 2008 which were normal years, the spread of monsoon rainfall has been fairly satisfactory this year.

Table I.1: Deviations in the Monsoon Rainfall Indices from the Normal

Region	June	June-July	Ju ne – August	June – September
East	11.8	-15.8	-7.4	-3.5
West	26.9	8.2	13.6	10.3
North	77.3	2.2	5.4	10.1
South	-2.1	-3.5	4.2	-5.2
All India	21.8	-3.3	2.9	4.4

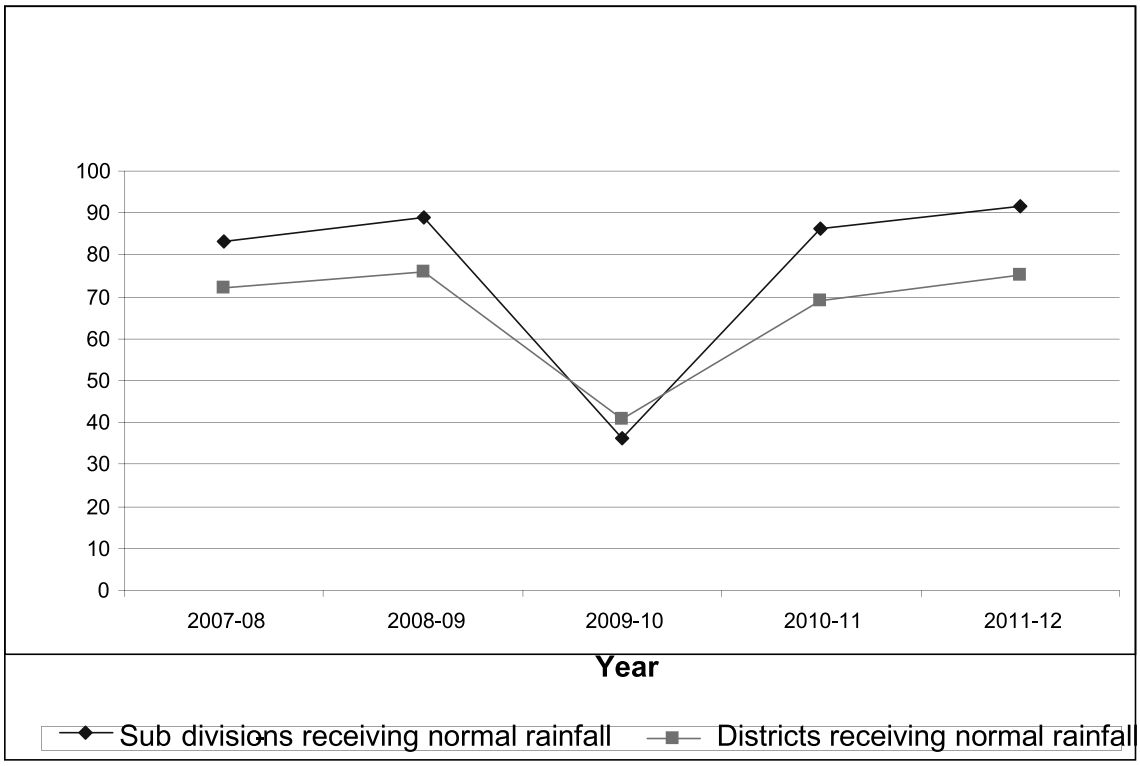
Source: Computed.

Notes:

1. These are deviations in regional-level rainfall indices computed on the basis of unirrigated area under foodgrains as weights.
2. The eastern region includes Assam, Bihar, Jharkhand, Orissa and West Bengal.
3. The western region includes Chattisgarh, Gujarat, Madhya Pradesh, Maharashtra and Rajasthan.
4. The northern region includesHaryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Uttar Pradesh and Uttarakhand.
5. The southern region includes Andhra Pradesh, Karnataka, Kerala and Tamilnadu.

Further,apart from July, rainfall during all the other months was above the respective long-term averages. From the monthly distribution, it can also be seen that rainfall across eastern India has been deficient in July, August and September.

Figure I.1: Shares of Sub-divisions and Districts receiving Normal Rainfall (per cent)



2. Outlook for 2011-12

From the above it is obvious that the monsoon this year has been as per normal expectations in several parts of the country, implying that the current year will certainly be a year of normal growth for the agricultural sector. Our preliminary estimates of crop output for major crops for the kharif season are discussed below.

The estimates show that output of kharif foodgrains is expected to be around 129 million tonnes to 133 million tonnes, reflecting an increase of 8-11 per cent over last year's output of 120.2 million tonnes. The increase in output is likely to occur on account of the healthy performance of rice in particular. The output of kharif rice is likely to witness an increase of 12-15 per cent due to a combination of good rainfall and its somewhat better distribution. The output of kharif coarse cereals and pulses is, however, likely to exhibit marginal growth due to higher growth witnessed last year and a decline in the area under these crops. The increase in output of kharif coarse cereals and pulses is likely to be in the region of 0.3 per cent and 2.6 per cent, respectively.

The output of kharif oilseeds has also been estimated as satisfactory, due to the improved performance of monsoon rainfall in the main oilseed-growing areas. The estimates show that the production of kharif oilseeds is expected to increase by about 4.5 per cent compared to last year's output of 20.8 million tonnes. In the case of cotton, the estimates suggest a modest growth of 1.5 per cent over the preceding year's output, as last year was a year of record output. The projected output of sugarcane is likely to be about the same as last year.

Table I.2: Estimated Output of Selected Agricultural Crops

Crops	Estimated Output (Ministry of Agriculture) (million tonnes/bales*)		Estimated Rates of Growth for 2011-12(per cent)	
	2010-11	2011-12 (first provisional estimates)	Estimate I	Estimate II
Rice				
Kharif	80.7	87.1	11.9	15.1
Coarse cereals				
Kharif	32.4	30.4	-1.5	2.0
Pulses				
Kharif	7.1	6.4	2.3	2.9
Foodgrains				
Kharif	120.2	123.9	7.7	10.9
Oilseeds				
Kharif	20.8	20.9	4.9	4.0
Other crops				
Cotton*	33.4	36.1	3.0	0.0
Sugarcane	339.2	342.2	0.4	-0.7

Source: Computed.

Notes: Estimate I: Based on output equations. Estimate II: Based on area and yield equations.

* million bales.

Our estimates are slightly higher than the official provisional estimates, but it is unlikely that these will be considerably different from the final estimates. Reports from the Ministry of Agriculture indicate an increase of about 2 per cent in the area under kharif foodgrains compared to last year. Similarly, an increase in the area under oilseeds is estimated to be 2.7 per cent over the previous year's area. The two crops which have reported a significant increase in area are rice and cotton. The expansion in area under these two crops is estimated at 9.4 per cent for rice and 9.3 per cent for cotton over their previous year's allocations.

The incidence of pests and diseases has generally remained below the economic threshold level for most crops. And, no shortages of chemical /bio-pesticides were reported from any state or union territory.

The normal-to-excess rainfall activity in many parts of country has also improved storage of water in the major reservoirs of the country. The current year's storage as on October 5, 2011, was 14 per cent above the previous year's level of storage and 27 per cent above the long-term average. The increase in water storage is likely to benefit rabi crops immensely, hence, the outlook for the rabi season is also encouraging.

These improvements in the crop situation and overall agricultural growth will have a soothing effect on food prices, which were in the double-digits during 2009-10 and 2010-11. In 2011-12, the rate of food inflation has come down (Table I.3): the prices of a few essential items such as cereals, pulses and vegetables have remained low this year, as have the prices of milk; eggs, meat, and fish; and condiments and spices. The two commodity groups, which have witnessed particularly high rates of inflation among food articles during the current year, are fruits and other food articles (coffee and tea). And, among manufactured food products, edible oils have also experienced a high rate of inflation.

Table I.3: Changes in Real Prices of Food Articles (April to September)

S.No.	Product	Change in 2009-10 over 2008-09	Change in 2010-11 over 2009-10	Change in 2011-12 over 2010-11
1	Food articles	11.7	18.7	8.9
2	Cereals	11.8	7.7	5.0
3	Pulses	15.9	15.8	-5.7
4	Vegetables	20.4	4.6	5.1
5	Fruits	-0.1	20.9	24.2
6	Milk	13.5	26.6	8.5
7	Eggs, meat and fish	11.8	34.7	9.6
8	Condiments and spices	7.7	37.8	7.2
9	Other food articles	23.7	-13.9	22.3
10	Food products	9.9	6.3	7.8
11	Dairy products	8.7	14.9	8.9
12	Sugar group	45.4	10.1	4.6
13	Edible oils	-8.7	1.8	14.3

Notes: Changes in wholesale price indices of commodity groups deflated by the wholesale price index for all commodities.

Going forward, the abundance of food stocks with official agencies provides a considerable cushion for managing supplies of cereals. As on October 1, the combined stock of wheat and rice lying with the official

agencies was 51.8 million tonnes, a little over 2.4 times the minimum buffer stocking norm of 21.2 million tonnes for this period.

Managing the supplies of other food products, however, is proving to be a challenge because of supply-side constraints and bottlenecks in the entire food supply chain from farms to markets. Structural changes in consumption patterns of items such as fruits, vegetables, milk, eggs, fish, and meat, both in rural and urban areas mean that price pressures are likely to continue. To ensure supplies there is a need to consolidate and sustain productivity growth and to handle post-harvest operations more efficiently than has been done so far. Addressing these constraints on a sustained basis is likely to take a long time, but in the immediate future further liberalisation of both the internal and external trade regimes will go a long way in managing the situation.

II. Industry

By Anjali Tandon[4]

1. GDP trends

Indian industry has demonstrated a high degree of resilience in the post-crisis period. During 2010-11, GDP from the industry sector grew at 7.6 per cent (Table II.1). Within industry, the mining and quarrying subsector grew at 5.8 per cent, manufacturing expanded at 7.9 per cent, electricity, gas and water supply grew at 5.6 per cent, and construction activity accelerated at 8.1 per cent. Except for construction, output of the three other sub-sectors decelerated during 2010-11. However, industrial output has exhibited improved performance with its growth rising from 4.4 per cent during the crisis year of 2008-09 to 7.6 per cent during 2010-11. This is remarkable against service sector growth, which has registered a deceleration in growth from 10.1 per cent in 2008-09 to 9.3 per cent during 2010-11.

Table II.1: GDP at Factor Cost, at 2004-05 prices (% growth)

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Agriculture, forestry & fishing	5.1	4.2	5.8	-0.1	0.4	6.6
Industry	9.7	12.2	9.7	4.4	8.3	7.6
Mining & quarrying	1.3	7.5	3.7	1.3	7.0	5.8
Manufacturing	10.1	14.3	10.3	4.2	9.4	7.9
Electricity, gas & water supply	7.1	9.3	8.3	4.9	6.4	5.6
Construction	12.8	10.3	10.7	5.4	7.0	8.1
Services	11.0	10.1	10.3	10.1	9.9	9.3

Source: CSO, Press Release, 30 August, 2011.

2. Aggregate IIP trends

Conventionally, the performance of the industrial sector is measured by the Index of Industrial Production (IIP). The IIP is available by sectors and use-based categories, as well as for specific industries. Over the years, the basket of goods produced has changed substantially. In response to the changes in the composition of industrial output, the Central Statistical Organisation (CSO), based on the recommendations of the Standing Committee in Industrial Statistics (SCIS), revised the base year for the IIP from 1993-94 to 2003-04.

To improve the representativeness of the IIP in the changing structure of the economy, the CSO has also made several other changes to the Index. The new series is a representation of 682 individual items with a redesigned weight structure better aligned with technological changes, economic reforms and production behaviours. The representation of specific industries has also increased to 22 in the new series from 17 in the old series. Moreover, the classification adapted is NIC 2004.

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The distribution of the 682 individual items shows that as many as 620 belong to the manufacturing segment, while 61 items fall under the mining category and electricity is a single item. It is important to note that the weight of the manufacturing output has been revised downward whereas the mining and electricity weights have been revised upwards (Table II.2). The new structure has led to a downward revision of the manufacturing growth rate (Table II.3). The discussion here is based on the new series.

Table II.2: Sector-wise Comparative Items and Weights

		Items		Item groups		Weight	
No.	Sector	1993-94	2004-05	1993-94	2004-05	1993-94	2004-05
1	Mining	64	61	1	1	104.73	141.57
2	Manufacturing	473	620	281	397	793.58	755.27
3	Electricity	1	1	1	1	101.69	103.16
4	Total	538	682	283	399	1000	1000

Source: CSO, Press Release, 10 June, 2011.

Table II.3: Revision of IIP Growth Rates (% YoY), First Quarter

	Mining		Manufacturing		Electricity	
	Old	Revised	Old	Revised	Old	Revised
2009-10	6.8	6.2	3.6	-3.7	5.8	6.1
2010-11	10.2	8.0	12.6	10.3	5.6	5.4
2011-12	-	1.0	-	7.5	-	8.2

Old: Base 1993-94, Revised: Base 2004-05.
Source: CSO, Press Release, 30 August, 2011.

The rise in the IIP has been driven by the manufacturing sector which registered a robust quarter-over-quarter (q-o-q) growth through the first two quarters of 2010-11 (Table II.4). The manufacturing sub-sector expanded faster than mining and electricity sub-sectors. Slower growth during the latter part of 2010-11 can be attributed to the adverse 'base effect'. Growth rates of the electricity IIP are lower in comparison to the manufacturing IIP. During the first half of 2010-11, the mining IIP expanded faster than the electricity output. However, mining growth moderated during the second half, whereas the electricity sector accelerated over this period. The expansion in the electricity sector is also reflected in a stronger manufacturing output that further contributed to the overall industrial performance.

More recent trends upto the first quarter (Q1) of 2011-12, present a very optimistic picture as electricity output has accelerated continuously over the past three quarters beginning Q3: 2010-11. This can be attributed to higher generation from thermal, hydro and nuclear sources.

Mining has been on a lackluster track in Q1: 2011-12 during which the IIP mining index was sharply lower than the comparable figure for Q1: 2010-11.

On a month-over-month (m-o-m) basis, overall industrial performance has been reasonable till July 2011, when IIP growth slipped to 3.8 per cent, although it recovered during August. The manufacturing and electricity IIPs touched double-digit growth once in 2011-12 during the May and June, respectively, while growth of the miningIIP has been either moderate or negative. During August 2011, IIP growth declined for the overall industry as well as the constituent sub-sectors, barring electricity.

Table II.4: IIP, Sector-wise and General (% growth YoY), Base Year:2004-05=100

Year	Mining	Manufacturing	Electricity	General
	(141.57)	(755.27)	(103.16)	(1000)
Annual				
2008-2009	2.6	2.5	2.7	2.5
2009-2010	7.9	4.8	6.1	5.3
2010-2011	5.2	9.0	5.5	8.2
Quarterly				
2009-10Q1	6.2	-3.7	6.1	-1.8
2009-10Q2	7.2	1.8	7.4	2.9
2009-10Q3	7.5	6.1	3.8	6.1
2009-10Q4	10.3	15.4	7.1	14.0
2010-11Q1	8.0	10.4	5.4	9.6
2010-11Q2	6.3	7.4	2.1	6.8
2010-11Q3	6.3	9.2	6.5	8.6
2010-11Q4	1.1	8.9	8.1	7.9
2011-12Q1	0.8	7.5	8.2	6.8
Monthly				
Apr'11	1.6	5.7	6.4	5.3
May'11	1.8	6.3	10.3	6.1
Jun'11	-1.0	10.3	7.9	8.8
Jul'11	1.5	3.2	13.1	3.8
Aug'11	-3.4	4.5	9.5	4.1
April -August				
2010-11	7.7	9.3	4.1	8.6
2011-12	0.1	6.0	9.5	5.6

Source: CSO, Press Release, 12 October, 2011.

3. Use-based classification of manufacturing output

During the global financial crisis of 2008-09, the worst-hit segments included intermediate goods and consumer goods, both of which experienced growth of less than one percent (Table II.5).Within consumer

goods, consumer non-durables were severely hit and experienced a negative growth rate.

All the broad categories recorded accelerated growth during 2010-11, with the exception of consumer durables within the consumer goods category that posted a growth rate of 14.2 per cent compared to 17 per cent in 2009-10. Consumer durables, such as passenger cars (highest weight), motor cycles, ceramic tiles, air conditioners and wood furniture grew at impressive rates during 2010-11. However, some significant consumer durables, such as gems and jewelry andcolour TV sets, were adversely hit over the same period.

Table II.5: IIP, Use-Based Classification (% growth YoY), Base Year:2004-05=100

	Basic goods	Capital goods	Intermediate goods	Consumer goods	Consumer durables	Consumer non-durables
	(355.65)	(92.57)	(265.14)	(286.64)	(53.65)	(232.99)
Annual						
2008-2009	1.7	11.3	0.0	0.9	11.1	-5.0
2009-2010	4.7	1.0	6.0	7.7	17.0	1.4
2010-2011	6.0	14.8	7.4	8.6	14.2	4.3
Quarterly						
2009-10Q1	3.3	-16.5	-1.1	-1.6	3.7	-5.1
2009-10Q2	3.4	-6.0	4.8	5.9	9.3	3.4
2009-10Q3	5.0	-2.5	8.8	10.5	26.2	0.8
2009-10Q4	7.3	34.0	11.8	15.9	30.5	6.7
2010-11Q1	5.5	17.2	10.7	11.5	19.7	5.4
2010-11Q2	3.9	15.8	6.3	6.6	12.4	2.1
2010-11Q3	7.8	22.1	7.4	4.4	9.7	0.3
2010-11Q4	6.6	5.8	5.5	11.6	15.2	8.8
2011-12Q1	7.4	16.8	1.5	4.2	2.7	5.5
Monthly						
Apr'11	7.1	6.7	3.9	3.2	1.6	4.6
May'11	7.5	6.2	0.1	7.2	5.1	9.0
Jun'11	7.5	38.2	0.6	2.3	1.5	3.0
Jul'11	9.5	-13.8	-0.6	7.7	9.0	6.5
Aug'11	5.4	3.9	1.3	3.7	4.6	2.9
April-August						
2010-11	4.9	18.9	9.2	8.9	16.3	3.4
2011-12	7.4	7.2	1.0	4.8	4.3	5.2

Source: CSO, Press Release, 12 October, 2011.

The output of basic goods, the most important use-based category within industry, increased by 6 per cent during 2010-11, largely fuelled by growth in mining (which includes crude oil and natural gas) and the

electricity sectors. Cement is another important basic good that has contributed to the growth of this segment.

Capital goods output recorded a smart growth of 14.8 per cent during 2010-11. This category is dominated by commercial vehicles in terms of weight, and the IIP for commercial vehicles recorded a growth rate of 32.8 per cent in 2010-11. Other high-weight capital goods that registered high growth rates were boilers, tractors, three-wheelers and engines, including internal combustion and diesel engines. The IIP for refractory bricks registered an accelerated growth reflecting the growth in construction activity.

Intermediate goods, which grew at 7.4 per cent, are primarily items consumed during the manufacture of other goods. Important contributing items under this category are refinery products, fasteners excluding zip-fasteners, steel structures and industrial alcohol.

Consumer goods output increased by 8.6 per cent in 2010-11.

During Q1: 2011-12, the IIP slowed down in all the use-based categories, with the exception of basic goods which grew by 7.4 per cent. Capital goods registered double-digit growth at 16.8 per cent, but also displayed a volatile pattern of output growth during the quarter. For instance,in April and May, the growth rate in IIP for the sector was below 7 per cent but shot up to 38 per cent in June.Some of the growth in capital goods is indicative of a positive investment sentiment in the industrial economy. However, growth this time is also driven by higher tractor purchases in rural India; rising farm incomes from increased support prices, successful NREGA implementation and a favourable monsoon may have increased demand for mechanisation of the farm and rural economy.

In contrast, growth in the output of consumer and intermediate goods has decelerated to 4.2 per cent and 1.5 per cent, respectively. A slowdown of intermediate goods' growth suggests slackening of the demand for final goods, unless there are significant trade opportunities. The dampening of consumer durables demand may have been adversely hit by high rates of inflation and rising rates of interest.

4. The 2-digit classification of manufacturing output

The IIP for the 22 industries at the 2-digit level exhibited mixed behaviour during 2010-11. Output accelerated in 14 industries (Table II.6), growth decelerated in 4 industries while 4 others that were worst hit, recorded even slower growth.

The basic metals industry, which has the highest weight among all the sectors, expanded by 8.7 per cent during 2010-11. Other important industries that witnessed accelerated growth include food products and beverages, textiles and motor vehicles. In contrast, a slowdown was observed in some high-weight industries such as chemicals and chemical products, and other non-metallic mineral products. The worst-hit sectors included coke, refined petroleum products & nuclear fuel, wood and products of wood & cork except furniture; articles of straw & plating materials, office, accounting & computing machinery and furniture; and manufacturing n.e.c.

Table II.6: IIP, 2-digit industries (% growth, YoY), Base Year:2004-05=100

Industry Code	Description	Weight	Annual			Quarterly	Monthly			April-August
			2008-09	2009-10	2010-11	2011-12 Q1	Jun'11	Jul'11	Aug'11	2011-12
15	Food products and beverages	72.76	-8.2	-1.4	6.8	10.3	7.8	14.4	8.3	16.8
16	Tobacco products	15.70	4.4	-0.7	2.0	14.5	9.9	-9.0	-20.5	-2.5
17	Textiles	61.64	-3.6	6.1	6.6	-1.9	-2.0	-5.6	-3.8	-4.7
18	Wearing apparel; dressing and dyeing of fur	27.82	-10.2	1.9	3.9	-2.0	-4.6	-2.8	-0.4	-1.2
19	Luggage, handbags, saddlery, harness & footwear; tanning and dressing of leather products	5.82	-5.1	1.3	7.9	15.2	15.9	9.3	7.4	9.0
20	Wood and products of wood & cork except furniture; articles of straw & plating materials	10.51	4.9	3.1	-2.2	0.0	-0.1	2.5	-0.8	-0.5
21	Paper and paper products	9.99	4.8	2.6	8.4	6.1	5.3	6.0	0.0	3.1
22	Publishing, printing & reproduction of recorded media	10.78	1.6	-6.0	11.2	12.4	10.3	6.9	6.4	8.3
23	Coke, refined petroleum products & nuclear fuel	67.15	3.2	-1.3	-0.2	1.6	0.8	2.6	8.6	3.8
24	Chemicals and chemical products	100.59	-2.9	5.0	1.7	0.0	-0.1	-1.3	1.4	-0.3
25	Rubber and plastics products	20.25	5.1	17.4	10.4	-2.1	-0.4	3.3	-0.8	0.0
26	Other non-metallic mineral products	43.14	3.3	7.8	4.0	4.2	2.9	8.5	5.8	6.1
27	Basic metals	113.35	1.7	2.1	8.7	15.8	18.5	18.9	11.2	14.4
28	Fabricated metal products, except machinery & equipment	30.85	0.1	10.1	15.0	5.3	13.1	11.4	11.6	7.7
29	Machinery and equipment n.e.c.	37.63	-7.6	15.8	29.4	6.0	2.5	-3.1	-0.7	4.0
30	Office, accounting & computing machinery	3.05	-9.7	3.8	-5.7	2.9	19.1	38.3	-26.8	5.6
31	Electrical machinery & apparatus n.e.c.	19.80	42.3	-13.5	2.8	46.8	89.5	-46.0	-5.5	0.6
32	Radio, TV and communication equipment & apparatus	9.89	20.3	11.3	12.8	-19.9	-10.1	11.7	12.5	-5.2
33	Medical, precision & optical instruments, watches and clocks	5.67	7.5	-15.8	6.6	-16.7	-11.5	-12.5	-7.9	-12.2
34	Motor vehicles, trailers & semi-trailers	40.64	-8.7	29.8	30.3	20.6	14.5	10.3	8.1	12.2
35	Other transport equipment	18.25	3.9	27.7	23.1	16.5	18.8	17.5	12.1	13.3
36	Furniture; manufacturing n.e.c.	29.97	7.4	7.2	-7.5	8.4	10.6	6.9	-1.4	5.0
15-36	Manufacturing	755.27	2.6	7.9	5.2	1.8	-1.1	2.8	-3.4	1.6

Source: CSO, Press Release, 12 October, 2011.

During April-August 2011-12, industries exhibiting double-digit growth were: food products and beverages, basic metals, motor vehicles, trailers & semi-trailers and other transport equipment. Some of the relatively less-significant industries, in terms of their weightage in the IIP, that also exhibited high growth were luggage, handbags, saddlery, harness & footwear, tanning and dressing of leather products; office, accounting & computing machinery. However, as many as 7 of the 22 industries witnessed growth retardation in this same period. These were tobacco products, textiles, wearing apparel; dressing and dyeing of fur, wood and products of wood & cork except furniture; articles of straw & plating materials, chemicals and chemical products, radio, TV and communication equipment & apparatus and medical, precision & optical instruments, and watches and clocks.

5. Trends in core industry output

Among the core industries, the IIP of important infrastructure industries such as crude oil, refinery products and steel, accelerated during 2010-11 (Table II.7). All these industries are basic goods except for refinery products that are items of intermediate use by other industries. The increase in refinery output is due to the rising demand for transportation fuels such as ATF, diesel and petrol,which is in turn due to the increased sales of vehicles. A slight moderation was observed in the growth of the IIP for electricity that increased at 5.5 per cent. The deceleration in IIP-natural gas was due to the fall in natural gas output in the months beginning from January 2011. Natural gas supply from the Reliance industries Krishna–Godavari D6 basin has been hit by the constrained supply of sponge iron, an input requirement. This has had adverse effects on the consuming industries such a fertilisers and steel. Output in the coal industry fell, and the reasonable performance of the electricity and steel industries reflects an increasing dependency on imports of coal.

Recent patterns in the infrastructure industries show an optimistic picture for electricity and steel while the coal sector has performed poorly with a negative growth of 2.4 per cent in April-August 2011 over the same period the previous year. Steel output is likely to drop in view of the suspended mining activity in Karnataka, and supply constraints could cause its price to rise, which would have an adverse impact on the construction sector.

Table II.7: IIP, Core Industries (% growth), Base Year:2004-05=100

Year/ period	Overall Index	Coal	Crude Oil	Natural Gas	Refinery Products	Fertilisers	Steel	Cement	Electricity
Annual									
2008-09	2.8	8.0	-1.8	1.3	3.0	-3.9	1.9	7.2	2.7
2009-10	6.6	8.1	0.5	44.6	-0.4	12.7	6.0	10.5	6.2
2010-11	5.7	-0.3	11.9	10.0	3.0	0.0	8.9	4.5	5.5
Quarterly									
2009-10Q1	4.4	13.2	-1.3	19.5	-4.2	14.0	1.1	12.1	5.8
2009-10Q2	5.9	10.0	-1.2	37.0	-2.9	13.9	4.2	12.5	7.1
2009-10Q3	7.1	4.1	-0.9	49.7	4.3	8.5	10.5	8.5	4.7
2009-10Q4	9.0	6.8	5.7	73.7	1.1	15.0	8.6	9.3	7.1

Contd..

Year/ period	Overall Index	Coal	Crude Oil	Natural Gas	Refinery Products	Fertilisers	Steel	Cement	Electricity
2010-11Q1	6.8	-0.6	5.9	37.0	5.3	-2.6	8.6	7.0	5.7
2010-11Q2	4.5	1.1	14.5	14.8	0.0	-2.0	6.3	2.1	2.5
2010-11Q3	5.7	1.5	15.5	3.8	-0.1	0.0	10.1	3.8	5.6
2010-11Q4	6.0	-2.6	11.7	-8.1	6.9	4.9	10.5	4.9	8.2
2011-12Q1	5.1	0.2	9.5	-10.2	5.3	1.1	8.4	-0.9	8.2
Monthly									
Apr'11	4.6	2.8	11.0	-9.3	6.6	-1.3	5.3	-1.1	6.4
May'11	5.4	1.1	9.7	-9.6	4.5	7.3	6.7	-2.1	10.3
Jun'11	5.2	-3.3	7.7	-11.7	4.7	-2.4	13.2	0.7	7.9
Jul'11	7.5	2.4	1.4	-8.2	3.9	-1.6	13.8	10.8	13.0
Aug'11	3.5	-15.3	1.6	-5.3	3.9	4.3	7.7	7.2	8.9
April-August									
2010-11	6.1	0.6	9.8	27.8	5.3	-2.8	6.6	4.6	4.5
2011-12	5.3	-2.4	6.1	-8.9	4.7	1.2	9.3	2.8	9.3

Source: Department of Economic Affairs, MoC, August 2011.

6. The investment scenario

The aggregate performance of the Indian corporate sector may be assessed along broad parameters such as income, sales and profit. During 2010-11, corporate income grew by 19.5 per cent as compared to 6.2 per cent previously. Similarly, aggregate corporate sales accelerated at 20.3 per cent against 6 per cent growth in 2009-10. On the expenditure side, firms registered much higher total expenses. In particular, aggregate firm expenditure on the two significant categories of salaries and wages and sale and marketing increased by more than one-fifth during 2010-11. Corporate profits after netting out tax provisions, registered an increase of 8.9 per cent which was lower than the 28.1 per cent for previous year. The profit-to-income ratio marginally declined from 8.9 per cent in 2009-10 to 8.2 per cent in 2010-11.

Based on the financial performance of the few companies that have reported results for Q1: 2011-12, aggregate net sales have increased by 28.1 per cent while aggregate net profits increased by 10.6 per cent. Within the broader corporate sector, manufacturing firms have reported an increase of 27 per cent in net sales. Much of the growth in the manufacturing sector can be attributed to the good performance of the reporting Maharatnas (such as IOCL), Navratnas (such as BPCL and HPCL) and the Miniratnas. These oil procuring PSEs have benefitted from the rising fuel prices. The performance of the non-oil manufacturing firms has also improved. The manufacturing firms, and the oil producing and non-oil producing firms separately, have all registered a double-digit increase in profits of a high order, but much of this could be the result of the higher inflation rate, which would have raised the revenue from sales in many cases.

The investment outlook for the Indian industry is primarily driven by the economy's growth prospects. The year 2010-11 recorded a GDP growth of 8.4 per cent, largely driven by the agriculture sector that accelerated at 6.6 per cent compared to 0.4 per cent in the previous year. Both the industrial and service sectors recorded slower growth. Manufacturing growth in particular, was only 7.9 per cent. Favourable farm incomes in major crops,as a result of MSP support, increased the rural demand for many industrial goods such as tractors. Industrial output (IIP) growth accelerated during the year as discussed before. The output expansion of the capital goods segment has been rather impressive at 14.8 per cent but it has been volatile. Higher input costs and lower profits indicate a squeezing of corporate margins during 2010-11.

During 2010-11, the RBI (September 2011) registered the highest share (69.6 per cent) of investment intentions under the category new projects. The other categories in declining order of their share significance were expansion/ modernisation (28.5 per cent), diversification related (1.5 per cent) and others (0.4 per cent). In fact, the share of new investment mentions has increased relative to the previous year. These figures are inclusive of institutionally assisted projects in the infrastructure industries, mining & quarrying, besides other industries. Infrastructure projects, most of which are power projects, have the highest value and therefore account for 55.9 per cent of total assisted project value. These projects have a strong linkages with the outputs of industries such as steel, cement, electricity and coal. Among specific industries, metal & metal products stands out with a 20.6 per cent share. Institutionally assisted projects under construction, cement and textile industries account for 2.8 per cent, 2.7 per cent and 2.5 per cent shares, respectively. The state-wise distribution of such projects reveals Chhattisgarh as the most attractive destination with a staggering high share of 14.9 per cent. This was followed by Andhra Pradesh that ranked second with a share of 9.4 per cent. An expected hub for such investment projects is Gujarat with a share of 8.8 per cent. Delhi figured among the lowest bracket with only a share of 0.7 per cent in its share of all-India institutionally assisted projects.

In value terms, the investment intentions in fixed assets indicates a marginal enhancement (below one per cent) in investment sentiment from an aggregate investment of Rs.4,60,303 crore as against Rs. 4,55,968 crore in 2009-10. This is inclusive of institutional funding through banks, financial institutions and external commercial borrowings (ECBs), including foreign currency convertible bonds (FCCBs) or equity capital. However, exclusive funding through ADRs and GDRs is not captured.

Also, measured in dollars, the net flow of foreign direct investment (FDI) in India declined at (-) 62 per cent during 2010-11. Net portfolio investment in India also declined at (-) 6.5 per cent, although gross portfolio investment posted high positive growth on a small base figure for 2009-10, just after the global crisis. Investment figures for the latest available period Q1:2011-12, however, confirm an impressive growth in both net FDI and gross FDI.

Given the fragile recovery of the global economy, investment intentions are likely to be largely determined by the domestic demand scenario. Industrial growth in the recent past has been oscillating between acceleration and deceleration in almost alternate months till August 2011. More specifically, IIP-capital goods picked up sharply during June but worsened the following month leaving a certain amount of uncertainty. However, a recovery occurred during August.

The unveiling of the National Manufacturing Policy appears to be a ray of light in the form of new initiatives to revive the growth momentum. The proposed policy is strategically aimed at rejuvenating the

Indian manufacturing sector, and raising its contribution to GDP to 25 per cent a decade from now. The policy not only emphasises stepping up the manufacturing share from its ceremonial share of about 16-17 percent over the past several decades, but also targets addressing employment generation for about a 100 million people, particularly in the younger workforce. The policy intends to strengthen the manufacturing sector through the establishment of National Investment and Manufacturing Zones (NIMZs) that would have integrated mega-facilities such as townships. Establishments in these zones are likely to be exempt from labour and environmental laws,in addition to incentives such as fiscal sops.

Box II.1: Policy Developments

The significance of the manufacturing sector for the Indian economy cannot be overstated, but its present performance is far below potential in terms of its contribution to GDP as well as the ability to absorb large masses of population with diverse skill intensities. Realising its vast prospects, the government is now formulating a National Manufacturing Policy (NMP) to bolster growth of this sector with a targeted share of 25 per cent of GDP by 2025. In a discussion paper, the Department of Industrial Policy and Promotion (DIPP) has proposed the concept of National Investment and Manufactures Zones (NMIZs) that would have the advantages of a defined exit policy, investment incentives and welcoming approval procedures. The exit policy would expedite settlement procedures. It is proposed to have insurance through a job loss policy for labour. Alternatively, such payments would be funded through a sinking fund that would be maintained by a government authority in the name of a special purpose vehicle (SPV).

As proposed the NMIZswill be equipped with quality physical infrastructure supported with environment-friendly technologies. Incentives to promote the adoption of greener technologies would include preferential interest rates, support to related research, the obligatory proportional use of electricity from renewable sources, special awards of recognition, besides an investment subsidy to cover additional interest costs for their adoption. The units will also benefit from the usual incentives available to SEZs and EOUs such as tax exemptions and duty-free imports. Special incentives will be provided for crucial industries with very high import dependence, and government procurement will give preference to goods produced in these zones.

Besides encouraging and facilitating production, the NMP envisages addressing employment issues in industry. The new policy for higher manufacturing growth will not only absorb productive workforce in the 15-59 age group, but also plans to align workforce supply with the demand for employment. The required skill-sets for employment will be reviewed under each of these categories: minimally educated, skilled workforce and highly specialised skills.

There are also efforts to smoothen supply constraints in agriculture as a measure to control food-related inflation. An effort in this direction is the reduction of promotional schemes for the food processing industry that would help contain the current high level of wastages in raw and unprocessed produce.

While there are sector-specific effects of new taxes and new incentives, a more comprehensive tax approach to goods and services will be a major reform that will provide fresh impetus to the industrial sector.

III. The Services

By Devender Pratap[5]

1. Trends in Service Sector GDP

Service sector GDP growth moderated to 9.2 per cent during 2010-11 against 9.7 per cent during 2009-10, and further deepened to 8.9 per cent in the first quarter of 2011-12. The first quarter growth story of services is marked by the weak performance of the construction sub-sector. GDP from services excluding construction increased by 10 per cent, while GDP from services inclusive of construction increased by 8.9 per cent during Q1: 2011-12.

Construction now accounts for about 8 per cent of GDP. Including construction, services now account for 66 per cent of total GDP. The construction sector registered a sharp decline in growth in Q1: 2011-12 compared to the same period the previous year. Its growth rate declined from 7.7 per cent in Q1: 2010-11 to 1.2 per cent in Q1: 2011-12. Although the growth rate has declined in the other sub-sectors of services also over the same period, the drop in construction GDP has been significantly greater.

Another major segment of services GDP, viz., 'trade, hotels, restaurants, and transport, storage and communications' registered higher growth of 12.8 per cent during Q1:2011-12 compared to a 10.9 per cent increase in the same period a year ago. Year-on-year growth in another segment of services, namely, 'community, social and personal services' decelerated to 5.6 per cent this quarter, compared to a nearly 8 percent increase during Q1: 2010-11. Slower growth in government spending may have affected growth in these services.

A comparison of services GDP growth over the quarters suggests that there has been an improvement in the momentum of output from this sector since Q2: 2010-11. Continuation of this trend, however, will depend on the strength of recovery in construction output and output of transport, storage and communication.

The year-on-year (YoY) growth performance of various components of services in recent quarters is summarised in Table III.1. The shares of different components of services in GDP are illustrated in Table III.2.

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Table: III.1: Trend in Growth of Services Sector GDP (% Y-o-Y)

Quarter/ Fiscal Year	Construction	Trade, hotels, transport, communication	Financing, insurance, real estate	Comm-unity, social &perso-nal services	Services excluding construct-ion	Services including construction	GDP at factor cost
Q1: 2007-08	10.7	11.9	14.0	4.2	10.7	10.3	9.3
Q2	13.1	9.5	13.8	7.0	10.2	10.4	9.4
Q3	9.6	10.7	13.3	5.3	10.2	10.1	9.7
Q4	7.1	10.9	11.9	9.8	10.9	10.9	8.5
Q1: 2008-09	9.7	10.1	10.1	8.3	9.7	9.6	8.0
Q2	7.2	10.4	9.8	9.4	10.0	9.9	7.8
Q3	1.1	4.3	10.8	22.6	10.2	12.1	5.6
Q4	5.6	7.0	12.8	7.8	8.9	9.4	6.4
Q1:2009-10	5.4	3.7	11.5	13.0	8.2	9.5	6.3
Q2	5.1	8.2	10.9	19.4	11.7	12.7	8.6
Q3	8.3	10.8	8.5	7.6	9.4	8.9	7.3
Q4	9.2	13.7	6.3	8.3	10.2	9.2	9.4
Q1:2010-11	7.7	12.1	9.8	8.2	10.4	10.0	8.8
Q2	6.7	10.9	10.0	7.9	9.9	9.6	8.9
Q3	9.7	8.6	10.8	5.1	8.4	8.4	8.3
Q4	8.2	9.3	9.0	7.0	8.7	8.5	7.8
Q1:2011-12	1.2	12.8	9.1	5.6	10.0	9.2	7.7

Source: CSO, First Quarter Estimate for 2011-12;
http://mospi.nic.in/Mospi_New/upload/PRESS_NOTE-Q1_2011-12_30aug11.pdf

Table III.2 : Share of Services in GDP (2004-05 prices): %

Quarter/ Fiscal Year	Constructi-on	Trade, hotels, transport, communication	Financing, insurance, real estate	Community, social &personal services	Services excluding construction	Services including construction
Q1: 2007-08	8.3	25.7	16.5	12.0	54.2	62.5
Q2	8.5	26.5	17.0	13.2	56.6	65.1
Q3	7.8	25.2	15.4	11.2	51.8	59.7
Q4	7.9	26.5	15.7	13.2	55.4	63.3
Q1: 2008-09	8.4	26.2	17.1	12.1	55.4	63.7
Q2	8.4	26.9	17.5	13.5	57.9	66.3
Q3	7.4	25.0	16.4	13.1	54.5	62.0
Q4	7.8	26.5	17.0	13.6	57.1	64.9
Q1:2009-10	8.3	25.6	17.9	12.9	56.4	64.7
Q2	8.1	26.8	17.9	14.8	59.5	67.6
Q3	7.5	25.9	16.6	13.2	55.6	63.1
Q4	7.8	27.5	16.5	13.5	57.5	65.3
Q1:2010-11	8.2	26.3	18.1	12.8	57.2	65.4
Q2	7.9	27.3	18.1	14.7	60.1	68.0
Q3	7.6	25.9	16.9	12.8	55.6	63.2
Q4	7.9	27.9	16.7	13.4	58.0	65.8
Q1:2011-12	7.7	27.6	18.3	12.5	58.4	66.1

Source: Same as Table III.1

2. Indicators of services sector output

The performance of key indicators of services sector output during the first half of 2011-12 provide some insights into the outlook for the sector for the full year. The growth performance of these indicators reveals a mixed pattern (Fig III.2).

Transport and communications: The YoY increase in revenue-earning goods traffic by the railways accelerated to 6.1 per cent during April - August 2011 compared to a 2.3 percent increase over the same period the previous year. After a deceleration in the growth of railway freight traffic in 2010-11 to 3.8 per cent compared to a growth of 6.6 per cent during 2009-10, a pick-up in growth during the firstfive months is indeed satisfactory.

During H1: 2011-12, foreign tourist arrivals improved compared to a similar period the earlier year. Foreign tourist arrivals increased YoY by 9.3 per cent during April-September 2011-12 compared to the growth in their numbers by 6.2 per cent rise a year ago.

The increase in the 'production of commercial vehicles' — a proxy for incremental demand for road freight transport was lower during April-September 2011, YoY basis, at 25 per cent compared to a 46 per cent rise over the same period the previous year. But the increase in the production of commercial vehicles in 2010-11 was unusually high and may have been affected by fiscal incentives to the sector.

The performance of the ports sector in terms of cargo handled critically depends on the economic activity levels both in the domestic and global markets. The cargo tonnage handled at 12 major ports rose marginally by 1.6 per cent during 2010-11 over the previous year, compared to an increase of 6.1 per cent in 2009-10. The YoY increase during April-September 2011 picked up to 3.1 per cent against a moderate rise of 1.2 per cent rise the previous year. Some of the deceleration in cargo handled may be an outcome of the turmoil in the mining sector.

In 2011-12, nearly 606.4 million tonnes of cargos are expected to be shipped. Rising demand from the steel and power sectors is expected to spur growth in this segment. A better than expected performance on international trade and rising POL cargo traffic have led to improved expectations in industry..

In the communication sub-sector, additions to telephone connections (fixed and wireless) registered a sharp decline of about 30 per cent during April-August 2011 compared to nearly 40 per cent in the same period a year ago. It has been argued in policy circles that to maintain a steady pace of expansion in the number of connections, further penetration of phones in the rural areas would be essential. While the demand for services is expected to be significant, there appear to be supply-side constraints to expanding services without affecting cost.

Table III.3: Indicators of Service Sector Output (% Change, YoY)

Quarter/ Fiscal Year	Tourists Arrival (numbers)	Revenue Earning Goods Traffic by Railways (mn tonnes)	Cargo Handled at Major Ports ('000 tonnes)	Production of Commercial Vehicles ('000 numbers)	New Telephone Connections (Fixed+ Wireless in millions)	Growth in Aggregate Deposits (Rs cr)	Bank Credi t to Commercial Sector (Rs cr)
2007-08 Q1	7.3	5.4	15.2	6.8	46.1	24.4	23.1
Q2	16.9	9.7	13.0	0.0	40.5	24.3	21.5
Q3	14.2	10.1	10.3	8.9	23.1	25.3	21.2
Q4	6.2	11.0	11.0	4.8	73.4	22.4	21.1
2008-09 Q1	7.4	9.6	9.0	8.5	32.0	22.0	24.5
Q2	9.1	7.7	5.4	0.2	17.9	19.7	23.5
Q3	-3.7	1.5	-3.4	-50.3	28.5	20.8	22.6
Q4	-11.8	2.2	-2.9	-43.0	62.6	19.9	16.9
2009-10 Q1	-0.2	5.0	1.9	-18.7	38.9	21.9	15.2
Q2	-2.0	8.0	2.6	4.4	58.5	19.8	12.3
Q3	6.6	9.6	10.8	95.6	70.9	17.9	11.2
Q4	10.7	4.0	9.0	112.4	31.5	17.2	15.8
2010-11 Q1	6.4	2.5	2.0	55.8	43.6	14.0	-14.4
Q2	6.1	2.4	0.8	38.6	16.8	14.4	18.7
Q3	8.2	4.7	0.9	31.9	20.3	19.2	27.2
Q4	11.1	5.5	2.1	15.5	-0.1	15.9	21.3
2011-12 Q1	10.6	7.1	5.2	26.0	-21.3	18.2	66.9
Q2	8.1	4.8	0.9	23.9	-29.3	21.1	18.8

Note: July-August period
Source: Foreign tourist arrivals - Press Information Bureau, Ministry of Tourism; railway traffic - Press Information Bureau, Ministry of Railways; port cargos – Indian Port Association; http://ipa.nic.in/pcs/default.asp; and aggregate deposits and bank credit – RBI.

Banking services indicators, namely aggregate deposits, improved in terms of growth to 21.1 per cent during the first half of the current fiscal against an increase of 14.4 per cent in the same period a year ago. Similarly, the YoY growth of 'Bank Credit to the Commercial Sector' remained the same at 18.8 per cent during this period compared to 18.7 per cent last year. There has been a decline in the growth rate of indicators for the sector during the first half of the current fiscal but performance has remained steady (Table III.3).

Air traffic both in terms of passenger and cargo traffic registered an improvement in 2010-11 over the previous year. Air passenger traffic (both domestic and international) grew by about 15.7 per cent during 2010-11 compared to an increase of 13.7 per cent the previous fiscal. The growth in passenger traffic is attributed to domestic passenger traffic which accounted for nearly 76 per cent of total passenger traffic. Domestic passenger traffic grew by 17.8 per cent during 2010-11 compared to an increase of 15.7 per cent the previous year. Similarly, international air passenger traffic, which contributed nearly 24 per cent to total passenger traffic, grew at 10.2 percent this fiscal compared to 8.9 per cent rise the previous fiscal. Similarly, cargo traffic, both international and domestic, increased by nearly 20 percent during 2010-11 compared to a

15 per cent increase in 2009-10. International cargo traffic, which contributed 64 per cent to total air cargo traffic, grew by 17.6 per cent during this period compared to 9.6 per cent over the same period the previous year. Domestic cargo traffic which constituted nearly 31 per cent of total air cargo traffic increased by 23.7 per cent last fiscal, compared an increase of nearly 24.3 per cent over the same period the previous year (Table III.4).

The growth in total (domestic and international) air tariffs during April-July 2011 has, however, slowed. During this period, growth in total air travel dipped to 15.6 per cent compared to 18.8 per cent the previous year. Similarly, total air cargo traffic growth decelerated to less than 0.5 percent during this period compared to a high growth of 28.1 per cent the previous year. Domestic air traffic which comprised nearly 76 per cent of total (domestic and international) traffic, decelerated to 18 per cent during this period, compared to 21.3 per cent rise the previous year. Similarly, international passenger traffic witnessed a sharp deceleration in growth to nearly 9 per cent compared to an increase of 12.4 per cent the previous year. A point to be noted is that domestic air cargo which comprised nearly 31 per cent of total cargo traffic registered a sharp decline of 5.5 percent during April-July over a very high growth of nearly 34 per cent in the same period the previous year. The drop in domestic cargo traffic has been much sharper than the drop in international cargo traffic.

Table III.4. Domestic and international air passenger and cargo traffic

	Domestic Traffic				International Traffic				Total Traffic			
	Passengers		Cargo		Passengers		Cargo		Passengers		Cargo	
Month/ Year	lakh	% YoY	'000' tonnes	% YoY	lakh	% YoY	'000' tonnes	% YoY	lakh	% YoY	'000' tonnes	% YoY
M04-2011	93.5	14.0	64.7	0.4	32.2	14.2	127.5	10.3	125.7	14.1	192.1	6.7
M05-2011	108.5	15.9	65.9	-3.8	33.7	7.7	132.8	2.4	142.2	13.9	198.7	0.2
M06-2011	104.2	18.9	63.0	-8.9	32.3	7.0	125.7	2.4	136.5	15.9	188.8	-1.6
M07-2011	98.7	23.1	66.1	-9.0	33.7	7.3	129.3	0.9	132.5	18.7	195.3	-2.8
2009-10	893.6	15.7	688.8	26.4	343.9	8.9	1271.3	9.6	1237.5	13.7	1960.1	14.9
2010-11	1055.2	18.1	852.2	23.7	379.1	10.2	1496.2	17.7	1434.3	15.9	2348.4	19.8
					April – July				April – July			
2010-11	343.4	21.3	274.7	33.6	121.1	18.5	496.3	22.8	464.5	20.2	771.0	31.4
2011-12	404.9	17.9	259.7	-5.5	131.9	8.9	515.2	3.8	536.9	15.6	774.9	0.5

Source: Airport Authority of India, various issues,http://www.aai.aero/traffic_news/traffic_news.jsp

The mixed pattern in the indicators of services sector growth performance reflects the weakness in overall economic activity. The trends point to a relatively weak performance of the sector in the coming months of this fiscal unless there is a pick up in the overall economy.

Exports have been a major driver of growth of the service sector, as the former requires a variety of service inputs besides services being major component of exports by itself. The services sector has grown in importance in India's invisibles receipts from the external sector. The ratio of net invisibles to overall GDP has been significant during all four quarters of 2010-11 at nearly 12-13 per cent.

The Q1:2011-12 share of India's invisibles receipts to GDP has declined slightly to 11 per cent(Table III.5).

Table III.5: Major Components of Invisibles Receipts in Current Accounts Balance as % of GDP

Year	Services *	Transfers	Income **	Total	Share of Services in Total Invisible s Receipts
2007 -08 Q1	7.8	3.4	1.0	12.3	63.8
Q2	6.9	4.0	1.5	12.4	55.4
Q3	7.6	3.7	1.2	12.5	60.9
Q4	8.3	4.5	1.5	14.3	57.8
2008 -09 Q1	7.4	4.1	1.2	12.7	58.2
Q2	9.2	5.2	1.4	15.9	57.8
Q3	8.7	4.0	1.1	13.8	62.9
Q4	8.7	3.6	1.2	13.5	64.4
2009 -10 Q1	8.0	4.8	1.1	13.8	57.9
Q2	6.8	4.9	1.6	13.3	51.1
Q3	6.8	3.9	0.8	11.4	59.3
Q4	7.2	3.5	0.7	11.5	62.9
2010 -11 Q1	7.2	3.8	0.8	11.7	61.1
Q2	8.2	3.7	0.5	12.5	65.6
Q3	8.7	3.3	0.5	12.8	68.3
Q4	7.9	3.1	0.5	11.8	67.1
2011 -12 Q1	7.1	3.3	0.5	11.0	65.0

*I ncludes travel, transportation, insurance, and government not included elsewhere and miscellaneous which includes software in invisibles accounts.

** Includes investment income and compensation to employees in invisible accounts

Source: RBI.

Software exports and non-software miscellaneous services exports have contributed immensely to total service exports. The share of software exports in total services hovered around 41-49 per cent during the last fiscal, and may remain at 47 per cent during the current fiscal. On the other hand, the share of non-software miscellaneous services stayed in the range of nearly 26 -36 percent during the last fiscal. It declinedto nearly 26 percent in the fourth quarter of the last fiscal,and has remained there for the first quarter of the current fiscal (Table III.6).

During Q1:2011-12, total software services exports grew by nearly 15 per cent, far lower than its growth rate during the four quarters of the last fiscal (Table III.7).

Table III.6: Quarterly Composition of India's Services Exports (%)

Year	Travel	Transport ation	Insurance	G. n. i. e	Software Services	Non-Software Miscellaneous Services*	Total Services
2007-08 Q1	10.4	11.0	2.1	0.5	42.1	34.0	100.0
Q2	12.6	12.5	2.1	0.4	44.1	28.4	100.0
Q3	14.5	11.4	1.9	0.4	43.3	28.5	100.0
Q4	13.9	11.2	1.7	0.3	49.1	23.8	100.0
2008-09 Q1	11.4	11.1	1.5	0.6	48.5	26.9	100.0
Q2	10.6	11.6	1.4	0.3	42.6	33.5	100.0
Q3	11.8	10.2	1.4	0.4	43.4	32.7	100.0
Q4	11.0	12.0	1.4	0.3	46.1	29.1	100.0
2009-10 Q1	10.2	11.1	1.7	0.4	48.1	28.4	100.0
Q2	12.7	12.9	1.9	0.5	53.5	18.5	100.0
Q3	13.1	12.7	1.7	0.5	55.0	17.0	100.0
Q4	12.6	11.5	1.6	0.4	53.1	20.8	100.0
2010-11 Q1	11.3	11.9	1.5	0.4	48.5	26.5	100.0
Q2	11.3	11.0	1.5	0.4	43.0	32.8	100.0
Q3	11.8	9.9	1.3	0.4	41.1	35.5	100.0
Q4	12.7	11.7	1.7	0.5	47.9	25.6	100.0
2011-12 Q1	11.7	13.6	1.7	0.5	46.9	25.6	100.0

G. n. i. e.: Government not included elsewhere, * Include business and professional services;
R: Revised.
Source: RBI.

Table III.7: Growth of Service Sector Exports (%, Y-o-Y)

Year	Travel	Transportation	Insurance	G. n. i. e	Software Services	Non-Software Miscellaneous Services	Total Services
2007-08 Q1	22.2	27.0	73.8	68.4	32.2	6.0	21.2
Q2	26.4	10.8	19.2	6.0	19.7	-31.1	-1.3
Q3	16.2	26.6	52.2	3.4	33.0	-20.7	9.1
Q4	20.7	32.0	24.4	19.4	34.3	-38.5	3.3
2008-09 Q1	19.9	10.3	-18.9	35.4	26.2	-13.3	9.5
Q2	23.9	36.6	-0.5	14.1	42.5	74.1	47.3
Q3	-13.9	-5.0	-22.9	7.8	6.3	21.3	5.8
Q4	-25.9	-0.4	-21.4	9.5	-12.7	13.9	-6.9
2009-10 Q1	-8.7	2.2	14.5	-23.1	1.0	7.7	1.9
Q2	-9.6	-15.6	3.7	23.7	-5.1	-58.3	-24.4
Q3	6.0	18.2	18.6	27.8	21.0	-50.3	-4.4
Q4	27.0	6.2	21.0	43.2	27.9	-20.5	11.1
2010-11 Q1	29.0	24.4	4.4	-5.9	17.6	8.7	16.6
Q2	34.1	27.7	15.1	24.8	20.4	166.3	49.9
Q3	43.0	24.1	24.3	21.0	18.8	232.3	59.1
Q4	32.8	33.7	40.2	42.6	19.0	61.9	31.8
2011-12 Q1	22.9	36.1	33.2	49.6	14.6	14.7	18.5

Source: RBI.

The improved performance of non-software miscellaneous services in 2010-11 was achieved through recovery in the exports of 'business services' which reached USD 24 billion. Exports receipts from the three major components of 'business services' - i) business and management consultancy, ii) architectural engineering and technical services, and iii) trade-related services,were USD9.2 billion USD2.0 billion and USD 5.4 billion respectively, during 2010-11 (Table III.8-III-9).

The IT and ITeS sector has been continuously gaining importance in terms of becoming a major driver of services sector GDP growth. The contribution of IT and ITeS to India's GDP rose to 6.4 per cent in 2010-11 compared to 6.1 per cent a year ago. The sector is estimated to have aggregated revenue of USD 88.1 billion during 2010-11 (NASSCOM, 2011). Of this, revenue from IT software and services sector (excluding hardware) accounted for USD 76.1 billion. The share of IT and ITeS in total merchandise and services exports rose to 26 per cent in 2010-11.

Table III.8: Non-Software Miscellaneous Services Exports, USD million

Items	2007-08*	2008-09*	2009-10*	2010-11#	Q1:2010-11*	Q2:2010-11*	Q3:2010-11*	Q4:2010-11 #
i) Communication services	2,408	2,298	1,228	1,562	325	417	424	396
ii) Construction services	764	986	588	676	122	173	128	253
iii) Financial services	3,217	4,428	3,737	6,508	1,228	1,819	1,684	1,777
iv) News agency services	503	878	321	605	82	108	322	93
v) Royalties, copyright and license fees	157	133	203	193	35	27	25	106
vi) Business services	16,772	18,605	11,369	24,055	4,819	5,944	7,088	6,204
vii) Personal, cultural &recreational services	562	729	497	227	49	56	52	70
viii) Other services	2,327	7,591	3,031	7,110	270	2,315	4,349	176
Total (I + viii)	26,710	35,648	20,974	40,936	6,930	10,859	14,072	9,075

Note: i) Other services include refunds/rebates; ii)* Partially revised, and # provisional
Source: RBI

Table III.9 : Composition of Major Business Services, USD Million

Items	2007-08*	2008-09*	2009-10*	2010-11#	Q1:2010-11 *	Q2:2010-11 *	Q3:2010-11 *	Q4:2010-11 #
i) Trade-related services	2,233	2,126	1,688	5,357	1,226	1,299	1,639	1,193
ii) Business management & consultancy services	4,433	6,067	3,777	9,184	1,605	2,279	2,747	2,553
iii) Architectural engineering & other technical services	3,144	1,873	1,403	2,013	513	483	551	466
iv) Maintenance of offices abroad services	2,861	3,502	1,507	2,777	535	725	825	692
v) Research &development services	1,335	1,550	565	878	170	286	224	198
vi) Others services	2,766	3,487	2,431	3,844	770	870	1,102	1,102
Total Business services	16,772	18,605	11,369	24,055	4,819	5,944	7,088	6,204

Note: Other services include i) Merchandising services, ii) Operational leasing services, and iii) legal services, iv) Accounting/auditing services, v) Advertising/trade fairs, vii) Agricultural mining &on-site processing services; ii) * Partially revised, and # provisional

The Supply Side of Services

FDI inflows, which provide an external stimulus to the supply side of the services sector, showed mixed trends. In April-August 2011 FDI inflows into services sectors (except for telecommunications) remained much lower than their historical levels (table III.10). The telecommunications sector, in contrast, outpaced its share during April-August 2011 and attained an 11 per cent share in total FDI inflows. This sector improved its historical share performance of 8.4 per cent, and also its share of 8.6 per cent during 2010-11. Financial and non-financial services attracted nearly 11 per cent of total FDI into the country, but this share is lower than its historical share of nearly 21 per cent and its share of 17 per cent for 2010-11. FDI inflows in the computer software and hardware sub-sector touched 2.3 per cent during April-August 2011, which is far lower than its historical share of 7.3 per cent and the 4 per cent for 2010-11.

Table III.10. Sectors attracting highest FDI equity inflows, Rs crore

Sector	2009-10 (Apr - Mar)	2010-11 (Apr - Mar)	2011-12 (Apr - Aug)	% to total FDI inflows 2010-11 USD terms	% to total FDI inflows in April -Aug 2011,USD terms	Total FDI inflows in April 2000- August 2011, USD terms	% to total FDI inflows in USD terms
Services (Financial and Non Financial)	19,945 (4,176)	15,053 (3,296)	12,892 (2,880)	17.0	10.8	134,000 (30,014)	20.4
Computer Software and Hardware	4,127 (872)	3,551 (780)	1,696 (378)	4.0	2.2	48,010 (10,787)	7.3
Telecommunications	12,270 (2,539)	7,542 (1,665)	8,405 (1,874)	8.6	10.8	56,471 (12,429)	8.4
Housing and Real Estate	14,027 (2,935)	5,600 (1,227)	1,764 (395)	6.3	2.3	48,038 (10,776)	7.3
Construction Activities	13,469 (2,852)	4,979 (1,103)	3,491 (780)	5.7	4.5	42,072 (9,417)	6.4
Total FDI inflow	123,120 (25,834)	88,520 (19,427)	77,864 (17,370)	100	100	659,119 (147,209)	100

Source: http://dipp.nic.in/English/Publications/FDI_Statistics/2011/india_FDI_August2011.pdf
Note: Figures in parenthesis are values in USD million

FDI inflows into the other sectors namely housing and real estate which had maintained a high historical share (during April 2000 – August 2011) of 7.3 percent of total FDI inflows, dropped to 2.3 per cent during April-August 2011. This is a further decline against its share of 6.3 per cent of total FDI during 2010-11.

IV. External Sector

By Rajesh Chadha and Anjali Tandon[6]

The June 2011 IMF forecast of growth resurgence in the second half of 2011 has gone awry. The overall economic sentiment is gloomy. "The global economy is in a dangerous new phase. Global activity has weakened and become more uneven, confidence has fallen sharply recently, and downside risks are growing" (World Economic Outlook - WEO, IMF, October 2011).

The IMF WEO, October 2010 had stated that the growth recovery of the world economy, which commenced during the second half of 2009, had continued its momentum through the first half of 2010. This period, however, had come under the shadow of another setback to global financial stability. Some of the Euro area countries suffered increased market volatility and greater vulnerability. There was heavy and increasing sovereign debt and with it exposure of the banks to government debt. Fortunately the propagation effects were limited and sovereign borrowers elsewhere were not greatly affected. Nevertheless, financial stability continued to be fragile and needed to be monitored carefully lest it thwarted recovery of the real economy.

The World Bank'sGlobal Economic Prospects (January 2011) reconfirmed that the global economy had started showing signs of recovery since the last quarter of 2009. The first half of 2010 posted strengthened growth catch-up. Growth thereafter has been gradual and has yet to catch up with potential growth rates of countries across the world, particularly those which have been severely affected by the crisis.

Similar views were expressed by the IMF WEO, April 2011. While the first half of 2010 had posted a growth rate of above 5 per cent, it decelerated to less than 4 per cent in the second half. The growth forecast for 2011 was estimated at 4.4 per cent. The growth revival of 2010 had been uneven with growth of developing countries returning to the pre-crisis path while the major developed countries struggled to achieve the same. The developed economies which had suffered severe financial shocks due to housing booms and external indebtedness have been laggards during the recovery process. On the other hand, the developed newly industrialised economies (NIEs) in the Asian region have recovered smartly, posting an impressive growth rate of 8.4 per cent in 2010. In the Euro area, economies which had faced housing busts or financial market pressures recovered weakly compared with Germany and some of the other Euro area economies.

The IMF WEO, (Update June 2011) had projected a slowdown in global economic activity in the second quarter of 2011 followed by growth resurgence in the second half of the year. Growth would be uneven: high-income countries facing problems in their fiscal and financial sectors were likely to post continued sluggish growth, while developing countries would keep up their growth pace along with advanced countries which did not face challenges in their fiscal and financial sectors.

The world economy posted an impressive growth in output of 5.1 per cent in 2010 after a decline of 0.7 per cent in 2009. The growth forecast of the world economy for 2011 has now been revised downward to 4 per cent compared with 4.4 per cent announced in April 2011 (Table IV.1). The growth forecast for 2012 has

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also been revised downward from 4.5 per cent estimated in the April 2011 to 4 per cent in October 2011.

The estimated 4 per cent growth of world output in 2011 would be supported mainly by 6.4 per cent growth in developing economies. The growth estimate for advanced economies has been lowered to 1.6 per cent in the October 2011 IMF forecast compared with 2.4 per cent estimated in the April 2011 IMF forecast. Among the advanced economies the major disappointment has been in the growth estimates of Japan, US, Italy and UK. Japan might post a growth decline of 0.5 per cent compared with the forecast of 1.5 per cent growth announced in April. The expectation for growth in the US has also suffered a sharp decline from the 2.8 per cent estimate of April being revised down to 1.5 per cent in October. Growth rates in Italy (down from 1.1 per cent to 0.6 per cent) and UK (down from 1.7 per cent to 1.1 per cent) also bring disappointing news.

Within the group of developing economies, the Asian economies have taken the lead in 2011 with China and India likely to post growth rates of 9.5 per cent and 7.8 per cent, respectively. Their growth prospects for 2012 are also quite robust. However, growth in Latin America is likely to see a significant slowdown in 2011 over 2010, as both Brazil and Mexico are expected to grow by only 3.8 per cent in 2011 compared with much higher growth rates experienced in 2010.

The volume of world trade of goods and services is likely to slowdown in 2011 to 7.5 per cent compared with a growth of 12.8 per cent in 2010. A sharp slowdown in import demand by developed countries brings bad news for exports from developing countries.

A major cause for concern relating to the economic recovery is the continued increase in the prices of oil and non-fuel commodities. The world economy had suffered similar issues immediately before the crisis: oil prices had touched USD150 per barrel in July 2008 and the prices of other commodities including food had also jumped. Commodity prices had posted a significant decline in 2009 (Table IV.2). The price of oil increased by 27.9 per cent in 2010 and is likely to go up by 30.6 per cent 2011. Prices of non-fuel commodities are likely to grow by 21.2 per cent in 2011 over and above the 26.3 per cent in 2010.

The destruction caused by the ravaging earthquake and tsunami in Japan had a major effect on global economic sentiments during the first quarter of this year. Political unrest in some of the Middle East and North African (MENA) countries during the last quarter of 2010 and the early months of 2011 causing rising oil prices and threw another challenge before the world economy. While higher oil prices are likely to benefit the oil-exporting countries in the MENA region, oil- importing countries may be in for a tough time. While the oil-exporting countries including Algeria, Kuwait, Qatar, Saudi Arabia and UAE are likely to post high rates of growth, oil- importing countries such as Egypt, Jordan, Lebanon, Morocco and Tunisia could register a marked slowdown in 2011.

The world economy faces downside risks. The crisis in the Euro area has turned out to be too difficult to control in the immediate future. The European Central Bank (ECB) needs to act swiftly and effectively to rectify imbalances in the sovereign debt markets. It may need to lower the policy rate to guard the Euro area growth recession.

Table IV.1: Growth of World Output and Trade (% change, y-o-y)

Region	2007	2008	2009	2010	2011 P	2012 P
A. World Output	5.4	2.8	-0.7	5.1	4.0	4.0
I. Advanced economies	2.8	0.1	-3.7	3.1	1.6	1.9
Japan	2.4	-1.2	-6.3	4.0	-0.5	2.3
United states	1.9	-0.3	-3.5	3.0	1.5	1.8
Euro area , of which	3.0	0.4	-4.3	1.8	1.6	1.1
Germany	3.4	0.8	-5.1	3.6	2.7	1.3
France	2.2	-0.2	-2.6	1.4	1.7	1.4
Italy	1.5	-1.3	-5.2	1.3	0.6	0.3
Spain	3.6	0.9	-3.7	-0.1	0.8	1.1
United Kingdom	2.7	-0.1	-4.9	1.4	1.1	1.6
Newly Industrialised Asian Economies	5.9	1.8	-0.7	8.4	4.7	4.5
II. Emergin g & developing economies	8.9	6.0	2.8	7.3	6.4	6.1
Developing Asia, of which	11.5	7.7	7.2	9.5	8.2	8.0
China	14.2	9.6	9.2	10.3	9.5	9.0
India	10.0	6.2	6.8	10.1	7.8	7.5
Commonwealth of Independent States, of which	8.9	5.3	-6.4	4.6	4.6	4.4
Russia	8.5	5.2	-7.8	4.0	4.3	4.1
Excluding Russia	9.9	5.5	-3.0	6.0	5.3	5.1
Latin America and the Caribbean	5.8	4.3	-1.7	6.1	4.5	4.0
Brazil	6.1	5.2	-0.6	7.5	3.8	3.6
Mexico	3.2	1.2	-6.2	5.4	3.8	3.6
III. World growth based on market exchange rates	4.0	1.5	-2.3	4.0	3.0	3.2
B. World trade volume (goods and services)						
1.Volume	7.7	3.0	-10.7	12.8	7.5	5.8
2.Imports						
Advanced economies	5.2	0.6	-12.4	11.7	5.9	4.0
Emerging & developing economies	13.8	9.1	-8.0	14.9	11.1	8.1
3.Exports						
Advanced economies	6.8	2.1	-11.9	12.3	6.2	5.2
Emerging & developing economies	10.2	4.7	-7.7	13.6	9.4	7.8

Note: 'P': ProjectedSource: IMF, World Economic Outlook Update, September 2011.

Table IV.2: Growth of World Commodity and Consumer Prices (% change, y-o-y)

Item	2007	2008	2009	2010	2011 P	2012 P
Commodity prices (USD)						
Oil	10.7	36.4	-36.3	27.9	30.6	-3.1
Non-fuel	14.1	7.5	-15.7	26.3	21.2	-4.7
Consumer prices						
Advanced economies	2.2	3.4	0.1	1.6	2.6	1.4
Emerging & developing economies	6.5	9.2	5.2	6.1	7.5	5.9

Note: 'P': Projected
Source: IMF, World Economic Outlook Update, September 2011

The US has again slipped into trouble over the second and the third quarters of 2011. Its expected growth rate in 2011 has been significantly downgraded since April 2011. Political tensions have increased, the housing market has weakened and household savings has increased. A US economic slowdown would add to the woes of the world economy.

WTO Trade Policy Review, India (August 2011)

This report by the WTO is the fifth in the series as required by the agreement establishing the Trade Policy Review Mechanism (Annex 3 of the Marrakesh Agreement Establishing the World Trade Organization). It states: "India uses trade policy actively, sometimes as an instrument to attain its long-term goals, such as promoting overall economic growth or fostering industrialization, development, or self-sufficiency. India aims at providing a stable trade policy environment to attain these goals. In certain circumstances, however, India also makes use of trade policy instruments to attain short-term objectives, such as containing inflation, which may detract somewhat from the stability sought, as this requires constant fine-tuning of policies, rendering the trade regime more complex and creating additional costs."

India's merchandise trade

India's merchandise exports, measured in US dollar terms, had accelerated in 2007-08 with its growth rate touching 28.9 per cent followed by deceleration to a growth rate of 12.2 per cent in 2008-09 (Table IV.3). Exports declined by 2.2 per cent in 2009-10 and have posted a robust growth of 42.3 per cent in 2010-11 and 51.8 per cent in April-September 2011. Exports witnessed high growth in 2010-11 despite a significant y-o-y appreciation of the 36-country trade-based REER by 7.9 per cent and the 6-country trade-based REER by 13 per cent. The rupee has, however, posted a sharp depreciation between 31 March and 14 October 2011, with the 36-country trade-based REER depreciating by 4.1 per cent and the 6-country trade-based REER deprecating by 6.3 per cent.

It may be noted that the growth rate of exports (imports) measured in USD would differ from the corresponding values measured in rupees. The y-o-y appreciation of the Indian rupee in 2010-11 was 4 per cent thus implying that export growth measured in rupee terms was 42.3 per cent less than growth measured in USD terms. The reverse holds true when the rupee depreciates.

The RBI Monthly Bulletin (September 2011) has identified three reasons behind the recent surge in imports: the diversification of exports in terms of composition and destinations; government policy incentives; and the base effect (Box 1).

Imports inclusive of oil imports grew at an average rate of 18.8 per cent in 2008-09 followed by a decline of 3.5 per cent in 2009-10. Thereafter, imports grew by 22.3 per cent in 2010-11 and by 39.7 per cent in April-September 2011. Oil imports in 2010-11 grew by 21.7 per cent compared to a decline of 7 per cent the preceding year. Much of this growth was due to higher oil prices in 2010-11. The average rate of India's crude oil basket increased from USD69.6 per barrel in 2009-10 to USD85.2 per barrel in 2010-11. The world price of crude oil touched USD108.84 on 21 October 2011.

Information on the composition and direction of India's trade is provided in tables IV.4a to IV.7a.

Box IV1: Recent Surge in Exports

Essentially, three factors explain the recent spurt in exports: the diversification of exports in terms of products and destinations; incentives extended to the export sector by the government and the base effect.

1. Diversification of Exports

The robust performance of exports appears to essentially be driven by supportive government policy, which facilitated diversification in terms of products and destinations. Exports during 2010-11, the share of developing economies in India's total exports improved to 42 per cent from 39 per cent in 2009-10, while the share of OECD countries declined to 33 per cent from 36 per cent during the same period. Countries like China and South Africa accounted for about 22 per cent of India's exports to developing countries. In terms of products, the share of engineering and petroleum products increased to 27 per cent and 17 per cent in2010-11 from 22 per cent and 15 per cent, respectively, in 2009-10, while the share of labour-intensive products declined to 26 percent from 28 percent over the same period.

2. GovernmentIncentives

Some schemes such as the Focus Product Scheme, Focus Market Scheme and Duty Entitlement Passbook (DEPB) scheme appear to have played a significant role in the promotion of exports. The salient features of these schemes are:

Focus Product Scheme (FPS): The objective is to incentivise the exports of products with high export intensity/employment potentialto offset infrastructure inefficiencies and other associated costs involved in the marketing of these products.

Focus Market Scheme (FMS) is aimed at offsetting high freight costs and other externalities to select international markets with a view to enhance India's export competitiveness in these countries.

Duty Entitlement Passbook (DEPB) Scheme: This scheme aims at neutralising the incidence of customs duty on the import content of exported goods.

All these three schemes have been in existence for some time: FPS and FMS from 2006, and DEPB from 1997. Therefore, although they are not new, the government had undertaken several measures to improve their coverage in the aftermath of the global financial crisis in August 2010 and further in January 2011 to support export growth as given below:

Products under the FPS were enlarged in August 2010 and February 2011. Under the Market-Linked FPS coverage was expanded to target exports to 15 specified markets. The DEPB scheme was to expire in December 2010, but was extended initially till June 2011 and further to September 2011. Policy was focused on further promotion of the Free Trade Zones. In the Union Budget 2011-12, the government announced various measures, inter alia, to promote the efficiency of exports with the: introduction of a system of self-assessment by importers and exporters of their duty liabilities in customs; simplification of tax refunds on services used for the export of goods along the lines of the duty drawback schemes; permitting of tax-free receipt of services wholly consumed within SEZs along with simplified refunds procedures; and setting up of seven mega-leather clusters and a handicraft mega-cluster

Source: Extracted from "India's Foreign Trade: 2011-12 (April-June)" in RBI Monthly Bulletin September 2011, pp 1457.

Table IV.3: India's Foreign Trade

Period	Exports		Imports						Trade Balance	Net Exports as % of Gross Exports
	Total	Growth (%)	Total	Growth (%)	Oil	Growth (%)	Non-oil	Growth (%)	Total	
	1		4		5		6		7	
Annual										
2007-08	162.9	28.9	251.4	35.4	79.6	39.9	171.8	33.4	-88.5	-54.3
2008-09	182.8	12.2	298.8	18.8	93.7	17.6	205.2	19.4	-116.0	-63.5
2009-10	178.8	-2.2	288.4	-3.5	87.1	-7.0	201.2	-1.9	-109.6	-61.3
2010-11	254.4	42.3	352.6	22.3	106.1	21.7	246.5	22.5	-98.2	-38.6
Monthly										
2011-12										
Apr	23.9	34.7	36.2	20.5	130	37.5	23.2	12.7	-12.3	-51.3
May	27.7	67.8	45.1	69.9	13.1	53.3	31.9	77.7	-17.3	-62.4
Jun	29.2	46.4	36.9	42.5	10.2	30.1	26.7	47.8	-7.7	-26.2
Jul	29.3	81.8	40.4	51.5	11.5	37.0	29.0	58.1	-11.1	-37.8
Aug	24.3	44.3	38.4	38.9	10.3	43.6	28.1	37.3	-14.0	-57.8
Quarterly										
2010-11										
Q1	54.2	41.2	82.4	32.0	25.9	55.3	56.6	23.5	-28.2	-52.0
Q2	51.2	20.4	81.3	23.7	23.5	13.1	57.7	28.7	-30.1	-58.7
Q3	65.8	42.5	84.4	6.7	24.0	-0.8	60.5	10.0	-18.6	-28.2
Q4	83.0	60.9	99.2	22.4	32.0	28.2	66.5	19.7	-16.2	-19.5
2011-12										
Q1	80.8	49.1	118.1	43.3	36.3	40.5	81.8	44.6	-37.2	-46.1
Cumulative period: Apr -Sep*										
2010-11	105.4	30.1	167.2	30.5	49.4	31.7	117.8	29.9	-61.8	-58.6
2011-12	160.0	51.8	233.5	39.7	70.4	42.5	163.1	38.5	-73.5	-45.9

Note: Values in USD million

* From RBI, Macroeconomic and Monetary Developments, October 24, 2011

Source: RBI, Monthly Bulletin, October 2011

GOI, Ministry of Commerce and Industry, Press Release, October 3, 2011

Composition of exports

India's exports grew by 50.7 per cent in April-May 2011 compared with a growth of 38.2 per cent in the corresponding period of 2010 (Table IV.4a). Exports of all the broad categories registered an expansion during this period. The exports of agricultural products grew by 68.1 per cent and ores & minerals by 51 per cent. While there was decline in the exports of iron ore, processed minerals posted an impressive growth. Manufactured goods constituted the most significant export category accounting for more than three-fifths of total exports. Their exports grew by 51.7 per cent compared with 25 per cent in 2010. Export categories with high growth rates (above the overall average) include engineering goods supported by metal manufactures, machinery & equipment and transport equipment; and petroleum products. The export of

gem & jewellery took a major hit and declined by 37.8 per cent in April-May 2011 compared with a growth of 14.6 per cent in 2010. The composition of exports for 2009-10 and 2010-11 is given in Table IV.4b.

Table IV.4a: Share and Growth of India's Export Commodities
(April-May, % USD value)

Item	Shares (%)		Growth (%)	
	April-May			
	2010	2011	2010	2011
Agricultural & allied products	8.5	9.5	18.0	68.1
Ores & minerals	6.2	6.2	106.1	51.0
Iron ore	4.8	1.1	148.2	-64.7
Processed minerals	0.7	2.2	40.0	364.1
Manufactured goods	61.8	62.2	25.0	51.7
Leather & leather manufactures	1.6	1.3	32.2	22.6
Chemicals & related products	9.3	8.4	35.3	35.6
Engineering goods	22.9	33.9	21.5	122.9
Manufactures of metals	3.2	5.0	14.9	133.5
Iron & steel bar/rods	0.4	0.4	103.1	42.6
Machinery & instruments	4.8	5.3	19.6	66.7
Transport equipment	7.9	11.6	8.1	120.0
Textiles (excluding readymade garments)	5.5	4.5	64.4	24.2
Cotton yarn, fabrics, madeups, etc.	2.6	2.2	110.7	27.5
Natural silk yarn, fabrics, madeups	0.1	0.1	-7.3	-8.8
Manmade yarn, fabrics, madeups	1.9	1.6	32.6	28.5
Woolen yarn,fabrics,madeups, etc.	0.0	0.0	8.2	70.0
Manmade staple fibre	0.2	0.2	84.9	56.7
Jute manufactures excluding floor coverings	0.2	0.1	105.5	7.1
Carpets	0.4	0.2	50.3	-15.4
Coir & coir manufactures	0.1	0.1	19.6	27.5
Readymade garments	5.3	4.6	3.4	30.7
Gems & jewellery	12.8	5.3	14.6	-37.6
Handloom products	0.1	0.2	24.0	132.3
Petroleum & crude products	15.7	20.2	78.4	93.9
Other commodities	7.7	1.8	101.0	-65.3
All commodities (USD value)	34,270	51,636	38.2	50.7

Source: Our computations, based on CMIE, India Trades accessed on October 11, 2011.

Table IV.4b: Share and Growth of India's Export Commodities
(% USDvalue)

Item	Shares (%)		Growth (%)	
	2009-10	2010-11	2009-10	2010-11
Agricultural & allied products	10.0	9.8	1.0	39.2
Ores & minerals	4.9	4.2	11.0	23.0
Iron ore	3.4	1.8	26.5	-22.8
Processed minerals	0.7	1.3	-9.5	166.6
Manufactured goods	64.6	65.1	-6.6	42.4
Leather & leather manufactures	1.9	1.5	-5.6	12.6
Chemicals & related products	9.7	8.5	0.4	23.7
Drugs, pharmaceuticals, fine chemicals &cosmetics/toiletries	5.6	4.6	1.9	16.7
Inorganic/organic/agro-chemicals	2.0	1.8	0.2	27.9
Paints/enamels/varnishes	0.3	0.3	-1.3	30.7
Residual chemicals & allied products	0.6	0.6	-4.6	45.6
Engineering goods	21.4	27.3	-18.9	80.5
Manufactures of metals	3.1	3.8	-26.9	71.4
Iron & steel bar/rods	0.4	0.4	-32.7	51.4
Machinery & instruments	5.4	4.7	-12.9	25.2
Transport equipment	5.5	7.3	-12.0	87.8
Textiles (excluding readymade garments)	5.1	4.8	0.6	33.0
Cotton yarn, fabrics, madeups, etc.	2.1	2.2	-10.6	49.1
Natural silk yarn, fabrics, madeups	0.2	0.1	-17.9	16.4
Manmade yarn, fabrics, madeups	2.0	1.7	18.9	16.4
Woolen yarn,fabrics,madeups, etc.	0.1	0.0	-9.8	17.0
Manmade staple fibre	0.2	0.2	39.7	23.0
Jute manufacture excluding floor coverings	0.1	0.2	-35.2	140.6
Carpets	0.4	0.4	-5.4	33.3
Coir & coir manufactures	0.1	0.1	8.1	-5.6
Readymade garments	6.0	4.4	-2.2	4.3
Gems & jewellery	16.3	14.5	3.6	26.2
Handloom products	0.1	0.1	-	38.1
Petroleum & crude products	15.7	16.7	4.3	49.9
Other commodities	4.8	4.2	15.2	21.1
All commodities (USD value)	178345	251957	-2.6	41.3

Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Direction of exports

India's exports to its top 20 destination countries, accounting for about 69 per cent of its total exports, posted 45.4 per cent growth in April-May 2011 (Table IV.5a). There has been growth acceleration in exports to 12 of these 20 countries. A very impressive rates of export (100 per cent and above) have been observed for exports to Singapore, Indonesia, Brazil, South Africa, South Korea, Sri Lanka and Malaysia. Exports to the

EU have accelerated despite simmering economic and financial problems in the Euro area. Details on exports by destination for 2009-10 and 2010-11 are presented in Table IV.5b.

Table IV.5a: Share and Growth of India's Major Export Destinations
(April-May, % USD value)

Country/ Region	Shares (%)		Growth (%)	
	April-May			
	2010	2011	2010	2011
UAE	13.9	10.7	52.5	16.7
USA	11.7	9.5	53.3	22.5
China	6.8	4.7	63.4	3.3
Singapore	5.5	8.5	23.1	133.7
Hong Kong	4.2	1.1	64.6	-61.5
Netherlands	2.5	2.9	-9.1	72.6
UK	2.9	2.6	4.8	38.4
Germany	2.6	2.9	9.9	70.6
Indonesia	1.9	3.1	-18.5	148.0
Belgium	2.0	2.1	38.5	57.0
Saudi Arabia	2.3	1.9	24.0	23.2
Japan	3.2	1.9	118.9	-10.4
France	1.7	1.4	17.3	22.2
Italy	1.8	1.9	25.9	66.4
Brazil	1.7	4.4	214.6	282.8
South Africa	1.2	1.8	118.5	120.8
Korea Republic (South)	1.4	2.1	54.3	130.2
Sri Lanka	1.2	2.3	100.9	200.8
Malaysia	1.1	1.7	-26.7	126.8
Bangladesh	1.4	0.9	63.4	-6.9
Share of top 20	70.9	68.5	40.0	45.4
Others	29.1	31.5	34.0	63.6
Total exports (USD Value)	34270	51636	38.2	50.7
Country groupings				
World	100.0	100.0	38.2	50.7
Africa	7.3	9.7	30.0	102.1
America	16.8	17.5	67.5	57.6
Asia (excl. Middle East)	33.2	31.6	44.7	43.4
Middle East	20.5	19.3	41.0	42.1
Europe	19.7	20.9	19.8	60.1
European Union	15.8	16.7	12.6	59.8
Other European countries	3.9	4.2	61.0	61.1
Oceania	0.7	0.7	31.1	39.3

Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Table IV.5b: Share and Growth of India's Major Export Destinations
(% USDvalue)

Country/ Region	Shares (%)		Growth (%)	
	2009-10	2010-11	2009-10	2010-11
UAE	13.4	13.5	-0.4	42.4
USA	10.9	10.2	-7.2	31.6
China	6.5	7.7	24.2	67.2
Singapore	4.3	4.2	-7.8	40.1
Hong Kong	4.4	4.1	18.9	31.7
Netherlands	3.6	3.1	1.6	21.4
UK	3.5	2.9	-5.9	16.0
Germany	3.0	2.7	-15.0	25.3
Indonesia	1.7	2.5	22.2	108.1
Belgium	2.1	2.5	-15.3	68.3
Saudi Arabia	2.2	2.1	-21.7	33.7
Japan	2.0	2.1	20.3	44.0
France	2.1	2.0	26.5	33.5
Italy	1.9	1.8	-10.4	34.7
Brazil	1.3	1.8	-7.3	85.1
South Africa	1.2	1.7	5.0	103.0
Korea Republic (South)	1.9	1.6	-14.9	21.2
Sri Lanka	1.2	1.6	-8.5	85.9
Malaysia	1.6	1.6	-17.1	40.6
Bangladesh	1.4	1.4	-1.6	46.8
Share of top 20	70.2	71.0	-1.3	42.8
Others	29.8	29.0	-5.4	37.7
Total exports (USD Value)	178345	251957	-2.6	41.3
Country groupings				
World	100.0	100.0	-2.6	41.3
Africa	7.6	8.4	-8.0	56.3
America	15.1	15.0	-5.7	40.6
Asia (excl. Middle East)	31.2	32.9	4.7	49.0
Middle East	20.3	20.6	-3.8	43.4
Europe	22.6	21.2	-6.2	32.5
European Union	18.8	17.5	-8.3	31.3
Other European countries	3.8	3.7	6.0	38.3
Oceania	1.0	1.0	-3.0	50.1

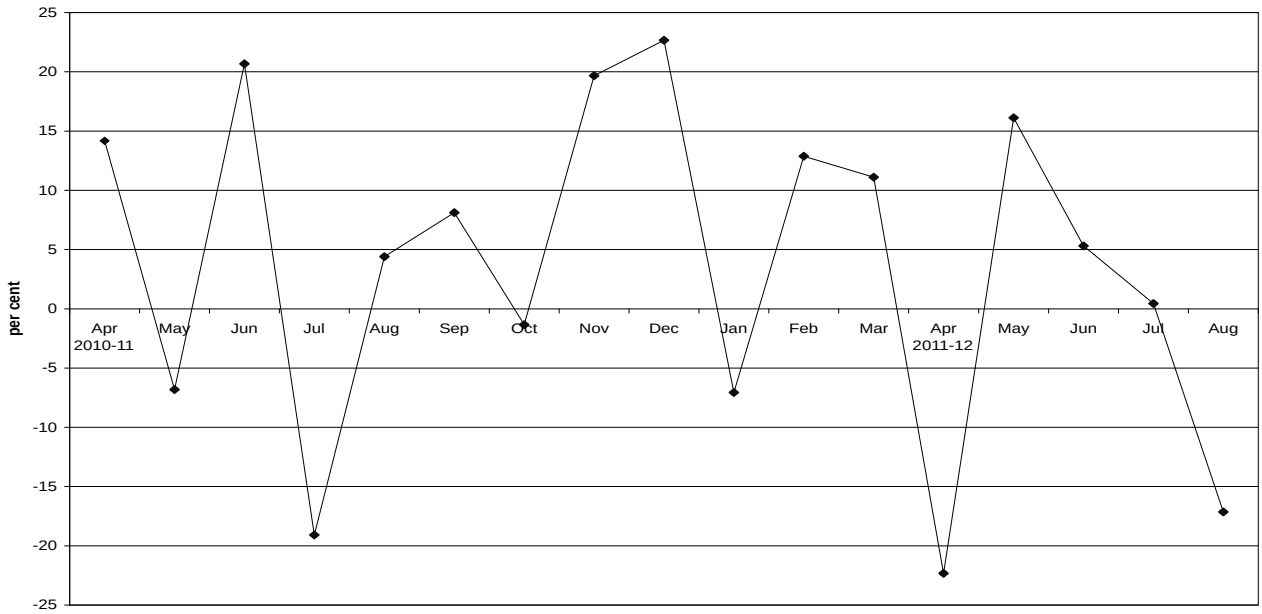
Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Monthly Export performance

A significant push for exports occurred in May and July (Figure IV.1). Month-on-month (M-o-M) growth rates of exports have had a varied pattern during April-August of 2011 (Figure IV.2). There was a steep

decline of 22.3 per cent in April over March 2011, followed by a sharp acceleration in May 2011 when exports grew by 16.1 per cent over April 2011. A steep deceleration was observed during June to August with exports in August declining by 17.1 per cent from their value in July 2011.

Figure IV.1: Growth in India's Total Exports (%YoY)



Composition of imports

Overall imports increased by 43.7 per cent during April-May 2011 which is close to the corresponding value of 43.6 per cent posted in the corresponding period of 2010 (Table IV.6a). Exuberance in capital goods imports reflects strong domestic economic activity and new investment projects. Imports of capital goods grew by 31.8 per cent in April-May 2011 compared with 8.5 per cent 2010. All the major categories of capital goods imports, except project goods, have shown higher growth. Given the high shares of non-electrical machinery and electronic goods in the imports of capital goods it may be important to note that these sub-sectors have posted impressive growth rates. Import composition details for 2009-10 and 2010-11 are provided in Table IV.6b.

Sources of imports

While the growth rate of total imports during April-May 2011 is not much different from the corresponding value in 2010, there has been consolidation of imports from its top 20 trade-sourcing countries (Table IV.7a). The growth rate of imports from the top 20 trade-sourcing countries touched 51.3 per cent in April-May 2011 compared with 41 per cent in 2010. There has been a growth deceleration of imports from UAE, Saudi Arabia, Nigeria and Kuwait with significant acceleration of imports from Iraq. This implies that a large chunk of crude oil imports has been sourced from Iraq, replacing much of the imports from India's other oil-sourcing countries. India's major import sources for 2009-10 and 2010-11 are shown in Table IV.7b.

Table IV.6a: Share and Growth of India's Imports of Commodities
(April-May, % USDvalue)

Item	Shares (%)		Growth (%)	
	April-May			
	2010	2011	2010	2011
Petroleum crude & products	26.5	31.5	79.4	45.0
Food & related items	3.0	2.4	19.3	13.7
Wheat	0.0	0.0	-	-
Cereals & cereal preparations	0.0	0.0	182.9	-39.5
Pulses	0.6	0.3	-39.3	38.1
Sugar	0.1	0.4	443.3	-99.8
Vegetable oils (edible)	2.0	1.4	11.3	40.6
Textiles (incl. RMG)	0.9	0.8	45.6	9.3
Chemicals and related products	9.5	7.0	34.2	1.2
Medicinal & pharmaceutical products	0.9	0.6	8.6	23.4
Fertiliser	3.1	1.2	-1.7	-26.4
Fertiliser manufactured	2.8	1.0	-2.7	-38.6
Crude fertiliser	0.3	0.2	-11.8	58.4
Sulphur & unroasted iron pyrites	0.1	0.1	92.6	28.9
Capital goods	15.9	13.1	8.5	31.8
Machine tools	0.7	0.5	11.5	66.3
Non-electrical machinery	7.5	5.9	11.3	39.8
Electrical machinery	1.0	0.9	10.1	50.7
Electronic goods, incl. computer software in physical form	8.5	6.6	-3.6	55.6
Project goods	2.1	2.0	54.3	-1.3
Professional inst, optical goods, etc.	1.5	1.1	-1.2	30.0
Transport equipment	3.0	2.6	38.4	61.3
Natural rubber, incl. synthetic & reclaimed rubber	0.4	0.4	134.4	32.9
Pulp & waste paper	0.3	0.4	76.5	2.1
Others				
Artificial resins, plastic materials, etc.	1.8	2.0	70.6	-8.9
Gold & silver	10.6	12.0	13.1	177.7
Coal, coke & briquettes	4.0	3.0	85.5	21.2
Metaliferrous ores & metal scrap	2.7	3.1	89.2	22.5
Manufacture of metals	1.0	0.7	30.9	35.6
Paper, paperboard & mgfd,. incl. newsprint	0.6	0.7	54.2	36.1
Non-ferrous metals	1.1	1.0	66.3	28.9
Non-metallic mineral manufactures excluding pearls	0.4	0.3	34.6	40.8
Pearls, precious & semiprecious stones	5.6	7.7	107.7	46.3
All commodities (USD Value)	56,529	81,227	43.6	43.7

Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Table IV.6b: Share and Growth of India's Imports of Commodities
(% USD value)

Item	Shares (%)		Growth (%)	
	2009-10	2010-11	2009-10	2010-11
Petroleum crude & products	30.2	30.1	-5.1	22.0
Food & related items	3.5	2.8	72.9	-0.3
Wheat	0.0	0.0	-	6.1
Cereals & cereal preparations	0.0	0.0	18.8	12.2
Pulses	0.7	0.4	52.2	-26.0
Sugar	0.4	0.2	890.9	-51.4
Vegetable oils (edible)	1.9	1.8	62.0	15.7
Textiles (incl. RMG)	0.9	0.9	-0.1	20.6
Chemicals and related products	8.2	7.8	-19.7	16.8
Medicinal & pharmaceutical products	0.7	0.7	11.2	13.1
Fertiliser	2.4	2.0	-49.9	2.1
Fertiliser manufactured	2.1	1.7	-49.7	0.8
Crude fertiliser	0.2	0.2	-34.1	1.0
Sulphur & unroasted iron pyrites	0.1	0.1	-77.9	59.5
Capital goods	15.5	14.2	-8.2	12.2
Machine tools	0.6	0.6	-26.8	34.8
Non-electrical machinery	6.8	6.6	-9.0	18.3
Electrical machinery	1.1	1.0	-15.6	13.7
Electronic goods incl. computer software in physical form	7.9	6.3	-8.1	-1.8
Project goods	1.6	1.7	46.5	29.9
Professional inst, optical goods, etc.	1.3	1.1	-18.3	3.5
Transport equipment	4.1	3.1	-11.7	-6.1
Natural rubber incl. synthetic & reclaimed rubber	0.4	0.5	17.8	73.5
Pulp & waste paper	0.3	0.3	9.2	29.1
Others				
Artificial resins, plastic materials, etc.	1.7	1.9	26.6	37.4
Gold & silver	10.3	10.1	29.8	20.2
Coal, coke & briquettes	3.1	2.7	-10.4	7.7
Metaliferrous ores & metal scrap	2.7	2.7	-2.9	22.4
Manufactures of metals	0.8	0.9	-26.3	34.3
Paper, paperboard & mgfd.,incl. newsprint	0.7	0.7	-12.1	29.0
Non-ferrous metals	1.0	1.1	-47.3	33.9
Non-metallic mineral manufactures, excluding pearls	0.4	0.4	-7.8	36.8
Pearls, precious & semiprecious stones	5.6	8.9	-2.6	93.3
All commodities (USDvalue)	287,647	352,274	-3.9	22.5

Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Table IV.7a: Share and Growth of India's Imports from Major Sources
(April-May, % USD value)

Item	Shares (%)		Growth (%)	
	April-May			
	2010	2011	2010	2011
China	11.4	10.6	40.8	34.0
UAE	8.9	8.0	126.4	30.4
Switzerland	4.0	9.1	19.6	224.2
Saudi Arabia	5.6	6.0	69.4	54.3
USA	5.2	4.3	23.4	17.4
Nigeria	3.9	1.8	360.2	-33.4
Germany	3.1	3.0	24.5	40.0
Iran	3.2	2.5	19.6	12.7
Australia	3.8	2.6	4.9	-3.5
Korea Republic (South)	2.8	2.3	41.3	17.0
Kuwait	2.5	1.7	17.3	-2.1
Indonesia	2.7	2.9	7.2	54.8
Iraq	1.6	7.0	-16.5	529.0
Hong Kong	2.1	2.8	53.3	93.5
Belgium	2.7	2.3	64.1	25.7
Japan	2.2	2.4	22.0	53.2
Singapore	2.3	2.2	-1.7	41.6
Qatar	2.3	2.5	118.0	53.6
South Africa	2.0	2.2	9.3	53.5
Malaysia	1.6	1.6	25.1	46.5
Share of top 20	73.9	77.8	41.0	51.3
Others	26.1	22.2	51.4	22.2
Total imports (USD Value)	56,529	81,227	43.6	43.7
Country groupings				
World	100.0	100.0	43.6	43.7
Africa	9.7	7.3	90.3	8.0
America	11.8	8.2	92.2	0.1
Asia (excl. Middle East)	28.9	28.6	31.2	42.1
Middle East	27.0	30.0	63.4	59.6
Europe	18.3	22.9	18.5	80.2
European Union	10.9	11.5	20.4	50.8
Other European countries	7.4	11.5	15.9	123.6
Oceania	4.1	2.7	7.9	-5.7

Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Table IV.7b: Share and Growth of India's Imports from Major Sources
(% USD value)

Item	Shares (%)		Growth (%)	
	2009-10	2010-11	2009-10	2010-11
China	10.7	11.4	-4.2	30.5
UAE	6.7	8.0	-16.1	46.0
Switzerland	5.1	6.2	27.2	48.5
Saudi Arabia	5.9	5.7	-12.9	18.2
USA	5.9	5.3	-8.0	9.0
Nigeria	2.5	3.5	-16.7	71.0
Germany	3.6	3.2	-13.8	10.9
Iran	4.0	3.0	-5.2	-7.1
Australia	4.3	2.9	12.5	-17.2
Korea Republic (South)	3.0	2.9	-1.0	17.5
Kuwait	2.9	2.8	-12.6	19.5
Indonesia	3.0	2.7	29.2	9.6
Iraq	2.4	2.6	-6.0	28.1
Hong Kong	1.6	2.4	-27.3	80.7
Belgium	2.1	2.4	5.8	38.4
Japan	2.3	2.3	-13.8	21.1
Singapore	2.2	1.9	-14.2	3.6
Qatar	1.6	1.9	34.1	43.7
South Africa	2.0	1.8	4.7	14.2
Malaysia	1.8	1.8	-27.2	21.8
Share of top 20	73.7	74.7	-5.4	24.0
Others	26.3	25.3	0.6	18.1
Total imports (USD Value)	287,647	352,274	-3.9	22.5
Country groupings				
World	100.0	100.0	-3.9	22.5
Africa	8.9	9.1	5.0	26.3
America	10.2	9.8	-4.1	16.8
Asia (excl. Middle East)	28.3	29.1	-5.8	26.1
Middle East	26.5	26.7	-7.5	23.3
Europe	21.3	20.1	-2.0	16.0
European Union	12.7	11.4	-8.8	9.9
Other European countries	8.6	8.8	10.1	25.2
Oceania	4.5	3.2	11.2	-14.3

Source: Our computations based on CMIE, India Trades accessed on October 11, 2011.

Balance of Payments

The RBI statements for India's balance of payments for 2009-10, 2010-11 and Q1:2011-12 are provided in tables IV.8 – IV.10. Merchandise exports in Q1:2011-12 touched USD80.6 billion against USD55.3 billion in Q1:2010-11 thus registering a growth of 45.7 per cent. Imports have grown by 33.2 per cent to touch USD116.1 billion.

The merchandise trade deficit has gone up from USD31.9 billion in Q1:2010-11 to USD35.5 billion in Q1:2011-12, i.e., an increase of 11.5 per cent. The surplus on invisibles has gone up from USD19.8 billion to USD21.3 billion thus posting an increase of 8 per cent. This growth has been powered by the surplus on software trade which has posted a growth of 13 per cent. Net private transfers have grown only by 4.4. Given the higher growth in the trade deficit compared with the slower growth in the surplus on invisibles, the current account deficit has increased by 17.4 per cent, from USD12.1 billion in Q1:2010-11 to USD14.2 billion Q1:2011-12.

Differences have been observed between the merchandise trade values reported by DGCI&S and those from the RBI. RBI's figures for exports and imports are higher than those reported by the DGCI&S during each of the last five years, i.e., from 2006-07 to 2010-11 except for exports in 2010-11. In these five years, the RBI has over reported the total value of exports by 1.3 per cent and imports by 4.5 per cent. Such statistical issues need a closer review.

Gross FDI inflows posted an impressive increase of more than 105 per cent in Q1:2011-12 and touched USD17.9 billion, againstUSD8.7 billion in Q1:2010-11. Outward FDI increased by 85 per cent and touched USD10.7 billion. Net FDI inflows increased by 145 per cent, from USD2.9 billion to USD7.2 billion, while gross FII inflows increased by 10.5 per cent, and the net inflows declined by 45 per cent.

There was a surplus of USD20.9 billion on the capital account. Taking errors and omissions of (-) USD1.3 billion into account, the surplus on the capital account touched USD19.6 billion. Given the current account deficit (CAD) of USD14.2 billion, the overall balance of payments turned out to be USD5.4 billion which translated into an increase in foreign exchange reserves of an equivalent amount.

A Prognosis

The global economy is showing signs of slowing down once again. The crisis in the Euro area has turned out to be too difficult to control quickly. The US has again slipped into lower growth in the second and the third quarters of 2011, and its expected growth rate in 2011 has been significantly downgraded since April 2011. The US economic slowdown would add to the woes of the world economy. The global volume of trade in goods and services is expected to slow down in 2011 and 2012. It would thus be important for India to maintain its export competitiveness through efficient domestic and foreign trade initiatives. On the domestic front India needs to move briskly on its reforms on the manufacturing front. The India Cabinet has recently approved the National Manufacturing Policy, but measures should be taken to enable lagging manufacturing sectors to improve, in order to sharpen India's export competitiveness.

Table IV.8: Overall Balance of Payment in India (Million USD), Credit

Item	2009-10#	2010-11*	Q1: 2010-11#	Q2: 2010-11#	Q3: 2010-11#	Q4: 2010-11*	Q1: 2011-12*
Current Account							
I. Merchandise	182,235	250,468	55,301	52,029	65,898	77,240	80,584
II. Invisibles	163,404	197,583	43,250	46,899	55,075	52,362	47,598
(a) Services	95,759	131,972	26,640	31,272	38,556	35,506	30,955
(i) Miscellaneous	70,680	99,937	20,044	24,049	29,757	26,087	22,437
of which							
Software Services	49,705	59,001	13,114	13,191	15,684	17,012	14,504
Business Services	11,368	24,049	4,819	5,942	7,085	6,203	5,430
(b) Transfers	54,623	56,509	13,754	13,654	14,422	14,679	14,464
Total Current Account (I+II)	345,639	448,051	98,551	98,928	120,973	129,601	128,182
Capital Account							
(i) Foreign Direct Investment	38,500	32,944	8,724	8,533	8,788	6,899	17,927
(ii) Portfolio Investment	160,169	253,952	44,066	59,257	101,795	48,835	48,701
(iii) Commercial Borrowings *(including short term credit)*	68,218	98,821	20,255	25,373	24,663	28,530	30,434
Total Capital Account	345,674	496,035	94,478	112,124	173,711	115,723	127,305
Errors & Omissions	–	–		–	586		
Overall Balance	691,313	944,086	193,029	211,052	295,270	245,324	255,487
Monetary Movements (i+ii)	–	–	0	–	–	0	0
i) I.M.F.	–	–	0	–	–	0	0
ii) Foreign Exchange Reserves (Increase - / Decrease +)	–	–	0	–	–	0	0

#: provisionally revised, *: provisional
Source: RBI, Monthly Bulletin, September 2011.
RBI, Press Release, September 30, 2011

Table IV. 9: Overall Balance of Payment in India (Million USD), Debit

Item	2009-10#	2010-11*	Q1: 2010-11#	Q2: 2010-11#	Q3: 2010-11#	Q4: 2010-11*	Q1: 2011-12*
Current Account							
I. Merchandise	300,609	380,935	87,160	89,313	97,362	107,100	116,121
II. Invisibles	83,413	111,397	23,493	26,413	33,588	27,904	26,266
(a) Services	60,033	84,308	17,052	19,598	26,662	20,996	18,887
(i) Miscellaneous	36,945	56,976	11,130	12,711	19,190	13,945	10,813
of which							
Software Services	1,469	2,195	575	585	709	326	309
Business Services	18,049	27,871	5,916	6,988	8,014	6,953	6,384
(b) Transfers	2,318	3,124	727	677	844	877	858
Total Current Account (I+II)	384,022	492,332	110,653	115,726	130,950	135,004	142,387
Capital Account							
(i) Foreign Direct Investment	19,729	25,802	5,791	5,530	8,159	6,323	10,739
(ii) Portfolio Investment	127,773	223,660	39,461	40,065	95,497	48,637	46,159
(iii) Commercial Borrowings *(including short term credit)*	57,852	75,903	13,710	19,311	19,476	23,408	24,432
Total Capital Account	292,277	436,288	77,715	90,759	160,331	107,486	106,365
Errors & Omissions	1,573	2,416	920	1,278	–	803	1,292
Overall Balance	677,872	931,036	189,288	207,763	291,281	243,293	250,044
Monetary Movements (i+ii)	13,441	13,050	3,741	3,289	3,989	2,031	5,442
i) I.M.F.	–	–	0	–	–	0	0
ii) Foreign Exchange Reserves (Increase - / Decrease +)	13,441	13,050	3,741	3,289	3,989	2,031	5,442

#: provisionally revised, *: provisional
Source: RBI, Monthly Bulletin, September 2011.
RBI, Press Release, September 30, 2011

Table IV.10: Overall Balance of Payment in India (Million USD), Net

Item	2009-10#	2010-11*	Q1: 2010-11#	Q2: 2010-11#	Q3: 2010-11#	Q4: 2010-11*	Q1: 2011-12*
Current Account							
I. Merchandise	-118,374	-130,467	-31,859	-37,284	-31,464	-29,860	-35,537
II. Invisibles	79,991	86,186	19,757	20,486	21,487	24,458	21,332
(a) Services	35,726	47,664	9,588	11,674	11,894	14,510	12,068
(i) Miscellaneous	33,735	42,961	8,913	11,338	10,567	12,142	11,624
of which							
Software Services	48,236	56,806	12,539	12,606	14,975	16,686	14,195
Business Services	-6,681	-3,822	-1,097	-1,046	-929	-750	-955
(b) Transfers	52,305	53,385	13,027	12,977	13,578	13,802	13,607
Total Current Account (I+II)	-38,383	-44,281	-12,102	-16,798	-9,977	-5,402	-14,205
Capital Account							
(i) Foreign Direct Investment	18,771	7,142	2,933	3,003	629	576	7,188
(ii) Portfolio Investment	32,396	30,292	4,605	19,192	6,298	198	2,541
(iii) Commercial Borrowings *(including short term credit)*	10,366	22,918	6,545	6,062	5,187	5,122	6,001
Total Capital Account	53,397	59,747	16,763	21,365	13,380	8,236	20,939
Errors & Omissions	-1,573	-2,416	-920	-1,278	586	-803	-1,292
Overall Balance	13,441	13,050	3,741	3,289	3,989	2,031	5,442
Monetary Movements (i+ii)	-13,441	-13,050	-3,741	-3,289	-3,989	-2,031	-5,442
i) I.M.F.	–	–	0	–	–	0	0
ii) Foreign Exchange Reserves (Increase - / Decrease +)	-13,441	-13,050	-3,741	-3,289	-3,989	-2,031	-5,442

#: provisionally revised, *: provisional
Source: RBI, Monthly Bulletin, September 2011.
RBI, Press Release, September 30, 2011

V. Money and Capital Markets

By Shashanka Bhide[7]

Global financial markets remain turbulent

Recovery from the financial crisis of 2008 in the advanced economies has been weak. In the US, the unemployment rate has remained high- over 9 per cent - and the rate of increase in GDP in constant prices is below 2 per cent on an annualised basis so far in 2011. In the Euro zone area GDP growth has slowed in 2011 compared to 2010. The risk of a double-dip recession is said to be significant, with GDP growth in the US in the second quarter turning into a negative figure.

Concern has grown in the US on how fiscal balances would be brought back to normalcy even over the medium term of the next 3-5 years. After intense debates and bargaining, the US government adopted measures to overcome the likelihood of a default on payments by raising the debt ceiling. However, not convinced by the fiscal strategies, Standard & Poor downgraded the US' long-term sovereign borrowings to AA+ from AAA on August 5, 2011. What followed was a major decline in stock prices in all the major financial markets.

In the Euro zone, the fiscal position has become unsustainable in Greece. Other countries like Spain and Portugal are also facing significant difficulties. The risks of default and impact on financial markets have forced stronger economies to come up with measures to prevent the weak economies from defaulting.

These risks have led to volatility and a decline in financial markets around the world through 2011.

For policy makers in developing economies, including India, the challenges have been two fold. The first is to maintain stability in financial markets even as global markets remain weak and volatile. This is essentially to retain the capital inflows necessary to pay for growing imports as international oil prices have remained high. The second objective is to moderate inflationary pressures while not sacrificing the pace of economic growth driven by domestic demand. To a great extent monetary policy measures have been pursued to meet the objective of moderating inflation pressures and maintaining stability of the financial system. Fiscal policies have focused on protecting the growth momentum. The policies have not succeeded fully in meeting the dual challenges of bringing down the inflation rate while maintaining a growth momentum.

The annual rate of inflation measured in terms of the WPI has remained above 9 per cent every month (except for two) from February 2010 till September 2011. The year-on-year (y-o-y) growth rate of the IIP (General) for April-August 2011 is below 6 per cent. Without the protective fiscal policy, growth along with the inflation rate may have been lower.

Monetary management in the face of persistent inflation

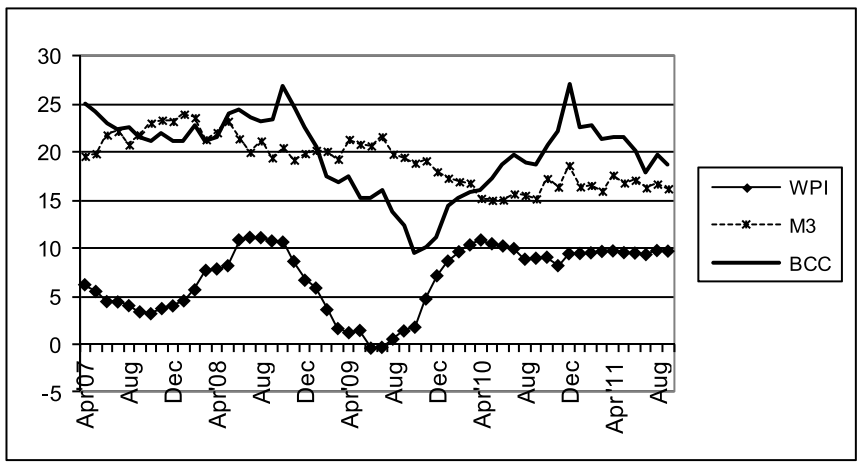
The WPI-based average headline inflation rate was 9.6 per cent in 2010-11 compared to 3.8 per cent the previous year. During the period April-September, the first half of the fiscal year, the inflation rate was 9.6

[7]Senior Research Counsellor, NCAER.

per cent in 2011 compared to a higher 9.9 per cent in 2010. There has been a slight decline in the rate but by less than a 1 percentage point.

There has not been significant compression of the money supply to bring down the inflation rate. As Figure V.1 illustrates, the annualised growth rate of M3 has remained nearly stable during the period from April 2010 to September 2010 just as the inflation rate has also remained steady and persistent.

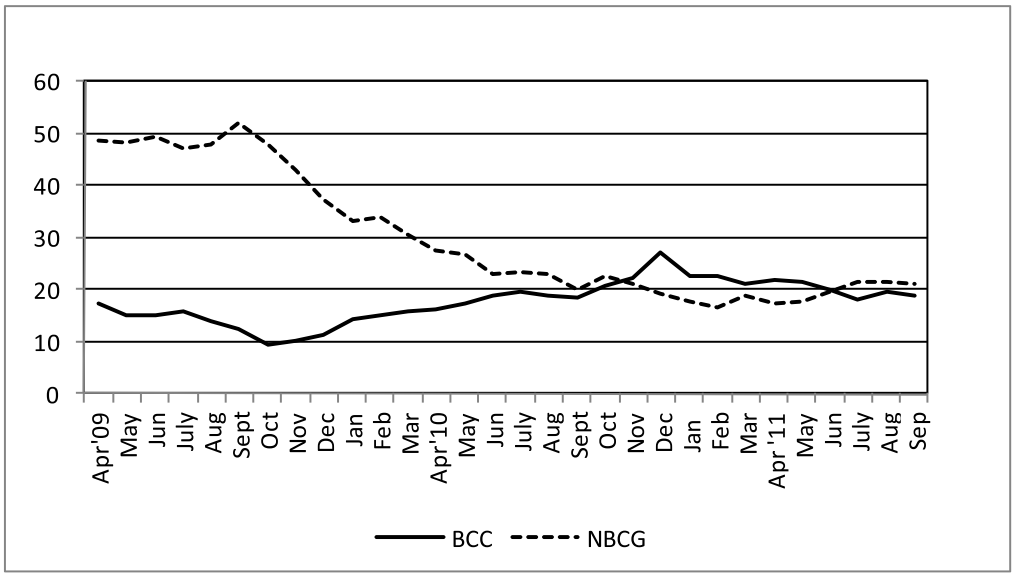
Figure V.1: Money supply and inflation trends: %YoY



While the rate of increase in M3 declined from April 2008 to April 2010, it remained steady thereafter. Between April 2008 and August 2009, the inflation rate dropped sharply, beginning to rise from August 2009. The drop in the M3 growth rate when the inflation rate was declining was also a period when bank credit to the commercial sector (BCC) was decelerating. In other words, the drop in the inflation rate led to a lower demand for credit,so lower growth of credit was also a result of the declining pace of economic growth.

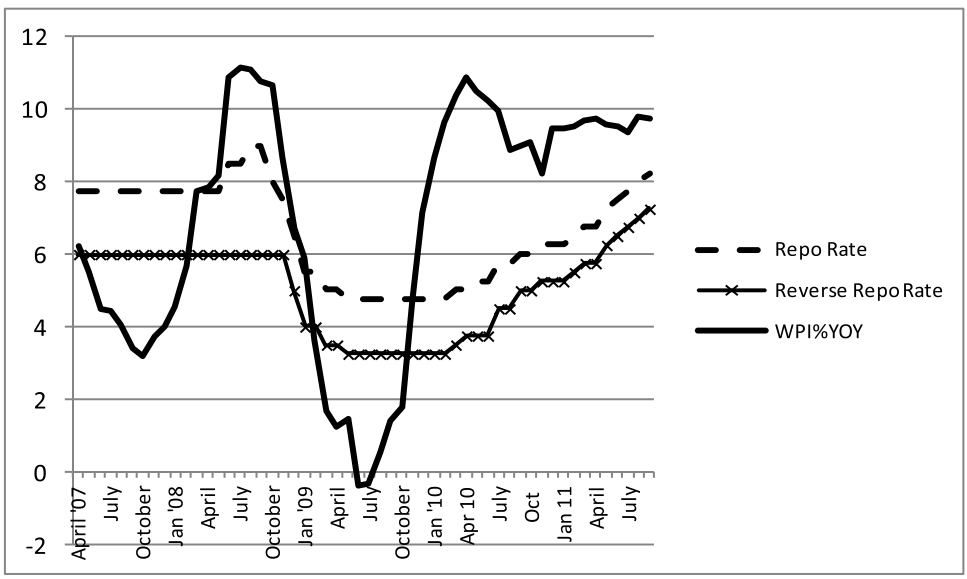
The more recent phase of high inflation has accompanied a rise in the pace of credit growth. As we see in Figure V.2, the rate of growth of credit to the central government (NBCG) has also remained stable after October 2010. Is the higher pace of bank credit to commercial credit essentially to finance the increase in the working capital requirements of firms? The slower pace of economic growth would suggest so.

Figure V.2 : Bank Credit to the Commercial Sector (BCC) and Net Bank Credit to the Central Government (%, Y-O-Y)



Commercial bank credit has come at a higher cost. Monetary policy has relied on the interest rate as the instrument to bring down inflation. The Repo rate- the interest rate at which banks borrow from the RBI has been raised steadily since April 2010 (Figure V.3) in what has been termed 'baby steps'. The contrast between the period June 2008 to September 2008 when the Repo rate rose by 1.25 percentage points and between September 2010 to April 2011 when Repo rate increased by 0.75 percentage points is striking. In the first period the inflation rate was above 10 per cent and in the second period the inflation rate was 9-10 per cent. The RBI increased the Repo rate by 1.5 percentage points quickly in 2011-12 between April 2011 and September 2011. The expected decline in the inflation rate on the back of a good agricultural harvest in 2010-11 did not materialise and there was further tightening of the interest rate.

Figure V.3 : Policy rates and inflation: %



Supply-side pressures have remained intense as the prices of primary articles and fuels have kept rising. However, the transmission of these pressures into prices of manufactured products has led to greater policy stress on bringing down the inflation rate. There is a clear signal in the pattern of price rise that there are structural constraints on the supply side that need to be addressed to bring back the moderate inflation rate regime. However, these constraints may not be easily overcome and a temporary slowdown in growth may be necessary to achieve a lower rate of inflation. Without the measures to address structural constraints, slower growth may see an extended run.

Monetary aggregates

The first two quarters of 2011-12 saw slower growth of industrial output and a high rate of inflation. Monetary management required careful measures to allow adequate supply of money but yet not high enough to stoke further inflation. The need for careful use of money was underlined by the higher interest rate. Although interest rates in terms of the 91-day bill rate remained close to zero or negative at the time policies were sustaining economic growth recovery in 2009, they have continued to remain negative since then. The slow growth or declining level of demand deposits in recent months reflects the declining value of cash, as inflation rate is high. Table V.1 provides the parameters of monetary management for the recent period.

Table V.1 : Monetary aggregates: pattern of changes

Item	Stock End Sep 2011	% Change over Previous Year		% Change over End-March of Respective Year	
	'000 crore	March '10	March '11	Sept '10	Sept '11
Reserve money (M0)	1,402.1	17.0	19.1	21.7	19.4
Narrow money (M1)	1,581.5	18.2	9.8	15.9	4.1
Broad money (M3)	6,858.8	16.8	16.0	15.2	16.3
Demand deposits	640.3	21.5	-0.1	12.2	-7.7
Time deposits	5,277.3	16.4	18.2	15.0	20.5
NRBICG	406.8	243.6	87.4	482.7	96.7
NBCG	2,137.8	30.7	18.8	20.1	21.1
BCC	4,389.7	15.8	21.3	18.7	18.8
NFEA Banking Sector	1,549.1	-5.2	3.7	-4.6	19.2
NFEA RBI	1,491.1	-3.8	7.8	-1.0	14.7
Net domestic assets of RBI	-89.0	-73.9	-163.4	-64.0	-29.1
Ratios	Level	Change in percentage points			
M3/M0	4.89	-0.01	-0.13	-0.28	-0.13
M1/M0	1.13	0.01	-0.10	-0.06	-0.17
Credit/deposit	0.75	-0.03	0.03	-0.01	0.02
Non-food credit/ deposit	0.73	-0.02	0.03	-0.01	0.02

Source: RBI database

Reserve money (RM) has recorded a pace of increase in the first half of the current year similar to the rate in the same period in 2010-11. Compared to the end of March 2011, forex currency reserves remain higher by about USD6 billion in mid-September 2011, although they have declined marginally in the month of September. The growth of RM has been essentially driven by the rise in forex reserves.

On a y-o-y basis, broad money (M3) expanded at the end of September 2011 by 16 per cent compared to 16.8 per cent in the same period the previous year.

The credit-to-deposits ratio of scheduled commercial banks increased marginally in the first half of the current financial year compared to the same period the previous year. Bank credit to the commercial sector (BCC) increased at a significantly faster rate of 21.3 per cent in 2010-11 against 15.8 per cent the previous year. The rate of increase in the first half of the year is about the same in 2010-11 and 2011-12. In other words, the flow of credit to the commercial sector in these two years has not been affected by the tight money policy.

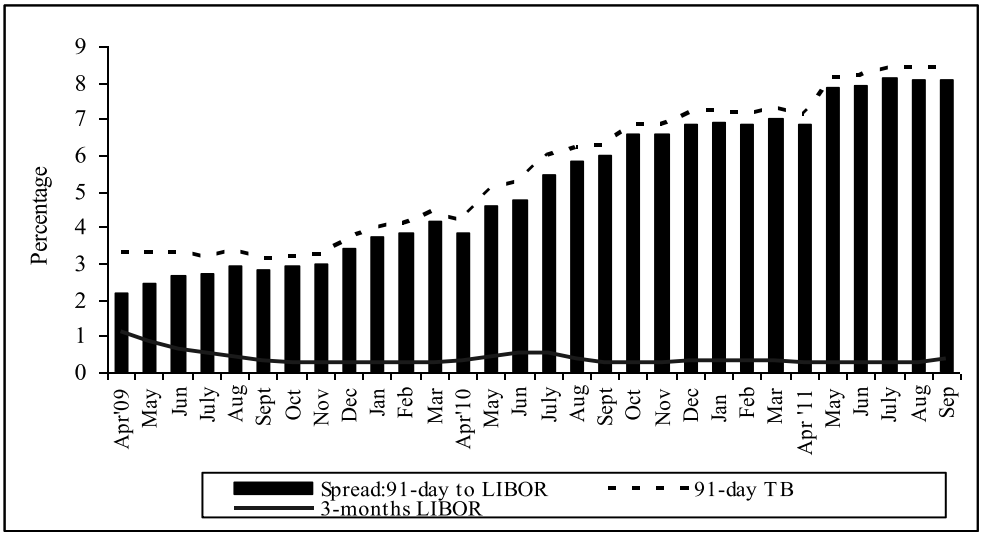
Net bank credit to the central government (NBCG) increased at a slower pace in 2010-11 compared to the previous year. Banks switched to BCC from NBCG for new business. However, in the first half of the current year, both NBCG and BCC have expanded at the same pace as they did in the first half of 2010-11. This may reflect the need for higher working capital expenses due to the high rate of inflation rather than an acceleration in economic activity.

The ratio of non-food credit to deposits of scheduled commercial banks has increased in the first half of 2011-12 against a decline in the same period the previous year. Although there was a drop in demand deposits, the improvement in the credit-deposit ratio is due to an expansion in credit. The money multiplier (M3/M0) has shown a smaller decline in the first half of 2011-12 compared to the same period the previous year.

Market integration

Volatile global financial markets have meant that there would be greater overall risk aversion on the part of investors. In this sense, even as the growth prospects in developing countries like India remain better than elsewhere, the inflow of capital, especially portfolio investment, is expected to be moderate. Equity investments were lower in 2010-11 by USD7 billion compared to 2009-10, but they have accelerated in April-August 2011. FII investment remained about the same at USD 29 billion across the two years, however, net FII inflows in April-August 2011 were small at USD2.2 billion compared to USD11.8 billion in the same period the previous year. The wedge between the 91-day T-bill rate and the 3-month LIBOR on US dollar deposits in the last four months has been at its highest level since April 2009 (Figure V.4). The cost of borrowing from abroad, therefore, is now relatively lower than it was in the last year while the risk perceptions are the same now as in the last year. The expanding wedge has been on account of the increasing domestic interest rate.

Fig V.4: Interest Rate Structure: 91-day Treasury Bill Rates, the 3-month LIBOR Rate and the Spread Between

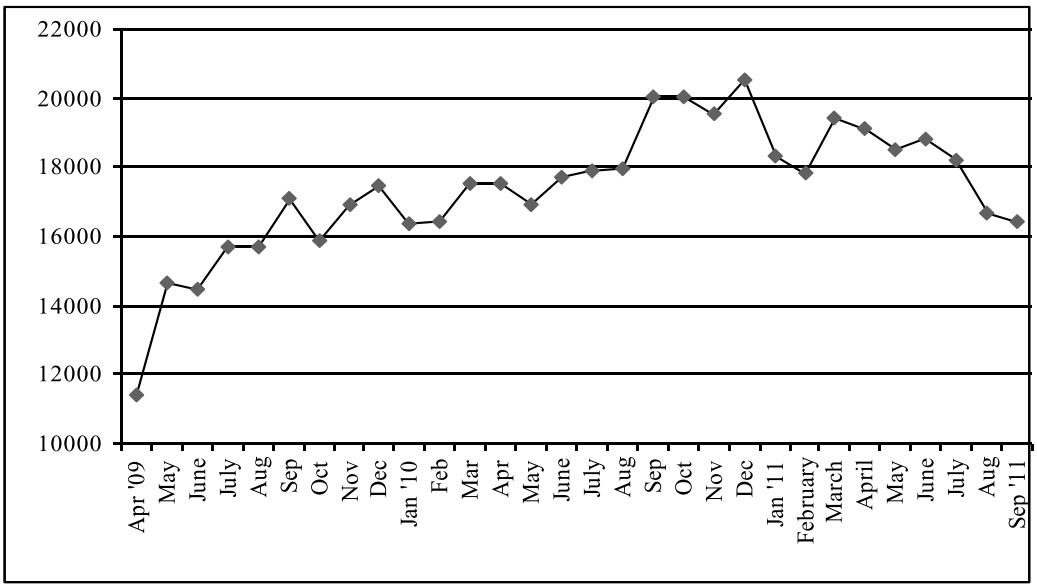


The exchange rate of the rupee remained stable during the four-month period, October 2010 to May 2011, with the nominal rate of the rupee to USD inching up from Rs 44.5 per dollar to below Rs 45.5 per dollar. Thereafter, there has been considerable volatility, with the rate reaching Rs 50 per dollar in October. Between August 2010 and April 2011, the real exchange rate of the rupee (REER) displayedan upward trend reflecting the high rate of domestic inflation. Thereafter, the REER has exhibited a tendency for depreciation (Figure V.5). The somewhat volatile exchange rate patterns reflect the turbulence in global financial markets which influence global capital flows and the high levels of oil prices which influence growth prospects and the current account balance.

Figure V.5. Trends in the Exchange Rate of the Rupee

The recovery of investor confidence was reflected in the stock prices during the first eight months of 2010-11. The BSE Sensex rose from 17,500 in April 2010 to cross the 20,000 mark in December 2010. It began its descent in January 2011 to reach less than 17,000 by the end of September 2011 (Figure V.6). The recovery in stock prices is expected to remain. The Indian stock market reflected global cues as the US markets tumbled on the downgrading of the country's sovereign ratings in August and the Euro zone fiscal crisis continued well into October.

Fig V.6: Movements of the BSE Sensex (month-end)



The challenge for monetary policy is to maintain stability in the system and allow changes as required by the fundamentals. Moderation in the inflation rate will remain a priority given its implications for the overall economy. However, both fiscal and monetary policy measures are needed to achieve immediate results, along with longer-term measures to address the structural aspects of supply-demand imbalances.

VI. Prices

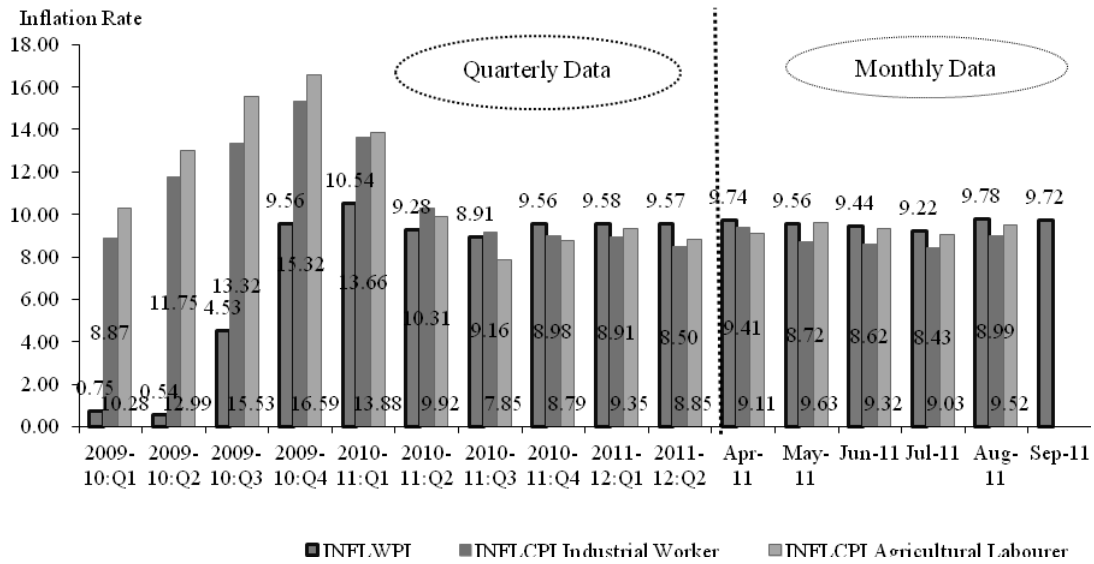
By Bornali Bhandari and Monisha Grover[8]

1. Introduction

The high inflation rate has persisted for well over a year till the end of September 2011. While the WPI of primary articles has exhibited weakening trends, it continues to remain at high levels. On one hand, the inflation rate of food articles has declined (although fruit and vegetable inflation is still very high at 15 per cent), and on the other hand the prices of non-food articles and minerals have shown double-digit rates of increase, on a y-o-y basis. The WPI of fuel &power has continued in its new double-digit rate of increase, and the manufacturing sector WPI has steadily inched up.

2. Trends in Inflation Rates

Figure VI.1: Year-on-Year Inflation Rate, Q1:2009-10 to Q2:2011-12 and April, 2011-September, 2011



Note: Q1:2011-11 excludes the September numbers for the Consumer Price Indices.
Source: Office of the Economic Advisor, Government of India and Labour Bureau, Government of India.

The inflation rate calculated from the Wholesale Price Index (WPI), with 2004-05 as the base, has remained stubbornly above 9.5 per cent since Q4:2010-11. Inflation did decline from April to June 2011, but after picking up again in August 2011 it shows a marginal decline in September 2011.

Quarterly data indicates that the Consumer Price Index for Industrial Workers (CPIIW) with 2001 as the base year and the Consumer Price Index of Agricultural Worker (CPIAL) with the base year as 1986-87, have now fallen below 9 per cent. The inflation rate calculated from CPIIW remained below 9 per cent between May to August, 2011, and after declining from April to July, 2011 it showed an uptick in August to 9 per cent.

[8]Fellow and Consultant, NCAER, respectively

The three inflation indicators show a convergence in the rates in 2010-11 unlike 2009-10 (figure VI.1).

Box VI.1: Are inflation rates exaggerated in India?

Is inflation rate going up or down? It depends on how one calculates it from the Wholesale Price Index (WPI) using 2004-05 as the base year. One can either use the year-on-year (YoY) method (using either quarterly or monthly data), i.e., taking the difference between the present period and the corresponding period the previous year or annualise the change between the current period and the previous period, month-on-month (m-o-m) or quarter-on-quarter (q-o-q). Which method gives a more precise idea of the inflation rate or are both methods complementary?

Both methods have their trade-offs. The YoY method is the one typically used in India. It ignores current trends in prices and focuses on current prices relative to prices a year ago. The second method requires de-seasonalisation of variables. Here, the Census X-12 method is commonly used.

The table below shows inflation rates calculated using both methods with monthly data. Column 4 shows the YoY inflation rate while column 5 shows the annualised MOM inflation rate. Volatility is higher in the latter. The MOM changes show that the inflation rate has picked up since August 2011. Therefore, the YoY method shows that prices are sticky above 9 per cent for the past eight months. In contrast, the annualised MOM method shows that inflation rate has fluctuated. In September 2011 there is a remarkable convergence between the two sets of inflation data.

Inflation shows no signs of abatement, whichever way one may calculate it and that is not good news. In conclusion, we should use both sets of measures to get a sense of inflation trends in the economy.

Wholesale Price Index, 2009-10 to 2011-12*

I	II	III	IV	V
Year: Month	WPI (2004-05 Base)	De-seasonalised WPI (2004-05 Base)	YoY Inflation Rate	MOM Inflation Rate
2009M04	125	124.79	1.21	2.1
2009M05	125.9	125.57	1.45	7.5
2009M06	126.8	126.30	-0.39	6.7
2009M07	128.2	127.02	-0.31	7.3
2009M08	129.6	128.50	0.54	13.9
2009M09	130.3	129.64	1.40	9.8
2009M10	131	130.94	1.79	8.2
2009M11	132.9	132.91	4.73	22.0
2009M12	133.4	134.38	7.15	15.0
2010M01	135.2	135.75	8.68	12.0
2010M02	135.2	136.70	9.65	6.6
2010M03	136.3	137.57	10.36	7.0
2010M04	138.6	138.37	10.88	8.1
2010M05	139.1	138.74	10.48	3.9

I	II	III	IV	V
Year: Month	WPI (2004-05 Base)	De-seasonalised WPI (2004-05 Base)	YoY Inflation Rate	MOM Inflation Rate
2010M06	139.8	139.25	10.25	4.4
2010M07	141	139.70	9.98	4.8
2010M08	141.1	139.90	8.87	1.5
2010M09	142	141.28	8.98	10.6
2010M10	142.9	142.84	9.08	9.1
2010M11	143.8	143.81	8.20	11.9
2010M12	146	147.07	9.45	28.9
2011M01	148	148.60	9.47	11.7
2011M02	148.1	149.74	9.54	7.7
2011M03	149.5	150.90	9.68	8.6
2011M04	152.1	151.85	9.74	9.0
2011M05	152.4	152.00	9.56	2.2
2011M06	153	152.40	9.44	3.8
2011M07	154	152.58	9.22	2.0
2011M08	154.9	153.58	9.78	7.6
2011M09	155.8	155.01	9.72	9.6

*Note: 2011-12 includes data up to September, 2011. Source: Office of the Economic Advisor.

3. Wholesale Price Index

Table VI.1: Year-on-Year Inflation Rate of WPI Components, Q1:2009-10 to Q2:2011-12, and April-September 2011 (%)

Period	All Commodities WPI	Primary Articles	Fuel and Power	Manufacturing	Core
2009-10:Q1	0.75	6.43	-7.09	0.81	-1.46
2009-10:Q2	0.54	8.74	-8.88	0.19	-2.40
2009-10:Q3	4.53	14.15	-1.30	2.66	1.58
2009-10:Q4	9.56	21.35	10.21	5.26	7.21
2010-11:Q1	10.54	20.67	13.98	5.97	8.30
2010-11:Q2	9.28	17.73	12.28	5.30	7.20
2010-11:Q3	8.91	17.03	10.87	5.18	7.85
2010-11:Q4	9.56	15.92	12.10	6.35	8.46
2011-12:Q1	9.58	13.39	12.74	7.22	9.62
2011-12:Q2	9.57	11.96	12.99	7.66	10.09
April, 2011	9.74	15.09	13.04	6.80	8.91
May, 2011	9.56	12.92	12.32	7.43	9.79
June, 2011	9.44	12.22	12.85	7.43	10.17
July, 2011	9.22	11.30	12.04	7.49	10.21
August, 2011	9.78	12.58	12.84	7.79	10.42
September, 2011	9.72	11.84	14.09	7.69	9.63

Note: Base Year: 2004-05.
Source: Office of the Economic Advisor, Government of India.

The WPI has three major components – Primary Articles (WPIP), Fuel & Power (WPIF) and Manufactured Products (WPIM). The very small decline in the YoY WPI inflation rate (from monthly data) is due to the fact that two out of three components' prices declined and one increased. While the YoY inflation rates calculated from the monthly data of Primary Articles and Manufacturing declined in September, 2011, the inflation rate for Fuel & Power increased (Table VI.1). Overall, the monthly data shows double-digit inflation in Primary Articles and Fuel & Power, while manufacturing inflation is steadily increasing.

Quarterly data shows that the decrease in Primary Articles dominated the increases in the inflation rates of Fuel & Power and Manufacturing, thereby pushing the WPI inflation rate slightly downwards. Trends from the quarterly data show that high inflation started in Q3:2009-10 with a WPIP rate of 14.15 per cent. It peaked in the next quarter, Q4:2009-10 and declined steadily after. In Q4:2010-11, WPIP increased but this appeared to be a blip as it has decreased continuously over the next two quarters. However, throughout the period Q3:2009-10 to Q4:2011-12, WPIP has remained in double-digits. The inflation rate of WPIM has steadily increased from Q1:2009-10 to Q2:2011-12 although it has remained single-digit. WPIF went from -1.3 per cent in Q3:2009-10 to 10.21 per cent in Q4:2009-10, after which it has remained in double-digits.

These trends show that even while the inflation rate of one component goes down, the other compensates by an increasing. Either way, the inflation rates WPIP and WPIF have remained in double digits while WPIM has steadily increased. This explains the very high rate of inflation seen from Q4:2009-10.

Core inflation, calculated leaving out the prices of food and energy, has steadily increased from Q3:2009-10 to reach double-digits in Q2:2011-12. This indicates a deepening of inflation rates, something that needs to be avoided. Monthly data shows that the core inflation rate steadily increased from April 2011 and remained above 10 per cent from June to August 2011. It has, however, decreased in September 2011 to 9.63 per cent.

Primary Articles

Table VI.2: Year-on-Year Inflation Rates of Major Categories of Food Articles in WPI, Q1:2009-10 to Q2:2011-12 and April-September 2011 (%)

Period	Primary Articles	Food Articles	Non-Food Articles	Minerals
2009-10:Q1	6.43	9.63	2.57	-6.04
2009-10:Q2	8.74	13.68	-1.63	-3.04
2009-10:Q3	14.15	16.61	5.66	12.92
2009-10:Q4	21.35	20.89	15.81	36.95
2010-11:Q1	20.67	20.94	16.21	27.13
2010-11:Q2	17.73	16.56	17.30	27.29
2010-11:Q3	17.03	13.26	25.56	29.81
2010-11:Q4	15.92	12.36	29.39	16.33
2011-12:Q1	13.09	8.83	22.23	25.48
2011-12:Q2	11.96	9.01	16.10	24.68
April, 2011	15.09	10.66	26.86	23.57
May, 2011	12.92	8.25	21.42	29.57
June, 2011	11.31	7.64	18.44	23.41
July, 2011	11.47	8.19	15.77	25.84
August, 2011	12.58	9.62	17.75	23.43
September, 2011	11.84	9.23	14.82	24.79

Note: Base Year: 2004-05.Source: Office of the Economic Advisor, Government of India.

The three components of inflation are further examined in detail to understand what sub-components are driving these categories. Primary articles inflation is decomposed into three major categories – food articles, non-food articles and minerals (Table VI.2). The weakening of the primary articles inflation rate in September 2011 can be explained by the weakening of the inflation rate of food articles and non-food articles. The inflation rate of minerals increased, while that for non-food articles showed a significant drop. Quarterly data shows a weakening of inflationary trends in all categories except food where it increased slightly. Inflationary trends are very strong in the Indian economy, with inflation rates of all components in double-digits or close to that. Food articles shows the least amount of inflation, while minerals display the maximum.

Food Articles

The high rates of food inflation seen in Q4:2009-10and Q1:2010-11 was due to the drought in 2009. Since then food inflation has decreased but still remains high at 9.23 per cent. Within food articles, there are five categories –food grains (cereals and pulses); fruits & vegetables; milk; eggs, meat &fish; and condiments &spices (Table VI.3). Food grain prices have steadily declined from Q3:2009-10 to Q4:2010-11. The

inflation rate has increased since, but is at a manageable rate of 3.41 per cent (Q2:2011-12). After declining from April to June 2011, food grain prices have steadily increased.

Table VI.3: Year-on-Year Inflation Rate of Major Categories in Food Articles in WPI, Q1:2009-10 to Q2:2011-12 and April-September 2011 (%)

Period	Food Articles	Food Grains (Cereals and Pulses)	Fruits and Vegetables	Milk	Eggs, Meat and Fish	Condiments and Spices	Other Food Articles
2009-10:Q1	9.63	11.94	6.71	11.93	5.57	5.98	34.63
2009-10:Q2	13.68	13.19	11.49	15.12	17.85	9.28	13.89
2009-10:Q3	16.61	16.62	7.20	21.01	25.43	32.40	4.29
2009-10:Q4	20.89	15.99	13.12	26.62	33.81	35.66	-1.32
2010-11:Q1	20.94	10.58	16.37	27.49	41.01	37.10	-17.61
2010-11:Q2	16.56	7.95	9.50	25.67	29.28	38.39	-9.87
2010-11:Q3	13.26	1.00	15.26	19.13	21.76	30.60	-3.28
2010-11:Q4	12.36	0.70	25.23	10.14	13.98	29.68	3.65
2011-12:Q1	8.83	2.28	16.11	6.84	9.17	14.47	22.62
2011-12:Q2	9.01	3.41	14.65	10.15	9.91	0.76	21.92
April, 2011	10.66	2.15	26.48	2.87	11.14	16.52	15.45
May, 2011	8.25	2.61	15.23	6.11	6.59	16.82	24.94
June, 2011	7.64	2.08	7.49	11.52	9.88	10.25	27.46
July, 2011	8.19	2.64	11.73	10.77	9.25	2.29	24.83
August, 2011	9.62	3.44	17.37	9.41	10.78	-0.17	23.83
September, 2011	9.23	4.14	15.00	10.28	9.69	0.21	17.28

Note: Base Year: 2004-05.
Source: Office of the Economic Advisor, Government of India.

The prices of fruits,vegetables and milk show high volatility. Fruits and vegetables' prices were highest in Q4:2010-11 at 25.23 per cent; monthly data shows that these prices remained in double-digits at 15 per centtill September 2011 (except for June, 2011). Similarly except for May and July, the inflation rates of milk have remained in double-digits. Quarterly data shows that the inflation rate of milk peaked in Q1:2010-11 at 27.49 per cent, declined thereafter and has suddenly jumped to double-digits in Q2:2011-12. The prices of eggs, meat and fish also peaked in Q1:2010-11 but have declined thereafter with a marginal increased in Q2:2011-12. Prices in this category have mostly remained in single-digits except for April and August 2011. Although the eggs, meat and fish inflation rate was in single-digits in September 2011, it is still quite high at 9.69 per cent. Condiments and spices showed a dramatic decline between the first two quarters of 2011-12 from 14.47 per cent to 0.76 per cent. This downward movement is completely countered by the last component in this group – Other Food Articles (tea and coffee) which showed a 21.92 per cent increase in Q2:2011-12. The inflation rate peaked in June 2011 to 27.46 per cent, declining afterwards. It remained in

double-digits till September 2011 at 17.28 per cent. The quarterly trends show a high degree of volatility in this component.

In general the trends show that prices are weakening but high inflation in fruits,vegetables, milk, eggs, meat and fish and other food articles keep the prices of food articles at uncomfortably high levels of 9.23 per cent. The most worrisome category is fruits and vegetables:'the first green revolution took place in cereals and a second green revolution is needed for fruits and vegetables' (Economic Survey, 2010-11)[9] . In this case, a strong supply chain with cold storage facilities is very important to make sure that consumers get fresh products without wastage.

The increase in income is driving up demand as consumption patterns change for food products like milk, eggs, meat and fish. Mohanty (2011) terms it the "protein inflation," which is especially true in the case of milk[10]. Between 1999-2000 and 2009-10, the consistent increase in the wages of rural labour has increased the demand for proteins (Mohanty, 2011). Therefore, prices are rising as supply is not able to meet demand. It is hoped that this is a short-term phenomenon in India, which will retreat as supply conditions adapt.
In the shortrun one would expect the prices of food articles to significantly weaken due to the good monsoon in 2011-12.

Non-Food Articles

The non-food articles inflation rate increased steadily and in double-digits from Q3:2009-10to Q4:2010-11 (Table VI.4). It peaked at 29.39 per cent in Q4:2010-11, declining thereafter and is presently 16.1 per cent in Q2:2011-12. There are four components in this category – fibres, oilseeds, other non-food articles and flowers. The price of fibres had skyrocketed and inflation in Q4:2010-11 was at 77.69 per cent. It declined afterwards and is currently at 29.8 per cent. In contrast, the price of oilseeds has started increasing in the last two quarters and is at 15.03 per cent (Q2:2011-12). Quarterly trends show that the price of "other non-food articles" has been declining but is still in double-digit. Monthly data shows that it has increased from 11.02 per cent in August 2011 to 13.33 per cent in September 2011. The only good news in this category is the price of flowers shows a deflation.

Non-food article inflation is driven by fibres, but the prices of three of the four components have shown high double-digit rates of increase again with overall weakening trends. The inflation rate of fibres mirrors worldwide trends especially in cotton. The inflation rate of cotton skyrocketed in 2010 due to bad weather destroying the crop (floods in Pakistan in 2010, and bad weather in India and China destroyingthe crops), thereby creating shortages.

[9]Ministry of Finance (2011). "Economic Survey, 2010-11". http://indiabudget.nic.in/. Accessed October 27, 2011.
[10]Mohanty, D. (2011). "Changing Inflation Dynamics in India". Speech delivered at the Motilal Nehru Institute of Technology. http://rbidocs.rbi.org.in/rdocs/Speeches/PDFs/MIT130811FL.pdf. August 13. Accessed October 27, 2011.

Table VI.4: Year-on-Year Inflation Rate of Major Categories in Non-Food Articles in WPI, Q1:2009-10 to Q2:2011-12 and April-September 2011 (%)

Period	Non-Food Articles	Fibres	Oil seeds	Other non-food articles	Flowers
2009-10:Q1	2.57	1.38	1.52	-2.85	54.46
2009-10:Q2	-1.63	-10.06	-1.03	-2.68	40.25
2009-10:Q3	5.66	2.10	2.97	13.47	1.21
2009-10:Q4	15.81	14.49	8.40	33.04	-5.94
2010-11:Q1	16.21	17.00	3.60	40.99	-13.74
2010-11:Q2	17.30	22.73	3.16	40.80	-14.24
2010-11:Q3	25.56	44.80	4.60	39.82	28.18
2010-11:Q4	29.39	77.69	7.39	29.15	6.12
2011-12:Q1	22.23	62.69	11.64	14.72	-12.81
2011-12:Q2	16.10	29.80	15.03	11.76	-6.88
April, 2011	26.86	87.22	10.03	16.44	-20.62
May, 2011	21.42	56.90	12.06	14.52	-7.72
June, 2011	18.44	44.61	12.85	13.19	-10.60
July, 2011	15.77	29.66	14.00	10.91	-1.51
August, 2011	17.75	36.98	16.33	11.02	-3.60
September, 2011	14.82	23.76	14.75	13.33	-14.28

Note: Base Year: 2004-05.
Source: Office of the Economic Advisor, Government of India.

Minerals

The very high rate of inflation in minerals is driven by the inflation rate of crude petroleum. The unrest in the Middle East contributed to high prices in crude petroleum. From 9.67 per cent in Q4:2010-11, the inflation rate of crude petroleum jumped to 40.6 per cent in Q1:2011-12 to 42.45 per cent in Q1:2011-12. The prices of metallicminerals and other minerals declined, but the inflation rate of metallic minerals jumped from 6.36 per cent in August2011 to 11.85 per cent in September 2011.The monthly data for other minerals and crude petroleum shows a weakening of the inflation rate between August and September 2011. Overall the minerals inflation rate remains very high at approximately 25 per cent. It has remained above 20 per cent for all of 2011-12. It is expected that these high prices would gradually decline.

Table VI.5: Year-on-Year Inflation Rate of Major Categories in Minerals in WPI, Q1:2009-10 to Q2:2011-12 and April-September 2011 (%)

Period	Minerals	Metallic Minerals	Other Minerals	Crude Petroleum
2009-10:Q1	-6.04	-0.56	6.66	-11.69
2009-10:Q2	-3.04	-17.36	-1.64	9.91
2009-10:Q3	12.92	-16.95	-0.36	51.30
2009-10:Q4	36.95	27.07	0.81	53.52
2010-11:Q1	27.13	36.57	0.53	22.37
2010-11:Q2	27.29	59.39	1.44	8.17
2010-11:Q3	29.81	65.91	7.43	8.55
2010-11:Q4	16.33	24.68	10.72	9.67
2011-12:Q1	25.48	11.70	10.30	40.60
2011-12:Q2	24.68	8.91	9.68	42.45
April, 2011	23.57	17.48	14.11	29.93
May, 2011	29.57	13.68	8.84	47.75
June, 2011	23.41	4.49	7.99	45.00
July, 2011	25.84	8.60	13.89	45.11
August, 2011	23.43	6.36	8.82	42.47
September, 2011	24.79	11.85	6.55	39.82

Note: Base Year: 2004-05.
Source: Office of the Economic Advisor, Government of India.

Fuel and Power

The WPI for fuel and power reflects a double-digit inflation rate. While the monthly data shows an upward movement, quarterly data shows a downward movement (Table VI.6). The price rise in coal and mineral oil is in double-digits. All three items - LPG, petrol and kerosene - show double-digit inflation. The inflation rate of petrol increased to 26.29 per cent in September 2011, but the inflation rate of electricity is extremely low.

Table VI.6: Year-on-Year Inflation Rate of Major Categories in Fuel & Power in WPI, Q1:2009-10 to Q2:2011-12 and April-September 2011 (%)

Period	Fuel and Power	Coal	Mineral Oil	Mineral Oil			Electricity
				LPG	*Petrol*	*Kerosene*	
2009-10:Q1	-7.09	16.93	-3.32	-1.47	-14.12	0.00	-1.04
2009-10:Q2	-8.88	0.33	-3.47	-7.45	-11.91	0.00	0.85
2009-10:Q3	-1.3	6.14	-12.03	-7.37	-8.91	0.00	1.97
2009-10:Q4	10.21	7.43	-0.77	-1.72	9.18	0.00	1.97
2010-11:Q1	13.98	7.73	18.30	4.75	18.53	2.97	5.85
2010-11:Q2	12.28	7.95	24.20	15.30	15.36	35.44	8.57
2010-11:Q3	10.87	7.95	16.49	15.19	18.85	35.44	6.15
2010-11:Q4	12.1	7.17	19.88	14.99	26.36	35.44	3.59
2011-12:Q1	12.74	13.25	21.30	11.61	26.59	33.54	3.59
2011-12:Q2	12.52	13.25	22.75	14.53	24.25	18.33	1.40
April, 2011	13.04	13.25	15.45	11.31	21.81	35.44	3.59
May, 2011	12.32	13.25	15.92	11.31	27.31	35.44	-1.32
June, 2011	12.85	13.25	16.79	12.17	30.61	30.06	-1.32
July, 2011	12.04	13.25	15.36	14.58	23.23	18.33	-1.32
August, 2011	12.84	13.25	16.48	14.74	23.23	18.33	-1.32
September, 2011	14.09	13.25	17.56	14.27	26.29	18.33	2.02

Note: Base Year: 2004-05.
Source: Office of the Economic Advisor, Government of India.

Manufacturing

The inflation rate of basic goods inched up to double-digits in September 2011, almost touching 10 per cent in Q2:2011-12. Capital goods inflation also inched up but has been relatively tame. The inflation rate of intermediate goods continued its upward increase, and so did the inflation rate of consumer goods driven by the increase in the prices of durables and non-durables. The inflation rate of consumer durables reached double-digits. Overall the manufacturing inflation rate shows a decline in the monthly data and increases in the quarterly data.

Table VI.7: WPI Based Year-on-Year Inflation Rate of Use-Based Classification, Q1:2009-10 to Q2:2011-12 and April-September 2011 (%)

Period	Manufacturing	Basic Goods	Capital Goods	Intermediate Goods	Consumer Goods	Consumer Durables	Consumer Non-Durables
2009-10:Q1	0.81	-5.22	1.88	-3.94	6.20	5.60	6.38
2009-10:Q2	0.19	-5.33	0.16	-6.02	6.36	4.51	6.91
2009-10:Q3	2.66	-0.72	0.19	-1.02	9.42	5.68	10.61
2009-10:Q4	5.26	5.52	1.25	8.25	9.24	3.31	11.06
2010-11:Q1	5.97	9.15	3.23	10.94	5.76	4.02	6.32
2010-11:Q2	5.30	8.11	3.41	9.80	5.09	6.10	4.77
2010-11:Q3	5.18	7.79	3.65	10.38	3.90	7.47	2.87
2010-11:Q4	6.35	8.07	3.84	12.52	4.03	7.70	2.98
2011-12:Q1	7.22	8.65	2.45	12.66	7.83	9.02	7.43
2011-12:Q2	7.66	9.85	2.92	11.46	8.79	10.38	8.32
April, 2011	6.80	8.28	2.76	12.68	6.61	8.45	6.04
May, 2011	7.43	8.91	2.29	12.57	7.85	8.50	7.65
June, 2011	7.43	8.76	2.29	12.72	9.03	10.10	8.59
July, 2011	7.49	9.81	2.53	11.40	8.65	9.55	8.37
August, 2011	7.79	9.57	2.93	11.44	9.01	11.53	8.27
September, 2011	7.69	10.17	3.32	11.52	8.71	10.06	8.31

Notes: Base Year: 2004-05.
Q2:2011-12 excludes the September numbers for price indices
Source: Office of the Economic Advisor, Government of India and NCAER.
4 Worldwide Inflation Trends

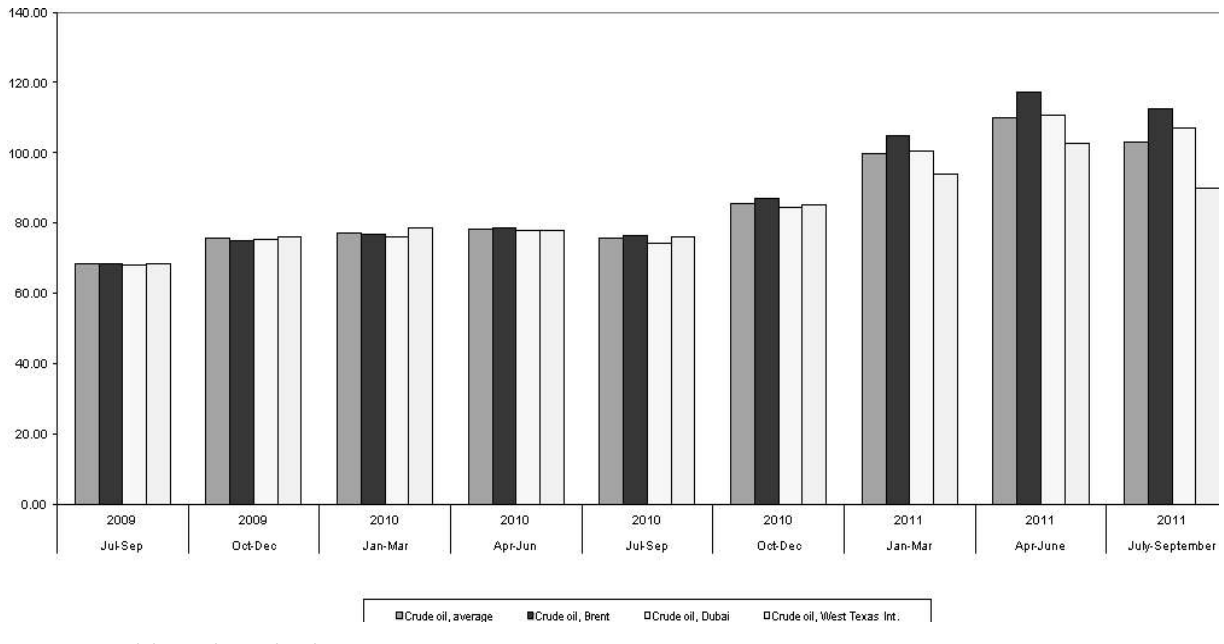
Commodity Price Inflation

It is evident from the above analysis that high inflation rates in mineral oil and crude petroleum are among the major factors behind the high rate of inflation in India. Figure VI.2 shows the quarterly averages of price trends from July-September 2009 to July-September 2011. While there is a clear upward trend, throughout this period it is only in the latter quarter (July-September 2011) we see some weakening of prices in comparison with the previous quarter (March-June 2011).

Table VI.8 also shows weakening of commodity prices although double-digit inflation continues. These trends are exhibited in India too, but as Indian prices are not always adjusted immediately with worldwide trends especially in the case of mineral oil, one may not exactly observe the same trends.

This is probably because of the weakening of the worldwide economy – China, USA and Europe which have reduced the demand for oil. Figure VI.3 presents a forecast of weakening commodity prices (energy and non-energy) from 2011 to 2020.

Figure VI.2: Year-on-Year Inflation Rate of Oil Prices, Q3:2009-Q3:2011 (%)



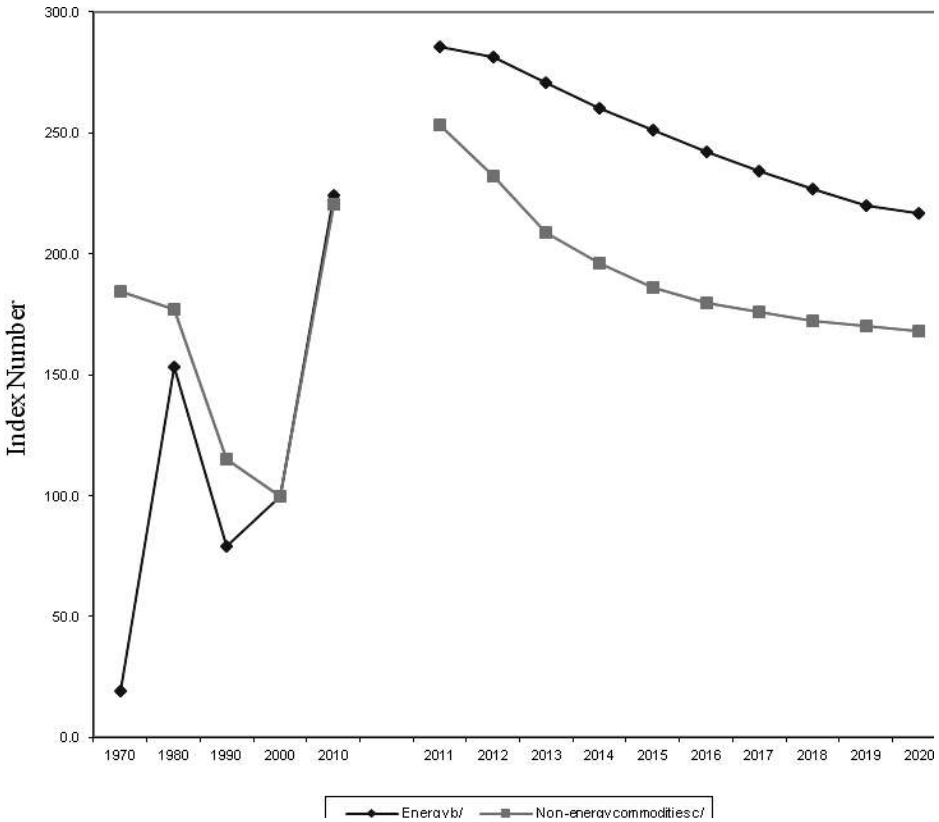
Source: World Bank Pink Sheets

Table VI.8: Year-on-Year Inflation Rate of Major Commodities for Low-Income and Middle-Income Countries, Q3:2010- Q3:2011 (%)

Commodity	2010:Q3	2010:Q4	2011:Q1	2011:Q2	2011:Q3
Energy	*12.68*	*13.8*	*27.6*	*38.3*	34.9
Non-energy	25.38	28.4	35.7	31.5	17.8
Agriculture	14.60	24.5	38.7	35.5	24.2
Beverages	14.49	7.5	25.7	21.6	11.6
Food	*7.51*	*21.9*	*33.7*	*38.2*	25.7
Fats and Oils	9.14	30.1	42.9	38.0	22.0
Grains	*5.04*	*22.9*	*41.1*	*55.1*	43.1
Other Food	*7.41*	*8.8*	*13.7*	*16.8*	15.0
Raw Materials	35.73	42.9	58.5	37.4	27.9
Timber	*11.84*	*11.6*	*19.6*	*22.8*	19.3
Other Raw Materials	52.55	61.6	77.4	44.0	32.4
Fertilisers	*10.49*	*35.6*	*32.6*	*54.8*	58.0
Metals and Minerals d/	44.15	33.7	31.8	24.2	6.3
Base Metals e/	21.40	27.3	30.1	27.9	20.3

Note: 1. d/ base metals plus iron ore; 2. e/ Includes aluminium, copper, lead, nickel, tin and zinc; 3. Base Year =2000; items in italics exhibit increases in inflation rate.
Source: World Bank Pink Sheets

Figure VI.3: Forecasts of Prices



Source: World Bank, www.worldbank.org

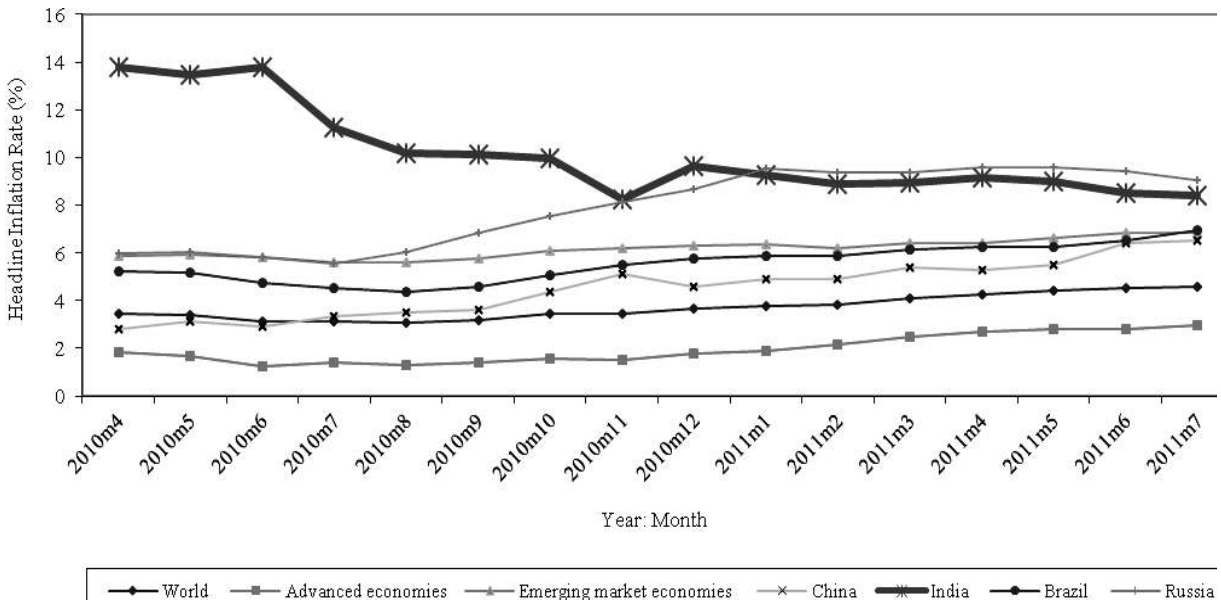
b/ The World Bank energy index is comprised of crude oil (84.6 percent), natural gas (10.8 per cent) and coal (4.7 per cent).

c/ Primary commodity price indices are computed based on 2002-04 export values in US dollars for low- and middle-income economies, rebased to 2000=100. Weights for the sub-group indices expressed as ratios to the non-energy index are as follows in percent: agriculture 64.8, fertilisers 3.6, metals and minerals 31.6; beverages 8.4, food 40.0, raw materials 16.5; fats and oils 16.5, grains 11.2, other food 12.4; timber 8.6 and other raw materials 7.9.

BRICSAM

Figure VI.4 presents the IMF's WEO data comparing India with other major countries which shows that India's consumer price inflation was much above the world trend. From January 2011 Russia has overtaken India, but India's inflation rate is above the world average, other emerging countries and also Brazil and China.

Figure VI.4: Global Inflation Trends, 2010:04-2011:07



Note : The Consumer Price Index has been used. (Twelve-month change in the consumer price index unless noted otherwise).
Source: World Economic Outlook, September, 2011

5. Conclusion

India's inflation rate has remained steady at a high level, although there are some indications of its weakening. While commodity price inflation has been experienced globally, India's inflation rate has stayed above the world average throughout. Therefore commodity price inflation cannot be the only reason for high inflation - there may be a structural break in inflation experience of India (Mohanty,2011).

The inflationary trends indicate structural problems in the economy which are not getting resolved. While in the shortrun, the worldwide slow down may have the indirect benefit of slowing down prices, it is still not clear how much of this slowdown will be passed through to India because of incomplete pass through (Mohanty, 2011).

India is a transitioning economy. As incomes expand, consumption patterns change especially the demand for proteins, which in turn exerts upward pressure on food prices. Finally, a green revolution is now needed in the fruits, vegetables and oilseeds sectors.

VII. Public Finance

By Purna Chandra Parida[11]

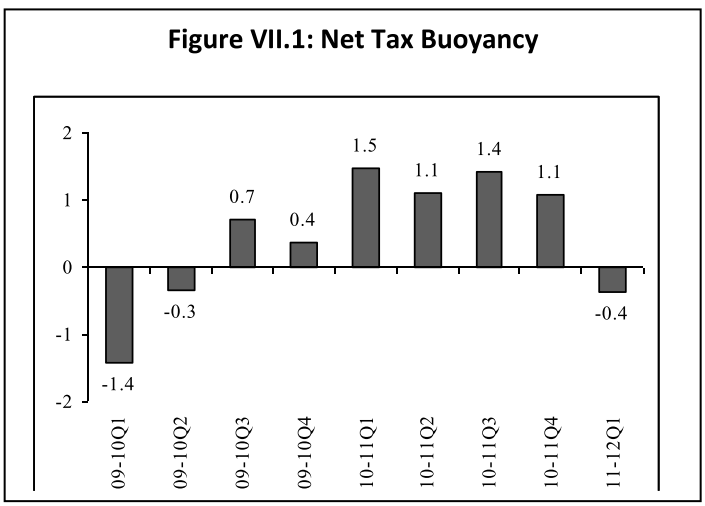
Backdrop

The fiscal crisis in the advanced economies is becoming intense. Debt-ridden economies in Europe remain prone to the risk of fiscal default despite bailout efforts of the stronger economies. The two largest non-European advanced economies, the US and Japan, are also facing similar problems of high government debt, and their fiscal deficits remain at near-record levels. The IMF's recent report on the Fiscal Monitor released in September 2011 projects lower fiscal deficits for the Euro area in 2011 compared to the previous year, but it points out that continuing weak fiscal fundamentals in these economies have intensified doubts on the credibility of Euro area crisis resolution mechanisms. In contrast, the report has underlined optimism on the fiscal scenario in emerging economies, particularly in Asia. It predicts that the cyclically adjusted deficits of emerging Asia would decline by 0.75 per cent of GDP in the current year, driven by declines of close to 1 per cent in China and India.

Rising fiscal and financial risks in developed countries are a serious threat to recovery of the global economy and medium-term growth prospects. The IMF's World Economic Outlook released in September 2011 describes the current global scenario as a 'dangerous new phase'. Against this backdrop, the agency has reduced its forecast of world GDP growth rate by 0.3 percentage points from its previous forecast of 4.3 per cent in June 2011. The agency has also cut India's GDP growth for the current year by 0.4 percentage points from its previous forecast of 8.2 per cent. This is mainly due to factors such as capacity constraints and monetary tightening.

Besides the above constraints, India also faces a series of political and economic challenges. A continuous decline in business and political confidence has dampened investment activity. As a result, the index of industrial production (IIP) has increased by only 5.8 per cent during the first four months of 2011 over the same period the previous year.

Figure VII.1: Net Tax Buoyancy



The rate of growth of the IIP may go down further in the coming months, leading to a substantial fall in tax revenue collection for the government. Figure VII.1 indicates that the net tax buoyancy in Q1:2011-12 is negative and similar to Q2:2009-10. The period Q1: 2011-12 saw substantial direct tax refund amounts of Rs. 46,847 crore compared to Rs. 15,758 crore in the corresponding quarter of the last fiscal. Nevertheless, the growth momentum of tax revenue collection from indirect taxes has also started declining during this quarter.

[11]Fellow, NCAER

Services tax revenue collection, however, shows promising growth in the current fiscal. The prospects for non-tax revenue are also not encouraging as the government so far has generated only 3.6 per cent of its budgeted disinvestment revenue for 2011-12. As a result, both fiscal and revenue deficits as a percentage of budget estimates have gone up considerably during the first quarter of the current fiscal compared to the same quarter in the previous fiscal year.

A summary of the fiscal accounts of the centralgovernment during April-August of the current fiscal year is given in Table VII.1. Total receipts as a percentage of budget estimates are substantially lower during the first five months of the current fiscal year compared to the position during the same period of the previous fiscal year. This is mainly on account of a slippage in receipts in the revenue account. Revenue receipts are 23.9 per cent of the budget estimates during April-August 2011-12 compared to 42.6 per cent during the same months in 2010-11. The main concern for the government is the slowing down of tax revenue and the additional increase in fertiliser and fuel subsidies by Rs. 40,000 crore. Both direct and indirect tax revenues, except for services tax revenues, have shown weak performance during this period. A lump-sum amount of direct tax refund (Rs. 46,847 crore) and the duty cut on petroleum products (Rs. 49,000 crore) are also responsible for the declining trend in direct and indirect tax collections in the recent quarter. On a positive note, expenditure during April-August 2011 is lower as a percentage of the budget estimates for the full year compared to the same period in 2010 despite the rising subsidy bill.

Table VII.1: Fiscal Accounts of the Central Government, April-August 2011-12

	2010-11 RE (Rs. crore)	2011-12 BE (Rs. crore)	April-Aug (% 2010-11 BE)	April-Aug (% 2011-12 BE)
1. Revenue Receipts	6,82,212	7,89,892	42.6	23.9
2. Tax Revenue (net to Centre)	5,34,094	6,64,457	25.9	21.8
3. Non-tax Revenue	1,48,118	1,25,435	102.8	34.8
4. Non-Debt Capital Receipts	4,26,537	4,67,837	12.1	18.4
5. Recoveries of Loans	5,129	15,020	65.5	59.9
6. Other Receipts	40,000	40,000	5.3	2.9
7. Total Receipts (1+4)	1,108,749	12,57,729	40.7	23.5
8. Non-plan Expenditure (9+10)	7,35,657	8,16,182	42.3	41.7
9. On Revenue Account of which,	6,43,599	7,33,558	42.5	41.7
(i). Interest Payments	2,48,664	2,67,986	34.4	37.4
10. On Capital Account	92,508	82,624	40.9	41.6
11. Plan Expenditure (12+13)	3,73,092	4,41,547	36.6	29.9
12. On Revenue Account	3,15,125	3,63,604	37.3	31.0
13. On Capital Account	57,967	77,943	32.6	24.7
15. Total Expenditure (8+11)	11,08,749	12,57,729	40.4	37.5
18. Revenue Deficit (9+12-1)	2,76,512	3,07,270	36.3	74.9
19. Fiscal Deficit (14-7)	3,81,408	4,12,817	39.7	66.3
20. Primary Deficit (15-9(i))	1,32,744	1,44,831	49.6	119.6

Source: Budget Documents and Controller General of Accounts, Ministry of Finance, Government of India.
Notes: RE: revised estimates; BE: budgetary estimates

There is a substantial decline in Plan revenue expenditure followed by Plan capital expenditure. Non-Plan expenditure on interest payments as a percentage of the budget estimates has increased beyond its level in the same period of the last fiscal. Both the revenue and fiscal deficits are at a high level despite lower government expenditure.

Central Government Revenues

The central government's revenue outlook has been under strain since the fourth quarter of 2010-11. Nevertheless, 2010-11 was an outstanding year for the central government in terms of revenue receipts, which grew by about 38 per cent against an average growth of 3 per cent during the two crisis years, 2008-09 and 2009-10. Both tax and non-taxes revenues recorded substantial growth during this period. A lump-sum receipt of Rs. 106,000 crore from the 3G /BWA spectrum auction helped the government to mitigate the large revenue and fiscal deficits carried over from the two crisis years.

Revenue receipts have been disappointing for the government during the first five months of the current fiscal. The central government's net revenue receipts grew by a negative 24 per cent during the first five months of the current fiscal compared to an impressive 74 per cent during the same period in the of previous fiscal year. The order of decline is even higher during Q1: 2011-12. Table VII.2 shows that net tax revenue declined by (-) 54.5 per cent in Q1:2011-12 compared to rise of 177.5 per cent in Q1:2010-11. Two important factors contributed to this: the negative growth in net tax revenue of 6.3 per cent and the 'base effect' of the 3G revenue received in the same quarter the previous fiscal year. During the first two months (July and August) of Q2:2011-12, net revenue receipts have registered a nominal 7.3 per cent growth due to improved growth performance of net tax revenue.

Despite positive growth of more than 20 per cent during the first two months (July and August) of the second quarter, net tax revenue has recorded negative growth in the first five months of the current fiscal compared to significant positive growth during the same period of the previous fiscal year. Net tax revenue registered a negative growth of 6.3 per cent in Q1:2011-12 compared to a positive growth of 32.6 per cent during the same quarter in 2010-11.

Direct taxes did not perform well during the first quarter of the current fiscal. Corporate tax revenues were especially disastrous, as the growth rate of corporate tax was negative 27.8 per cent in Q1:2011-12 compared to positive 23.7 per cent Q1:2010-11. But revenue collection under this tax has improved during the first two months (July and August) of the second quarter. In the months of April and May, 2011, corporate tax collection was negative 185.9 per cent and 93.3 per cent, respectively, due to a lump-sum tax refund. Personal income tax also performed poorly in the first quarter of 2011-12, posting a meagre 1.9 per cent growth. But in July and August, personal income tax recorded robust growth rates of 24.3 and 36.2 per cent, respectively.
In indirect taxes, the central government has forgone a substantial portion of excise and customs revenue collection on petroleum products during the first quarter of the current fiscal. Customs duty of 5 per cent has been abolished on crude. In the case of diesel and petrol, customs duty has been reduced from 7.5 per cent to 2.5 per cent. However, increased prices have offset some of the reduction in import tariffs. Similarly, the government has reduced the excise duty on oil products from 7.5 per cent to 2.5 per cent. Altogether, an estimated Rs. 49,000 crore of revenue has been foregone under these two tax heads.

Customs duty grew at 37.7 per cent in Q1:2011-12 as against 62.2 per cent growth in the same quarter of the

last fiscal. In the first two months of the second quarter (July and August), customs duty recorded only 12.8 per cent growth, suggesting the impact of tax cuts on petroleum products. Similarly, excise duty recorded 23.2 per cent growth in first quarter of current fiscal compared to 52 per cent growth in the same quarter of the previous fiscal. It declined even further in the first two months of the second quarter registering only 13.1 per cent growth over the corresponding months in 2010-11. The slowing down of industrial activity is responsible for slippages in excise duty collection. Importantly, the government has managed to receive higher revenue collection on services taxes, which has increased by 31.1 per cent in Q1:2011-12 and by 42.5 per cent in first two months of Q2: 2011-12.

Non-tax revenue played an important role in the overall increase in revenue receipts in 2010-11. The major share of this revenue came from the 3G/BWA auction in Q1:2010-11. Since then, there has been fluctuation in the growth rate of non-tax revenue. The first quarter of the current fiscal shows substantial negative growth of non-tax revenue due to a strong base effect and meagre disinvestment revenue collection. The first two months of Q2:2011-12 also shows negative growth of non-tax revenue.

Overall, the growth pattern of various tax revenues suggests that both direct and indirect taxes have declined during the first quarter of the current fiscal. Direct taxes have declined in the first quarter but have improved in the first two months of the second quarter. On the other hand, indirect taxes show a continuous decline in growth rate during the first quarter and first two months of the second quarter as well. Non-tax revenue collection too has not been encouraging, because of the failure to realise disinvestment revenues. On the positive side, services tax collection has shown high growth during the first five months of the current fiscal.

Table VII.2: Quarterly growth rates for major revenue items (% YoY)

Year	Net revenue receipts	Net tax revenue	Gross tax revenue	Gross tax revenue (corporate tax)	Gross tax revenue (income tax)	Gross tax revenue (customs)	Gross tax revenue (Union excise duty)	Gross tax revenue (services tax)	Gross tax revenue (other taxes)	Net Non-tax revenue
2010-11Q1	177.5	32.6	28.6	23.7	13.8	62.2	52.0	9.1	-36.8	1238.3
2010-11Q2	15.0	22.1	23.2	14.8	13.5	61.4	35.3	20.7	-25.6	-2.3
2010-11Q3	28.5	29.4	29.4	24.5	12.3	73.0	30.1	25.9	5.9	23.7
2010-11Q4	12.8	19.6	26.8	26.8	15.0	51.8	25.7	26.0	1.0	-17.4
2011-12Q1	-54.5	-6.3	5.0	-27.8	1.9	37.7	23.2	31.1	0.8	-89.4
2011-12Q2*	7.3	21.4	23.1	34.7	29.5	12.8	13.1	42.5	-8.0	-13.8
April'11	-47.0	-62.5	-9.2	-185.9	7.3	38.0	-239.9	19.7	8.1	6.5
May'11	-31.1	-11.5	3.8	-93.3	-5.2	43.7	23.2	35.5	-2.5	-74.5
June'11	-59.9	6.7	11.1	3.0	1.6	31.7	15.4	32.7	0.5	-93.6
July'11	19.4	22.7	23.9	42.7	24.3	11.5	16.9	37.4	-5.6	9.8
Aug'11	-1.7	20.0	22.2	26.1	36.2	14.0	9.2	48.9	-10.5	-22.6

Note: * July-August 2011
Source: author's calculation based on data from Controller General of Accounts, Ministry of Finance, Government of India.

Table VII.3 summarises the central government's revenue collection under various tax heads as a percentage of GDP at current market prices. Net revenue receipts recorded a considerable decline in Q1:2011-12 registering 4.4 per cent of GDP in Q1:2011-12 compared to 11.4 per cent in Q1:2010-11. The decline in net revenue receipts is due to a substantial fall in non-tax revenue and net tax revenue. Non-tax revenue, which was 6.6 per cent of GDP in Q1:2010-11 has declined to 0.6 per cent in the first quarter of 2011-12. This is exactly the same share as in Q1:2009-10. The net tax revenue-to-GDP ratio also indicates a major fall in Q1:2011-12 to 3.8 per cent from 8.2 per cent in Q4:2010-11 and from 4.8 per cent in Q1:2010-11. The net tax buoyancy recorded in the first quarter of the current fiscal is even lower than in the first quarter of 2009-10.

The performance of direct taxes in terms of their ratio to GDP has generally been lower in the first quarter of the previous two fiscal years compared to the other three quarters. Compared to the first quarter of the previous two fiscals, the performance of direct tax is worse in the first quarter of the current fiscal. The corporate tax-to-GDP ratio was 1.6 per cent in Q1:2011-12 compared to 2.5 per cent in the first quarter of the previous two fiscal years. As we mentioned earlier, this is mainly because of the larger direct tax refund during the first quarter of the current fiscal. But, in general, gross tax revenue collection has also declined in the first quarter of 2011-12, suggesting that the slowdown in corporate margins has impacted corporate tax revenue collection. The ratio of income tax collection-to-GDP has also declined in Q1:2011-12 to 1.2 per cent compared to 1.4 per cent in Q1:2010-11 and 1.5 per cent in Q1:2009-10.

Although the growth rate of indirect tax collection has moderated, the ratio of indirect taxes-to- GDP has improved for all three indirect taxes – excise duty, custom duty and services tax in the first quarter of the current fiscal compared to the same quarter of the last fiscal. The ratio of customs duty collection-to-GDP has improved to 1.9 per cent in Q1:2011-12 from 1.7 per cent in Q4:2010-11, and is higher than all the other quarters since Q1:2009-10. The excise duty-to-GDP ratio on the other hand has declined to 1.2 per cent in Q1:2011-12 from 2.4 per cent in Q4:2010-11. The services tax-to-GDP ratio has also declined in Q1 of current fiscal compared to the last quarter of the previous fiscal year. However, this ratio is higher than in the first quarter of 2010-11.

To sum up, the central government's tax revenue collection has performed poorly in the first quarter of the current fiscal. The growth rates of both direct and indirect taxes show a major decline compared to the same quarter of the previous fiscal year. Both net and gross tax revenues have recorded lower growth rates in the current quarter.This suggests that there has been a decline in tax revenue collection in the first quarter of the current fiscal compared to last year. In the case of indirect taxes, the government has forgone large amount of revenue on account of the tax cut on petroleum products, although higher international prices may have offset some of the impact of the tax cut on revenues. Both excise and custom duties recorded lower growth in Q1: 2011-12 compared to the same period in 2010-11. The dismal performance of non-tax revenue is a major concern for achieving the targets set for the fiscal deficit in the current year. On the positive side of the revenue-expenditure gap, services tax collection has improved over last year. Slippages of revenue on account of disinvestment revenue, therefore, would impact the overall fiscal position of the government in the current fiscal. Revenue collection from indirect taxes depends on how the industrial sector performs in the remaining months of the current fiscal.

Table VII.3: Revenue from major items as a percentage of GDP (%)

Year	Net Revenue Receipts	Net Tax Rev	Gross Tax Revenue	Corporation Tax	Income Tax	Customs Duties	Union Excise Duties	Services Tax	Other Taxes	Net Non-Tax Revenue
2009-10Q1	5.0	4.4	7.0	2.5	1.5	1.2	0.9	0.7	0.2	0.6
2009-10Q2	11.5	8.1	10.5	4.5	1.9	1.3	1.6	0.9	0.2	3.3
2009-10Q3	8.4	7.1	9.1	3.7	1.7	1.2	1.5	0.8	0.2	1.3
2009-10Q4	9.9	8.1	11.2	4.1	2.3	1.4	2.2	1.1	0.2	1.8
2010-11Q1	11.4	4.8	7.4	2.5	1.4	1.6	1.1	0.6	0.1	6.6
2010-11Q2	11.0	8.3	10.8	4.3	1.8	1.8	1.8	0.9	0.2	2.7
2010-11Q3	8.9	7.6	9.8	3.8	1.6	1.7	1.6	0.8	0.1	1.4
2010-11Q4	9.4	8.2	12.0	4.4	2.2	1.7	2.4	1.2	0.1	1.3
2011-12Q1	4.4	3.8	6.6	1.6	1.2	1.9	1.2	0.7	0.1	0.6

Source: Author's calculation based on data from the Controller General of Accounts, Ministry of Finance, Government of India.

Trends in Expenditures

The central government spent more than it had budgeted for in 2010-11. Total expenditure recorded an 18 per cent increase over the previous year (revised estimates) against the budget estimates of an increase of 8.6 per cent in 2010-11. For the current fiscal, the government has budgeted an expenditure of Rs. 12.6 lakh crore (or Rs 12.6 trillion), implying an increase of 13.4 per cent over the budget estimates of the previous fiscal, but an increase of only 3.4 per cent over the revised estimates, which is likely to be breached. The government has already announced an additional expenditure of Rs. 40,000 crore on subsidies.

The YoY growth rates of various components of central government expenditure are reported in Table VII.4. The first quarter of the current fiscal shows a significant decline in total expenditure growth compared to the corresponding quarter of the previous fiscal. It declined from 23.0 per cent in Q1:2010-11 to 7.8 per cent in Q1:2011-12, and continues to decline in the second quarter as well. Most recent information available for the months of July and August 2011 shows that total expenditure has recorded only 2.7 per cent growth. This is mainly due to the negative growth rate recorded in Non-Plan capital expenditure.

Revenue expenditure (Plan and Non-Plan) has also declined considerably during the first quarter of the current fiscal. It recorded a nominal growth rate of 7.2 per cent in Q1:2011-12 compared to 17.2 per cent in Q1:2010-11. During the first two months of the second quarter, it declined further, recording only 6.8 per cent growth. This is primarily due to the negative growth of Plan revenue expenditure both in the first quarter and the first two months of the second quarter as well. In Q1:2011-12, Plan revenue expenditure registered (-) 4.2 per cent growth compared to a whopping 62.8 per cent in the same quarter of 2010-11. On the other hand, Non-Plan revenue expenditure shows a significant increase of 13.7 per cent in Q1:2011-12 against a meagre 0.9 per cent growth in Q1: 2010-11. The first two months of the second quarter also show a moderate rise in Non-Plan revenue expenditure of about 10 per cent. This is mainly due to an increase in expenditure on interest payments and subsidies.

Capital expenditure (Plan and Non-Plan) shows a significant decline of 12.1 cent in the first quarter of 2011-12 from a huge increase of 83 per cent in the same quarter of 2010-11. It has declined further by (-) 27.3 per cent in the first two months of the second quarter of the current fiscal. This is obviously not a healthy sign for investment, which is needed in the economy. Since private investment has been slowing down during the last couple of quarters, the decline of government investment would further impact overall investment and economic growth. Plan capital expenditure recorded a negative growth of 6.2 per cent in Q1:2011-12 and in first two months of the second quarter, it has registered a moderate increase of 14.3 per cent. On the other hand, Non-Plan capital expenditure increased by 22.4 per cent in Q1:2011-12 (against 110.9 per cent in Q1:2010-11), but, in the first two months of Q2:2011-12 it recorded negative growth of 45.3 per cent. Overall, there has been decline in capital expenditure growth during the first five months of the current fiscal compared to the period of the previous fiscal year.

Table VII.5 shows the various components of central government expenditure as a percentage of GDP. The ratio of total expenditure-to-GDP is moderately higher in Q1:2011-12 compared to Q1:2009-10 and Q1:2010-11. The deceleration in expenditure is mainly because of a substantial decline in expenditure on the revenue account, particularly in Non-Plan capital expenditure. The ratio of revenue expenditure (Plan and Non-Plan) recorded an increase of 10.9 per cent in Q1:2011-12 compared to 12 per cent in Q1:2010-11. Similarly, the ratio of capital expenditure (Plan and Non-Plan) to GDP declined marginally from 1.8 per cent in Q1:2010-11 to 1.7 per cent in Q1:2011-12. The ratio of Non-Plan revenue expenditure declined from 9.2 per cent in Q1:2009-10 to 7.6 per cent in Q1:2010-11 and further to 7.4 per cent in Q1:2011-12. In the case of Plan revenue expenditure, the ratio also declined from 4.4 per cent in Q1:2010-11 to 3.6 per cent in Q1:2011-12. The ratio of Plan and Non-Plan capital expenditure has actually declined in Q1:2011-12 over Q4:2010-11.

Table VII.4: Quarterly growth rate of major expenditure items(% YoY)

Year	Total Expenditure	Non-Plan Expenditure (On Revenue Account)	Non-Plan Expenditure (- Interest Payments)	Non-Plan Expenditure (On Capital Account)	Plan Expenditure (On Revenue Account)	Plan Expenditure (On Capital Account)	Revenue Expenditure (Plan and Non-Plan)	Capital Expenditure (Plan and Non-Plan)
2010-11Q1	23.0	0.9	13.5	110.9	62.8	48.2	17.2	83.0
2010-11Q2	17.4	15.3	22.1	76.2	11.7	23.2	14.3	50.0
2010-11Q3	-3.8	-0.2	0.4	-40.9	-4.7	1.8	-1.6	-22.3
2010-11Q4	32.5	23.7	8.3	77.2	33.9	57.1	26.6	69.0
2011-12Q1	7.8	13.7	24.8	22.4	-4.2	-6.2	7.2	12.1
2011-12Q2*	2.7	9.9	10.3	-45.3	-3.9	14.3	6.8	-27.3
April'11	29.6	11.8	6.7	2299.4	-10.6	-10.3	6.1	444.1
May'11	-0.7	21.5	28.7	-72.1	2.6	-10.7	14.5	-55.0
June'11	-0.4	9.3	44.9	-38.1	-5.6	3.0	2.7	-24.0
July'11	25.9	36.6	-4.4	-52.7	35.0	-11.4	36.2	-39.6
Aug'11	-15.6	-10.4	20.0	-38.2	-34.0	42.3	-15.7	-15.1

Note: * July-August 2011.
Source: Author's calculation based on data from Controller General of Accounts, Ministry of Finance, Government of India.

Table VII.5: Expenditure on major items as a percentage of GDP (%)

Year	Total expenditure	Non-Plan Expenditure (on Revenue Account)	Non-Plan Expenditure (on Revenue Account - Interest Payments)	Non-Plan Expenditure (on Capital Account)	Plan Expenditure (on Revenue Account)	Plan Expenditure (on Capital Account)	Revenue Expenditure (Plan and Non-Plan)	Capital Expenditure (Plan and Non-Plan)
2009-10Q1	13.7	9.2	2.5	0.7	3.3	0.5	12.5	1.2
2009-10Q2	16.7	11.2	3.4	0.7	4.1	0.7	15.3	1.5
2009-10Q3	15.0	9.3	2.5	0.9	4.1	0.7	13.4	1.6
2009-10Q4	16.5	10.3	4.3	1.4	3.9	0.9	14.2	2.3
2010-11Q1	13.8	7.6	2.3	1.2	4.4	0.7	12.0	1.8
2010-11Q2	16.4	10.8	3.5	1.1	3.8	0.7	14.5	1.8
2010-11Q3	12.0	7.7	2.1	0.4	3.3	0.6	10.9	1.0
2010-11Q4	18.5	10.7	4.0	2.0	4.5	1.3	15.2	3.3
2011-12Q1	12.7	7.4	2.4	1.2	3.6	0.5	10.9	1.7

Source: Author's calculation based on data from Controller General of Accounts, Ministry of Finance, Government of India.

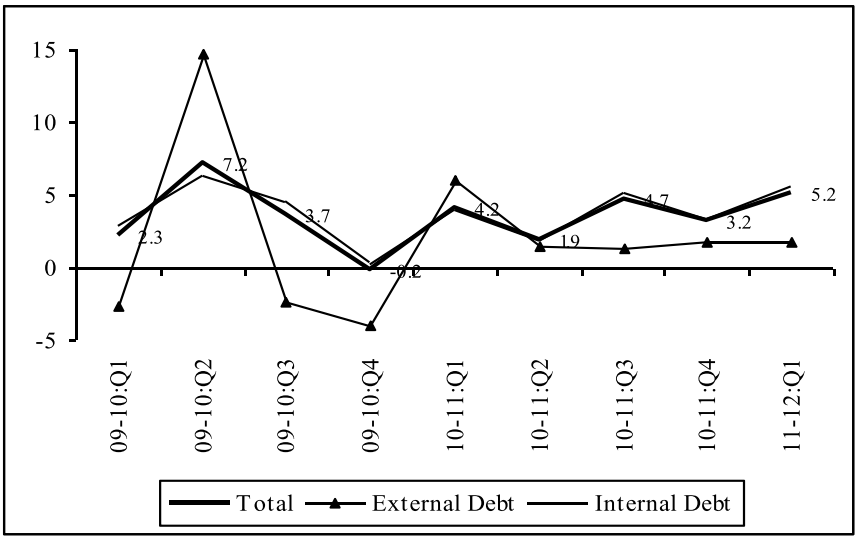
The Debt and Deficits

Until the end of August 2011, the central government was confident enough of limiting its market borrowings for the current fiscal in line with the budgeted target of Rs. 4.13 lakh crore. However, in the following month, the government shocked the markets with its announcement that it would borrow an additional Rs. 52,900 crore to mitigate its lower cash balances. This was mainly because of the declinein small savings fund by Rs. 27,000 crore in the first quarter of 2011-12.

The central government successfully reduced its public debt-to-GDP ratio to 45.3 per cent in 2010-11 from 51.5 per cent in 2009-10, primarily through higher revenue. It has set a target of reducing the debt-to-GDP ratio further by 1.1 percentage points in the current fiscal and to 41.5 per cent by 2013-14 according to the Medium Term Fiscal Policy (MTFP). The target for the current fiscal looks difficult to achieve - both economic growth and revenue collection are likely to be lower than the budget estimates for the current fiscal. Further, the additional market borrowings announced by the government for the current fiscal would put greater pressure on funds available for private sector borrowing. In the first five months of the current fiscal, the government borrowed 70 per cent of the budgeted target, compared to around 40 per cent raised in the same period the previous fiscal year.

The quarterly trend inthe central government's outstanding liabilities is given in Figure VII.2. Total debt (internal plus external) had moderated in 2010-11 compared to 2009-10. In 2010-11 government debt rose by 11.6 per cent over the previous year, and by 5.2 per cent in the first quarter of 2011-12 over the previous quarter. This is mainly due to the increase in internal debtby 5.6 per cent during the same period. On the other hand, external debt has posted a growth of only 1.7 per cent over the previous quarter.

Figure VII.2: Total outstanding liabilities of the central government (% QOQ)

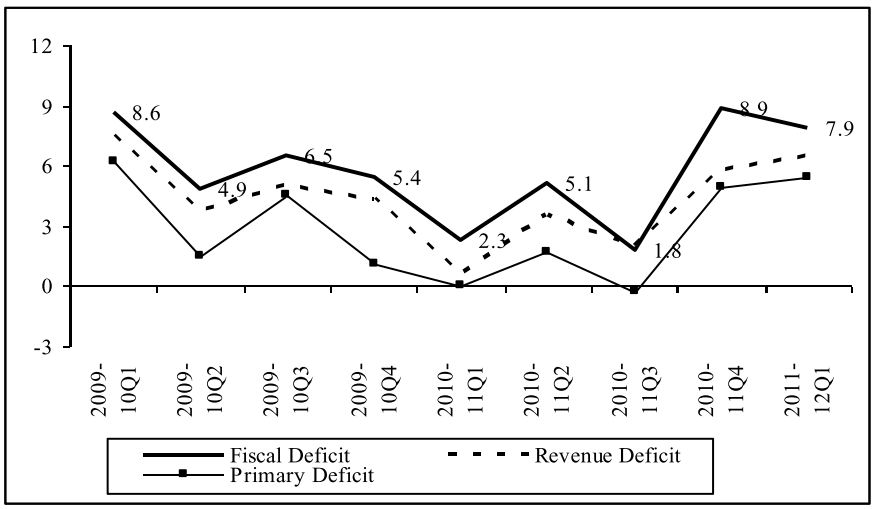


Source: Author's calculation using data from the Ministry of Finance, Government of India

The central government's fiscal performance was positive during 2010-11 especially in terms of achieving its goals on deficits. The revised estimates show all three deficit parameters- primary, revenue and fiscal - are lower than the budget estimates. The fiscal deficit has been revised from 5.5 per cent in the budget estimates to 5.1 per cent. The factors which contributed to this outcome are better performance in tax revenue collection and a windfall gain from the 3G auction to the order of 1.3 per cent of GDP. The government could have reduced the fiscal deficit further had the target of Rs. 40,000 crore of disinvestment been achieved, but it could manage only Rs. 22,762.96 crore of disinvestment during 2010-11. For the current fiscal, the government has budgeted Rs. 40,000 crore of disinvestment revenue. So far the government has achieved only 3.6 per cent of this target. Weak global and domestic capital market conditions have hampered the prospects of any disinvestment plan. Any shortfall of revenue from this head would hit the government's deficit targets hard.

The trends in the quarterly deficit numbers are given in Figure VII.3. All three deficits have increased at a higher rate in the first quarter of the current fiscal compared to the same quarter of the previous fiscal year. The fiscal deficit is 7.9 per cent of GDP in Q1:2011-12 compared to merely 2.3 per cent in Q1:2010-11. This is primarily due a substantial fall in total receipts and revenue receipts. Factors such as the large refund of tax revenue in the first quarter of the current fiscal and receipts of 3G revenues in the same quarter of the previous fiscal year are responsible for declining revenue receipts. The revenue deficit also shows a considerable increase in Q1:2011-12 at 6.5 per cent of GDP compared to 0.6 per cent in the same quarter of 2010-11. Overall, there has been a large increase in the central government's deficits during the first quarter of the current fiscal against a moderate rise in the same quarter of the previous fiscal year.

Figure VII.3: Trends in central government deficits (% of GDP at current prices)



Source: Calculated using data from the Controller General of Accounts, Government of India.

Looking beyond Q1:2011-12, it is not going to be an easy task for the government to contain its deficits within the budget estimates. Meeting the disinvestment target for the current fiscal is also likely to be a challenging goal. Alternative mechanisms like auctioning some portion of the defense spectrum to the private sector may help raise additional revenues. The slowing down of economic activity particularly manufacturing has been a major hurdle in achieving the tax revenue target. Declining corporate profit margins will also impact corporate tax collection. On the expenditure side, there is a clear indication that the government will be spendingmore on subsidies, which will increase total expenditure. In this scenario, it would be difficult for the government to contain its fiscal deficit within the budget estimate of 4.6 per cent of GDP unless there are savings under various flagship social welfare programmes.

Progress of homework on implementing the GST from April 2012 would be critical for improving revenue buoyancy. Recently the Ministry of Finance placed a draft paper on its webpage on a negative list of services tax for public comment to arrive at a broad and widely acceptable negative list of services under the services tax (see inbox). The ultimate objective should be simplification of tax collection procedures rather than a more complicated task.

Box VII.1Introducing a negative list of services: A welcome step forwar

As the nation prepares itself for a comprehensive goods and services tax (GST) from April next year, the government is in the process of fine-tuning different aspects of the proposed tax structure. In this context, recently, the Ministry of Finance brought out a draft paper on a negative list of services, to get feedback from various stakeholders. This new tax structure is completely different from the existing tax structure of a widepositive list of services. So far the government has been collecting tax revenue on the basis of a positive list of services. Why is the government suddenly thinking of abandoning its current tax procedures when tax administrators are familiar with this system? The basic problem with the current system is it is difficult to monitor tax collection when the number of services increases. More importantly, expanding the positive list of services may lead to more disputes and higher compliance costs. On the other hand, a small negative list of services would give an upper hand to the government by bringing many untapped services under the tax net and increasing the tax base. A broader tax base would be likely to generate higher tax revenues, but surprisingly, instead of a small negative list, the Ministry has listed as many as 27 services under nine broad sectors. These sectors are - specified persons, social welfare and public utilities, agriculture and animal husbandry, financial, transport, construction and real estate, education, health and others. Under this new tax structure, services which are listed in the negative categories will be exempt from services tax, while others will have to pay services tax.

Currently, the services sector contributes around 60 per cent to India's GDP, but services tax revenues account for less than 1 per cent of GDP. Therefore, there is enough space for the government to improve revenue collection under the service tax. Further, the share of other indirect taxes to total tax revenue has been declining rapidly over the years. In order to compensate for the loss, it is important that the government improve revenues from services tax. In this context, the new tax structure is a welcome step ahead.

However, a widenegative list would make the task more difficult. It is not clear why the government has listed a few services under the negative list and left out others. This would prompt other sectors to demand tax breaks. Again, is the rationale of a tax waiver to the agriculture sector similar to real estate or even services to sports person and NGOs? The Thirteenth Finance Commission (TFC) had recommended a list of services to make tax collection procedures simple and easy. The government has virtually accepted the recommendations. What then prompted the government to announce a large negative list of services? It could be that the government did not get public support. For example, the TFC had strongly recommended bringing all healthcare services under the tax net, so the government had proposed a services tax on healthcare in the last budget. But the tax was withdrawn subsequently due to strong public and media protests. Whatever the reason, the government could still reduce the number of services under the negative list. For example, tax breaks for sports person and NGOs are not justified - it is widely believed that NGOs are becoming profitable ventures for the rich people to conceal their money. Nevertheless, a smaller negative list of services would have made the tax collection structure simple and viable.

VIII. Forecast

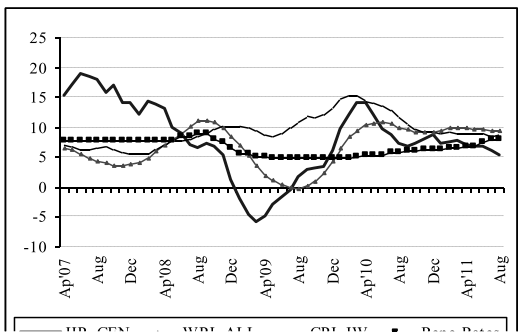
By Purna Chandra Parida[12]

Backdrop

GDP estimates for Q1:2011-12 released by the Central Statistical Organisation (CSO) on 30 August point to a deepening of the economic slowdown, which started in the second half of the previous fiscal year. The economy grew by 7.7 per cent in Q1:2011-12 against a growth of nearly 9 per cent in the same quarter the previous year. This decline is greater than expected as both domestic and external factors have turned less favourable. The Finance Ministry has recently scaled down the current year's GDP growth projection to around 8 per cent from its earlier revised projection of 8.5 per cent (+/-0.25) in July 2011. In its latest review of the macroeconomic conditions on October 24, the Reserve Bank of India (RBI) has projected GDP growth of 7.6 per cent for the current fiscal, against an expected growth rate of 8 per cent in July.

The latest World Economic Outlook released by IMF in September 2011 reduced the India's GDP growth forecast by 0.4 percentage points from its earlier projection of 8.2 per cent in June 2011. The agency has cited capacity constraints and tightening monetary policy as the main reasons forthe slowing down of India's economic growth. The Asian Development Bank (ADB) too has cut India's GDP growth forecast for the current year. In its Outlook Update released in September 2011, the agency has trimmed India's GDP growth by 0.3 percentage points, from its previous forecast of 8.2 per cent in April 2011 to 7.9 per cent now.

Figure VIII.1: Trend of Repo rate (%), Inflation (WPI and CPIIW)) and IIP Growth (%YoY)



Both agencies point to the negative impact of weakening economic activities in the US, Japan and Europe on the global economy in general and emerging economies in particular. A major shock in any of these economies would jeopardise the growth prospects of emerging economies in the short-to-mediumterm. Economic growth in India is also impacted by the continuing economic uncertainty in the US and Europe. Further, high international oil and commodity prices since the beginning of 2010 have led to higher domestic energy and overall prices. The persistent high inflation and policy uncertainty have meant weakening political and business confidence, leading in turn to a decline in investment spending. The cost of borrowing has increased as monetary tightening had led to higher interest rates. Both private consumption and investment demand growth rates have declined. Private consumption expenditure grew by 6.3 per cent in the first quarter of the current fiscal against a robust 9.5 per cent in the corresponding quarter the previous year.

Inflation has been the most destabilising factor since the second half of 2010-11. The RBI raised the Repo rates 13 times since March 2010, the last time on October 25. In total, the Repo rate has been raised 350

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basis points since mid-March 2010. The current Repo rate of 8.5 per cent is similar to the level of June 2008 when WPI inflation was 11.47 per cent. Figure VIII.1 illustrates the YOY growth rates of the three-month moving averages of the IIP, WPI and CPI-IW series.

The relief from high inflation which came in early-2008 was due to the collapse of international oil and commodity prices following the global financial crisis. The YOY growth rate of WPI inflation touched its lowest level of -0.3 per cent in August 2009. The YoY growth of the IIP also crashed during the same period, on weak investment and export demand. In the present scenario inflation is influenced by both demand and supply-side factors starting from the severe drought in 2009-10, global oil and commodity price shocks in 2010 and high levels of government spending during the two crisis years. The gradually tightening policies of the RBI may have caused a slowdown in growth instead of taming inflation. Rising input costs and the slowing down of private investment have impacted the growth of factory output. The services sector has also been affected by rising input costs. One reflection of the slowdown in services is the lower growth in the production of commercial vehicles by 25.8 per cent during April-August 2011 compared to a high of 48.5 per cent during April-August 2010.

Weak investor sentiments are also evident in the stock market indicators. The stock price indices have been on a downslide since January 2011. From January to September 2011, the month-end BSE Sensex has declined regularly except for small MOM increases in March and June. On August 8, 2011, the index slumped by 315 points due to S&P's downgrade of the US credit rating. During the April-August 2011, the BSE has recorded only 3.8 per cent growth against a growth of 22.5 per cent during April-August 2010. There was a large-scale outflow of funds through FII operations during April-August 2011. On the bank credit front, the growth rate of both non-food credit and bank credit to the commercial sector has been slowing down since June 2011. There is also growing concern over the central government's fiscal position for the current fiscal. Rising expenditure on subsidies, low revenue collection on account of tax revenue foregone and the shortfall in budgeted disinvestment revenue may lead to a budgetary deficit far in excess of the budget estimates.

On the positive side, exports, FDI and inflows under net invisibles on the current account are performing well despite the slow economic recovery in the advanced countries. The Ministry of Finance has raised the limit for FII investment in long-term corporate bonds issued by companies in the infrastructure sector. The Ministry has outlined a framework to allow organised private sector investment in the retail sector and also brought out a draft paper listing of services under the GST. The proposals on the mining sector and land acquisition will have a significant impact on industry when implemented. More importantly, it is expected that inflation may subside in the second half of 2011-12 on account of a softening in international commodity prices and higher agricultural output.

The First Quarter of 2011-12

The economic slowdown, which started in the second half of 2010-11, has deepened in the current fiscal. In the first quarter of 2011-12, real GDP grew at almost the same rate as in the first half of 2009-10. However, industrial GDP growth dropped to its 2008-09 crisis level, led by a substantial decline in construction output. The GDP growth of manufacturing and mining & quarrying also declined. On the demand side, both private and government final consumption expenditures have recorded lower growth in the first quarter of the current fiscal compared to their growth rates in Q1: 2009-10. More importantly, the growth rate of

gross fixed capital formation has declined steadily, which may affect the long-term growth prospects of the economy.

On a positive note, the farm sector has performed well in the first quarter of the current fiscal. The service sector has also registered double-digit growth despite slowing down of investment activity and rising costs. Exports of goods and services, FDI and net invisibles have also recorded reasonable positive growth during the first quarter of the current fiscal. Output performance in the broad aggregate sectors in Q1: 2011-12 is summarised in Table VIII.1a.

Aggregate GDP at 2004-05 prices recorded 7.7 per cent growth in Q1: 2011-12 compared to 8.8 per cent in corresponding quarter of 2010-11. Unlike the agriculture sector, the growth rates of industry and services decelerated in Q1: 2011-12 against the same quarter of the previous fiscal. Industrial growth recorded a sharp fall, led by both construction and manufacturing, and the sector registered mere 5.1 per cent growth in Q1:2011-12. The manufacturing sector has decelerated sharply from 10.6 per cent in Q1:2010-11 to 7.2 per cent in Q1:2011-12. The slowdown is more visible in the construction sector, which grew by 1.2 per cent in Q1:2011-12 compared to a 7.7 per cent growth in the same quarter of 2010-11. The services sector also registered slightly lower output growth in the first quarter of the current fiscal against the same quarter in the previous fiscal. A proxy for demand for freight transportation, production of commercial vehicles has declined to 25.8 per cent during April-August 2011 from a high 48.5 per cent in the same period the previous fiscal year. While both growth rates are very high, there has been a drop from a very high rate to a lower rate. Unlike the other two sectors, agriculture and allied activities registered higher output growth of 3.9 per cent in Q1:2011-12 compared to 2.4 per cent in Q1:2010-11.

Table VIII.1.a: GDP at Factor Cost (2004-05 prices): % YoY

Sector	2009-10	2010-11RE	2011-12AE
	Q1	Q1	Q1
Agriculture	1.8	2.4	3.9
Industry	5.0	9.1	5.1
-Manufacturing	4.3	10.6	7.2
- Construction	5.4	7.7	1.2
Services	8.2	10.4	10.0
Total	6.3	8.8	7.7

Note: RE: Revised estimates, AE: Advance estimates.
Source: Complied from data published by Central Statistical Organisation (CSO).

Table VIII.1.b: GDP at Market Prices (2004-05 prices): % YoY

Item	2009-10	2010-11RE	2011-12AE
	Q1	Q1	Q1
Private final consumption expenditure	6.6	9.5	6.3
Government final consumption expenditure	21.3	6.7	2.1
Gross fixed capital formation	1.0	11.1	7.9
Change in stock	83.2	9.3	4.7
Valuables	80.1	32.4	39.3
Exports of goods and services	-11.7	9.8	24.3
Imports of goods and services	-8.2	15.2	23.6
GDP at market prices	6.4	9.1	8.5

Note: RE: Revised estimates, AE: Advance estimates.
Source: Compiled from data published by the Central Statistical Organisation (CSO).

Both private and government expenditure played a key role in the economic recovery in 2009-10 and sustained the growth momentum in 2010-11. Table VIII.1.b shows that private final consumption expenditure recorded 6.6 per cent growth in Q1:2009-10 and improved further to 9.5 per cent in Q1:2010-11, but decelerated sharply in the first quarter of the current fiscal to 6.3 per cent. High inflation and an increase in policy interest rates have dampened private expenditure. Government final consumption expenditure also reflects a sharp decline in its growth rate from 21.3 per cent in Q1:2009-10 to 6.7 per cent in Q1:2010-11 and further to 2.1 per cent in Q1:2011-12.

The sharp fall in the pace of gross fixed capital formation in the second half of 2010-11 has also impacted growth in the current fiscal. The growth rate of gross fixed capital formation declined from 11.1 per cent in Q1:2010-11 to 7.9 per cent in Q1:2011-12. Exports of goods and services show sustained recovery in 2010-11 from their crisis levels in 2009-10. In Q1:2011-12, overall exports have registered a remarkable 24.3 per cent growth despite the slow economic recovery in the advanced economies. Imports of goods and services have also recovered well from the period of global crisis, recording large improvements during the first half of 2010-11, recording sustained YoY growth of 3.6 per cent in Q1:2011-12 compared to 15.2 per cent in the corresponding quarter of 2010-11.

Recent trends in select macroeconomic indicators

The first quarter of the current fiscal shows a deeper decline of economic growth than the second half of the previous fiscal year. Industrial growth has decelerated considerably due to a decline in manufacturing and construction activities. High inflation and interest rates and slowing down of private investment have led to a slowing down of industrial growth. Although WPI inflation has eased in the first five months of the current fiscal, it still remains above the acceptable level of 4-5 per cent due to rising fuel and manufacturing prices. The BSE Sensex reflects a bear market sentiment on global cues. The business confidence of the corporate sector has also touched low levels.

- The current trends in major macro indicators are summarised in Table VIII.2. The main patterns are:

- IIP (General) has dropped by 1.0 percentage points in Q1:2011-12 from 7.7 per cent in Q4:2010-11 and even more - by 2.9 percentage points - from 9.6 per cent in Q1:2010-11. The decline has mainly come from the manufacturing and mining & quarrying sectors. Compared to its 10.4 per cent growth in Q1:2010-11, manufacturing output growth has declined by as much as 3 percentage points in Q1:2011-12. Mining and quarrying has stagnated, registering growth of just 0.6 per cent in Q1:2011-12 compared to growth of 8 per cent in Q1:2010-11. The latest data available for July and August 2011 show that apart from electricity, the other industrial sectors continued to perform poorly.

- The pattern of WPI inflation shows that primary article inflation has declined considerably from 20.7 per cent in Q1:2010-11 to 13.4 per cent in Q1:2011-12. The latest monthly data also shows a further decline in the pace of increase in the prices of primary articles. On the other hand, WPI energy prices have consistently remained above 12 per cent on a YoY basis, since the fourth quarter of 2010-11 till August 2011. Manufactured products, which have a larger weight in the overall WPI have seen a continuous rising trend in prices since Q4:2010-11. As a result, overall WPI inflation has remained high throughout the current fiscal so far. The latest information available for the first two months in Q2:2011-12 shows that WPI inflation is hovering above 9 per cent. The government has raised domestic fuel prices a couple of times in the current fiscal due to the increase in international oil prices. This has had a cascading impact on manufacturing sector prices. The international Brent oil price, which touched USD 117.1 per barrel in Q1:2011-12 has subsided thereafter, thanks to recurring financial market shocks in the US and Europe.

- The declining rate of growth of bank credit to the commercial (BCC) sector in the current fiscal is a major concern for growth of service sector output. The growth of BCC on a YoY basis was above 20 per cent in 2010-11 despite the frequent increase in key policy interest rates. These two key factors will certainly have some impact on the output of manufacturing and services. In Q1:2011-12, the growth rate of BCC declined to 21.2 per cent from 22.3 per cent in Q4:2010-11 and has declined further to 18 per cent in July 2011. Money supply has declined substantially during the post-crisis period. In Q1:2011-12, M3 recorded 17.2 per cent growth and has declined further in the first two months of second quarter of current fiscal.

- Weakening of the US dollar in the international market led to an appreciation of the Indian rupee throughout 2010-11. The rupee also appreciated against the US dollar by more than 3 per cent in the first quarter and the first two months of the second quarter in the current fiscal. However, the latest data available for September 2011 shows that the rupee has depreciated about 3.6 per cent against the US dollar due to capital outflows. Net FII inflow has recorded negative growth of 92 per cent in the first five months of current fiscal.

- Despite the rupee appreciation, merchandise exports (USD) recorded strong growth during the first two quarters and in the last quarter of 2010-11. In Q1:2011-12, exports recorded 50.8 per cent YoY growth. In July 2011, they registered a whopping 92 per cent growth before declining to 43 per cent in the very next month. Some of the increase may also be due to the weakening of the dollar relative to other currencies. It is going to be challenging to sustain the export growth momentum in the coming quarters due to the lack of a strong recovery in the advanced economies. Imports of goods (USD) are also growing faster on the back of high international crude oil prices. In July and August 2011, the import bill rose by 38.6 and 41.4 per cent, respectively.

Table VIII.2. Recent trends in selected economic indicators

% Change YoY	2010-11	2010-11	2010-11	2010-11	2011-12	2011-12	2011-12	2011-12
	Q1	Q2	Q3	Q4	Q1	July	Aug	Sep
I. Growth Environment: IIP (2004-05 base)								
Manufacturing	10.4	7.4	9.2	8.7	7.4	2.3	4.5	
Mining and Quarrying	8.0	6.3	6.3	1.0	0.6	2.8	-3.4	
Electricity	5.4	2.1	6.5	8.1	8.2	13.1	9.5	
General	9.6	6.8	8.6	7.7	6.7	3.3	4.1	
II. Price environment								
WPI(New Base)								
Primary articles	20.7	17.7	17.0	15.9	13.4	11.3	12.6	11.8
Fuel, power, etc	14.0	12.3	10.9	12.1	12.7	12.0	12.8	14.1
Manufacturing	6.5	5.8	5.8	6.9	7.2	7.5	7.8	7.7
Rice or paddy	8.3	7.5	4.7	3.2	2.7	2.5	5.2	4.0
Wheat	7.1	8.2	-0.8	-1.7	-0.1	1.9	-1.4	-2.1
Edible oils	-0.2	3.8	6.3	11.9	14.7	14.1	12.9	13.5
All commodities	10.9	9.6	9.3	9.9	9.6	9.2	9.8	9.7
CPI								
Industrial workers	13.7	10.3	9.2	9.0	8.9	8.4	9.0	
Agricultural labour	13.9	9.9	7.9	8.8	9.4	9.0	9.5	9.4
III. Monetary/ Capital market variables								
Sensex	28.8	15.4	19.4	10.5	8.2	1.8	-7.2	-18.0
M3	15.1	15.5	17.5	16.3	17.2	16.4	16.7	16.3
RM	20.6	24.3	22.0	19.5	17.6	16.0	16.5	19.4
Bank credit to commercial sector	17.2	18.8	23.4	22.3	21.2	18.0	19.7	18.8
LIBOR (3 months, end period rate%)*	0.43	0.39	0.29	0.31	0.26	0.25	0.29	0.35
IV. External account								
Exports (merchandise)	36.4	20.0	31.1	37.3	50.8	92.0	43.1	
Imports (merchandise)	33.0	27.0	-0.8	16.4	33.2	38.6	41.4	
Exchange rate Rs/USD (+ depreciation/- appreciation	-5.8	-3.9	-3.8	-0.4	-2.9	-5.2	-2.7	3.6
Brent USD/barrel*	78.7	76.4	86.8	104.9	117.1	116.5	110.1	110.9
Forex Currency Assets (USD)	1.2	2.7	5.1	6.5	15.5	0.7	11.4	3.4

Note: * Actual values and not YoY change
Source: Data compiled from a number of official statistics.
Assessment of macroeconomic outlook for 2011-12

Economic growth has weakened on the latest three quarters, Q3:2010-11 to Q1:2011-12, and become more vulnerable to external shocks. Inflation remains high despite several demand and supply-side measures to protect growth and rein in inflation. Rising input costs and the decline of private investment growth remain a threat to economic growth both in the short and medium term.

On the growth front, only the farm sector is expected grow at a higher rate than expected at the beginning of the year. Rainfall during the current monsoon season has been favourable across all the regions. The press release by the Meteorological Department, Government of India on 16 September 2011, suggests that the cumulative all-India seasonal rainfall (1 June to 14 September) for the country as a whole was 3 per cent above the long-period average. It is expected that the normal monsoon would favour higher production of both kharif and rabi crops. The Ministry of Agriculture has estimated the foodgrain output target for 2011-12 at 245 million tons, an increase of 1.4 per cent over the previous year. The bumper crop will help reduce price volatility and bring relief to several Asian importers who are trying to combat food-led inflation.

The services sector experienced balanced growth in 2009-10 and 2010-11,although it recorded below 9 per cent growth in the second half of 2010-11. In Q1:2011-12, it performed reasonable well, registering 10 per cent growth as compared to 10.4 per cent in the same quarter of the previous fiscal. The sector is expected to register a growth rate above 9 per cent in the current fiscal.

In this section, we have examined the emerging scenario for 2011-11 using two approaches: (1) a quarterly GDP growth assessment based on a quarterly model that incorporates some of the inter-sectoral relationships and evolution patterns of variables over time, and (2) an annual GDP growth assessment based on a more detailed annual macroeconometric model. The results are presented below.

Quarterly GDP growth in 2011-12

In our previous forecast in July 2011, we had projected 8 per cent GDP growth for Q1: 2011-12. This was slightly higher than the official advance estimate of 7.7 per cent for the same quarter released in 30 August 2011. Nevertheless, the growth trend is similar to our prediction of lower growth for the first quarter of the current fiscal. In our current projection (October 2011), we revise the GDP growth forecast for the last three quarters of the current fiscal. Our projection shows the GDP growth for the second quarter will be similar to the first quarter and that growth rates will pick up in the remaining two quarters. This is based on our presumption that the inflation pressure would subside in second half of the current fiscal and that capital market conditions would improve. However, our projections are based on stability in the US and Euro zone areas. Any decline in the growth prospects in these economies may also have a significant impact on India as well.

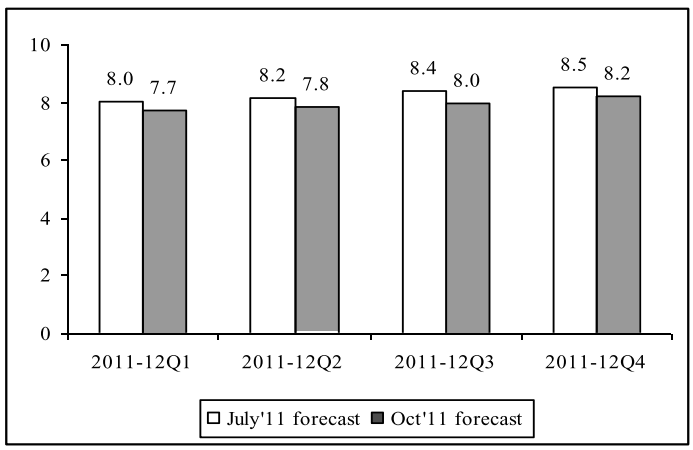
The revised projections are based on a review of earlier assumptions relating to the exogenous variables. In the case of agriculture, the assumption relatingto rainfall remains unchanged from the July 2011 forecast. Assumptions for other exogenous variables such as the SENSEX, bank credit to the commercial sector (BCC), and central government expenditures have been revised taking into account latest available data upto August 2011. We have also updated the quarterly projection of the WPI for 2011-12 by incorporating the latest data till August 2011. In the case of the BSE Sensex, we assume a 5.0 per cent decline for 2011-12 compared to our earlier assumption of an 8 per cent increase- both on a YoY basis-in July 2011. For BCC, we assume a growth of 18.5 per cent, which is lower than the 19.8 per cent in July 2011. For government

expenditure, we assume a 10 per cent increase against our previous assumption of 5.2 per cent growth for 2011-12 over the previous year. Major changes have emerged in the inflation scenario. After incorporating the latest data, the revised forecast predicts 8.4 per cent inflation for 2011-12 compared to our previous forecast of 8.0 per cent.

Based on the above changes in the assumptions on exogenous variables, the revised quarterly projections of GDP growth for 2011-12 are given in Figure VIII.2. As noted earlier, we had projected 8.0 per cent GDP growth for Q1:2011-12 in July 2011. The official estimates now show 7.7 per cent GDP growth for the same quarter. The current revised forecast for the remaining three quarters shows that the growth rate of GDP for Q2 is revised downward to 7.8 per cent from the previous projection of 8.2 per cent provided in July 2011. The major decline can be attributed to a slowing down of the industrial sector followed by services sector. We also project a decline of 0.3 to 0.4 percentage points in GDP growth for Q3 and Q4 of 2011-12 compared to the July 2011 forecast.

The similarity between the earlier forecast and the current forecast is because GDP growth rate is projected to be higher for the second half of the year compared to the first half. Based on the quarterly model, the revised GDP growth for 2011-12 is projected at 8.0 per cent, a decline of 0.3 percentage points compared to our July 2011 forecast.

Figure VIII.2 : Revised Quarterly GDP Forecast for 2011-12



Note: October 2011 forecast for Q1 is an official number. Our revised forecast starts from Q2:2011-12.

Annual Assessment for 2011-12

The first revision to our 2011-12 forecasts was made in July after the initial forecast was presented in April 2011. The analysis was carried out by using a detailed annual macroeconometric model. Our July 2011 forecast on real GDP growth was 8.3 per cent for 2011-12. The current forecast incorporates the changes in key macroeconomic parameters during the past three months. The key assumptions on which the forecast is based are:

Rainfall: Our assumption on rainfall remains unchanged compared to the previous forecast. We maintain a 'normal' rainfall during the monsoon season June-September 2011. The actual rainfall for the monsoon

season is 3 per cent above the long-period average.

World GDP growth: We have taken world real GDP growth at 4.0 per cent against the previous assumption of 4.3 per cent as per the latest World Economic Outlook released by the IMF in September 2011.

International crude oil price: We maintain our earlier assumption of an increase in the international crude oil price by 15 per cent in 2011-12 over the previous year.

Non-fuel commodity prices in international markets: The prices of non-fuel commodities are assumed to increase by 10 per cent, which is the same as in the July 2011 forecasting exercise.

FDI net inflows and net invisibles receipts: We retain our July 2011 assumption that net FDI inflows would increase by 15 per cent in the current fiscal. We also retain our earlier assumption that net invisibles would grow by 20 per cent on a YoY basis.

Foreign institutional investment: We assume FII inflows would decline by 50 per cent in 2011-12 over 2010-11 compared to our earlier assumption of a 15 per cent increase.

Domestic energy price index (WPI for fuel, power, light and lubricants): We maintain the earlier assumption of a 10 per cent increase in WPI Energy in 2011-12.

BSE Sensex: The YoY growth rate of the average BSE Sensex for the year is assumed to be negative 5 per cent against our earlier assumption of 8 per cent growth.

Procurement price for rice and wheat: We maintain the earlier assumption of a 5.5 per cent increase in both commodities for 2011-12.

Interest rate and exchange rate: We retain our earlier assumption on the interest rate, which is an increase by 1 per cent. We also maintain our previous assumption of LIBOR at 1.0 per cent and nominal exchange rate appreciation of 1.3 per cent.

Central government finances: Two changes were made in the current forecasting analysis in the assumptions relating to central government finances. We assume that the central government's disinvestment revenue would fall short by Rs.10, 000 crore from the budget target of Rs. 40,000 crore. Second, we have taken into account tax revenue foregone by the central government of Rs. 49,000 crore, because of duty cuts on crude and petroleum products.

The revised assessment of the key macroeconomic parameters for 2011-12 is summarised in Table VIII.3.

Table VIII.3: Revised GDP forecast for 2011-12

	2009-10	2010-11	NCAER Forecast for 2011-12 July 27 2011	NCAER Forecast for 2011-12 Oct 27 2011
% Change YoY				
Real GDP				
- Agriculture	0.4	6.6	3.2	3.2
- Industry	8.0	7.9	8.3	7.8
- Services	10.1	9.4	9.5	9.2
Total	8.0	8.5	8.3	7.9
Exports (USD value)	-3.5	37.8	17.8	16.8
Imports (USD value)	-5.0	21.8	24.6	23.7
Inflation (WPI)	3.7	9.4	7.9	7.9
% of GDP at Market Prices				
Current Account Balance*	-2.9	-2.6	-3.2	-3.1
Fiscal Deficit (Centre)	6.4	5.1	4.8	5.1

Note: Forecast based on Annual Model. * Surplus (+)/deficit (–)

The revised assessment places overall GDP growth, in constant 2004-05 prices, at 7.9 per cent in 2011-12. The growth rate is lower by 0.4 percentage points compared to our July forecast. The decline has come mainly from industry followed by services. Agriculture is estimated to grow by 3.2 per cent, which is the same as in our July projections.

In the case of industry, the revised projections indicate a 7.8 per cent growth in 2011-12. The growth rate is lower by 0.5 percentage points compared to the July projections. The higher rate of inflation, higher interest rate and rising input costs are expected to dampen growth of industry more than the other sectors. Further, industrial output will be affected more by the slowing down of private corporate investment expenditure, which is projected to grow at less than half its previous year's growth rate. Services sector growth is projected to be 9.2 per cent in 2011-12, which is lower by 0.3 percentage points than our July projections. The slowing down of manufacturing activity and private investment would negatively impact the growth prospects of the services sector.

The GDP growth estimate for 2011-12 is higher at 8 per cent based on the quarterly model compared to the forecast of 7.9 per cent based on the annual model. The difference in the two approaches is relatively small indicating that overall GDP growth for 2011-12 is likely to be close to 8 per cent.

WPI-based inflation remains unchanged from our July 2011 projection of 7.9 per cent. This is mainly due to unchanged assumptions regarding international and domestic oil and energy prices from the earlier projection.

The quarterly model, however, provides a higher WPI inflation projection of 8.4 per cent for 2011-12 although the model also predicts moderation in WPI inflation from October 2011 onwards. The range for WPI inflation for 2011-12 based on the two models is 7.9-8.4 per cent.

The revised assessment of the external sector indicates that merchandise exports (USD) are projected to grow by 16.8 per cent in 2011-12. This is a 1.0 percentage point lower than our July forecast, mainly because of the revision in the growth rate of world GDP. The revised forecast for merchandise imports (USD) also shows a slightly lower growth of 23.7 per cent compared to 24.7 per cent in our July 2011 forecast. The decline in the domestic growth rate implies lower growth of imports. Since both exports and imports have declined and the former has declined more than the latter, the current account as a percentage of GDP remains close to the July 2011 forecast. The revenue loss from both the tax cut and lower disinvestment is expected to increase the central government deficit. The revised estimates of the fiscal deficit of the centre as a percentage of the GDP at current market prices is projected at 5.1 per cent, up by 0.3 percentage points from the July 2011 forecast.

Mid Year Review of the Economy 2011–12

Part C: Special Themes

I. Inflation and Growth

By Bornali Bhandari and Purna Chandra Parida

1. Introduction

Headline inflation in India as measured by Wholesale Price Index (WPI) (2004–05) base has stayed above 9.5 per cent since 2010–11:Q4. A combination of internal and external factors explains this sticky trend in prices. Bad weather—drought in 2009 and uneven rainfall in India along with bad weather around the world in 2010—has affected crops around the world. Worldwide commodity inflation has percolated down to India as well. Increase in demand and political unrest in the Middle East (which appears to have also been influenced by the high food inflation) have driven up prices of fuel and power. High commodity prices have spilled over into the manufacturing sector prices.

The average inflation rate in India has been above the world average for more than a year now. While bad weather since 2009 should take part of the blame, this factor cannot be held responsible for this trend. For example, while we see very low inflation rate in cereals, other food components have seen very high prices. Fruits and vegetables is a case in point. Lack of green revolution in other food categories and inadequate food supply chains in India are being held responsible for the double digit inflation in this category. Increase in income and the consequent changing composition in demand patterns of food explain the high prices in eggs, meat, and fish. Further, schemes like NREGA, changing terms of trade in favour of agriculture, loose monetary and fiscal policy just after the Financial Recession of 2009, have all been used to explain the recent high inflation rate in India.

The current Greek public debt crisis during the last few months and its impact on the EU have slowed down world-wide economic growth. Although this may have a dampening impact on the prices of international oil, the accompanying loss of investor confidence in the world economy and partly India's own policy dilemmas have led to depreciation of the rupee which has made fuel relatively expensive at home further putting upward pressure on overall price indices.

Ineffective and incomplete monetary transmission has been unable to control inflation forces on the demand side. The Reserve Bank of India (RBI) has increased the Repo rate[13] 13 times since March 2010 to tackle this rising threat with no significant impact on the WPI inflation rate. This poses a significant challenge to the economy as the threshold inflation rate—sometimes indicated as such in policy discussions—in India is around 6 per cent. Any inflation rate above that has often proved to be a drag on the growth rate. The challenge India faces is how to quickly adapt the supply conditions of the economy to the structurally changed demand in the economy. One also needs to think seriously about supply changes because global warming, while may or may not change the average temperatures, has definitely affected variability in crop production. If India does not take this variable into account, it will struggle with food inflation rate. The effects of NREGA scheme on labour supply and wage rates also need to be examined carefully.

2. Trends

WPI inflation rate has persisted above 9.5 per cent since 2009–10:Q4 except for a small deviation in 2010–11:Q3 when it dipped to 8.91 per cent. The Consumer Price Index for Industrial Workers (CPIIW)

[13]Repo rate is the rate at which our banks borrow funds from RBI.

inflation rate surged in double digits in 2009–10:Q2 and stayed there for the next nine months. Since 2010–11:Q2 it has stayed above 8.5 per cent, although it has consistently come down. Consumer Price Index for Agricultural Labour (CPIAL) inflation rate also shows similar trends except that it stayed in double digits for a whole year between 2009–10:Q2 and 2010–11:Q2. Subsequently it has fluctuated around 9 per cent. By analysing WPI inflation trends, one sees that while inflation rate of primary articles has exhibited weakening trends, it continues to remain at painfully high levels. On the one hand, inflation rate of food articles has declined (although that on fruits and vegetables is still very high at 15 per cent). On the other, non-food articles and minerals have shown double digit inflation, especially the latter, which shows no signs of weakening. Fuel and power continues its upward trend of double digit inflation. Manufacturing inflation has slowly and steadily been inching up. Capital goods inflation rate is reassuringly low but double digit inflation in intermediate goods category implies that inflation is not going to reduce soon.

Since 2006–07, the Indian inflation rate has been higher than the world average. It then experienced increasing volatility in the later years and finally remained persistent. The high commodity prices in the Spring of 2008 added fuel to fire to an already existing high inflationary rate in the economy. RBI responded by increasing interest rates although that was widely debated by experts. It was argued that that was not the appropriate response to price increases due to supply shock. Then came the Financial Crisis of September 2008 which drove down prices. The government responded to the slow down in aggregate demand by loose fiscal and monetary policy. India recovered fairly quickly from the crisis in 2008–09. Then came the drought in 2009 which once again inflamed prices of primary articles. Food inflation surged to double digits. This was followed by uneven rainfall in 2010. Only in 2011–12 we see some weakening of price trends.

Bad weather, increased and changing composition of demand, lack of food supply chains, and green revolution being confined to the food grains sector, have all been cited as reasons behind the high food inflation. Further, the implementation of NREGA and changing terms of trade in favour of agriculture have also added to the upward pressure on prices. Unrest in the Middle East, increased demand, and decline in investor confidence have further added upward pressure on fuel prices at home. Bad weather also caused inflation in non-food primary articles like cotton. These consistent price increases over a year have started affecting manufacturing items too.

India has been unsuccessful in formulating suitable policies to successfully bring down inflation rate. RBI has raised Repo rates 13 times since March 2010, the last one on 25 October 2011. The current Repo rate of 8.5 per cent is similar to the level of June 2008 when the WPI inflation was 11.47 per cent. The October 2011–12 RBI second quarter review indicates that real interest rates remain quite low.

3. Determinants of Inflation

Theory

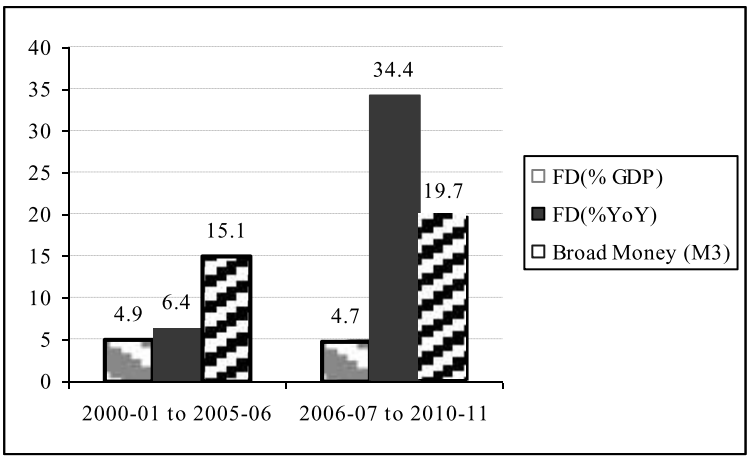
The theoretical literature emphasises that inflation is influenced by both domestic and external demand and supply side factors. Sustained rate of high inflation in the emerging economies is a consequence of the vicious nexus between fiscal deficits, monetary growth, and inflation.

Demand Side Factors

Since 2008 we have seen the presence of several factors—overheating of the economy, bad weather, increases

in oil prices, and loose monetary and fiscal policy—both in India and other countries. For example, Figure I.1 shows that fiscal deficit of the central government as percentage of Gross Domestic Product (GDP) at current market prices is nearly the same during 2000–01 to 2005–06 and 2006–07 to 2010–11. However, if we see the average growth rate of fiscal deficit during both the periods, the second period displays a mammoth (34.4%) rise of fiscal deficit as compared to the first period (6.4%).

Figure I.1: Monetary and Fiscal Factors Influencing Inflation

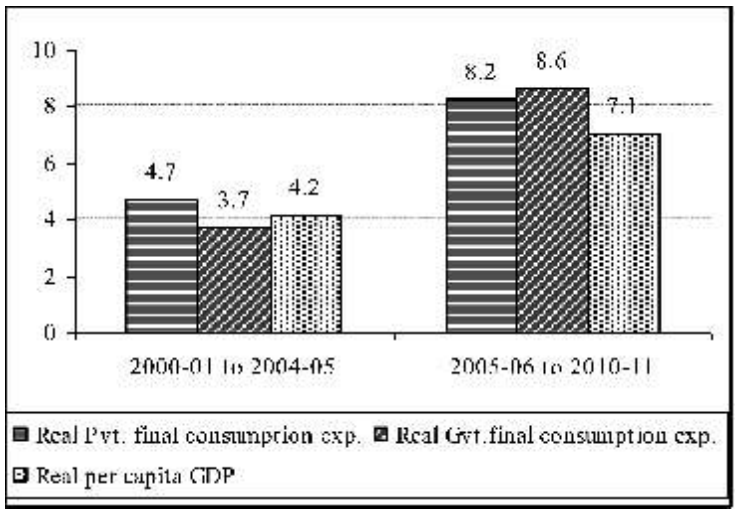


Source: Authors' calculation from RBI data.

The expansionary fiscal stance of the central government during the two crisis years 2008–09 and 2009–10 led to increase in demand side of the economy more than the supply side. The government injected ` 1,86,000 crore (3.6% of GDP) as fiscal stimulus in crisis year 2008–09 to insulate the growth momentum of the economy. The government paid this money by way of Sixth Pay Commission, farmers' loan waiver, and higher spending in social programmes. Besides these expenditures, indirect tax rates were also cut. As a result, the fiscal deficit of the Centre shot up from a mere 2.6 per cent of GDP in 2007–08 to 6 per cent in 2008–09. In 2009–10, the government also incurred huge fiscal deficit of 6.7 per cent of GDP due to the continuation of some fiscal stimulus packages. In the 2010–11 budget, the central government had also given net tax benefits of about ` 7,000 crore to spur domestic demand-led growth.

Rising domestic demand can also be seen from Figure I.2. The average growth rate of both real private final consumption and government final consumption expenditures have nearly doubled during the last six years as compared to the previous five years. A similar trend is also evident in the case of real per capita GDP growth. This suggests that the demand of the economy has increased considerably during the last six years. And intuitively, it suggests that there is structural shifting of the economy since 2005–06.

Figure I.2: Trend of Demand Side Factors (% Y-o-Y)

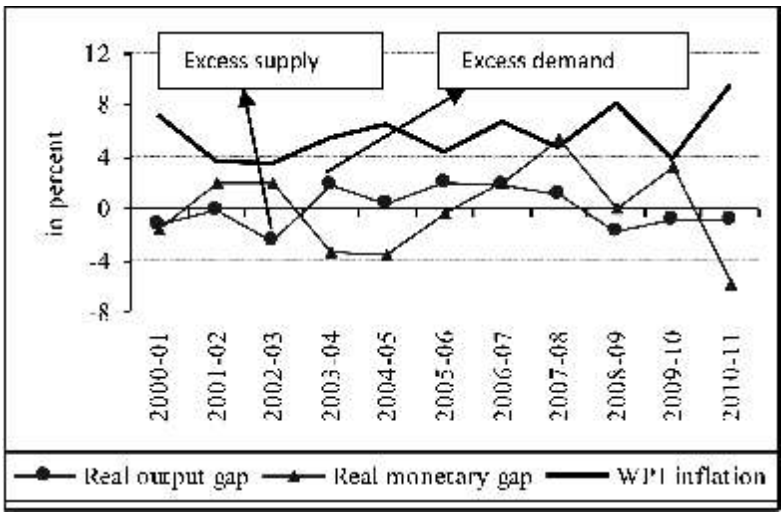


Source: Authors' calculation from CSO data

The empirical literature explains the demand side factors to inflation in terms of real output gap, which is nothing but the difference between actual and potential output. This is usually used as a standard method in case of developed countries. But in case of developing countries like India, output gap may not capture the aggregate demand due to relatively underdeveloped financial markets. Therefore, some of the studies (Dua and Gaur 2009) used real monetary gap as an alternative potential determinant of inflation. The findings of the study suggest that the sign of real output gap is positive and statistically significant in case of India, Philippines, and China. In contrast, a study by Coe and MacDermott (1997) finds that the real output gap model did not work well for India, China, and Thailand. Figure I.3 shows the trend of real output gap, real monetary gap[14] and WPI inflation since 2000–01. Excess demand on the economy is clearly visible during 2005–06 to 2007–08 before it declined due to global recession in 2008–09. Since 2008–09, the economy remains slightly below the potential level of output. Similarly, the real monetary gap (the difference between the actual and potential money supply for the economy) shows rising trend between 2006–07 and 2007–08. In fact, the real monetary gap was either close to or above the potential level of real money supply during the two crisis years (2008–09 and 2009–10) due to expansionary monetary policies of RBI to assist some of the specific sectors by credit. Though the short-run trend between 2005–06 and 2007–08 shows the strong demand side impact, the long run trend in contrast does not provide a strong correlation between WPI inflation either with real output gap or with real monetary gap.

[14]We use Hodrick–Prescott (HP) filter to de-trend the actual data. The HP filter decomposes the actual data into a long run trend and cyclical components. E-views statistical package is used for this exercise.

Figure I.3: Real Output Gap and Real Monetary Gap



Source : Authors' calculation.

In India, nearly 60 per cent of the population is living in rural areas. Agriculture influences their employment and incomes. Households in India utilise nearly 40 per cent of their expenses for food as compared to only 7–8 per cent in rich countries. Due to growing demand for food exceeding supply, rise in the prices of food articles in recent years has been inevitable. The government data shows that both food production and consumption were growing at the same pace (3.1%) during 1980–81 to 2004–05. But between 2004–05 and 2009–10, while food consumption has grown 4.1 per cent, its production remains at 3.1 per cent.

Supply Side Factors

While demand for food has increased, bad weather has caused supply shocks in India. Severe drought in 2009–10 put sustained pressure on food prices during 2010–11. Onion prices surged from ` 15 per kg to over ` 80 per kg within a few weeks in December 2010 primarily due to heavy rainfall and consequent damages to crop in Nashik, Maharashtra.

Some argue that supply bottlenecks in India, such as marketing regulations, are the cause of inflation. The trouble with this explanation is that the supply bottlenecks have always existed. They have existed both in high and low inflation phases. The newly emerging thin margin between supply and demand may have increased the sensitivity of prices to supply shocks.

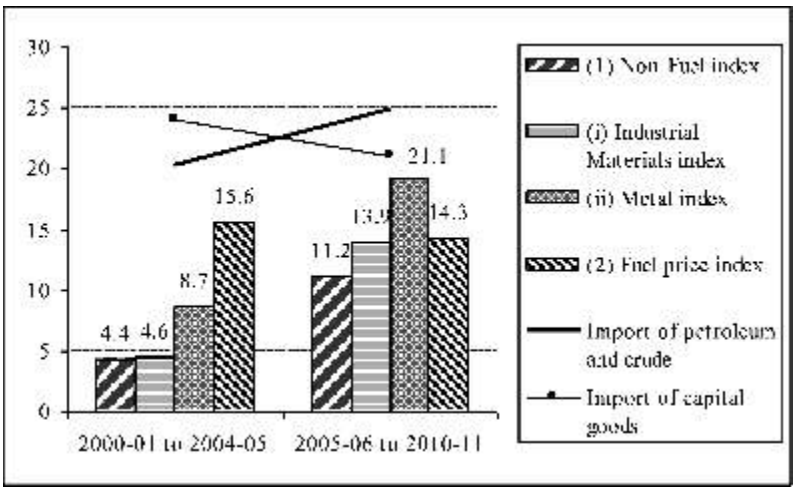
On the supply side, factors like the real wage rate, productivity of workers, rainfall, or output of foodgrains are considered as important determinants of inflation.

External Factors

The average growth rate of import of petroleum and crude products has actually gone up (Figure I.4). This is largely due to considerable rise in international oil prices. Since oil constitutes 29 per cent of India's total imports, any shock in international oil prices would affect India's overall value of imports at given exchange

rate. Similarly, India also largely depends upon the import of capital goods, which constitutes 24 per cent of total imports. The recent surge of prices in industrial inputs in the international market has severely affected India's import bill. More importantly, these commodities have cascading impact on domestic prices as they are used as inputs to various economic activities. Figure I.4 shows that the percentage increase of price index of non-fuel commodities has doubled during 2005–10 as compared to 2000–04.

Figure I.4: Trend of External Factors



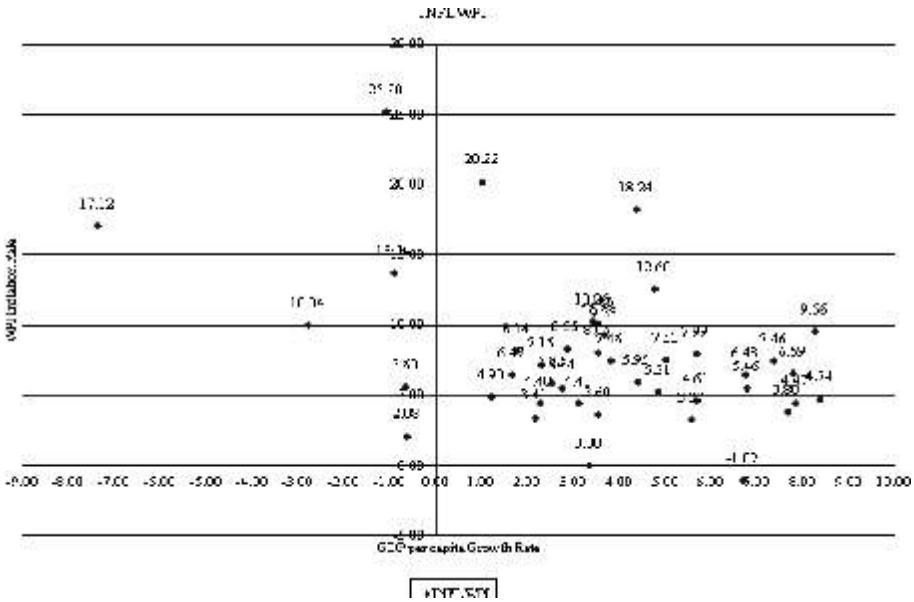
Source:RBI and IMF commodity data base.
Notes:
Negative growth of non-fuel, industrial and metal price in 2008–09
Oil price index growth was negative in 2009–10
Capital and oil import growth was negative in 2009–10

To sum up, the role of external factors constituting exchange rate, international oil and commodity prices, and external demand factors like economic growth of developed countries have been significant in influencing India's recent inflation experience.

4. Inflation and Economic Growth

The correlation between CPIIW inflation rate and GDP per capita growth rate for the period 1970–71 to 2010–11 is only - 0.11 and WPI inflation rate and GDP per capita growth rate is - 0.42. Figure I.5 illustrates the inflation measure against GDP per capita growth. Several analysts have shown that the threshold inflation rate in India is around 5 to 7 per cent, i.e. with inflation rate above this range, one would expect growth rate to be affected or more specifically decline (Sarel 1996, Singh 2010, Pattnaik and Nadhanael 2011). Another way of also looking at the data is that India hits the speed bump of inflation every time it gets close to 8 per cent and above growth rate. Is that our speed limit given the structural deficiencies in the economy, i.e. our potential growth rate?

Figure I.5: Inflation Rate and GDP Per Capita Growth Rate – 1970–71 to 2010–11



Source: World Development Indicators, Office of the Economic Advisor, Government of India and Labour Bureau, Government of India.

5. How Effective Is the Monetary Transmission Mechanism in India?

The theoretical literature explains that monetary policy affects real activity through various channels. All the channels may be divided into two broad categories, namely 'money view' and 'credit view'. Money view basically operates through the liabilities side of banks' balance sheet. In this case, tightening of money supply squeezes the demand for bonds. As a result, the real interest rate on bonds accentuates. Higher real interest rate will reduce investment demand and hence the real output. On the other hand, the credit view concentrates on the assets side of the banks' balance sheet in explaining monetary transmission. This theory assumes that the balance sheet of each bank consists of three assets such as money, bonds, and bank loans. An increase in the interest rate would directly impact the borrowing activities of firms from banks. High cost of borrowings would force the firms to cut down their investment activities at least in the short-run. Thus, monetary contraction leads to lower investment and aggregate demand through bank lending.

Whichever may be the channel, the main objective of monetary policy is how effectively it affects the real side of the economy. In the case of emerging economies like India, the issue of monetary transmission mechanism gained much importance during the post-reforms period. A number of researchers including of RBI have examined this issue. Pandit et al. (2006) estimated a structural VAR model to examine the bank lending channel in the post-reform period in India. They showed that small banks are more severely affected by monetary tightening than large banks. However, Al-Mashat (2003) found that banks play little role in transmitting monetary policy shocks to the real sector in India. He concluded that the impact of a monetary policy shock on macroeconomic variables is larger after including exchange rate in the model. An empirical study on monetary transmission in India showed that a positive shock to broad money leads to higher output, while a positive shock to the overnight call money rate produces the opposite effect (RBI 2003), demonstrating the existence of a narrow credit channel in India. Prasad and Ghosh (2005) examined the

relationship between monetary policy and corporate behavior in India. They observed a strengthening of the interest rate channel after 1998. Singh and Kalirajan (2007) concluded that interest rates play an important role in the monetary transmission mechanism in the post-reform period in India.

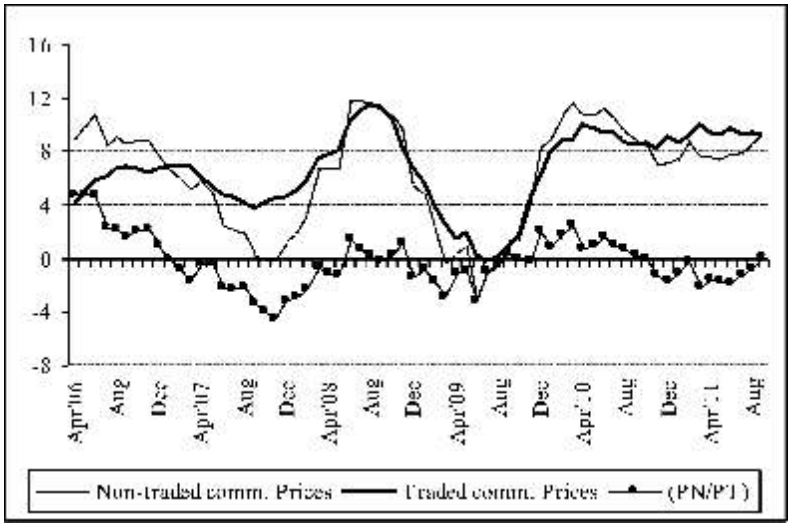
A recent study by Aleem (2010) finds that banks play an important role in the transmission of monetary policy shocks to the real sector in India because of bank credit to the commercial sector in India accounted for more than 70 per cent of total domestic credit. Using a VAR model, it finds that an unanticipated monetary policy shock has transitory effects on the overnight call money rate. Prices and GDP decline after an unanticipated positive overnight call money rate shock. Moreover, prices start declining after a decline in GDP. The study further finds that asset price channel is not important in the transmission of monetary policy shocks to the real sector in India because of massive interventions by the RBI in the foreign exchange market to stabilise the exchange rate weaken the exchange rate channel.

To sum up, the above set of studies suggest that bank credit policy is more effective than other types of monetary policies to control the inflation in India. In the context of recent price rise starting from the second half of 2009–10, the RBI has used the bank lending policy (interest rate) or the so-called overnight interest rate policy to control the inflation. The larger question here is, has this rate hike helped the cause of RBI in controlling inflation?

The outcome with respect to inflation suggests that the monetary tightening has been ineffective so far in controlling inflation. On the other hand, the business expectation surveys carried out in India suggest that high interest rate structure has dampened the investment activities and hence affected the growth of output. Therefore, as per the objective of the monetary transmission policies, it has affected the real sector in terms of reducing both investment and output. However, it has failed to contain the inflation. The question arises here as to why it has failed to ease the inflation pressure.

Shah (2010) points out that CPI, which is considered as the best indicators of inflation in India contains large proportions of tradable commodities. RBI's interest rate policy has no effect on domestic prices of tradable commodities since their imports become cheaper due to appreciation of Rupee following the interest rate hike. On the other hand, the interest rate hike can only affect the prices of non-tradable commodities. The policy rate hike, however, has failed to affect non-tradable prices because these commodities carry high inflation expectations. In this case, cost-push factors play an important role. Figure I.6 shows that the Y-o-Y growth rate of prices of both tradable and non-tradable commodities based on WPI basket recorded considerable increase in early 2010. Though the price increase of non-tradable commodities has subdued in the recent period, still they remain at the elevated levels. On the other hand, the prices of tradable commodities continued to remain high since the beginning of 2010. It suggests that exchange rate has only a marginal role to play in domestic prices of tradables, whereas high international oil and commodity prices probably have bigger impact.

Figure I.6: Y-o-Y % Change in Prices of Tradable and Non-tradable Commodities



Source: Author's calculation based on data from Ministry of Commerce and Industry, Government of India

Have interest rates really gone up? Nominal interest rates have increased but not real interest rates. They are still quite low. The call money rate in August was 7.94 per cent with WPI and CPIIW inflation rates above 9.5 per cent and 9 per cent, respectively making the real interest rate negative. Even other measures of interest rates—bank rate 6 per cent and Repo rate 8.5 per cent—show that real interest rate is negative. Economic theory says that increase in interest rate lowers money supply which in turn lowers GDP. Increase in interest rate also lowers money demand as it makes borrowing more expensive driving down private consumption and investment which also lowers GDP. These effects shift the aggregate demand of the economy, thereby lowering inflation rate. With real interest rates being negative, the chain of events defined above is probably not taking place thereby making it seem that monetary policy is ineffective.

Overall, it can be concluded that the monetary transmission mechanism has not been effective to control inflation. In a speech RBI's Governor had said that monetary transmission is improving but it is still ineffective in India due to a number of structural factors such as (a) multiple tasks assigned to RBI, (b) lack of proper balancing between monetary and fiscal measures, (c) supply shocks that drive more to inflation than demand shock, (d) availability of multiple price index confused to the policy targeting, and (e) asymmetric financial market like existence of large and small saving programmes by the government-based regulated interest rates and concessions.

In the context of liquidity crunch during the financial crisis period, he said:

"The financial markets were affected more by a perception of scarcity than actual scarcity. As such, market conditions improved markedly in fairly quick order since the RBI's assurance that it will maintain 'abundant' liquidity inspired widespread confidence in the markets. It is important to recognise that in India the crisis transmitted from the real to the financial sector unlike in the advanced economies where the transmission was from the financial sector to the real sector".

RBI followed an expansionary monetary stance along with government's expansionary fiscal policies to

insulate the growth of the economy at the time of the crisis in 2008–09. Not only did the fiscal deficit of the government rise more than 100 per cent over the previous year, the growth rate of money supply also recorded substantial growth, leaving huge cash balances in the hands of people. This led to rise of aggregate demand faster than aggregate supply, which is plagued with low investment spending and severe drought in 2009–10.

6. Way Forward

India's is an economy in transition with high developmental needs. Physical and social infrastructure deficits are glaring examples. Private partnerships, especially in the former, still form a relatively small proportion of the finances. Government expenditures have increased and so have budgetary deficits. Adverse supply shocks like bad weather and the increased income have translated into rising prices. There is also the fact that composition of demand is changing. Finally, past patterns suggest that inflation rate increases every time we hit 8 per cent and above growth rate.

To increase aggregate supply, we need investments and productivity changes all around the economy. To facilitate these changes economic reforms that remove structural constraints to growth would be critical.

II. Manufacturing and Service Sectors in India: Synergies and Competition

By Rajesh Chadha and Sourabh Bikas Paul[15]

1. Backdrop

The rapid growth in services since the early 1990s led to its share increasing from 44 per cent in the early 1990s to 53 per cent in the early 2000s, and further to 57 per cent in 2009-10 . Its current share is 67 per cent, if electricity, gas & water supply and construction are included in services. The share of agriculture and animal husbandry has gone down from 24 per cent in the early 1990s to 12 per cent in 2009-10. While the share of industry has gone up from 24 per cent to 26 per cent, that of manufacturing has risen by only one percentage point – from 15 per cent in the early1990s to 16 per cent in 2009-10. It may, however, be noted that while manufacturing grew by an average annual rate of less than 6 per cent during the mid-1980s to the mid-2000s, there has been a change in its growth trajectory during the second half of 2000s when it posted an unprecedented average annual growth rate of 9.6 per cent. The construction sector has also posted a high growth rate of 9.4 per cent per annum during the 2000s. Communications, banking and insurance are some of the other success stories.

Some comparable developing countries have had a far higher share of manufacturing in their GDP: China (39.3 per cent), Thailand (35.2 per cent), Malaysia (31.1 per cent), Indonesia (24.7 per cent) and Vietnam (20.8 per cent). These countries have, of course, done better on their infrastructure and regulatory reforms.

The National Manufacturing Competitiveness Council had undertaken its third survey of the Competitiveness of Indian Manufacturing (NMCC 2009). An analysis of the findings suggests that the manufacturing sector needs to grow so that it contributes about 25 per cent to Indian GDP, if it is to boost economic growth and help reduce poverty and inequality. Given its wage rate advantage, India is set for attracting increasing investment in its manufacturing sector, subject to the easing of some major bottlenecks.

A detailed analysis of the share of industry and services in total GDP is presented in Annexure 1.

2. Manufacturing versus Service Sectors

Given that the growth of the service sector has been a major propeller of economic growth, there has been an ongoing debate on sectoral patterns of growth in the primary (particularly agriculture), industry (mainly manufacturing) and service sectors. The major concerns have been the:

- Employment potential of the service sector
- Sustainability of service sector-propelled economic growth
- Issue of circular feedback between the manufacturing and service sectors
- Total Factor Productivity (TFP) in the manufacturing sector post-1991

[15]Senior Fellow and Associate Fellow, NCAER, respectively.

[16]We define industry to include mining, manufacturing, electricity and construction. All other non-agricultural sectors are included in services.

- Bottlenecks including labour law, infrastructure, land acquisition, exit policy, taxation issues, and other policies including the ease of establishing new manufacturing units

It has been stated that growth in the service sector has been propelled by inflows of FDI which have helped the Indian economy grow at a high rate (Sen 2011). The major sectors contributing to growth in services are trade, hotels and restaurants, transport, storage and communications. However, the important question is whether services-led growth is sustainable if the share of the manufacturing sector remains stagnant. Much of services growth is led by outsourced work mainly from the United States. Exports are vulnerable to demand from abroad and may suffer when there is a downturn in the importing economies. The negative shock would have a multiplier effect on other sectors of the economy. The export of services is important since the surplus on invisibles partly offsets the deficit on merchandise trade, which helps keep the current account deficit under control. While some services sectors have done well, others have not been able to grow.

One of the criticisms of service-led growth is that with a comparatively static industrial sector and declining share of agriculture, the service sector would not be able to generate its own demand and sustain its growth in the long run. However, Banga and Goldar (2004) have provided evidence to show the significant impact of the service sector on industrial sector output. The study shows that the demand for services is rapidly increasing in the industrial sector and, in turn, the services sector is actually contributing to the growth and output of industries. There are forward and backward linkages between the services sector and other sectors, and the services sector is actually growth-inductive. Not only that, the services sector has the greatest multiplier effect on the economy. Thus there is a possibility that the Indian service sector might not only succeed in sustaining its own growth but also help improve the growth rate of the industrial sector in the near future.

The growth phenomenon of India has been termed a "services revolution". However, services-led growth has not been able to create enough jobs (Gordon and Gupta 2004), and employment generation in the services sector has lagged behind (Banga 2005).

Eichengreen and Gupta (2011) have commented on the job-creating potential of the service sector. They state that India differs from other developing countries because of its fast-growing service sector. The share of services in its GDP is close to that in developed countries. Does this have implications for economic development? Or on whether the economy will continue growing rapidly? Would service sector output and employment continue to grow in excess of international norms? The study concludes that sustaining economic growth and raising living standards in India would require shifting labour out of agriculture into modern services and manufacturing, and not just to the latter. The lack of availability of skilled labour requires that India invest more in creating labour skills.

Some studies have argued that investments in the manufacturing sector have been relatively low. This might be due to the lack of innovation and technological progress. This sector has strong intersectoral linkages with the services sector. Weak feedback from manufacturing would result in fragile sustainability of the services sector growth. Both sectors growing together would keep up the acceleration in economic growth as well as provide employment to surplus labour in the rural areas. The growth in income levels of the rural population would also make a dent in the demand for goods and services.

3. Total Factor Productivity: Manufacturing Sector

A study by Bollard et al (2010) has raised doubts on the efficacy of economic reform in impacting the acceleration of TPF growth in manufacturing during the period 1993-2004 over 1980-92. While reforms, such as industrial de-licensing, tariff reductions, FDI liberalisation, or lifting of small-scale industry reservations, improved resource allocation, these account for only a small portion of overall productivity growth. The authors find the answer in the lack of skill and technology upgradation. The conclusions are subject to obvious debate.

Goldar (2004) concludes that there has been a decrease, not an increase, in the growth rate of TFP in Indian manufacturing in the post-reform period. However, reforms did not fail to have a favourable effect on industrial productivity. Some research papers (Goldar and Kumari, 2003; Topalova, 2003) have shown that trade liberalisation did have a positive effect on industrial productivity. The slowdown in TFP growth in Indian manufacturing in the post-reform period seems to be an outcome of the adverse influence of certain factors that more than offset the favourable influence of reforms. Two such factors are (a) a decline in the growth rate of agriculture, and (b) the deterioration in capacity utilisation in the industrial sector (Goldar and Kumari, 2003). Uchikawa (2001, 2002) points out that there was an investment boom in Indian industry in the mid-1990s, which raised production capacities significantly, although demand for the output did not rise which led to under-utilisation of capacity.

Kusum et al (2009) have analysed whether industrial deregulation and trade liberalisation have led to a shift in India's industrial structure towards more labour-intensive industries during 1991-2006. This is contrary to the impression that the share of labour-intensive sectors in total output have increased. The major finding is that the relative importance of labour-intensive industries in output has actually gone down, and that labour-intensity has declined across all the labour-intensive industries. The possible explanation lies in the fact that with import liberalisation in the early 1990s, Indian manufacturers moved in favour of new labour-saving, sophisticated technologies adopted from developed countries. At the same time the lack of a skilled workforce has resulted in a decline in capital productivity.

4. The Way Forward

The manufacturing sector has grown at an average annual rate of 9.6 per cent between 2005-06 and 2009-10. This is far above its long-term growth rate of 6 per cent from the mid-1980s to the mid-2000s. Between 2005-06 and 2009-10, the registered sector grew by 10.5 per cent and the unregistered sector by 7.7 per cent. The average share of registered manufacturing in total manufacturing was 67 per cent from 2005-06 to 2009-10. This share has increased over the last three decades. It was 51.8 per cent in the early 1980s, 60.5 per cent in the early 1990s and 63.6 per cent in the early 2000s.

The NMCC and the ICRA Management Consulting Services Limited (2009) have identified four manufacturing sectors which have exhibited robust growth in more recent years: food processing, leather and leather products; textiles and garments; and electronics and IT hardware. Taken together these four sectors contribute nearly 12 per cent of India's GDP and 26 per cent of manufacturing employment. It is thus important to analyse and develop the manufacturing competitiveness of these industries for policy and operational interventions. These sectors hold good promise for future growth through the facilitation of private investment and productivity growth, which would provide more jobs and improve living standards

for people in suburban and rural areas.

The Indian auto component sector has already come of age and has become highly competitive in the world economy. India has the potential to become a major manufacturing hub not only for Indian companies but also for FDI-enabled units. The manufacturing units would need to sharpen their competitive edge and strive to increase productivity levels across the horizontal and vertical value-chains both in the national and international arenas. Continuous technology upgradation is crucial to improve competitiveness, but constraints such as infrastructure, high transaction costs, and power and regulatory issues need urgent policy attention and reform.

Information and communication technology (ICT) is expected to play a major role in providing a boost to the productivity of the Indian manufacturing sector. ICT adoption in Indian manufacturing has significantly lagged behind its global peers. A comprehensive set of strategies urgently needs to be researched for increasing ICT adoption in the Indian manufacturing sector (NMCC-NASSCOM 2010).

5. The National Manufacturing Policy

The Indian Cabinet has recently given its approval to the National Manufacturing Policy.

Objectives:

- To promote investments in the manufacturing sector and make the country a hub for both domestic and international markets;
- To increase the sectoral share of manufacturing in GDP to 25 per cent by 2022;
- To double the current employment level in the sector; and
- To enhance global competitiveness of the sector

The draft points are expected to cover the following areas, although other relevant areas can be suggested:

1. National Manufacturing & Investment Zones (NMIZs)
2. Exit policy
3. Green technologies: New avenues of growth
4. Incentives and benefits for units in NMIZs
5. Simplified clearances and approvals for setting up units in NMIZs
6. Skill development programme to cater to the needs of the manufacturing sector

6. The Role of GST in Boosting India's Growth and Foreign Trade

Differential multiple tax regimes across sectors of production lead to distortions in resource allocation and introduce inefficiencies in domestic production. For India's exports, this reduces international competitiveness in sectors which would have been relatively efficient under a distortion-free indirect tax regime. Further, taxes loaded on to FOB export prices are not fully offset. The efficient allocation of productive resources and full tax offsets are expected to result in gains for GDP, returns to factors of production, and exports.

Gains for India's GDP from the implementation of a comprehensive goods and services tax (GST) are

expected, ceteris paribus, to be within the range of 0.9 to 1.7 per cent, and real returns to factors of production are also expected to increase (NCAER, 2009a). Gains in exports are expected to vary between 3.2 and 6.3 per cent, with a corresponding absolute value range from Rs. 24,669 crore to Rs. 48,661 crore. Imports are expected to gain somewhere between 2.4 and 4.7 per cent, with corresponding absolute values ranging between Rs. 31,173 crore and Rs. 61,501 crore.

Sectors with a relatively high proportional increase in exports include textiles and readymade garments; beverages; industrial machinery for food and textiles; transport equipment other than railway equipment; electrical and electronic machinery; and chemical products, organic and inorganic. The moderate gainers are agricultural machinery; metal products; other machinery; and railway transport equipment. Exports are expected to decline in agricultural sectors; iron and steel; wood and wood products except furniture; and cement. There are minor gains and losses in the exports of other sectors.

The major import-gaining sectors include leather and leather products; furniture and fixtures; agricultural products; coal and lignite; agricultural machinery; industrial machinery; other machinery; iron and steel; railway transport equipment; printing and publishing; and tobacco products. The moderate gainers include metal products; non-ferrous metals; and transport equipment other than railways. Imports are expected to decline in textiles and readymade garments; minerals other than coal, crude petroleum, gas and iron ore; and beverages.

In sum, the implementation of a comprehensive GST in India is expected to lead to an efficient allocation of factors of production thus leading to gains in GDP and exports. This should help the government design strategies to boost India's exports while keeping track of changes in imports.

7. Forward and Backward Sectoral Linkages

As mentioned in the preceding sections, intersectoral linkages play an important role in evaluating balanced sectoral growth of the primary, industry and service sectors.

We have computed the linkage effects for all 130 Input-Output Transactions Matrix (IOTM 2003-04) sectors. Sectors have then been identified under four different categories, i.e.,

a) KY: key sectors with strong backward and forward linkages (BLj > 1 and FLi > 1);
b) BW: strong backward linkages (BLj > 1 and FLi< 1);
c) FW: strong forward linkages (BLj< 1 and FLi > 1); and
d) NK: non-key sectors with weak backward and forward linkages (BLj < 1 and FLi< 1).

Sectors disaggregated under these four categories are presented in Tables II.1a to II.4b.

Further details of the analysis are provided in NCAER (2009a).

IOTM sectors which have strong backward and forward linkages (KY) in India's economic structure include electricity (IOTM sector number 107), petroleum products (63), land transport (110), non-ferrous basic metals (80) and iron, steel and ferrous alloys (77); among others (Table II.1a and II.1b). Some of the KY sectors have relatively high backward linkages while others have relatively high forward linkages.

Sectors with high backward linkages (BW) include electronic equipments (94); electrical wires and cables (89); batteries (90); electrical industrial machinery (88); and art silk & synthetic fibre textiles (50); among others (Table II.2a and II.2b).

Sectors with high forward linkages (FW) include trade (116); banking (118); crude petroleum (29); coal and lignite (27); and communications (115); among others (Table II.3a and II.3b).

Finally, sectors with weak BW and FW linkages (NK) include agricultural products; some mineral products; tobacco products; wood and wood products; and some services; among others (Table II.4a and II.4b).

Service sectors with strong backward and forward linkages include electricity; land transport; construction; and railway transport services (Table II.1a). Some manufacturing sectors with high backward and forward linkages include petroleum products; non-ferrous basic metals; iron, steel & ferrous alloys; and various categories of chemicals. Trade; communications; banking; insurance and business services have strong forward linkages (Table II.3a). Other tables provide more insight into sectoral linkages.

Table II.1a: Key Service Sectors in Terms of Linkages

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages	FW + BW
1	107	Electricity	1.08	4.28	5.35
2	110	Land transport including via pipeline	1.06	4.02	5.08
3	106	Construction	1.09	2.03	3.11
4	109	Railway transport services	1.04	1.64	2.69

Table II.1b: Key Sectors (excluding Services)Terms of Linkages

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages	FW + BW
1	63	Petroleum products	1.07	4.02	5.09
2	80	Non-ferrous basic metals	1.20	2.82	4.01
3	77	Iron, steel and ferro alloys	1.13	2.48	3.61
4	73	Other chemicals	1.17	1.97	3.14
5	65	Inorganic heavy chemicals	1.19	1.82	3.01
6	66	Organic heavy chemicals	1.19	1.81	3.00
7	72	Synthetic fibers, resin	1.20	1.66	2.86
8	67	Fertilisers	1.22	1.44	2.66
9	62	Plastic products	1.27	1.36	2.63
10	82	Miscellaneous metal products	1.18	1.39	2.57
11	57	Paper, paper products & newsprint	1.19	1.37	2.55
12	92	Communication equipment	1.40	1.14	2.54
13	22	Animal services(agricultural)	1.31	1.20	2.51
14	87	Other non-electrical machinery	1.21	1.29	2.51
15	105	Miscellaneous manufacturing	1.23	1.21	2.45
16	78	Iron and steel casting & forging	1.21	1.12	2.33
17	2	Wheat	1.22	1.00	2.22

Table II.2a: Backward-Oriented Services Sectors

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
1	108	Water supply	1.22	0.58
2	114	Storage and warehousing	1.22	0.52
3	117	Hotels and restaurants	1.06	0.86
4	112	Air transport	1.03	0.59

Table II.2b: Backward-Oriented Sectors (excluding Services)

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
1	94	Electronic equipment(incl.TVs)	1.40	0.89
2	89	Electrical wires & cables	1.34	0.65
3	90	Batteries	1.33	0.60
4	88	Electrical industrial machinery	1.30	0.84
5	50	Art silk, synthetic fibre textiles	1.29	0.86
6	91	Electrical appliances	1.27	0.58
7	93	Other electrical machinery	1.27	0.99
8	95	Ships and boats	1.27	0.78
9	99	Bicycles, cycle-rickshaw	1.27	0.55
10	83	Tractors and agricultural implements	1.25	0.52
11	42	Tea and coffee processing	1.24	0.53
12	84	Industrial machinery(F & T)	1.23	0.64
13	97	Motor vehicles	1.23	0.82
14	61	Rubber products	1.23	0.79
15	43	Miscellaneous food products	1.22	0.74
16	47	Cotton textiles	1.22	0.91
17	53	Readymade garments	1.22	0.54
18	79	Iron and steel foundries	1.22	0.80
19	48	Woollen textiles	1.21	0.57
20	69	Paints, varnishes and lacquers	1.21	0.82
21	98	Motor cycles and scooters	1.21	0.64
22	40	Hydrogenated oil(vanaspati)	1.21	0.49
23	86	Machine tools	1.19	0.79
24	85	Industrial machinery(others)	1.19	0.72
25	54	Miscellaneous textile products	1.19	0.62
26	100	Other transport equipment	1.18	0.49
27	71	Soaps, cosmetics & glycerine	1.18	0.55
28	103	Gems & jewellery	1.17	0.91
29	49	Silk textiles	1.17	0.49
30	96	Rail equipments	1.17	0.79
31	44	Beverages	1.16	0.55
32	68	Pesticides	1.15	0.94
33	41	Edible oils other than vanaspati	1.15	0.79
34	64	Coal tar products	1.15	0.63
35	38	Sugar	1.15	0.56
36	58	Printing and publishing	1.15	0.72

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
37	39	Khandsari, boora	1.14	0.55
38	81	Hand tools, hardware	1.14	0.78
39	70	Drugs and medicines	1.12	0.85
40	1	Paddy	1.11	0.87
41	60	Leather and leather products	1.11	0.75
42	32	Bauxite	1.10	0.59
43	52	Carpet weaving	1.10	0.48
44	75	Cement	1.10	0.59
45	74	Structural clay products	1.09	0.63
46	46	Khadi, cotton textiles(handlooms)	1.09	0.54
47	102	Medical, precision & optical instruments	1.09	0.53
48	76	Other non-metallic mineral prods.	1.08	0.77
49	59	Leather footwear	1.08	0.49
50	3	Jowar	1.07	0.51
51	104	Aircraft & spacecraft	1.04	0.49
52	51	Jute, hemp, mesta textiles	1.01	0.57
53	7	Pulses	1.00	0.63

Table II.3a: Forward-Oriented Service Sectors

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
1	116	Trade	0.65	6.54
2	118	Banking	0.65	3.78
3	115	Communication	0.73	1.76
4	119	Insurance	0.76	1.27
5	123	Business services	0.99	1.19
6	128	Other, social & personal services	0.71	1.00

Table II.3b: Forward-Oriented Sectors (excluding Services)

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
1	29	Crude petroleum	0.78	3.23
2	27	Coal and lignite	0.74	2.01
3	20	Other crops	0.89	1.76
4	8	Sugarcane	0.80	1.18
5	11	Other oilseeds	0.77	1.08

Table II.4a: Non-Key Service Sectors

S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
1	111	Water transport	0.87	0.58
2	113	Supporting and aux. transport activities	0.93	0.79
3	120	Ownership of dwellings	0.53	0.48
4	121	Education and research	0.57	0.49
5	122	Medical and health	0.84	0.51
6	124	Computers& related activities	0.73	0.78
7	125	Legal services	0.61	0.75
8	126	Real estate activities	0.70	0.57
9	127	Renting of machinery & equipment	0.61	0.62
10	129	Other services	0.79	0.88
11	130	Public administration	0.48	0.48

Table II.4b: Non Key Sectors (excluding Services)

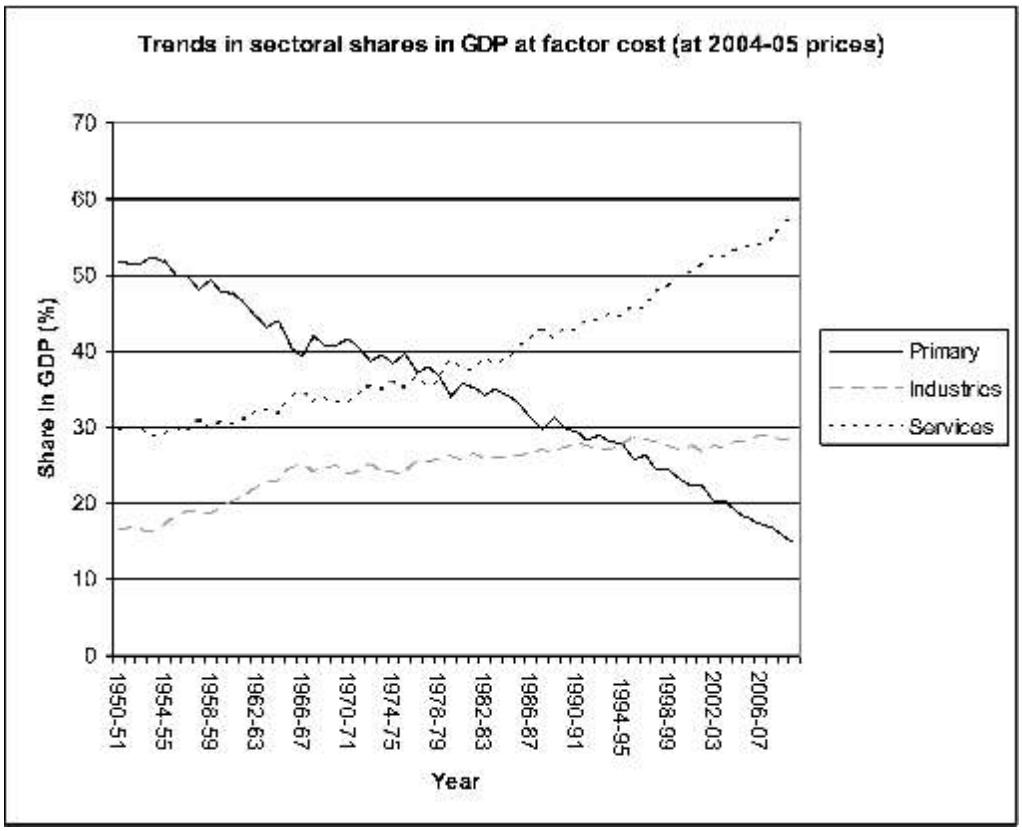
S. No.	I\O Code	Commodity	Backward Linkages	Forward Linkages
1	4	Bajra	0.88	0.50
2	5	Maize	0.79	0.52
3	6	Gram	0.72	0.62
4	9	Groundnut	0.78	0.82
5	10	Coconut	0.72	0.54
6	12	Jute	0.72	0.63
7	13	Cotton	0.93	0.96
8	14	Tea	0.63	0.62
9	15	Coffee	0.87	0.50
10	16	Rubber	0.74	0.60
11	17	Tobacco	0.63	0.56
12	18	Fruits	0.52	0.61
13	19	Vegetables	0.54	0.55
14	21	Milk and milk products	0.64	0.58
15	23	Poultry and eggs	0.60	0.51
16	24	Other livestock production and gobar gas	0.85	0.99
17	25	Forestry and logging	0.57	0.90
18	26	Fishing	0.63	0.51
19	28	Natural gas	0.66	0.92
20	30	Iron ore	0.72	0.55
21	31	Manganese ore	0.60	0.49
22	33	Copper ore	0.71	0.60
23	34	Other metallic minerals	0.79	0.58
24	35	Limestone	0.72	0.53
25	36	Mica	0.84	0.48
26	37	Other non-metallic minerals	0.57	0.91
27	45	Tobacco products	0.88	0.53
28	55	Furniture and fixtures-wooden	0.96	0.50
29	56	Wood and wood products	0.88	0.82
30	101	Watches and clocks	0.99	0.54

Annexure 1. Manufacturing and Service Sectors in India: Trends in GDP Shares

This section attempts to provide a broad-based description of long-run trends in sectoral shares in GDP and growth rates of important sectors with a special focus on service sectors. We choose to cover a longer period to contrast the structural differences in performance, if any, during the pre- and post-reform periods. A closer look at the post-reform growth trajectory and its sectoral decomposition will offer some insight on the sustainability of our growth process. The ultimate criteria of success in the policy departure since 1991 lie in the sustainability of a higher growth path and the addition of new jobs to the economy. While the overall growth performance in recent years is uplifting, it is not without imbalances. We raise some of these concerns here.

On the eve of the reforms, the primary and industry sectors had almost equal shares in the GDP (28.5 percent and 27.3 percent, respectively), while the service sector contributed 44 percent of GDP. Over time the share of the service sector has steadily grown to 57 percent in 2009-10. In fact, the growing trend in the share of services had started long before the reform process. Figure II.A1 depicts trends in the shares of the primary, industry and service sectors since 1950-51.

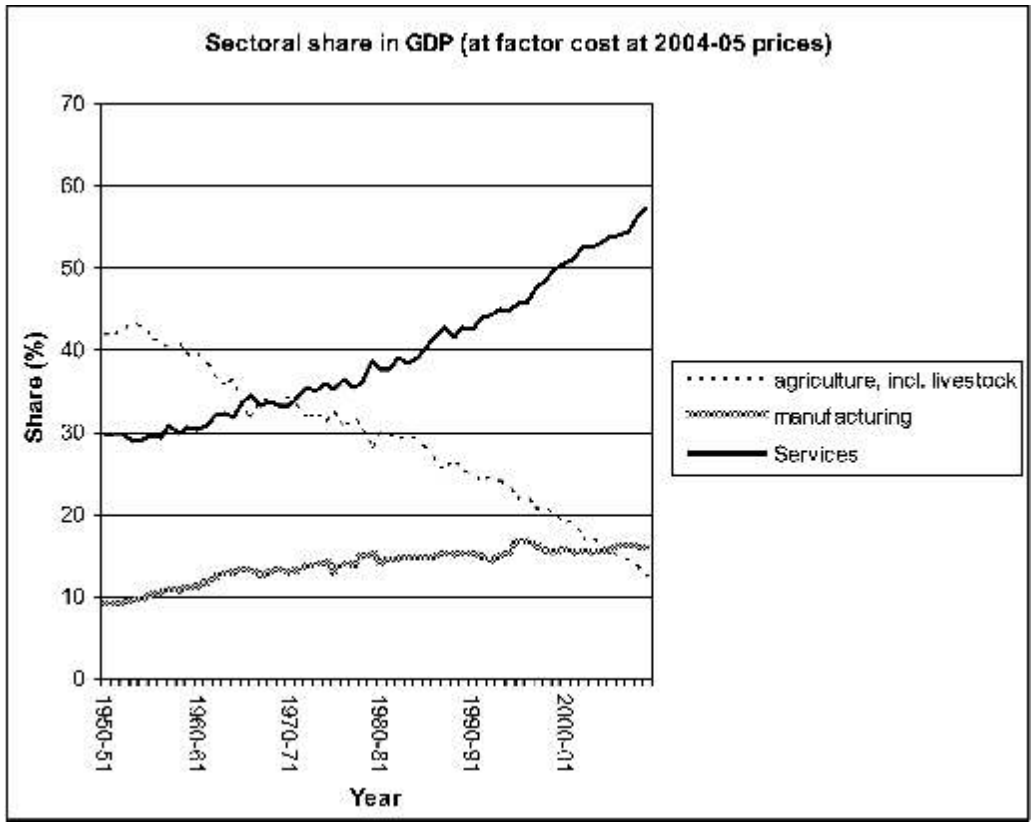
Figure II.A1: Trends in Sectoral Shares in GDP



The share of agriculture and allied sectors (including mining and quarrying) in GDP has declined from more than 52 percent in 1950-51 to 15 percent in 2009-10, while the share of industry has remained almost constant since the late-1980s. The service sector grew from 30 percent to 57 percent during this period. In 1979-80, the service sector surpassed the primary sector in terms of contribution to the GDP. It seems that

the fall in the share of the primary sector is matched by a rise in the share of services since the late-1970s. The primary sector includes agriculture and livestock, forestry and logging, fishing, and mining and quarrying. Manufacturing, electricity, gas and water supply and construction are aggregated in the industry sector. The service sector aggregates trade, hotels and restaurants, transport, storage and communication, financing, insurance, real estate and business services, and community, social and personal services. Detailed disaggregated shares are given in Table II. Agriculture (inclusive of livestock, forestry and fishing) was the highest contributor to GDP till 2007-08. In 2008-09, the share of agriculture and allied sectors fell below that of manufacturing for the first time. However, this is mainly due to a drop in agriculture's share and not because of a rise in the manufacturing share. This is one of the major concerns about imbalances in sectoral growth. While agriculture has shown a secular declining trend, the share of manufacturing remains stubbornly constant (between 14.5 percent to 16 percent) during this period (Figure II.A2).

Figure II.A2: Share of Agriculture, Manufacturing and Services in GDP



Since the early-2000s, more than 50 percent of GDP comes from services, and has almost reached 60 percent now (Table II). Within the service sector, financing, insurance, real estate and business services have emerged as a major contributor (from 9 percent of GDP in the early-1980s to more than 17 percent in 2009-10). In the early-1980s, community, social and personal services was the highest contributor (12 percent of GDP or almost one-third of total services). The size of this sector has increased by merely 1 percentage point in the last three decades. Transport, storage and communication services doubled in share from 5 percent in the early-1980s to 10.16 percent in 2009-10. State-controlled railway services remained the same while communication services increased from a low of 0.36 percent in the early-1980s to 3.6 percent in 2009-10. Other notable gains during this period are in trade, hotels and restaurants. The banking and insurance sector

managed to increase from 2.73 percent in the early-1980s to 7.88 percent in 2009-10. This sector grew faster than real estate, ownership of dwellings & business services. The share of construction services has not improved much and remains close to 8 percent for the last several years. Sectors which marginally shrank in terms of share of GDP after the global recession in 2008 are manufacturing, construction, and trade, hotels and restaurants.

Figure II.A3: Selected Service Sectors' Shares in GDP

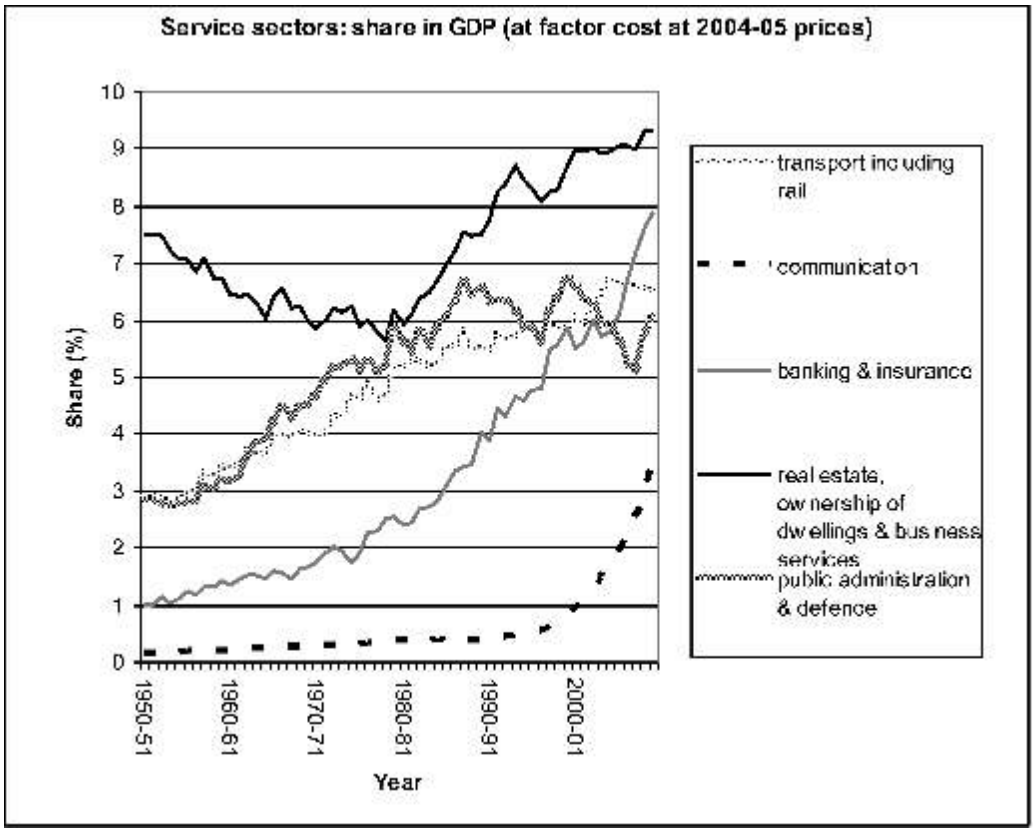
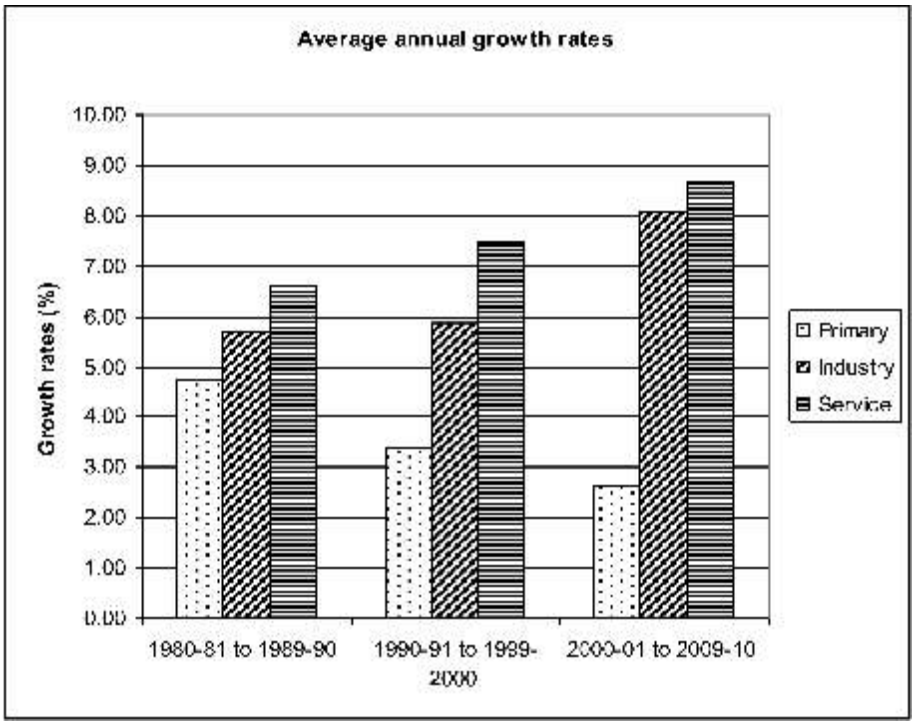


Figure II.A3 depicts the sharp increase in the share of communication services since the late- 1990s. Banking and insurance have also had a spectacular rise in last decade. Overall, the relative size of manufacturing remains stable over time and the declining share of primary sector is filled by services.

When we look at the growth stories, the figures have some good news. Growth rates in manufacturing, particularly in recent years, are worth mentioning (Table II.A). However, similar growth rates are registered in the service sectors.Therefore, the relative size of manufacturing in India is still way below, in comparison with other emerging countries. The annual growth rate of the primary sector has been declining over time, whereas the rates of the industry and service sectors have increased. The service sector has been growing annually at 10 percent since 2005-06, and a similar growth rate is observed in industry, except in 2008-09, when it dipped because of the global recession, but recovered immediately the following year. The industrial growth rate (annual) was stagnant at 5.5-6 per cent in the 1980s and 1990s, but jumped to 8 percent between 2000 and 2010 (Figure II.4). The service sector growth rate (annual) increased systematically from 6.6 percent in 1980-90 to 8.7 percent from 2000 to 2010. If we look at the decadal annual growth rates, it is surprising to see that the latter half of each decade has higher growth rates than the former, for both industry and services (Table II.A, bottom panel, first 6 columns).

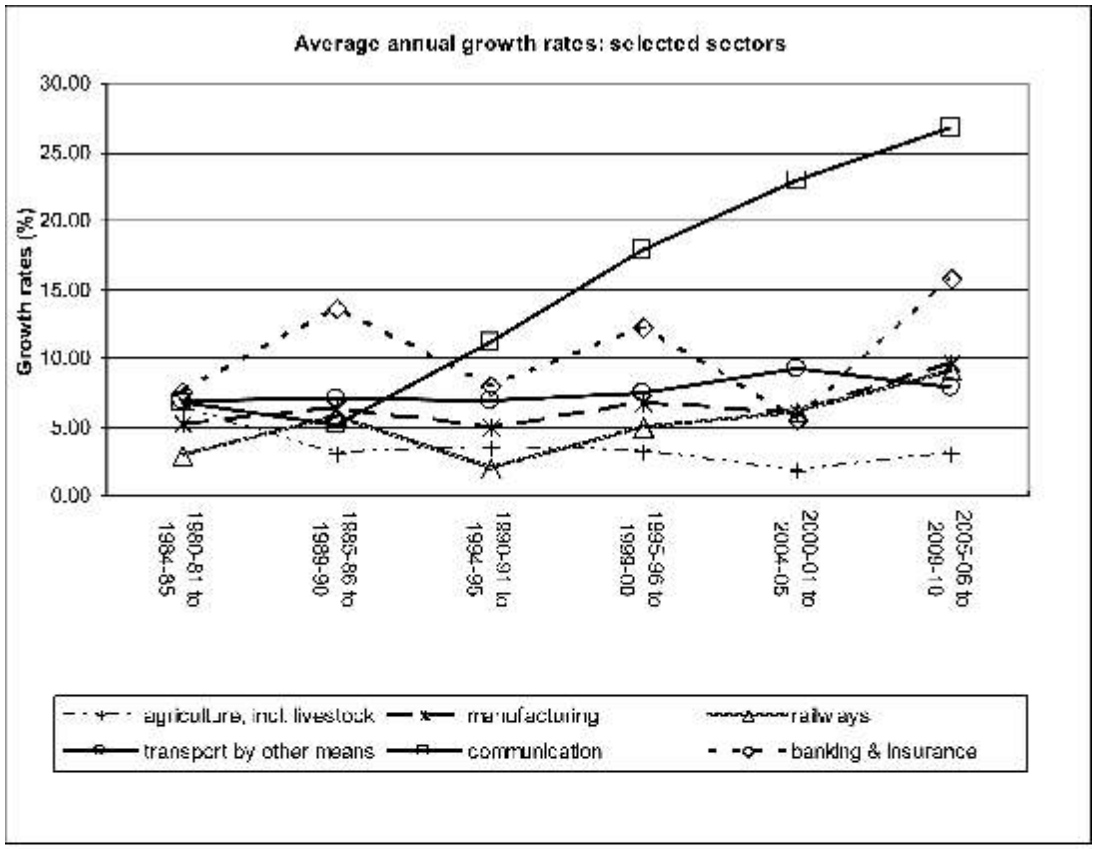
Figure II.A4: Annual Growth Rates of Primary, Industry and Service Sectors



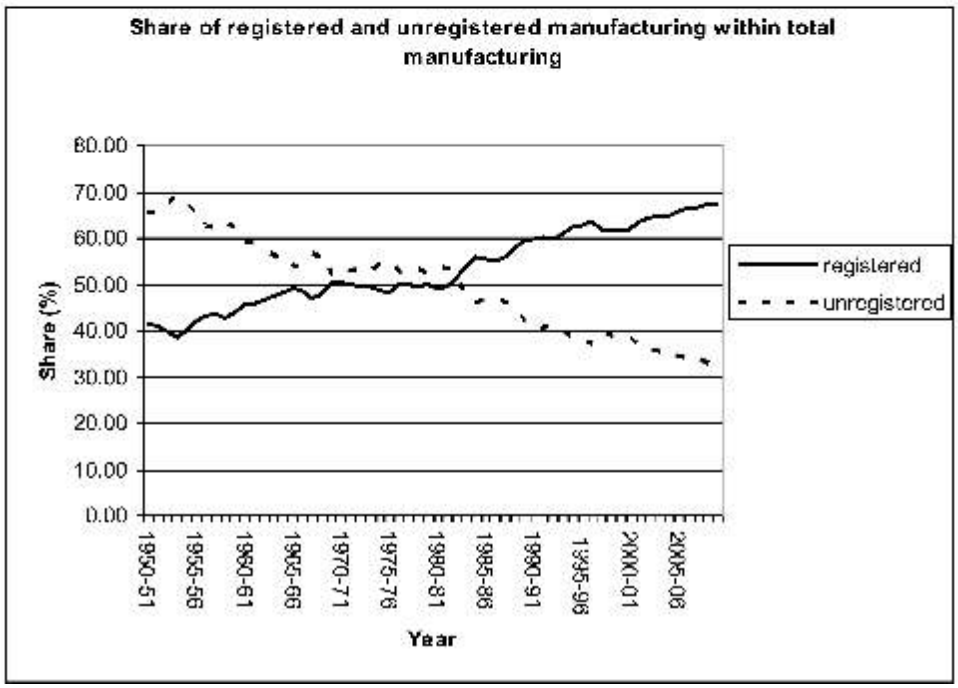
Disaggregated growth rates of services show that the communication sector grew at 6 percent annually from 1980 to 1990 and at the higher rates of 14 percent and 25 percent in the next two decades, respectively. The banking sector's growth rate has an interesting pattern: it is higher in the latter half of each decade (Figure II.5). For example, during 2001 to 2005, its annual growth rate was 5.5 percent, while it was 15.7 per centfrom 2006 to 2010. A similar pattern is observed in public administration and defence, other services and railways services. During 1995-2000, hotel and restaurant services grew at an overwhelming 14 percent compared to 5 percent in the earlier period. The growth rate stabilised at 8-9 percent from 2001 to 2010.

Registered manufacturing growth rates were stable at 6 to 7 percent except for the period 2005-06 to 2009-10. During the last half of the last decade, registered manufacturing has showed excellent growth at 10.5 percent annually. The manufacturing sector registered the highest growth rate in 2006-07 in the recent past. It slowed down during 2008-09 (to 4.25 percent) and then picked up at 8.8 percent in 2009-10. Unregistered manufacturing has a somewhat oscillatory pattern in its annual growth rates: the relative share of registered manufacturing within the manufacturing sector has grown over time (FigureII.A6). The relative shares of registered and unregistered manufacturing were almost the same and stable during the 1970s, but registered manufacturing has gained momentum since the early-1980s. Now, registered manufacturing contributes more than two-thirdsto total manufacturing output. While almost all sectors experienced slower growthduring the 2008-09 global recessions, some sectors maintained exceptionally high growth rates.

Figure II.A5: Average Annual Growth Rates of Selected Sectors



FigureII.A6: Share of Registered and Unregistered Manufacturing



Growth rates increased of real estate, ownership of dwellings and business services, public administration and defence, communications, and storage during 2008-09. Among these, the growth rate of public administration and defence was more than 20 percent during the year. The communication sector has registered exceptionally high growth rates of more than 25 percent annually overthe last several years: it grew at 6 percent annually during the 1980s and jumped to 14 percent and 25 percent in next two decades, respectively (Figure II.5).

Overall, there are certain issues that need the attention of policy makers. First, the agriculture sector has almost stopped growing in the last two years (in fact, its growth rate was negative in 2008-09 and 2009-10). Adverse weather conditions are one reason, and we expect a catch-up in the coming years, when food price inflation is also expected to fall. Given the huge dependence of unskilled workers on this sector and the growing food demand, this sector should grow steadily. Second, the fairly good performance of the manufacturing sector in recent years should continue, so job creation will be unaffected by global turmoil, which is mainly linked to the financial sector. Recently, the Government of India initiated implementation of the National Manufacturing Policy, and we are waiting eagerly to see its effect on the investment climate and global competitiveness in the coming years. The projected share of the manufacturing sector by 2020 is 25 per cent, which will create 100 million new jobs. Third, infrastructure is a major bottleneck. The construction growth rate has slowed down in the last two years, and needs to grow at a higher rate to match the growing demand for quality infrastructure. Fourth, quite apart from the rural road networks, the condition of transportation services in the urban centres is still very primitive. The growth rate of transport services needs to increase if the sector is to face global competition from other emerging countries, especiallyChina. The National Transport Development Policy Committee is addressing issues related to the transport sectors and hopefully the situation will improve soon. Overall, our financial sector is growing at a good pace, although policy makers need to be vigilant about maintaining parity between the size of the real and financial sectors. India's main challenge is maintaining a balanced growth which allows more jobs to be created regularly.

Table II.A1: Sectoral share in GDP at factor cost (at 2004-05 prices)

Sectors		TE 1984-85[17]	TE 1989-90	TE 1994-95	TE 1999-2000	TE 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	agriculture, forestry & fishing	34.46	30.37	28.29	24.02	19.80	18.27	17.36	16.80	15.71	14.62
1.1	agriculture, incl. livestock	29.00	25.64	23.88	20.30	16.62	15.46	14.69	14.28	13.30	12.31
1.2	forestry & logging	5.39	4.16	3.37	2.64	2.20	1.93	1.82	1.68	1.61	1.53
1.3	Fishing	1.08	1.08	1.21	1.09	0.98	0.88	0.86	0.83	0.81	0.78
2	mining & quarrying	2.94	3.24	3.33	3.12	2.89	2.65	2.60	2.46	2.34	2.31
3	Manufacturing	14.56	14.98	14.68	15.43	15.29	15.33	16.00	16.13	15.75	15.88
3.1	registered	7.82	8.60	8.96	9.51	9.84	10.07	10.64	10.71	10.56	10.70
3.2	Unregistered	7.00	6.56	5.81	5.98	5.45	5.26	5.36	5.43	5.20	5.18
4	electricity, gas & water supply	1.62	1.94	2.24	2.29	2.12	2.06	2.06	2.04	2.00	1.97
5	Construction	6.75	6.67	6.72	6.49	7.22	7.93	7.99	8.09	7.99	7.92
6	trade, hotels & restaurants	12.01	12.47	12.71	14.53	15.91	16.46	16.68	16.78	16.59	16.39
6.1	Trade	11.12	11.56	11.75	13.27	14.49	14.90	15.05	15.09	15.05	14.94
6.2	hotels & restaurants	0.88	0.90	0.95	1.27	1.42	1.56	1.63	1.69	1.53	1.45
7	transport, storage & communication	5.00	5.27	5.48	6.17	7.99	8.64	8.88	9.17	9.54	10.16
7.1	Railways	1.27	1.28	1.11	0.98	0.99	0.96	0.98	0.98	0.99	1.00
7.2	transport by other means	3.98	4.32	4.62	4.92	5.49	5.71	5.67	5.64	5.56	5.51
7.3	Storage	0.13	0.11	0.10	0.08	0.06	0.06	0.06	0.06	0.06	0.06
7.4	Communication	0.36	0.36	0.45	0.70	1.47	1.90	2.17	2.49	2.93	3.58
8	financing, insurance, real estate & business services	9.09	11.01	12.92	13.88	14.66	15.13	15.74	16.12	16.98	17.17
8.1	banking & insurance	2.73	3.64	4.52	5.64	5.81	6.09	6.70	7.15	7.64	7.88
8.2	real estate, ownership of dwellings & business services	6.52	7.49	8.50	8.42	8.96	9.04	9.04	8.96	9.34	9.30
9	community, social & personal services	12.67	13.53	13.34	14.01	14.13	13.53	12.70	12.41	13.10	13.57
9.1	public administration & defence	5.72	6.54	6.09	6.41	5.99	5.59	5.20	5.12	5.77	6.03
9.2	other services	6.92	7.02	7.29	7.53	7.97	7.93	7.49	7.29	7.33	7.53
10	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	Primary (1+2)	37.40	33.61	31.62	27.14	22.69	20.92	19.96	19.26	18.05	16.93
	Industry (3+4+5)	22.93	23.59	23.65	24.22	24.63	25.33	26.04	26.26	25.75	25.77
	Service (6+7+8+9)	38.77	42.28	44.45	48.59	52.68	53.76	54.00	54.48	56.20	57.30

[17]TE: Triennium Ending. TE 1984-85 means simple average of 1982

Table II.A2: Average annual growth rates of GDP of sectors

Sectors		1980-81 to 1984-85	1985-86 to 1989-90	1990-91 to 1994-95	1995-96 to 1999-00	2000-01 to 2004-05	2005-06 to 2009-10	1980-81 to 1989-90	1990-91 to 1999-2000	2000-01 to 2009-10	2005-06	2006-07	2007-08	2008-09	2009-10
1	agriculture, forestry & fishing	5.78	3.03	3.35	3.13	1.73	3.08	4.41	3.24	2.40	5.14	4.16	5.80	-0.15	0.44
1.1	agriculture, incl. livestock	6.28	3.06	3.39	3.20	1.72	3.06	4.67	3.29	2.39	5.53	4.13	6.34	-0.63	-0.08
1.2	forestry & logging	-0.67	1.37	-0.14	1.83	1.49	2.21	0.35	0.85	1.85	1.79	3.27	1.39	2.14	2.45
1.3	fishing	5.60	5.38	6.91	3.40	3.06	5.34	5.49	5.15	4.20	5.88	6.61	5.80	3.50	4.93
2	mining & quarrying	8.36	9.05	5.08	4.65	4.64	4.14	8.70	4.87	4.39	1.31	7.47	3.69	1.30	6.95
3	manufacturing	5.22	6.32	4.98	6.71	6.03	9.55	5.77	5.84	7.79	10.10	14.31	10.28	4.25	8.79
3.1	registered	7.60	7.64	6.14	6.52	7.02	10.52	7.62	6.33	8.77	12.10	15.75	10.06	5.27	9.39
3.2	unregistered	2.50	4.40	2.98	6.84	4.38	7.71	3.45	4.91	6.04	6.46	11.56	10.71	2.23	7.57
4	electricity, gas & water supply	7.91	9.09	8.04	6.47	4.28	7.19	8.50	7.26	5.73	7.09	9.29	8.27	4.93	6.37
5	construction	4.10	5.57	4.66	6.60	9.44	9.27	4.83	5.63	9.35	12.79	10.33	10.74	5.44	7.02
6	trade, hotels & restaurants	5.30	6.56	5.84	9.13	7.88	9.10	5.93	7.48	8.49	12.23	11.03	10.01	5.51	6.70
6.1	trade	5.31	6.54	5.87	8.72	7.86	9.14	5.93	7.30	8.50	11.71	10.68	9.67	6.47	7.16
6.2	hotels & restaurants	5.60	6.93	5.43	14.01	8.11	8.81	6.27	9.72	8.46	17.47	14.40	13.07	-3.05	2.18
7	transport, storage & communication	5.71	6.36	6.38	10.65	10.95	12.77	6.04	8.52	11.86	12.22	12.73	12.86	11.11	14.96
7.1	railways	2.89	5.76	1.97	4.93	6.00	9.09	4.32	3.45	7.54	7.47	11.14	9.78	7.65	9.41

Sectors		1980-81 to 1984-85	1985-86 to 1989-90	1990-91 to 1994-95	1995-96 to 1999-00	2000-01 to 2004-05	2005-06 to 2009-10	1980-81 to 1989-90	1990-91 to 1999-2000	2000-01 to 2009-10	2005-06	2006-07	2007-08	2008-09	2009-10
7.2	transport by other means	6.88	6.96	6.91	7.36	9.21	7.83	6.92	7.14	8.52	9.26	8.95	8.70	5.25	6.97
7.3	storage	3.58	1.88	2.26	1.76	3.73	8.01	2.73	2.01	5.87	4.70	10.85	3.35	10.48	10.67
7.4	communication	6.68	5.08	11.09	17.79	22.88	26.75	5.88	14.44	24.82	25.52	24.93	25.43	25.78	32.11
8	financing, insurance, real estate & business services	7.37	9.96	7.51	8.52	6.79	12.05	8.67	8.02	9.42	12.65	13.99	11.93	12.47	9.20
8.1	banking & insurance	7.58	13.53	7.89	12.18	5.51	15.69	10.55	10.03	10.60	15.86	20.60	16.68	14.02	11.29
8.2	real estate, ownership of dwellings & business services	7.30	8.06	7.32	7.48	6.36	9.45	7.68	7.40	7.91	10.59	9.54	8.42	11.23	7.50
9	community, social & personal services	5.11	6.88	3.93	9.43	4.59	8.25	6.00	6.68	6.42	7.00	2.85	6.87	12.68	11.84
9.1	public administration & defence	5.50	8.09	2.47	9.82	3.02	9.39	6.80	6.14	6.20	4.18	1.98	7.63	20.19	12.98
9.2	other services	3.88	6.01	5.22	8.43	6.46	7.45	4.95	6.82	6.95	9.08	3.47	6.35	7.40	10.94
10	Total	5.51	5.66	4.83	6.77	5.77	8.63	5.58	5.80	7.20	9.52	9.58	9.34	6.76	7.96
	Primary	5.95	3.54	3.52	3.27	2.05	3.21	4.75	3.40	2.63	4.64	4.58	5.52	0.04	1.28
	Industry	5.00	6.32	5.12	6.60	6.84	9.26	5.66	5.86	8.05	10.67	12.66	10.26	4.67	8.06
	Service	5.75	7.49	5.76	9.21	7.08	10.31	6.62	7.48	8.70	10.98	10.08	10.30	10.14	10.06
	Total	5.51	5.66	4.83	6.77	5.77	8.63	5.58	5.80	7.20	9.52	9.58	9.34	6.76	7.96

III. Provision of Public Goods: Do Panchayats Matter?

By Hari K. Nagarajan and Sharmistha Nag[18]

1. Water and welfare

In a developing economy such as India, with its ethnically diverse society, household welfare and its distribution within the household unambiguously depend on how much time each member of the household spends on productive activities. Distribution of utility within the household could also depend on the allocation of time between productive and unproductive activities among household members.Intra-household allocations of time thus have significant consequences for the welfare of individual members.

According to a UNDP report, 70-80 per centof the rural Indian women spend an average of 47 minutes per day collecting water. A 2004-05 NSSO report suggests that tube-wells/hand pumpsare the most prevalent source of drinking water in rural areas: 56 per cent of the rural households report using water from tube wells, while 13 per cent rely on 'pucca wells.' Private availability of water is still marginal in India. Anecdotal evidence suggests that in villages in Haryana, a woman spends an average of 138 minutes per day fetching water; in rural Andhra Pradesh, this ranges from 0.84 to 1.31 hours.

In the paper, 'Political Reservations, Access to Water and Welfare Outcomes' (NCER-IDRC working paper series 2011)[19] we examine the welfare impact of reduced time spent on household work, particularly by women, through political reservations in rural India. The 73rd Amendment to the Indian Constitution, designed in 1992 and promulgated in 1993, mandated that one-third of all seats in Panchayat councils and one-third of village-chief (Pradhan) positions be reserved for women in districts selected randomly in each election round. The devolution of power to local authorities that followed the amendment allowed elected political bodies to function as units of self-government, with gram Panchayats being the lowest tier of local government at the villagelevel.

Using NCAER-REDS current and previous survey data[20], the present analysis provides a consistent link between political reservations, provision of public services (PS), intra-household time allocations and household welfare. We posit that a significant retardant to labour market participation by women is household work. Much of the household work stems from accessing public services like water and other common property-related activities. This analysis aims to examine whether the effective provision of public services, water in particular,can produce significant welfare effects at the household level. The effective provision of public services that leads to a time saving-reduction in household work alters intra-household dynamics in favour of women. Since household work is a barrier to women's participation in the labour market and other income-earning activities, empowering women to make choices leads to significant welfare gains for the household. Local governance and other empowering mechanisms such as political reservations could be effective tools for enhancing household welfare.

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[19]Financial support for the paper on which the present analysis is based (co-authored by Raghabendra Jha, Sharmistha Nag and H. K. Nagarajan) has been provided by IDRC, Canada for the project on "Building Policy Research Capacity for Rural Governance and Growth in India" (grant number 105223).

[20]Rural economic and demographic survey for current (2006) and previous (1999) rounds consisting of 241 villages spread across 17 states of rural India.

Can governance produce outcomes related to water which could be the basis for improved welfare? Effective governance should empower different constituents - viz., households - in such a way that there is both more effective and more efficient provision of and enhanced access to public goods. This becomes possible under effective local governance, as households are able to participate in the process of governance. The government of India has attempted to empower weaker sections as well women through calibrated political reservations. Evidence from the survey indicates that political reservations empower women and enable them to participate effectively in gram sabha meetings. If members of the village participate in the process of governance, will they then be willing to contribute to its development? We find that women are willing to contribute towards many local PS, but the magnitude of contribution towards improved provision of water is the highest.

The dichotomy between the supply and demand for public goods and services can have significant adverse consequences on household welfare. This is also indicative of allocative inefficiencies of resources. In India, the funds flow follows a silo structure where many decisions on allocations (both magnitudes and choice of public goods and programmes) are made outside the village, at higher levels of bureaucracy related to the Panchayati Raj. We find that the gap between mean expected allocations and actual allocations is 8 per cent in villages that have been reserved at least once, and 13 per cent in villages that have never been reserved.

The survey findings on changes observed in the patterns of labour allocations by women in reserved and unreserved Panchayats over time are of much importance to this analysis. We find that the magnitude of time spent in household work, of which fetching water forms a significant component, declines sharply for women who reside in reserved Panchayats, but remains nearly stagnant for women in unreserved Panchayats. The number of days spent in household work as well as the time spent in fetching water also decline. What is also revealing is the increase in the magnitude of time spent in productive work by women. The number of days spent in tending to livestock, self employment, and, own cultivation increase, the magnitude of increase being largest for own-cultivation.

The analysis also shows quite conclusively that exogenous policy reactions by Panchayats can influence household-level school choice and welfare.

The regression results conform to the findings of the extant literature and provide additional insights into the relationship between labour market participation, household work and household welfare. Broadly, the findings are as follows:

(i) Political reservations and the ability of women to participate in the process of governance contribute to household welfare by allowing women to participate in labour markets. Such an outcome is possible since improved provision of public goods, in particular water, increases the productivity of household labour time.

(ii) The concomitant decline in household work and increase in labour market participation is a robust indicator of the increased productivity of household labour time being translated into productive work. In particular, women participate in self-employment and cultivation. Conditioned on political reservations, women are more likely to choose to engage in self-employment and own-cultivation. The effect on household incomes from members engaged in self-employment activities and own-cultivation is greater than the effects of participation in off-farm wage labour. Empowering women in

ways in which they engage less in unproductive household work and more in productive activities such as livestock management, cultivation in farms, and self-employment in business increases household incomes by as much as 59 per cent.

(iii) Literature on the relationship between time spent in household work and labour market participation suggests that not controlling for factors germane to geography, access to credit, and shocks could render the estimated results untenable. We find that including these factors makes the results robust. We observe that location of households explain the variance in both time spent in fetching water and number of trips made for this purpose. It is therefore important to control for geographical location of households within a village while examining the relationship between reductions in time spent in household work and participation in productive activities. Once we control for residential location, the magnitude of increases in real income caused by increased participation in self-employment and own-cultivation is nearly 67 per cent. Geography allows households to realise the outcome of increases in productivity of household labour time due to externalities such as proximity to elected representatives and networks (Munshi and Rosenzweig (2010)). Such increases in productive work provide an important source of income for the household are therefore welfare-enhancing. This points towards the need to synchronise policies on land reforms and micro-credit with those on political reservations in the context of decentralisation and devolution of powers.

(iv) Village-level expenditures on water, the ability of members to approach elected representatives to resolve water-related problems, and having these problems resolved, have significant impacts on household work. Conditioning expenditure on reservations reduces the magnitude of household work by 22 per cent, ceteris paribus.

(v) Our results are robust to the inclusion of access to credit and village-wide shocks.

Policies leading to the improved provision of water to households will be welfare-enhancing. Effective governance and improved allocations of public service can help in altering intra-household dynamics in such a way that time saved by women in terms of household work is translated into more productive alternatives and the cumulative impact on household welfare therefore will be significant.

2. School choice

This analysis is based on the paper, "School Choice in India: Public Expenditures and Private Outcomes"[21] (NCAER-IDRC Working Paper Series 2011) in which we examine whether school choices that are influenced by local governments affect household welfare.

Unlike in the literature that relates household incomes to health expenditures, there is no obvious reference to the existing "gradient" in schooling. If we posit that school choice and the level of education expenditures are jointly determined by parents and households, then there is a case for linking the choice of schooling with household welfare. Therefore we consider per capita consumption expenditures (net of schooling) on choice of private schools, public schools, Panchayat schools and household education expenditures. Given the

[21]Co-authored by Hans Binswanger, H.K. Nagarajan, Sudhir Singh as part of the NCAER-IDRC project on "Building Policy Research Capacity for Rural Governance and Growth in India" (grant number 105223).

obvious problems of reverse causality and endogeneity, we consider a two-stage instrumental variables approach for empirical estimation of school choice and welfare outcomes.We begin by looking at some of the statistics that our survey[22] points to. The data shows that the student-teacher ratio has improved, number of classrooms has increased and students per classroom have come down over two panchayat periods (1999 and 2006). However, a persistent supply-demand dichotomy exists. Households expect a specific allocation with respect to public expenditures but in reality this is not the case. Political reservations reduce this gap to some extent and the gap is significantly larger in villages that have never been reserved.

Next, we attempt to identify, through empirical specifications, the set of factors that increases children's reading and writing abilities. The existing literature primarily focuses on factors such as nutrition, mother's health, parental characteristics, income status, locality in which the family resides and other variables that are wholly exogenous to policy prescriptions by local governments. The innovation in our paper is that we base the discussion on various elements of school quality such as absenteeism, quality of seating, drinking water, availability of play grounds, etc., that can be controlled by local governments. We therefore are in a position to articulate whether effective governance can improve the cognitive skills of children.

Our results indicate that mother's education significantly improves children's ability to read and write, while teacher absenteeism reduces the same. If the student-teacher ratio increases (i.e.,there are more students per teacher), there is an adverse impact on the learning ability of the girl child in particular. The quality of teaching matters: teachers' ability to explain and the reduced incidence of not answering questions (getting angry if questions are raised) improve the learning process. Hygiene elements, such as availability of drinking water and playgrounds and functioning toilets contribute significantly to the learning process.

We now discuss factors related to school choice. Parents decide among sending their children to private, public or Panchayat schools conditioned on the labour market, distance, availability of religious instruction, wealth status and the quality of education. Households with a high number of non-earning members tend to send their children to public and Panchayat-run schools. Further, reduced wealth resulting from household splits increases households' preference for public and Panchayat schools over private schools. Improved cognitive abilities (the ability to read and write) of children lead to increased enrollment in private schools compared to public and Panchayat-run schools.

An important determinant (one that is frequently ignored in the literature) is the impact of not sending one child to school, which could be influenced by labour market conditions and to a significant extent by the income status of the household. In our estimates of school choice, we include this as one of the exogenous variables. Do families withdraw children from school or is there an added tendency to keep one eligible child from attending school? An interesting result is that an increase in farm wages does not lead to children being withdrawn from school. The proportion of girl children in the household is the most likely predictor of withdrawing/not enrolling all eligible children. Children from SC and ST households are most likely to be withdrawn from schools compared to those from OBC households. There is a general tendency across all income categories to withdraw children from public and Panchayat schools and enroll them in private schools. Households that are most likely to withdraw one child choose public and Panchayat-run schools over private schools.

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[22]Rural Economic and Demographic survey for current (2006) and previous (1999) rounds consisting of 241 villages spread across 17 states of rural India

We find that women's empowerment increases household expenditures on education. In particular, their ability to participate in governance of schools (through the VECs, for example) enhances the magnitude of household expenditures on schooling. The existence of village education committees (VECs) improves households' probability of choosing a a Panchayat school, which is indicative of their expectation that such schools will be better administered. Controlling for other factors, such as an increase in Panchayat-level expenditures, leads to a marginal decline in private schooling expenditures. Also, educational expenditures increase in female-headed panchayats. Another interesting finding is that if the leadership is parochial, that is, if the household's subcaste is the same as that of the elected representative, then public schooling is favoured. The magnitude of school expenditures declines very fast if the probability of withdrawing a child increases. We find that if the mother of the child participates in the VEC then educational expenditures increase. Further, expenditures rise if school quality is a major concern for households.

We finally examine the welfare impact of school choice. It has been established in the literature that school attainments enhance welfare through productivity gains. The results indicate that a range of factors related to governance affect school choice and private school expenditures andprivate school expenditures grow at a slower rate than consumption expenditure. Private schooling expenditures are welfare-enhancing. In our results there are clear indicators of factors germane to both households and the process of governance that influence a growth in private school expenditures. Private schools are markedly better in providing improved cognitive skills to children, so an increase in private enrollment would lead to faster growth in household welfare. Expenditures net of education increases, especially expenditures related to nutrition. The per capita calorie intake of households increases (arising out of household expenditures) with improved participation in schools. In particular, participation in private schools seems to have a pronounced impact on nutritional intake.

The analysis shows that exogenous policy reactions by Panchayats can influence household-level school choice and welfare. Our findings indicate that improved quality of schooling leads to migration out of public schools and increased enrollment in private schools. Panchayat expenditures in themselves do not necessarily lead to participation in government schools; VECs play an important role. Further, parents' participation in VECs leads to outcomes that are welfare-enhancing for the household. Finally, a rise in school expenditures as well as increased participation in private schools increase the per capita calorie intake at the household level. Therefore, we can broadly conclude that private schooling at the expense of public education is not necessarily a perverse outcome.

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