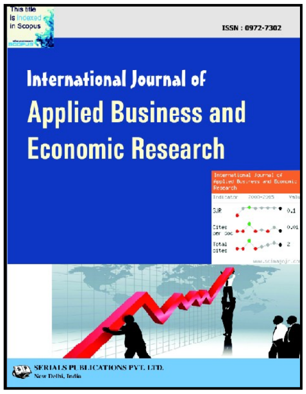

International Journal of Applied Business and Economic Research

ISSN : 0972-7302

available at http: www.serialsjournals.com

Volume 15 • Number 22 (Part-III) • 2017

India's Macroeconomic Challenges for Achieving all Round Development during Pre & Post-Global 2008 Crisis (Revised – July, 2017)

Kapadia Sunil B. and Venu Madhav

Research Scholar, KL University (Guntur-AP), E-mail sk.sunil457@gmail.com

Abstract: The study of India's macroeconomic challenges presents a theoretically relevant discussion with a backup analysis giving an overview of some of the insights from economic literature, on the relationship inter se between growth and development with particular reference to the fiscal policy development and economic liberalisation subsequent to the country's balance of payments crisis in 1991, and also, the 2008 global financial crisis. Further, it highlights the need to achieve efficiency in utilising the country's resources in addressing social and economic challenges, with a view to achieving inclusion and all round development.

Finally, the paper concludes with an attempt to understand India's current fiscal and financial position, highlighting on various bottlenecks, which India needs to address, that include narrowing the gap in living standards, to reverse rising inequality, improving social and economic inclusion, to push crucial projects, implementing pending reforms, better targeting of social expenditure, and to remain focused on / or creating the Supply side engines of growth in key areas e.g. energy, natural resources, human capital, and institutional reforms for improving the country's overall economic growth, particularly in the context of the weak and challenging global environment.

Keywords: Economic reforms, Growth sustenance, all round development, inclusive growth, 2008 Global crisis

1. INTRODUCTION

For granting advances, World Bank and the IMF stipulated certain conditions. Since India was in a critical situation, she accepted their conditions of and then arranged a sequential context for realignment of the macro-economic fundamentals, ushering in a programme of economic stabilization. The package of **economic reforms**, which were expected to have long-term impact on the economy, included fiscal, monetary, financial, as well as industrial and export-import (EXIM) sector reforms. Metamorphic changes have been brought about in the economy owing to which India has emerged as one of the fastest growing countries in the world today.

At a broader level, in the absence of perceptible fiscal correction, there is a doubt cast on the feasibility and desirability of continuation of the overall **reform process** itself that India initiated, earlier. Making growth more inclusive and addressing widespread poverty remains the key challenge even today. The country has already gone through various difficult stages of learning how to operate a democracy and has reached a level of political maturity. While, so far, the political process has not managed to achieve support for all the reforms required, the institutional capability to do so still exists. Hence, with sufficient resources and the capacity to reform, negative shocks to trend growth can potentially be reversed.

This paper makes a reference to: India's crisis in 1991, reform process initiated and the development of fiscal disciplinary framework, the country's experience of fiscal response to the global financial crisis in 2008, fiscal deficit and indebtedness, the slowing down in India's economic growth, and the subsequent return (U-turn) to the fiscal consolidation path, where a detailed examination of the structural and cyclical behaviour of some of the variables has been made. An attempt is made to assess fiscal sustainability, inclusive growth and all round development.

Further, the discussion is on fruits of country's economic growth that have not trickled down across all its region and populace. Because of persistent inequality there is a greater need now for ***inclusive growth*** which is imperative for India to achieve. A reference is made to the report by **UNDP 2015** about the various developments of Indian indices followed by an unhappy conclusion.

Lastly, the discussion is made about growth and sustainable development and the present situation of the economy and the factors responsible there for, with some perspectives in the light of the **Economic Survey 2017**. In summation a few suggestions have been outlined for the improvement and achievement of better economic growth in the medium term. This analytical document is verily a data source for qualitative research based on empirical evidence.

2. REVIEW OF LITERATURE

The problems of economic development, which are complex and multidimensional, have resulted in the development of a number of theories, explanations, arguments and assertions (World Bank 2000). These theories describe tools and strategies for making development goals achievable. The discussion in literature also includes views about the nature of economic prosperity, it then further reviews classical theories with four main clusters: linear stages of growth models; structural change models; international dependence models; and neoclassical counter-revolution models.

Subsequently, contemporary theories of economic development, including new growth theory and theory of coordination failure, have emerged. Importantly, implications of the changes in the development thoughts and their importance in studying development problems in the developing countries have also been discussed in the literature.

The starting point for the human development approach is the idea that the purpose of development is to improve human lives by not only enhancing income but also expanding the range of things that a person can be and can do, such as be healthy and well nourished, be knowledgeable, and to participate in community life. Seen from this viewpoint, development is about removing the obstacles to what a person can do in life, obstacles such as lack of income, illiteracy, ill health, lack of access to resources, or lack of civil and political freedoms.

As expressed by Amartya Sen: "…the twin recognition that human beings can 1) fare far better, and 2) do much more to bring this about may sensibly be seen as the two central thesis of the human development approach." The first Human Development Report defines human development as a process of enlarging people's choices. To lead a long and healthy life, to be educated and to enjoy a decent standard of living are the three most critical choices identified in the first HDR. Additional choices include political freedom, guaranteed human rights and self-respect.

The current understanding of economic growth is largely based on the neoclassical growth model developed by Robert Solow (1956). In the Solow model, capital accumulation is a major factor contributing to economic growth. Productivity growth – measured as an increase in output per worker – results from increases in the amount of capital per worker, or capital accumulation (e.g. Fagerberg 1994). Capital deepening will continue until the economy reaches its steady state – a point at which net investments grow at the same rate as the labour force and the capital-labour ratio remains constant. The further the economy is below its steady state, the faster it should grow (see e.g. Jones 1998).

There is a growing body of recent literature which shows that emerging economies are subject to business cycle fluctuations beginning in the 1980s and 1990s, and that the cycles are characterized by significant volatility in output (Agenor, McDermott, and Prasad 1999; Rand and Tarp 2002; Male 2010; Neumeyer and Perri 2005; Aguiar and Gopinath 2007).

Taking a holistic perspective of economic reforms and their impacts on the solutions of our economic problems, Patil (2010) was critical of the measures/models adopted by our reformers. He asserted that India needs different sets of solutions. All those who talk of totally free markets do not recognize that we need broad-based industrialization and infrastructure development to tackle poverty in the country. Patil insisted that "any reforms that we intend to bring about should not be guided by the policy of reforms for their own sake but by the impact such reforms have on the rest of the economy and in particular the real sector". Patil asserted that we must not ignore the basic proposition that finance is a facilitator and not an end in itself.

There is a view that the high growth phase of 2004-09 was a debt-oriented cyclical boom, supported by unprecedented capital inflows, coinciding with an exceptional growth phase in the world economy (Nagaraj, 2013). The 2008 global financial crisis brought down the growth rates of countries, with some de-veloped countries entering into recession and existing macroeconomic frameworks and the way global macro economy works has become a question mark!

Growth rebounded initially in response to large monetary and fiscal stimuli by almost all of the countries to combat 2008 global financial crisis, but subsequently has slowed down significantly. Indeed, the fiscal stimulus packag-es not only contained the seeds of the slowdown but also helped in modest recovery in most of the G-20 countries–especially the emerging countries such as China and India.

However, the spill over effects of developed nations' exit policies on emerging markets, such as India, were severe and had created imbalanc-es on the external accounts. For instance, in the case of India, the exchange rate depreciated as much by 25 per cent while the current account deficit (CAD) has hit 6 per cent in one quarter of 2013. Moreover, a substantial widening of the current account and fiscal deficits occurred from 2008-09, along with inflation climbing to a higher level.

Some economies are mostly demand driven, in which case stimulus to demand results in rising prices and a clear trade-off is observed at low level of inflation. On the other hand, the developing countries (including India) are more vulnerable to supply shocks causing high variability in inflation and disturb the consumption, investment and production behaviour. Further, the government interventions in financial and goods markets and macroeconomic rigidities such as rigidities in labour laws cause market failure and macroeconomic instability. Therefore, prices do not give correct signals about the policies and the course of actions of the economic agents.

As pointed out by Ackay *et al.* (1996) that there are two other possible channels through which higher deficits lead to higher inflation. Firstly, the government's borrowing requirements normally increase the net credit demands in the economy, driving up the interest rates and crowding out private investment. The resulting reduction in the growth rate of the economy will lead to a decrease in the amount of goods available for a given level of cash balances and hence the increase in the price level. Second is the case when central banks do not monetize the debt when the private sector monetizes the deficits. This takes place when high interest rates induce the financial sector to develop new interest bearing assets that are almost as liquid as money and are risk free.

With the observed decline in domestic saving and investment rates, there are concerns that India's potential growth rate has now fallen significantly (IMF, 2013). Moreover concerns were expressed about the possible emergence of a balance of payments crisis (for example, Acharya-2013; Mody and Walton-2013; Tarapore-2013), which eventually came to the forefront during June-August 2013, following the expected monetary policy of tapering announcement from time to time by the US Federal Reserve from the accommodative policy hitherto and the concomitant volatility in both the global and domestic financial markets.

Inclusive growth involve both poverty and inequality reduction. Ali and Son (2007) defines inclusive growth as the growth process that increases the social opportunity function which depends upon the average opportunities available to the population and how these opportunities are shared among the population. Elena and Susana (2010) defined inclusive growth as that growth which can reduce poverty and allow people to contribute to economic growth and benefit from the growth process, and have identified the employability of the poor and the cost of capital, geography and infrastructure as building blocks of inclusive growth.

See Straub (2011) for a review of the innumerable empirical papers written since the 1980s assessing the role of infrastructure capital in output growth. This is one way of defining potential output. Another definition of potential output used in the literature is the level of output which can be achieved using available factors of production, without creating inflationary pressures.

An appropriate review has been made for the study. Though *gaps* still exists in some of the areas like regional disparity, rising inequality despite growth, low rank in HDI, significantly high number of populace who live below poverty line, not much attention been made for social and financial inclusion, poor state of infrastructure, pending projects, and so on.

3.1. Research question

Is India sustaining high growth rate? What are country's major challenges in achieving all round development? An analytical discussion during Pre & Post-2008 Global financial crisis period

3.2. Objectives of the Study

The "objective" for **fiscal consolidation and sustainability** is one of the key macroeconomic issues confronting the Indian economy.

- To study the relationship of long-term growth trend and its linkages impacting development, financial and social inclusion
- To study the comparison of economic growth during pre & post-2008 Global Financial Crisis

3.3. Scope

The data used are for the selected few macroeconomic variables in line with the problem statement and objectives, for the period: 2001-02 to 2015-16.

3.4. Methodology

In line with the problem statement and objectives, the author has made use of Trend analysis for time series data collected for Country's GDP for the period of 2001-02 to 2015-16. Further, regression method is used and Hypothesis testing carried out, and data validated with 't' table.

Ho = There is no significant difference between $\bar{Y}1$ and $\bar{Y}2$
Mean GDP from FY: 1980-81 to 1990-91 (before Economic Reforms
& the Mean GDP from FY: 1991-92 to 2015-16 (post reforms).
H1 = There is a significant difference between $\bar{Y}1$ and $\bar{Y}2$
However, caculated value of t = 3.5924 is greater than table value
(lies between 2.021 to 2.042 in the 't' table)
∴ There is a significant difference in GDP before Economic Reforms
& after economic reforms & hence we reject Ho.
We conclude that economic reforms implemented was useful.

(*Note:* please refer Annexure no. 1 to 1.3 and Summary table for detailed working)

3.5. Research Design

This study is descriptive in nature as such **secondary data** have been used from recognized authentic sources e.g. websites of RBI, Finance ministry, CMIE, ADB, Niti Ayog, CSO-MOSPI, UNDP, IMF.

4. ANALYSIS AND DISCUSSION

(A) India in 1991

The Indian economy had to face many uncertainties in 1990-91. The effects of political situation at home, and the persistent fiscal imbalances were accentuated by the Gulf crisis which intensified strains on already weak balance of payments position. A critical analysis shows that:

- The deepening of foreign exchange crisis
- Growing fiscal imbalances; increasing rates of inflation
- Deceleration in industrial growth, and Slackening of overall economic growth

The principal aims of the structural adjustment policies adopted as a part of the reforms:

- to do away with or substantially reduce controls on capacity creation, production and prices, and let market forces influence the investment and operational decisions;
- to allow international competition;
- to reduce the presence of state agencies in production and trade, except in areas where market failure necessitates state entry; and
- to liberalise the financial sector by reducing controls on the banking system, providing for the proliferation of financial institutions and instruments and permitting foreign entry into the financial sector.

(B) Country initiated reform process

The government commenced on a path of economic liberalisation consequent to balance of payments crisis of 1991, whereby the economy was opened up to foreign investment and trade, the private sector was encouraged and the system of quotas and licences was scrapped. Fiscal policy was re-oriented to cohere with these changes. The Tax Reforms Committee provided a blue print for reforming both direct and indirect taxes. Its main strategy was to reduce the proportion of trade taxes in total tax revenue, increase the share of domestic consumption taxes by converting the excise into a VAT and enhance the contribution of direct taxes to total revenue.

As a part of the subsequent **direct tax reforms**, the personal income tax brackets were reduced to three with rates of 10, 20 and 30 per cent in 1997-98. The basic corporate tax rate was reduced to 30 per cent with an intention to further reduce to 25 per cent by March-2019. Suggestions were made to relook into the Income Tax slabs to bring about parity within the different sections of population.

In **indirect taxes**, the MODVAT credit system for excise was expanded to cover most commodities and in 2000-01, the three rates were merged in to a single rate and renamed as Central VAT (CENVAT). In case of customs duties, peak rate was brought down from 40 per cent in 1997-98, to 15 per cent in 2005-06. The number of major duty rates was also brought down from 22 in 1990-91 to 4 in 2003-04. This period also saw the introduction of the service tax in 1994-95, which got subsequently expanded to cover more and more services.

A major move in state government tax reforms was the introduction of a VAT in 21 states in 2005. The tax credit operates fully only for intra-state sales. This is a major hindrance to the formation of a smooth nationwide market and is expected to be addressed by the recently enacted Goods and Services Tax (GST) Act.

The other major item is: Explicit government budgetary subsidies like those on food, fertilizers, and petroleum products. The government has recently taken some measures to make the food subsidy more oriented to target-groups by revamping the public distribution (using Aadhaar platform - Direct Benefit Transfer) system and introducing differential prices for the poor and the non-poor.

(C) Country's experience of fiscal response to Global 2008 financial crisis

The global financial crisis that erupted around September 2008 saw Indian fiscal policy being tested to its utmost. The policymakers had to grapple with the impact of the crisis that was affecting the Indian economy through various channels that include: contagion risks to the financial sector; the negative impact on exports; and the consequent effect on exchange rates. The global recession was a natural source of decline in the Indian economic growth because of the fall in export of goods and services, and, of course, the fall in foreign capital inflows.

Here it is necessary to understand the transmission mechanism of global financial crisis on Indian econ-omy. Specifically, the presence of growth cycles in the Indian economy. Bhanu-murthy and Kumawat (2009) show that both global commodity price shocks and global financial crisis together has led to one per cent age point reduction in the GDP growth in 2008-09 while the policy stimulus measures have helped revive the growth by about half of percentage point in the same year. However, the decline in growth due to domestic cyclical factor is higher than the combined impact of commodity price shocks and global financial crisis.

However, the slowdown in India's growth must have started much earlier than collapse of Lehman Brothers' in September 2008 (see Bha-numurthy & Kumawat, 2009). This slowdown was attributed to sharp cyclical behaviour in India's growth movement due to productivity and capacity constraints, particularly in the industrial growth (this view was later supported by Rakshit, 2009 and by Mukherjee, 2009). Another source of deceleration in the GDP growth cycle is the deceler-ation of exports growth cycle, which moved down to a single digit (of 5.3 per cent) in 2008-09 after regis-tering a high of 15 per cent annual average growth since 2002-03.

Similar to developed economies, many measures have been taken domestically, through both fiscal and monetary measures, to stimulate the economy. In addition, the large fiscal expansionary meas-ures that were taken in the year 2008-09 such as farm loan waivers, Sixth Pay Commission award and other measures. On the monetary policy side, domestic policy interest rates were brought down sharply to ease the credit and tight liquidity position. How-ever, as some of the fiscal measures that are taken in Union Budget 2008-09 and in the post-September 2008 stimulus packages being irreversible in nature, sustained high fiscal deficits have imposed strains on overall macroeconomic stability.

There are other effects of crisis other than adverse growth effects, which is more serious for the eco-nomic development. It is the impact of the crisis on employment and poverty. It is well-known that, in India, in the recent past, the fall in poverty head-count is sharper compared to the pre-1991 period. This is largely due to the sharp upward shift in the overall growth process in the reform period. Yet, there are ar-guments that this growth was not pro-poor and it has resulted in increasing inequality and, hence, drop in poverty headcount is not as much as it intended to be. Although this is a valid argument, but in the ab-sence of high growth, India could have fared worse than it had performed right now in both economic and social indices. In terms of employment, the recent growth process has been criticized for 'informalising' the labour market and the segment of the labour force with very less social security coverage got badly affected due to the crisis (SEWA survey, 2009).

(D) Fiscal deficit and indebtedness of the country

India's fiscal deficit over the past few years is a major concern for both academicians and policy- makers. According to budget documents of the government for the fiscal year 2014–15, the ratio of gross fiscal deficit to gross domestic product (GDP) was at 6.60%up from 4.0% in 2007–08.

Connection between Gross Fiscal Deficit and Output Growth

As seen from Annexure-2, the annual data of the combined gross fiscal deficit (GFD) of both the central and state governments is plotted against GDP at market prices from 1980–1981 to 2009–2010. There is a sudden jump in fiscal deficit in 2008–2009 and 2009–2010, though output has grown at a slower pace, making the association between GFD and GDP horizontal in 2008–2009 and 2009–2010.

The impact of measures like expansionary fiscal stance in the form of farm loan waiver, MNREGA, 6th Pay Commission (revised) compensation, etc. is estimated to be around 1.8 per cent of GDP in 2008-09. If the increase in public expenditure across the budgets of 2007-08 & 2008-09 is taken together it amounted to about 3% of GDP. In course of 2010-11 the **non-tax revenues** from auction of telecom spectrum (3G and broadband) resulted in higher than anticipated receipts. A conscious decision was taken to increase allocation to priority sectors while adhering to the fiscal deficit target. The rationale for this was that reducing the debt to GDP ratio at an accelerated pace would unlock more resources for use in developmental programmes instead of debt servicing (MoF, 2011).

It also appears that there are moves **to improve social expenditure**, with respect to energy related subsidies in particular, given the Integrated Energy Policy of 2009, the basic principle would be to equalise the prices of domestic energy with that of imported energy while targeting subsidies to the poor and needy (Planning Commission, 2011). Much of this would hinge on the adoption of new techniques and technologies including IT based identification systems as proposed by the Aadhaar Unique Identification system.

Debt Sustainability: The trends in **fiscal deficit** were mirrored in the rising public debt levels. The combined debt of the central and state governments rose to an average of slightly over 63% in the 1990s. The concern now is that the high fiscal deficit of recent years has led to an increased total external debt. Recent developments indicate that policymakers have accepted **strict budgetary constraints**, to maximise resources for developmental activities. (The Planning Commission 12th Five Year Plan, 2012-17). The approach paper envisages the fiscal deficit projected to come down to 3.0 per cent in 2019-20.

(E) Slowing down in country's growth rate post 2008 crisis – (annexure no. 1 to 1.3)

New bottlenecks to growth have surfaced. Following the 2008 global meltdown, the Indian economy recovered somewhat, notwithstanding decline in growth in 2011 and new macroeconomic challenges began to emerge. We see a cyclical downturn post-financial crisis caused by external and domestic idiosyncratic factors. India's economy was part of the global slowdown owing to its trade and financial linkages with the rest of the world.

Further, over exuberance in investments in infrastructure and non-infrastructure capital due to easy financing conditions faced a correction post-crisis, dragging down growth below its long-term trend. However, part of the slowdown can be attributed to weak global environment, but also the emergence of strains created by the pressure that rapid economic growth has put on energy, natural resources, infrastructure and skills. The negative shocks to the trend were arising from the policy and decision making framework which increased uncertainty in the economy led many projects to be stalled, which caused investment, in particular, to drag down output growth. The policy framework that severely hampered firms' investment activity and investors' business confidence was a negative shock to the trend growth of output.

This slowdown is only *partly* cyclical and reflects the emergence of energy, infrastructure, human capital and institutional bottlenecks. The rapid economic growth in the last two decades has indeed accentuated the demand for energy and natural resources, for transport infrastructure and skills. But **supply of these key engines of growth has not been able to keep pace**. Institutions and public as well as private governance also need to adapt to the development of India for its progressive economic transformation.

(F) Country returning to financial consolidation

The need was felt to have a new fiscal disciplinary framework in 2001-02, and the **FRBMA** was adopted in 2003. This Act gave a medium term target for balancing current revenues and expenditures and set overall limits to the fiscal deficit at 3 per cent of GDP to be achieved by 2019-20 according to a phased deficit reduction roadmap. The FRBMA enhanced budgetary transparency by requiring the government to place before the Parliament on an annual basis reports related to its economic assessments, taxation and expenditure strategy and three-year rolling targets for the revenue and fiscal balance.

Excerpts from talk by **Shri Arun Jaitley, Union Finance Minister** on country's **Fiscal Consolidation** path at a Press conference that was held on 13-Jan-2016 at New Delhi:

The Finance Minister said that the Government continues to adhere to the path of fiscal consolidation. He said that the Budget 2015-16 targeted fiscal deficits of 3.9 per cent of GDP, as compared to 4.0 per cent in 2014-15 in spite of the pressing need for enhanced public investment to boost the economic growth. He said that this achievement, being one of the goal is all the more significant as the Government has fully implemented its tough commitments on account of requirements of federal structure i.e. greater tax devolution-from 32 per cent to 42 per cent of the divisible pool to States following the recommendations of the Fourteenth Finance Commission. Continuing the trend, the budgeted target of fiscal deficit of 3.5 per cent of GDP for 2016-17 would also be met.

Some of the major suggestions made include to bring changes in small savings rate which will in turn push the economy and to focus on increasing private and public investment. Some members were of the view that higher growth can be achieved even by following the path of fiscal consolidation among others and the Government should not compromise on fiscal measures alone. Other suggestions included setting-up of a Fiscal Council, maintaining medium term Fiscal targets, ensuring time-bound investment under

Corporate Social Responsibility, measures to address or incentivize the families affected by catastrophic diseases as this brings many families from APL to BPL.

(G) Fruits of economic growth of country not trickling down – need for Inclusive Growth

Although economic reforms did bring about new avenues, around **half of all workers** still remain in low value-added agriculture. The scope is therefore enormous for economy-wide productivity gains from further migration of workers into modern technology oriented sectors. Weaknesses in the business environment and extremely restrictive labour legislations have prevented India from reaping the benefits of its demographic advantage.

G.1 Uneven growth and Inequality

While severe poverty gradually but persistently veered downwards (Annexure-5), today large sections of the population still remain below national and international poverty line; and inequality has increased. A large share of the population is employed in the informal sector generally in low-paid, low-productivity jobs with no access to training whatever. Access to basic services including health care (Annexure-3), drinking water (Annexure-4), and electricity is limited. There has also been growing disparity in performance between the different states, which reflects differences in the product and labour market regulations across states.

At one of the Press conference at New Delhi on 13-Jan-2016, Economists made suggestions to the Finance Minister which included focusing on measures on **poverty reduction**, increasing female labour participation in the growing sections of the economy and development measures for tribal communities. It was suggested that the Socio Economic Caste Census need to be used for identifying the right beneficiaries and thus bringing them to the forefront. It was suggested that the LPG subsidy is regressive and need to be done away with. It was further opined that the Fertilizer subsidy was not any more benefitting the farmers and it is time to be done away with.

Income inequality within and among many countries has been rising and has reached an extremely high level, invoking the spectre of heightened tension and social conflict. Strategies for the world economy need to be ambitious, action-oriented and collaborative, and need to adapt to different levels of development. They will need to systemically change consumption and production patterns, and might entail, inter alia, significant price corrections; encourage the preservation of natural endowments; reduce inequality; and strengthen economic governance. (The World Economic and Social Survey 2013, DESA, United Nations Publication, New York)

(H) UNDP report (2015): Some facts about India

India continued to rank low in the *Human Development Index (HDI)*, though climbed five notches to the 130th rank in the latest UNDP report on account of rise in life expectancy and per capita income. India ranked 130 among 188 countries in Human Development Report 2015 released by the United Nations Development Programme (UNDP). "India's HDI value for 2014 is 0.609, which puts the country in the medium human development category."

The HDI is an average measure of basic human development achievements in a country. It is a summary measure for assessing long-term progress in three basic dimensions of human development — *a long and healthy life, access to knowledge* and *a decent standard of living.*

Life expectancy at birth increased to 68 years in 2014 from 67.6 in the previous year and 53.9 in 1980. Gross National Income (GNI) per capita was $5,497 in 2014 up from $5,180 in 2013 and $1,255 in 1980, an increase of 338 per cent between: 1980 to 2014.

However, as per the report, the expected years of schooling is **stagnant at 11.7** since 2011. Also, mean years of schooling at 5.4 has not changed since 2010. Between 1980 and 2014, India's life expectancy at birth increased by 14.1 years, mean years of schooling increased by 3.5 years and expected years of schooling increased by 5.3 years. According to the report, **India's 2014 HDI of 0.609 is below** the average of 0.630 for countries in the medium human development group and above the average of 0.607 for countries in South Asia.

(I) Inclusive Growth: Challenges before the country

Making growth more inclusive and addressing widespread poverty is another key challenge for India, it requires sustained investment in people, starting from *health* and *education* but also *transport* and *energy infrastructure*. It also requires a review of the poverty alleviation programmes, their targeting and efficiency. In addressing this challenge, inclusive growth with its focus on creating economic opportunities and ensuring equal access to them will play a pivotal role.

The path of inclusive reforms envisages a far more positive alternative, one in which the nation takes steps to stimulate investment, job creation, and improved farm productivity, as well as dramatically improve the delivery on basic services. In fact, job growth in non-farm sectors combined with productivity growth in agriculture would directly contribute to lifting more than 400 million people above the Empowerment Line, or more than 70 per cent of the total impact in the inclusive reforms scenario.

The impact is even more pronounced for the vulnerable segment, but even for the impoverished and the excluded, jobs and productivity growth are the most powerful drivers of higher living standards Raising public spending alone, without improving the effectiveness on delivery, would contribute less than 10 per cent of the potential impact across segments. The higher GDP growth inherent in the inclusive reforms scenario generates more tax revenue that can be ploughed back into spending on basic services—and it simultaneously ensures that India meets its fiscal objectives more quickly.

White proposed three criteria for pro-poor growth, viz., the share of the poor in income exceeds their existing share, their share in incremental income surpasses their share in population, and the share of the poor in incremental income exceeds by some international norm (Grinspun, 2009). Klasen (2010) summarized the concept of inclusive growth (which also includes pro-poor growth as its subset) in terms of both processes and outcomes:

- Positive per capita income growth rates
- Income growth rates for disadvantaged groups, viz., Income of poor, ethnic minorities, women, backward regions, and rural areas are as high as the growth rates for per capita income, indicating that such groups have been able to participate in the growth process at least proportionately, and hence growth becomes non-discriminatory.
- Expansion of non-income dimensions of well-being that exceed the average rate for disadvantaged groups. Non-income dimensions include achievements in schooling, survival rates, nutritional standards, and access to transport, communication and household requirement.

Strong inclusive growth is the only way for the country to go forward and the policy agenda laid out in the XIIth five year plan is designed to achieve this objective. The outcomes of the scenario, in terms of the pace of inclusion, the confidence of people in country's institutions, as also the government's finances and the GDP, are not easily quantified, but their broad direction can be clearly seen.

The Approach Paper (XIIth five year plan) observed: "*Inclusive growth should result in lower incidence of poverty, improvement in health outcomes, universal access to school education, increased access to higher education, including skill development - better opportunities for both wage employment and livelihoods and improvement in the provision of basic amenities like water, electricity, roads, sanitation and housing.*" (Erstwhile Planning Commission Aug-2011, pp-4).

(J) Growth and Sustainable Development

The world is faced with challenges in all three dimensions of sustainable development—economic, social and environmental. More than one billion people are still living in extreme poverty and income inequality within and among many countries have been rising; at the same time, unsustainable consumption and production patterns have resulted in huge economic and social costs and may endanger life on the planet sooner or later. Achieving sustainable development will require global actions to deliver on the legitimate aspiration towards further economic and social progress, requiring growth and employment, and at the same time strengthening environmental protection. Sustainable development will need to be inclusive so as to take special care of the needs of the poorest and most vulnerable.

Continuation of current development strategies will not suffice to achieve sustainable development beyond 2020. Moreover, relying on "business as usual" scenarios presents clear risks, because evidence is mounting that:

1. The impact of climate change threatens to escalate in the absence of adequate safeguards and there is a need to promote the integrated and sustainable management of natural resources and ecosystems and take mitigation and adaptation action in keeping with the principle of common but differentiated responsibilities;
2. Hunger and malnourishment, while decreasing in many developing countries, remain persistent in other countries, and food and nutrition security continues to be an elusive goal for too many;
3. Income inequality within and among many countries has been rising and has reached an extremely high level, invoking the spectre of heightened tension and social conflict;
4. Rapid urbanization, especially in developing countries, calls for major changes in the way in which urban development is designed and managed, as also substantial increases of public and private investments in urban infrastructure and services;
5. Energy needs are likely to remain unmet for hundreds of millions of households, unless significant progress in ensuring access to modern energy including solar services is achieved;
6. Recurrence of financial crises needs to be prevented and the financial system has to be redirected towards promoting access to long-term financing for investments required to achieve sustainable development.

The three proposals selected encompass the green energy strategies of Organization for Economic Cooperation and Development (OECD, 2011a; 2011b), United Nations Environment Programme (2011) and World Bank (2012c). These strategies, which are comprehensive in their coverage of issues, aim at rationalizing the transition from the current state to an alternative path on which the environment is taken fully into account. These exercises offer insights on alternative means of moving towards sustainable development strategies. The emphasis is on the short term: "green growth should focus on what needs to be done in the next 5 to 10 years" World Bank (2012b, p. 1). The World Economic and Social Survey (2009 and 2011) take a more ambitious approach.

OECD proposes to tackle the challenges with "an operational policy agenda that can help achieve concrete, measurable progress at the interface between the economy and the environment"; a green growth agenda (OECD, 2011b, p. 11). Policymakers seeking to harmonize the economic and the environmental goals in a green policy agenda face three obstacles, namely, (a) low returns to green investment, which leads to (b) lack of investment and (c) slow innovation. To overcome these obstacles, OECD proposes that use be made of a green growth diagnostic tool which classifies the main obstacles to green growth into those causing low economic returns and those causing low capacity to appropriate generated returns, or low appropriability of returns. (The World Economic and Social Survey 2013, DESA, United Nations Publication, New York).

India's impressive growth has spurred progress on the Millennium Development Goals (MDGs) and has helped lift millions of Indians out of poverty – according to World Bank figures; in 1981 42 per cent of India's population lived on less than one dollar per person per day; by 2011-12 per cent age came down to 24 per cent (Annexure: 5). These statistics about India's rise tell only half the story, though. In reality, there are two India(s) and much of the country's population faces significant challenges in the areas of education, access to primary health care, Drinking water, basic infrastructure, nutrition and agricultural production, energy supply, environmental degradation, and systemic gender inequalities.

USAID/India have agreed and will focus on supporting innovative approaches for improving early grade reading in more affordable, effective, and sustainable ways. USAID will work in the following priority sectors: health, climate change, food security, and education. These sectors reflect the Agency's Initiatives and correspond to initial priorities identified in India's Twelfth Five Year Plan 2012-2017 (currently under way) – especially the Plan's emphasis on prioritizing increased agricultural productivity, improved health and education outcomes, and environmental sustainability. (USAID / India: Country Development Co-operation Strategy 2012-2016).

India, while continuing to engage actively in in-ternational discourses, needs to take necessary measures because it is one of the faster growing econ-omies but, at the same time, faces a big threat from environmental degradation, to tackle, India has prepared a 'Na-tional Action Plan for Climate Change' (NAPCC) objective of which is to 'establish an effective, coopera-tive and equitable global approach based on the prin-ciple of common but differentiated responsibilities and respective capabilities, enshrined in the United Nations Framework Convention on Climate Change (UNFCCC)',under which action plan, there are eight missions that focus on different aspects of the ecology that ensure sustainable and green growth. They are:

- National Solar Mission;
- National Mission for Enhanced En-ergy Efficiency;
- National Mission on Sustainable Habitat;

- National Water Mission;
- National Mission for Sustaining the Himalayan Ecosystem;
- Nation-al Mission for a *Green India;*
- National Mission for Sustainable Agriculture; and
- National Mission on Strategic Knowledge for Climate Change.

(K) Current economic situation of the country

At present, the Indian economy faces some downside risks in select macroeconomic variables, e.g. IIP growth is yet to give any positive signal on the overall improved health and sustained industrial output growth. Growth slowdown is also broad-based with the deceleration happening across various sub-sectors. The sharper deceleration is witnessed in industrial sector followed by service sector. Within the industrial sec-tor some sub-sectors show poor growth. These risks appear to have been contributed by domestic factors and equally by the international trends.

At one of the Press conference at New Delhi on 13-Jan-2016, a few Economists made suggestions to Finance Minister to deal with NPAs, as declaration of 'Bad Banks', to be strict on companies defaulting and performing at loss due to their own mis-management and malfunctioning etc. It was also suggested to make the Disinvestment of companies in small phases at regular interval all-round the year according to emerging changes in the market such that the targets can be attained and overall better returns can be ensured.

It is imperative to highlight now some of the macroeconomic variables the comparison of which is necessary to understand the country specific as well as global environment that was existed prior to 2008 global financial crisis which influenced and impacted economic performance of countries across the globe including Indian economy.

(A)

Pre-Global 2008 financial crisis period	Post-Global 2008 financial crisis period
Global growth was around 5% (**buoyant**)	Global growth is around 2.8% (**weak**)
Crude oil price was US $ 115 a barrel	Crude oil price is US $ 55 a barrel
European Union was growing at normal rate	Few European nations are in recession
China was growing in excess of 10% per annum	China growth has slowed down to 6.5%
India was growing at around 9% per annum	India's growth has slowed down to 7%
CAD & fiscal deficits were high for India	CAD & fiscal deficit are being controlled
India's import bill for crude oil was major item	Value of crude import bill is reduced by 52%
India's exports was growing at healthy pace	India's export rate is declining year-on-year
India's industry capacity utilization was 90%	India's industry capacity utilization is 72%

(B) As per latest report by IMF

There are four key drivers for Global economy, viz. Trade, Investment, and Technology & Politics

Trade: Contributors to the Slowdown

- Global trade in G&S has grown by 3% since 2012, which is less than **half** the rate seen the previous 30 years;
- Deceleration in global demand. Increase in protection in various forms. Peaking out of growth in global supply chains.

Investments: Also in Slow Mode

- Growth rate in Investment slowed from 12% p a during 2003-08 to 3.4% in 2015 -Steady deceleration over the past 5 years;
- 70% of Emerging and Developing Economies show investment growth below long-term average, compared with 30% in 2006.

Technology: Rise of the Robots

- Robotics moving into increasing number of manufacturing activities. From metal-forming to shoes; even to *rotis!*
- Rapid obsolescence of skilling and training mechanisms.

Politics: Reversing the Tide

- Global integration appears to be in retreat;
- Are protectionist forces going to gain ground in national governments?

Implications for India in the wake of Global uncertainty:

- Automation – from Demographic Dividend to Demographic Disaster?
- *Complementarities between AI, robots and people*
- *Affordable and sustainable safety nets*
- *Collaborative multilateral counters to dis-integration*

(L) Some perspectives from Economic Survey, 2017

- **Welfare spending in India suffers from misallocation:** the districts with the most poor are the ones that suffer from the greatest shortfall of funds in social programs. The districts accounting for the poorest 40% receive 29% of the total funding.
- The political backlash against globalisation in advanced countries, and China's difficulties in rebalancing its economy, could have major implications for India's economic prospects. They will need to be watched in the year – and decade – ahead.
- **The effects of De-Monetisation on nominal and real GDP growth for FY2017.** Given the uncertainty, the provision is made for a range: a ¼ percentage point to 1 percentage point reduction in nominal GDP growth relative to the baseline of 11¼ per cent; and a ¼ percentage point to ½ percentage point reduction in real GDP growth relative to the baseline of estimate of about 7 per cent.

- **Some possible challenges to growth exist.** For example, the prices of crude oil have started rising and are projected to increase further in the next year. Estimates suggest that oil prices could rise by as much as one-sixth over the 2016-17 level, which could have some dampening impact on India's growth.
- **Fixed investment rate in the Indian economy has consistently declined in the past few years,** more so the private investment. Raising the growth rate of the economy will to a great extent depend on quickly reversing this downward trend in the investment.
- **Trends in social sector expenditure** - As per the Reserve Bank of India data, the year 2014-15 in respect of which latest actual figures are available showed a significant decline from the RE level following a large decrease in actual social sector expenditure of the states from the revised estimates.
- **As per EUS Surveys, employment growth has been sluggish.** Further, States that show low unemployment rates also generally rank high in the share of manufacturing. While States compete to seek investment offering incentives, linking incentives to the number of jobs created, sustained efforts need to be considered as a tool to increase employment.
- **Education sector – the learning outcomes for a majority of children is still a cause of serious concern.** Some of the underlying causes contributing to low quality of education in the primary sector are teacher absenteeism and the shortage of professionally qualified teachers.
- **Health for all** – The challenge lies in addressing the huge gap between IMR in rural (41 per 1000 live births) and urban (25 per 1000 live births) areas. As per (SDG) 3, "Ensure healthy lives and promote wellbeing for all at all ages" should be synchronized with India's domestic targets to reap the benefits of the 'demographic dividend'.

The Survey in 2016 had recommended a four- fold strategy for possible solution to some of these challenges: viz. ***Recognition, Recapitalization, Resolution and Reform***. Inclusive growth in India requires bridging gaps in educational outcomes and improved health attainments across the population, it said. This calls for higher allocations towards social sectors.

5. DISCUSSION AND CONCLUSION

The forgoing discussion does point towards few policy decisions that did not augur well for the country and it impacted her image negatively with global investors at large.

- Decision on increasing FDI in various sectors taken after prolong gap of vacillation;
- Irregularities in 2G spectrum and coal mining block allocation; and
- Policy decisions on land acquisitions and coal linkages neglected affecting at least two major sectors: road and power

It is worthwhile to mention country's few challenges as outlined by erstwhile Planning Commission.

Some Macro-Economic Challenges as mentioned by erstwhile Planning Commission 12th plan

- Must increase the rate of investment, especially in infrastructure
- Growth of subsidies has to be contained

- Both center and states have to create an eco-system to encourages private investment which is 75% of the investment in the economy (household plus corporate)
- Infrastructure, e.g. quality of power, and availability of skilled manpower is critical
- To bring down fiscal deficit as per FRBM Act
- To attract FDI into certain sectors where by growth and employment opportunities are relatively more
- Narrowing gap between rich and poor is necessary though, it can't be at the cost of stifling growth of rich. Simultaneous growth needs to take place in both classes.

As the 12th Plan suggests implementation of all the intended policies need large resources. But the allocations at the mo-ment are very meagre due to lack of viable project proposals and lack of enough sensitivity towards the sustainable issues at the level of the sub-nation-al governments. While increasing such resource allocations will ensure long term sustainable devel-opment, this might put pressure on fiscal deficits and the growth in the short run, however, this will ensure the achievement of long term goal of sustainable devel-opment.

What needs to be done is to adopt what the 13th Finance Commission suggests-the '***expansion-ary fiscal consolidation***' strategy of reducing subsi-dies that are unproductive as well as unsustainable and at the same time increasing the developmental capital expenditures. Sustainable development strategy would ensure long term goal of balanced all round growth of the nation.

6. RECOMMENDATIONS

Based on the analysis presented, and conclusion drawn the author recommends that the following steps are necessary to focus on so as to remain important for India:

1. To achieve all-round sustained inclusive growth there is a pressing need for coordinated supply side and demand management measures: fiscal consolidation and appropriate monetary policy coupled with active measures to loosen supply constraints and to keep high growth momentum of say 8 per cent for at least next two decades.
2. To improve country's macroeconomic situation priorities must include:

   i) **Streamlining equitable land acquisition mechanism**
   This will help to consider all relevant stakeholders' needs and interest that facilitate speedy completion of transaction/procedure;

   ii) **Labour reforms**
   A necessary requirement would be to align with present day business and industry demand;

   iii) **Coal supply linkage to thermal power sector**
   This will help to utilise coal in more optimised manner which is of vital importance for power sector - their input requirement;

   iv) **Accelerating disinvestment process**
   It will free up some financial resources for the government to be spent on creating various infrastructure facilities needed to achieve efficiency and growth.

Limitation: The study is limited to select macroeconomic variables as described and confined to the fifteen year period. Any limitations to the study, including flaws in design and the analysis due to circumstances beyond one's control is unintentional.

Scope for future research

The core purpose and the primary interest of this research are to carry out more studies on other macroeconomic variables in future with required data analysis such that findings become more relevant and provide direction to initiate appropriate action therefor.

ACKNOWLEDGEMENT

I am thankful to Dr. Venu Madhav, my Guide and Supervisor for his critical observations and comments. I am grateful to **Mr. M. S. Natarajan** (Retd. Advocate, Bombay High Court) who has taken immense pain to review the paper by providing useful inputs and value additions as it were.

Annexure 1					
India's GDP during : FY 1980-81 to 1990-91 (11 years)					
Year		**GDP Value**			
		(in Rs. Crore)			
	X	**Y1**	**X^**	**X * Y1**	
1981	-5	149642	25	-748210	
82	-4	175805	16	-703220	
83	-3	196644	9	-589932	
84	-2	229021	4	-458042	
85	-1	256611	1	-256611	
86	0	289524	0	0	
87	1	323949	1	323949	
88	2	368211	4	736422	
89	3	436993	9	1310979	
90	4	501928	16	2007712	
1991	5	586212	25	2931060	
	0	**3514540**	**110**	**4554107**	
	N=11				
	ΣX = 0		Y1 = a + bX	ΣXY1 = aΣX+bΣX^	
	ΣY1 = 3514540		ΣY1 = Na+bΣX	4554107 = 110b	
	ΣX^ = 110		3514540 = 11a+0	∴b =	4554107 / 110
	ΣX * Y1 = 4554107		∴a = 3514540 / 11		41400.9727
			319503.6364		
	Y1 = 319503.6364+41400.9727X				

Annexure 1.1
India's GDP during : FY 1991-92 to 2015-16 (25 years)

Year	*GDP Value (in Rs. Crore)*	*d*	
	Y2	*Y-4000000*	*d^*
1992	673875	-3326125	11063107515625
93	774545	-3225455	10403559957025
94	891355	-3108645	9663673736025
95	1045590	-2954410	8728538448100
96	1226725	-2773275	7691054225625
97	1419277	-2580723	6660131202729
98	1572394	-2427606	5893270891236
1999	1803378	-2196622	4825148210884
2000	2012198	-1987802	3951356791204
01	2168652	-1831348	3353835497104
02	2348330	-1651670	2728013788900
03	2530663	-1469337	2158951219569
04	2837900	-1162100	1350476410000
05	3242209	-757791	574247199681
06	3693369	-306631	94022570161
07	4294706	294706	86851626436
08	4987090	987090	974346668100
09	5630063	1630063	2657105383969
10	6477828	2477828	6139631597584
11	7784116	3784116	14319533901456
12	9009722	5009722	25097314517284
13	10113282	6113282	37372216811524
14	11355073	7355073	54097098835329
15	11470415	7470415	55807100272225
2016	12451938	8451938	71435255955844
	111814693	**11814693**	**347125843233619**

N = 25 $\sqrt{\frac{\Sigma Sd\hat{}}{N} - \frac{(\Sigma d)\hat{}}{n}}$

$$\sqrt{\frac{347125843233619}{25} - \frac{(11814693)\hat{}}{111814693}}$$

= $\sqrt{13885033729345 - 1248378}$

= $\sqrt{13885032480967}$

= **3726262.5350** (which is S2)

$\bar{Y}2$ = 111814693 / 25

= **4472587.7200**

Annexure 1.2			
India's GDP during : FY 1980-81 to 1990-91 (11 years)			
Year	GDP Value		
	(in Rs. Crore)	**d**	
	Y	**Y-320000**	**d^**
1981	149642	-170358	29021848164
82	175805	-144195	20792198025
83	196644	-123356	15216702736
84	229021	-90979	8277178441
85	256611	-63389	4018165321
86	289524	-30476	928786576
87	323949	3949	15594601
88	368211	48211	2324300521
89	436993	116993	13687362049
90	501928	181928	33097797184
1991	586212	266212	70868828944
	3514540	-5460	198248762562
N=11	√Σδ^ – (Σδ)^		
	N n		
√198248762562	-	(–5460)^	
11		3514540	
=	√18022614778 - 8		
=	√18022614770		
=	**134248.3325**	(which is S1)	

Annexure 1.3		India's GDP (in Rs. Cr.) during : FY 1980-81 to 2015-16 (36 years)		
Year	**X**	**Y**	**X^**	**X * Y**
1981	-35	149642	1225	-5237470
82	-33	175805	1089	-5801565
83	-31	196644	961	-6095964
84	-29	229021	841	-6641609
85	-27	256611	729	-6928497
86	-25	289524	625	-7238100
87	-23	323949	529	-7450827
88	-21	368211	441	-7732431
89	-19	436993	361	-8302867
90	-17	501928	289	-8532776
91	-15	586212	225	-8793180
92	-13	673875	169	-8760375
93	-11	774545	121	-8519995
94	-9	891355	81	-8022195
95	-7	1045590	49	-7319130
96	-5	1226725	25	-6133625
97	-3	1419277	9	-4257831
98	-1	1572394	1	-1572394
1999	1	1803378	1	1803378
2000	3	2012198	9	6036594
01	5	2168652	25	10843260
02	7	2348330	49	16438310
03	9	2530663	81	22775967
04	11	2837900	121	31216900
05	13	3242209	169	42148717
06	15	3693369	225	55400535
07	17	4294706	289	73010002
08	19	4987090	361	94754710
09	21	5630063	441	118231323
10	23	6477828	529	148990044
11	25	7784116	625	194602900
12	27	9009722	729	243262494
13	29	10113282	841	293285178
14	31	11355073	961	352007263
15	33	11470415	1089	378523695
2016	35	12451938	1225	435817830
	0	**115329233**	**15540**	**2395808269**

N=36	SX = 0		Y = a + bX	SXY = aSX+bSX^	
	SY = 115329233		SY = Na+bSX	2395808269 = 15540b	
	SX^ = 15540		115329233 = 36a+0	∴ b =	2395808269/15540
	SX * Y = 2395808269		∴ a =115329233 / 36		154170.4163
Y = 3098678.0000+153416.9017X			3203589.8056	∴ X =	5550134.9861
			Suppose X=36	Add: Y	3203589.8056
				Projected Y =	**8753724.7917**
∴					
	$\bar{Y}$1 = 319503.6364		S1 = 134248.3325		
	$\bar{Y}$2 = 4472587.7200		S2 = 3726262.5350		
	S^ = n1S1^ + n2S2^				
	n1 + n2 - 2				
=	11 * (134248.3325)^ + 25 * (372662.5350)^				
	11 + 25 - 2				
=	11 * 18022614779 + 25 * 13885032479745				
	34				
=	347145636869884				
	34				
=	√10210165790291				
=	**3195335.0040**	(which is S)			
	$\bar{X}$1 - $\bar{X}$2				
	S √ 1/n1 + 1/n2				
=	4472587.7200 - 319503.6364				
	3195335.0040 √ 36 / 25 * 11				
=	4472587.7200 - 319503.6364				
	3195335.0040 * 0.3618				
=	4153084.0836				
	1156072.2044				
=	**3.5924**	(lies between 2.021 - 2.042)			

∴

$\overline{Y1}$ = 319503.6364 S1 = 134248.3325

$\overline{Y2}$ = 4472587.7200 S2 = 3726262.5350

$$S^\wedge = \frac{n1S1^\wedge + n2S2^\wedge}{n1 + n2 - 2}$$

$$= \frac{11 * (134248.3325)^\wedge + 25 * (372662.5350)^\wedge}{11 + 25 - 2}$$

$$= \frac{11 * 18022614779 + 25 * 138850324797 45}{34}$$

$$= \frac{347145636869884}{34}$$

$$= \sqrt{10210165790291}$$

= **3195335.0040** (which is S)

$$\frac{\overline{X1} - \overline{X2}}{S \sqrt{1/n1 + 1/n2}}$$

$$= \frac{4472587.7200 - 319503.6364}{3195335.0040 \sqrt{36 / 25 * 11}}$$

$$= \frac{4472587.7200 - 319503.6364}{3195335.0040 * 0.3618}$$

$$= \frac{4153084.0836}{1156072.2044}$$

= **3.5924** (lies between 2.021 - 2.042)

Annexure : 2

Combined Deficits of the Central and State Governments

(as percentage to GDP)

Year	Nominal GDP at factor cost	Gross Fiscal Deficit	Gross Primary Deficit	Revenue Deficit
	Base Yr: 2004-05			
2001-02	8.7	9.6	3.6	6.8
2002-03	7.8	9.3	3.0	6.4
2003-04	12.0	8.3	2.0	5.6
2004-05	13.2	7.2	1.3	3.5
2005-06	14.1	6.5	1.0	2.7
2006-07	16.6	5.1	-0.3	1.3
2007-08	15.9	4.0	-1.2	0.2
2008-09	15.7	8.3	3.3	4.3
2009-10	15.2	9.3	4.5	5.7
2010-11	18.7	6.9	2.4	3.2
2011-12	15.8	7.8	3.2	4.1
2012-13	11.9	6.9	2.3	3.4
2013-14	11.5	7.1	2.3	3.2
	Base Yr: 2011-12			
2014-15	10.2	6.6	1.7	2.6

Source: Budget documents of Government of India and the State Governments & Central Statistics Office

Notes: Data for 2013-14 are Revised Estimates and Data for 2014-15 are Budget Estimates

(-) sign idicates surplus

Annexure : 3

Health related Statistics (India)

Total population	**1,240,000,000**
Gross national income per capita (PPP international $)	**3,590**
Life expectancy at birth m/f (years)	**64/67**
Probability of dying under five (per 1 000 live births)	**56**
Probability of dying between 15 and 60 years m/f (per 1 000 population)	**247/159**
Total expenditure on health per capita (Intl $, 2011)	**141**
Total expenditure on health as % of GDP (2011)	**3.9**

Source: Global Health Observer (Figures are for 2009 unless indicated)

Annexure : 4

Table 6: JMP – estimated trends of drinking water coverage

India	Drinking water coverage estimates					
	Urban (%)		Rural (%)		Total (%)	
	1990	2011	1990	2011	1990	2011
Piped onto premises	48	51	7	14	17	25
Other improved source	41	45	57	75	53	67
Other unimproved	10	4	32	10	27	7
Surface water	1	0	4	1	3	1

Source: WHO / UNICEF, JMP-2013

Annexure: 5

Number and Percentage of Population Below Poverty Line

(2011-12) Based on MRP Consumption

Year	State / Union Territorry	Combined	
		No. of Persons (thousands)	% of Persons
2011-12	Andhra Pradesh	7,878	9.20
Based on	Arunachal Pradesh	491	34.67
MRP	Assam	10,127	31.98
Consumption	Bihar	35,815	33.74
	Chhattisgarh	10,411	39.93
	Goa	75	5.09
	Gujarat	10,223	16.63
	Haryana	2,883	11.16
	Himachal Pradesh	559	8.06
	Jammu & Kashmir	1,327	10.35
	Jharkhand	12,433	36.96
	Karnataka	12,976	20.91
	Kerala	2,395	7.05
	Madhya Pradesh	23,406	31.65
	Maharashtra	19,792	17.35
	Manipur	1,022	36.89
	Meghalaya	361	11.87
	Mizoram	227	20.40
	Nagaland	376	18.88
	Odisha	13,853	32.59
	Punjab	2,318	8.26
	Rajasthan	10,292	14.71
	Sikkim	51	8.19
	Tamilnadu	8,263	11.28
	Tripura	524	14.05
	Uttar Pradesh	59,819	29.43
	Uttarakhand	1,160	11.26
	West Bengal	18,498	19.98
	Andaman & Nicobar Islands	4	1.00
	Chandigarh	225	21.81
	Dadra & Nagar Haveli	143	39.31
	Daman and Diu	26	9.86
	Delhi	1,696	9.91
	Lakshadweep	2	2.77
	Puducherry	124	9.69
	All India	**2,69,783**	**21.92**

Notes:	1. Population as on 1st Match 2012 has been used for estimating number of
	persons below poverty line. (2011 Census population extrapolated)
	2. Poverty line of Tamilnadu is used for Andaman & Nicobar island.
	3. Urban line of Punjab has been used for both rural & urban areas
	of Chandigarh.
	4. Poverty line of Maharashtra is used for Dadra Nagar & Haveli.
	5. Poverty line of Goa is used for Daman & Diu.
	6. Poverty line of Kerala is used for Lakshadweep.
	Note: Computed as per Tendulkar method of Mixed Reference Period (MRP)

Source: RBI – Handbook of statistics on the Indian economy, Ms. Sushila Auhustine, Director RBI (Sep-2015)

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