Economic Slowdown and Effectiveness of Policies in India

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***Abstract*: GDP growth in Indian economy is losing its momentum and the economy is passing through a slowdown phase. It fell sharply from 9.2 percent in Q4 FY 2017 to 5.7 percent in Q1 FY 2018, and recovered a little by 0.6 percent in Q2. Falling numbers are wakeup calls for the policy makers to initiate reviving measures, because economic growth matters a lot for India, which is emerging as an economic power amidst a lot of structural issues. The present study explores the recent macro-economic developments in the economy closely and examines the applicability of different policies.**

Index Terms: Economic slowdown, Indian economy, GDP growth, macro-economic developments, policy making

Section I

From the beginning of the 21st century, Indian economy has been experiencing ups and downs. After more than 9 percent growth for three consecutive years from 2005–06 to 2007–08, it declined to less than 7 percent in 2008–09, largely due to the global financial meltdown. Because of countercyclical macroeconomic policies, the economy recovered within a few days, but the resilience did not last for long and it again got trapped in a slowdown phase until it showed signs of improvement by 2015–16. By Q4 of FY2016, India emerged as the fastest growing country in the world. Growth reached 9.2 percent and it looked like to be moving towards the double-digit mark. But things turned upside down when structural constraints along with a series of other factors pulled down the economy to low levels. Growth declined continuously over the subsequent periods. GDP growth rate of the economy during the period from Q4 FY2016 to Q2FY 2018 is shown in Table 1.

Table 1

GDP Growth Rate

Period	Growth Rate (%)
January–March, 16	9.2
April–June, 16	7.9
July–September,16	7.5
October–December,16	7.0
January–March,17	6.1
April–June,17	5.7
July–September,17	6.3

Source: www.tradingeconomics.com, Ministry of Statistics and Programme Implementation.

Growth declined sharply in Q1 FY2017 and Q4FY 2017 while it showed signs of recovery in Q2FY 2018. However, the recovery does not seem to be significant. The 6.3 percent growth rate in GDP in Q2 FY 2018 is well below the 7.5 percent growth rate of Q2 FY 2017. And in Q2 FY 2016 the growth rate was a better 8 percent. Comparing same quarters is more meaningful, since we can avoid the impacts of seasonal variations. And decline in growth is visible in other quarters too. Demonetization fell on the depressed economy as a bolt from the blue. Goods and Services Tax(GST) aggravated the sluggishness and proved to be a drag on it. Production cuts and destocking associated with the introduction of GST pulled back GDP numbers. The impact on informal sector is not yet studied completely. It may take another one or two years to completely capture the impact on informal sector, which constitutes 45 percent of the economy.

Employment

Falling growth rate has been accompanied by a series of undesirable features. It is through the generation of economic activities that the fruits of economic development, if any, can be measured. However, in India, unemployment in both rural and urban areas has increased. According to Labour Bureau statistics, the unemployment rate during 2011–12 and 2015–16 increased by almost 32 percent. Unemployment rates during these two periods are shown in Table 2.

Table 2

The Unemployment Rate for Different Categories (in percent)

Category	2011–12	2015–16
Rural	3.4	5.1
Urban	5	4.9
Rural+Urban	3.8	5

Source: *Report on Annual Employment and Unemployment Survey*, Ministry of Labour, Government of India (2011–2012; 2015–2016).

The unemployment rate in India increased from 3.8 percent to 5 percent. For rural India, the rate was comparatively higher in 2015–2016;5 percent of the labour force are not able to find any remunerative employment. According of World Employment and Social Outlook for 2017, published by International Labour Organisation, the number of unemployed people in India was17.7 million in 2016, which may increase to 18 million in 2018. Large number of industries are experiencing the problem of unutilized capacity and many of them are trying to cut down on staff cost. Net hiring of many companies came down and as per Reserve Bank of India's latest survey of consumer confidence (RBI 2017a), people are getting increasingly pessimistic about their employment prospects.

Industrial Production

Production, especially industrial production, is another determinant of economic wellbeing. The industrial output, as measured by the index of industrial production, is given in Table 3. It reduced from 4.9 in October 2016 to 2.2 in October 2017. The index even entered a negative range during June 2017 and improved thereafter. But the current figures seem to be bleak.

Table 3

India's Industrial Production

Period	Index of Industrial Production
October,2016	4.9
November, 2016	5.7
December, 2016	2.6
January, 2017	3.0
February,2017	1.9
March, 2017	3.8
April, 2017	3.2
May, 2017	2.9
June, 2017	-0.3
July, 2017	0.9
August, 2017	4.5
September, 2017	4.1
October, 2017	2.2

Source: www.tradingeconomics.com, Ministry of Statistics and Programme Implementation.

Trade

Export performance was dismal for the period between March 2016 and October 2017 and export reduced by 21 percent during this period. During the same period, except for August and September 2017, the figures for export performance show a downward trend. This is shown in Table 4.

Table 4

Export (USD million)

Period	Export	Growth Rate
March, 2017	29232.05	-
April, 2017	24635.09	–15.73
May, 2017	24014.62	–2.52
June, 2017	23562.62	–1.88
July, 2017	22543.8	–4.32
August, 2017	23818.83	5.66
September, 2017	28613.41	20.13
October, 2017	23098.18	–19.27

Source:www.tradingeconomics.com, Ministry of Commerce and Industry, India.

Merchandise import has relatively increased compared to export which resulted in higher trade deficit. Current account deficit was $0.4 billion in —Q1 FY2016 (0.1 percent of GDP) which increased to $14.3 billion (2.4 percent) in the same quarter of FY 2018. For Q2 FY 2017, current account deficit was $3.4 billion (0.6 percent) which increased to $7.2 billion (1.2 percent) in Q2 FY 2018. India imported 124.6 million tonnes of crude oil and petroleum products in April–September for $43.5 billion. Increase in imports, coupled with bad performance in export scenario caused by the teething difficulties of GST, has worsened the deficit problem. Exporters have been facing difficulties in getting GST refunds. Under the new GST, exporters have to pay IGST and after that they can claim refunds for tax paid on exported commodities. They can also export by executing a bond or letter of undertaking before each export, without paying IGST and claim refund. This process has not been going on smoothly. Since July 2017, GST refunds that the government owes exporters has accumulated to at least Rs 50,000 crores. Without proper refunds, further exports seem to be not only difficult but also impossible.

Strengthening of rupee further worsened the state of affairs. The rupee appreciated against dollar and many East Asian currencies. Appreciation of currency increased imports and reduced exports considerably. During the period from January to December2017, exchange rate against US dollar appreciated by 5.45 percent. Table 5 shows the rupee–dollar exchange rate on the first day of every month.

Table 5

USD/INR Exchange Rate

Period	**Exchange Rate**
December 2016	68.24
January, 2017	68.15
February, 2017	67.52
March, 2017	66.87
April, 2017	64.99
May, 2017	64.26
June, 2017	64.48
July, 2017	64.85
August, 2017	64.10
September, 2017	64.03
October, 2017	65.31
November, 2017	64.57
December, 2017	64.52

Source: www.tradingeconomics.com

Gross Fixed Capital Formation

Consumption, exports, and investment are three important sources of growth. Consumption being related to income and the quantity of exports falling sharply, investment remains the only alternative source of growth. Because of the workings of

investment multiplier, an increase in private and public investment spending has a more than proportionate impact on income. Thus, investment has an inherent capacity to bring an economy back to the track of economic growth. But investment as measured by Gross Fixed Capital Formation (GFCF) is also coming down in India. The share of GFCF has decreased from 34.3 percent of GDP at current market prices in 2011–12 to 26.6 percent in 2016–17. The level of investment measured by GFCF remained almost same in the public sector but decreased from 27 percent in 2011–12 to 21.9 percent in2015–16inthe private sector. Some of the factors interrupting investment growth are uncertainties regarding the supply of coal and gas, restrictions on iron ore mining, environmental and land acquisition related problems, low demand for the final product, and lack of confidence. Much praised government programmes like Make in India, Foreign Direct Investment reforms, and GST have also been inadequate to avert the slowdown. Table 6 shows the figures of capital formation from 2011–12 onwards.

Table 6

Gross Fixed Capital Formation as percentage of GDP at Current Market Prices.

Year	Gross Fixed Capital Formation
2011–12	34.3
2012–13	33.4
2013–14	31.3
2014–15	30.4
2015–16	29.3
2016–17	26.6

Source:www.tradingeconomics.com, World Bank.

Banking Sector

Economic slowdown was further worsened by the crisis in the banking sector. Banks, especially public sector banks (PSBs), are flooded with non performing assets (NPAs). NPAs and their provisioning eat away the profit these banks make, leaving the balance sheets damaged. Tables7 and 8 show the NPA round up of all commercial banks and PSBs, respectively, from 2005–06 onwards. With a few exceptions, the gross NPA as a percentage of gross advances for scheduled commercial banks has been increasing since 2005–06.

Table 7

Gross Advances, Gross NPAs and NPA ratio of Scheduled Commercial Banks

Year	Gross Advances (Rs billion)	Gross NPA(Rs billion)	Gross NPA as apercentageof gross advances
2005–06	15513.78	510.97	3.3
2006–07	20125.10	504.86	2.5
2007–08	25078.85	563.09	2.3
2008–09	30382.54	683.28	2.3
2009–10	35449.65	846.98	2.4
2010–11	40120.79	979.00	2.5
2011–12	46488.08	1423.26	3.1
2012–13	59718.20	1935.09	3.2
2013–14	68757.48	2633.72	3.8
2014–15	75606.66	3233.35	4.3
2015–16	81673.45	6119.47	7.5

Source: RBI (2017c)

During the period between 2005–06 and 2015–16,the gross NPA increased by almost 1098 percent. Gross NPA, as a percentage of gross advances, more than doubled to reach 7.5 percent in 2015–16. According to RBI(2017b), the ratio has increased to 9.6 in 2016–17. The problem is much more severe for PSBs which is shown in the table below.

Table 8

Gross Advances, Gross NPAs and NPA ratio of Public Sector Banks.

Year	Gross Advances (Rs in billion)	Gross NPA(Rs in billion)	Gross NPA as a percentage of gross advances
2005–06	11347.24	413.58	3.6
2006–07	14644.93	389.68	2.7
2007–08	18190.74	404.52	2.2
2008–09	22834.73	449.57	2.0
2009–10	27334.58	599.26	2.2
2010–11	30798.04	746.00	2.4
2011–12	35503.89	1172.62	3.3
2012–13	45601.69	1644.61	3.6
2013–14	52159.20	2272.64	4.4
2014–15	56167.18	2784.68	5.0
2015–16	58183.48	5399.56	9.3

Source: —RBI (2017c).

In 2015–16, the NPA ratio in PSBs reached almost 9 percent of the total advances. Between 2005–06 and 2015–16, the NPA ratio in PSBs increased by 158 percent. The total bad loan of India's 38 listed commercial banks crossed Rs 8 lakh crore at the end of the second quarter of 2017. This is nearly 11 percent of total loans in the banking sector. Around 90 percent of the stressed assets are in the books of PSBs. According to a study conducted by CARE Ratings, the top 20 banks with highest NPA ratios are PSBs.

The roots of the problem of NPAs in India can be traced back to the days of financial and banking sector reforms, initiated in the early 1990s. Reforms were necessary to maintain the speed and stability of economic growth. As a result of the reforms, competition between banks for exploring the unexploited avenues of market intensified. Economic conditions from the mid-2000s were also favourable since the growth rate was as high as 9–10 percent per annum. Investment GDP ratio and corporate profitability reached new heights. This period also witnessed the increased flow of foreign capital into the country. Without taking into consideration the conservative debt–equity ratio, firms expanded and banks competed with each other to finance big and influential firms, sometimes even by violating the existing norms and regulations.

The period that followed was not as smooth as expected. Signs of recession became visible in the West, which gradually infiltrated the emerging economies including India. Profitability of many firms started eroding. Economy was entering a stagflationary phase. The Reserve Bank of India (RBI), as usual, was more concerned with keeping inflation at a reasonable level and, to meet this, rates were kept at a high level. Such higher interest rates in the midst of low business expectations further worsened the other side. Some firms borrowed from other economies, but when the rupee depreciated their condition also worsened.

In addition to the economic slowdown, there were many other factors which contributed to the rising NPAs. Procedural formalities, delay in land acquisition for firms, and non-transparent way of giving loans were some of these factors. In some cases, relaxations were given. A large number of loans were restructured and more time was allowed for repayment. However, such measures could only postpone the peril that followed. Under Asset Quality Review (AQR), initiated by RBI, a large number of hidden NPAs in the balance sheet was reported. Even though inevitable, it was yet another reason for the rising NPAs. NPAs have reached the level of Rs 6119.47 billion for scheduled commercial banks, in general, and Rs 5399.56 billion for PSBs, in particular, as of 2015–16.

India, as mentioned in the *Economic Survey 2016–17* (GoI, 2017), is facing the twin balance sheet syndrome now. The balance sheets of PSBs and many other firms reflect this situation of economic slowdown and the resultant rise of NPAs which cause losses to the banks. This hinders investment and growth. Many firms are not in a position to run their business and they prevent others from investing, by defaulting the repayment to the bank. Besides, banks have to maintain a minimum Capital Adequacy Ratio (CAR). When NPAs go up, banks are required to set aside more capital to maintain the ratio. This affects the lending capacity of the banks. Reduced interest income and provisioning requirements for NPAs also affect the functioning and profitability of banks.

An economic slowdown associated with undesirable figures in almost all spheres does not seem to be a transient or temporary one. So, the issues need to be addressed right away by policy makers. In section II, we examine the effectiveness and impact of monetary and fiscal policies in the current scenario.

Section II

Crisis and Monetary Policy

Dealing with crisis is not as simple as theoretical explanations and textbook solutions. There is nothing like 'ceteris paribus' in reality. A crisis situation is managed with either monetary or fiscal policies, or both. Central banks all over the world resort to some monetary tools, mainly with the objective of controlling the money supply. Economy can be well regulated and controlled by varying the quantity of money supply. During recession, a central bank usually loosens the money supply and thereby ensures availability of money in the economy. Availability of more money reduces the cost of borrowing and investors are encouraged to borrow more. High level of investment and its impact on income and employment can bring the economy out of the recession trap.

Even though GFCF is at low level, RBI kept its repo rate intact from October 2016 to August 2017. Thereafter, it reduced it by a nominal 0.25 points. Repo rate is supposed to affect the rate at which funds are advanced by the banks. Since money supply is one of the important determinants of inflation, RBI is cautious about maintaining the repo rate at a reasonable level. Keeping inflation within the limits is necessary for maintaining economic stability and RBI always prefers economic stability over economic growth. And, we also have a medium-term inflation target of 4 percent with an upper tolerance limit of 6percent and lower tolerance level of 2 percent. But the inflation figures have slowly risen from 1.54 percent in June 2017 to 4.88 percent in November 2017, and the same is shown in Table 9.

Table 9

Inflation Rate (Consumer Price Index)

Month & Year	**Inflation Rate**
June 2017	1.54
July 2017	2.36
August 2017	3.36
September 2017	3.28
October 2017	3.58
November 2017	4.88

Source: www.tradingeconomics.com,/ Ministry of Statistics and Programme Implementation.

For FY 2018, combined fiscal deficit of Centre and States is expected to be 6.3 percent of GDP, which is wider than the budgeted 5.9 percent of GDP. This may also push the inflation up in future. This must be read along with the inflation projection of 4.3–4.7 percent in FY 2018 by the Monetary Policy Committee (MPC).

Increasing food prices often pushes inflation up in India. In November 2017, food inflation was 4.42 percent, which was only 1.9 in the previous month. The volatile nature of food inflation is always a matter of concern. Two food items—vegetables and pulses which constitutes almost 8 percent of the total items in the basket—have accounted for much of the volatility. The threat of food inflation is always imminent. In addition, there are factors that cause fiscal deficit and inflation such as increasing fuel prices and waiving of farm loans. So, for a central bank more concerned with economic stability, a rate cut must be the last option.

At present, the repo rate is reasonable and does not seem to be a factor behind slowdown. According to RBI Annual report,1 percent increase in the real weighted average lending rate (WALR) depresses industrial output by 0.6 percent. Between 2010–11 and 2011–12, WALR increased by 2 percent, which means that the industrial output would have reduced by 1.2 percent. But, actually, industrial output reduced by 5.3 percent. So, the rise in interest rates alone cannot explain the magnitude of slowdown.

Business confidence is one of the important factors that determine investment. During recession business confidence may be very low, and reducing interest rate cannot increase investment. If the central bank follows a loose money policy, the economy would be in a liquidity trap where monetary expansion would become completely ineffective. Countries which resorted to low or negative interest rate didn't witness any substantial increase in investment or growth. Firms are unwilling to take risks when expectations are low. Besides, since capacity utilization is low (72–74 percent), further rate cut will not guarantee credit growth and private sector investment.

Even if RBI cuts interest rate, there is no guarantee that it can be transmitted to the banking system. In this context, there are doubts about the effectiveness of monetary policy. Transmission is possible only if there exists a strong demand for liquidity. But in India there is more than enough liquidity in the system.

Liquidity position improved especially after the introduction of demonetization. In November 2016, government withdrew the circulation of notes ofRs1000 and Rs 500denominations, after which deposits began to pile up in the banking system. According to Dun and Bradstreet Report, growth in aggregate deposits improved from 9.3 percent in 2015–16 to 15.9 percent in 2016–17. Surplus liquidity in the system amounts to more than $60 billion, which is expected to go up with government spending. But, unfortunately, banks cannot utilize this amount since they have to consider the capital base. As mentioned earlier, the lending capacity of a bank is limited by the availability of capital, and a substantial part of capital is eaten away by NPA provisioning.

Achieving 9 percent CAR by March 2019 as per Basel-III norms is an immediate task that should be considered. RBI need not implement rate cuts to increase liquidity position. And, even with high liquidity, banks are not in a position to lend more. Any measure taken by the RBI to boost investment may ultimately result in high inflation along with low growth.

Fiscal Policy and its effectiveness

The slowdown is not technical or transitory in nature. Government intervention is inevitable to bring the economy back to track, since private investment has been depressed and cannot be stimulated in an environment of low business expectations. Private investors may not be ready to invest in long-term projects due to uncertainty. This calls for government spending, which generates growth and demand. The market mood may then change and more private players may join in due course.

While government pumps money, there are certain areas which need more attention. There is scope for spending in rural areas where 69 percent of India's total population resides. This may also lessen the problem of inequality on a broad level, and regional inequalities in particular. There exists unexploited potential for spending in health, education, and tourism. But impacts and benefits, to a large extent, depends on the quality of service that it provides. Repair and reconstruction of infrastructure is another area which require immediate attention. The possibility of infrastructure build up exists all over the country.

The benefits of increased government spending come with a multiplier effect. Increase in spending will ultimately increase income by several folds, because of the presence of multiplier. Bose and Bhanumurthy (2013) estimated the value of multiplier as 2.45. That means, an increase in government spending by Rs 100 would raise the GDP by Rs 245 by the end of the year. Sinha et al. (2015), in their working paper for International Labour Organisation, estimated type I and type II multipliers for various infrastructure projects in Gujarat and West Bengal. Type II multiplier is almost similar to Keynesian multiplier. In Gujarat, type II multiplier for building construction is estimated as 5.795. As final demand for this sector rises by one rupee, an output worth Rs 5.795 is generated in Gujarat's economy. For West Bengal, the largest multiplier is for urban road construction, which is 7.672. Type II multipliers for Gujarat and West Bengal are shownig Table 10.

Table 10

Multiplier (Type II) for the selected activities

Activity	Gujarat	West Bengal
Building construction	5.795	7.608
Urban road construction	5.765	7.672
Rural road construction	5.722	7.516
Electricity and water supply	5.6	7.457

Source: Sinha, Prabhakar and Jaiswal (2015).

Change in workers due to change in output is determined by employment multiplier. For rural road construction in Gujarat, employment multiplier is 2.677. That means, in order to increase the rural road construction in Gujarat by Rs 1000, three additional workers per day per year are required. In West Bengal, employment multiplier is 3.721 for irrigation canal construction, which equals almost four persons for every Rs 1000 spend.

However, government spending increases fiscal deficit and the government is trying to limit the fiscal deficit at 3.5 percent of GDP. But fixing an upper ceiling for fiscal deficit doesn't seem to be sensible when the economy is decelerating. Government spending is always sustainable, if it is used to finance productive activities, and the return is greater than interest payables. So, within a reasonable limit, fiscal deficit must be allowed to fluctuate. If inflation increases as a result of government spending, economic growth will definitely offset such inflationary pressures.

One of the problems that may arise is leakage of recourses. Unlike in private spending, the chance of leakage is more for public spending. To avoid this, the government can keep income and employment generation schemes limited in number. At present, there are about 950 central sector schemes and centrally sponsored sub-schemes in India. The government can efficiently manage them if the number of schemes is not large.

Smooth functioning of the banking system is necessary to bring the economy out of crisis. However, the banking sector is struggling hard to address the capital deficiency that has occurred due to the mounting NPAs. The decision to recapitalize PSB is an apt decision. On October 24, 2017, the government announced its plan to issue recapitalization bonds worth Rs 1.35 lakh crore. The government has not yet announced the way in which recapitalization will be worked out. However, usually the government issues bonds which banks can subscribe at a fixed coupon or interest. The government is likely to use this money to buy shares in PSBs, which is expected to yield the banks more capital. It is interesting to note that banks would be giving the government money to buy its own shares.

In the early 1990s, recapitalization was attempted in a similar manner. Even though bonds were non-tradable in nature at first, they were made marketablelater. Marketable bonds can be sold to raise funds when liquidity is demanded. Apprehensions on the fiscal front do not seem to be vital. Recapitalization has only a very trivial impact on fiscal deficit. As per International Monetary Fund accounting practices, there are chances that ultimately interest given to bonds will be nullified by profit received from shares. For recapitalization bonds worth Rs 1.35 lakh crore, the annual interest payment may be between Rs 8000 and Rs 9000

crore. However, the dividends earned on shares may offset the cost of interest to some extent. After providing for bad loans, the banks can use the extra fund for further lending. With a new and higher capital base, banks can easily do so. But this is not possible under the existing situation. Even with high liquidity, lending is restricted to the extent of capital paucity. Increased lending and private spending stimulate the economy and the multiplier impact can lift the economy to a better level of income and employment. The business mood will change when government actively intervenes. Banks can also use the interest accrued on the bonds, which they hold. According to Goldman Sach's research report, every incremental Rs 100 billion of bank capital infusion by the government has the potential to increase the GDP growth by 0.5 percentage. There is more scope for recapitalization and the government must resort to similar measures in future.

In addition to government spending and recapitalization, the government can assist to the sinking micro, small, and medium enterprises (MSME) of the country. This can be materialized through Micro Units Development and Refinance Agency (MUDRA)bank, which provides loans at low rates to financial institutions who then provide credit to MSMEs. MSMEs need special care and attention since they are crucial in generating income, and a large number of people depends on this sector for livelihood.

Labour and land reforms are also inevitable. Labour laws should be framed in such a manner that increases the productivity of labour. On one hand, labour should not become an obligation to the firms and, on the other hand, labour must not be exploited in any way. Laws related to land also need to be reformed. Land laws must promote growth without compromising the concept of sustainable development.

The pain of economic slowdown is severe in a developing economy like India. We have to accept the reality and it cannot be left alone without giving proper attention. Falling growth, industrial production, GFCF along with rising unemployment, CAD, and NPAs are proofs of this slowdown. Relying on monetary measures doesn't seem to be a feasible or a working solution. A rate cut by RBI may not be easily transmitted to the bottom and if it is transmitted, it can create inflationary pressures. On the other hand, since business expectations are low, further investment may not be generated, which ultimately leads to stagflation. So, it is time the government intervenes and acts. Government spending must be increased and there is no need to overemphasize the problem of fiscal deficit. In addition, recapitalization and reform measures can support and supplement the initiative of economic stimulation.

References

Bose, Sukanya and N R Bhanumurthy(2013): "Fiscal Multiplier for India," National Institute of Public Finance and Policy, Working Paper No. 125.

GoI (2017): "The Festering Twin Balance Sheet Problem ,"*Economic Survey 2016–17*, pp. 82–104, Department of Economic Affairs, Ministry of Finance, Government of India.

Mathews, Abin T (2017): "Nonperforming Assets and Recapitalisation of Public Sector Banks in India,"*Emperor International Journal of Finance and Management Research* Vol 2, No 11: 57–61.

RBI (2017a): *Consumer Confidence Survey, December*, Reserve Bank of India, Mumbai. https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/CCSE06122017F2B4F8649ADD4CB0A999606A9510A315.PDF

RBI (2017b):*Financial Stability Report, June*, Reserve Bank of India, Mumbai.

RBI (2017c):*Handbook of Statistics on Indian Economy*, Reserve Bank of India, Mumbai.

RBI (2015–16):*Report of Trends and Progress of Banking in India*, Reserve Bank of India, Mumbai.

Sinha, Anushree,Avantika Prabhakar, and Rajesh Jaiswal (2015): "Employment Dimension of Infrastructure Investment:State level input output analysis," International Labour Organisation, Employment Working Paper No. 168.

www.business-standard.com accessed on 16th December 2017

www.economictimes.indiatimes.com on 14th December 2017

www.insightsonindia.com on 10th December 2017

www.thehindu.com on 15th December 2017

www.thehindubusinessline.com on 14th December 2017

www.thewire.com on 12th December 2017

https://tradingeconomics.com/india/gdp-growth-annual 15th December 2017

https://tradingeconomics.com/india/exports 15th December 2017

https://tradingeconomics.com/india/currency 15th December 2017

https://tradingeconomics.com/india/gross-fixed-capital-formation 15th December 2017

https://tradingeconomics.com/india/gross-fixed-capital-formation-percent-of-gdp-wb-data.html 15th December 2017

https://tradingeconomics.com/india/inflation-cpi 15th December 2017