Evaluation of State Finances of Uttar Pradesh

(Final Report)

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By

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Preface

The present study provides a critical evaluation of state finances of Uttar Pradesh covering the period of 2005-06 to 2015-16. The study is sponsored by the Fifteenth Finance Commission, Government of India with given terms of reference. The study is based on secondary data taken from Reserve Bank of India, Uttar Pradesh Budget Documents, CAG reports, Bureau of Public Enterprises and Annual Reports of UPPCL. However, the quality of analysis and discussion is constrained by the availability of data. Due to general assembly elections, most of the administrative officers were busy, and despite of our several efforts, they could not be contacted for discussion on the various aspects of state finances. Therefore, information regarding policy measures taken by the government to enhance revenue capacity, allocative and technical efficiency of public expenditure; problems and prospects of GST in the state could have been presented in more analytical way. SPSU wise data could also not be collected due to the same reason.

The whole report is divided into eleven chapters. Chapter I discusses the state of social and economic progress of Uttar Pradesh. Chapter II gives a detail account of estimation of revenue capacities of State and measures to improve the tax-GDP ratio and suggestions for enhancing the revenue productivity of the tax system in the State. Analysis of the state's own non-tax revenue along with suggestion to enhance revenues from user charges and profits from departmental enterprises and dividends from non-departmental commercial enterprises has also been discussed in the chapter II.

Expenditure pattern and trends separately for revenue and capital, major components of expenditure there under, measures to enhance allocative and technical efficiency in expenditures and suggestions for improving efficiency in public spending are discussed in the chapter III. Chapter IV

talks about the analysis of deficits - fiscal and revenue in detail along with the discussion on the level of debt/GSDP ratio and the use of debt. This chapter also incorporates the study of composition of the state's debt in terms of market borrowing, central government debt (including those from bilateral/multilateral lending agencies routed through the Central government), liabilities in public account (small savings, provident funds etc) and borrowings from agencies such as NABARD, LIC etc. Analysis of contingent liabilities of the State has also been made in the chapter.

Implementation of FRBM Act and commitment towards targets as well as analysis of MTFP of various departments has been presented in the chapter V. Analysis of the state's transfers to urban and rural local bodies in the State and major decentralization initiatives have been discussed in chapter VI. Impact of State Public Enterprises finances on the State's financial health and measures taken to improve their performance and/or alternatives of closure, disinvestment etc. is given in chapter VII.

Chapter VIII covers the analysis of the impact of power sector reforms on state's fiscal health, in case reforms have not been implemented, the likely outcome on the state's fiscal health. Measurement of subsidies given by the state (Other than Central subsidies), its targeting and evaluation has been made in chapter IX. Chapter X discusses the status of GST in the state and chapter XI includes major conclusions and suggestions of the study.

I also take this opportunity to express our sincere thanks to various persons for their help in the conduct of this study. First and foremost, I am grateful to the Fifteenth Finance Commission for selecting the University of Lucknow to conduct the study and providing generous financial support for the same. I am especially indebted to Prof. N R Bhanumurthy, NIPFP, New Delhi for recommending my name to the Commission for undertaking the said study. I am also thankful to the Prof. S P Singh, Hon'ble Vice Chancellor, Lucknow

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I am also happy to express my thanks to Shri Ravi Kumar, who has worked as Research Assistant in this study and helped in procuring and processing the data. Finally, I am sincerely grateful to my wife Ms. Anuradha for giving me enough space from family responsibilities to finish up the work on time.

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(Nagendra Kumar Maurya)

Executive Summary

The present study provides a critical evaluation of state finances of Uttar Pradesh covering the period of 2005-06 to 2015-16. The study is sponsored by the Fifteenth Finance Commission, Government of India with given terms of reference. The study is based on secondary data taken from Reserve Bank of India publications, Uttar Pradesh Budget Documents, CAG reports, Bureau of Public Enterprises and Annual Reports of UPPCL. However, the quality of analysis and discussion is constrained by the availability of data.

State of the Economy of Uttar Pradesh

Uttar Pradesh (UP) is characterized as the most economically backward state after Bihar. It is also the most populous state of the country. As per Census 2011, the population of Uttar Pradesh is 19.98 crore with a decennial growth of 20.09 percent. UP has added more than 33.6 million to the total population of the country in the last decade, the most by any state, recording an annual growth of 20.09 percent. However, the corresponding figure of growth for the previous decade (1991-2001) was 25.61 percent, thereby, displaying a decline of more than five percent which is quite significant.

The growth performance of the state during five years plan shows that it was the XI Five Year Plan (2007-12) which recorded the highest growth rate in NDP and per capita income. UP's Per capita income (2016-17: Rs. 39028) is the second lowest in the country after Bihar. The state's per capita income is half of the national level figure. The main reasons for the low growth in the state are slow structural transformation along with low capital investment. One third of the total state's product comes from agriculture and allied activities whereas services contribute around half of the total. The major cause of concern is the sluggish growth of the industrial sector. The process of structural shifts in employment is slow. About 50 percent of the

total direct employment is still in agriculture sector. In recent years, the construction sector has emerged as the fastest growing activity under the industrial sector along with creating large employment opportunities. Employment share of construction sector grew six times from 2.34 percent in 1993-94 to 13.62 percent in 2011-12. For the corresponding period, employment in manufacturing rose from 10.05 percent to 13.18 percent which is not very encouraging.

The state had a higher incidence of poverty as compared to the country. Although, substantial decline has been registered in the case of overall poverty (by 11.5 percent) during 2004-05 to 2011-12 and however, the rural poverty (a change of 25.38 percent), is still very high i.e. 29.4 percent in 2011-12. To sum-up, Uttar Pradesh is lagging behind in terms of indicators of economic and social development. The pace of economic progress and structural changes is inadequate to break the low equilibrium trap. Rising unemployment, high rural and urban poverty and low economic well being will definitely have downward pressure on state finances especially in terms of high expenditure needs and low revenue capacity.

Trends in Tax and Non-tax revenue in Uttar Pradesh

Own tax revenue has gone up to Rs. 81106.29 crores from Rs. 18857.9 crores during 2005-06 and 2015-16 which is a more than fourfold rise. Similar increment has also been registered in different component of state's own tax revenue viz. taxes on income, taxes on property & capital transactions and taxes on commodities & services. State sales tax, state excise duty, stamps & registration fees and taxes on vehicles are the main contributors of own tax revenues. These four sources contribute more than 75 percent of total own tax revenue collections. There has not been much changes in the composition of own tax revenue during the given time period.

Tax buoyancy for the whole period can be referred to be buoyant as its value (1.153) is more than one. The tax/GSDP ratio is rising continuously. It has increased from 6.09 per cent to 7.24 percent during 2005-06 to 2015-16 which corroborate the findings of high tax buoyancy. Rising own tax revenue/GSDP ratio indicates increase in tax efforts. The possible solutions to the low taxable capacity of the state lie in a multi-pronged approach which not only addresses the tax effort of the state but also focuses on the issues like governance, accountability, expenditure efficiency, etc.

State's own non-tax revenues rose from Rs. 2720 crores in 2005-06 to Rs. 23135 crores in 2015-16, more than eight fold rise. Similar increase has also been registered in grants from the center. The overall non-tax revenues rose to Rs. 54996 crores in 2015-16 from Rs. 6870 crores in 2005-06. Of total non-tax revenues, around 60 percent is grants from the center and the remaining is state's own non-tax revenues. Major sources of state's own non-tax revenues are general services, social services and economic services which contribute more than 85 percent of state's non-own tax revenues.

The analysis shows that non-tax revenues are also buoyant. The estimates for the whole period is 1.601 ($p<0.01$) which is higher than the tax buoyancy. Estimates for two sub-periods show higher elasticity in the first sub-period (2.047; $p<0.01$) as compared to second sub-period (1.120; $p<0.05$). The ONTR/GSDP (%) has also been gradually rising during 2005-06 to 2015-16. It increased from less than one percent to 2.07 during the same period.

Public Expenditure in Uttar Pradesh: Trends and pattern

Revenue expenditure quadrupled to Rs. 212736 crores 2015-16 from Rs. 46617.14 crores in 2005-06 registering a CAGR of 16.40 percent for the entire period. It grew faster (18.23%) during 2005-06 to 2010-11 as

compared to second sub-period (14.6%) 2010-11 to 2015-16. On other hand, capital expenditure also risen more than five times but on the background of low base. It rose to Rs. 88137.8 crores in 2015-16 at the CAGR of 17.4 percent from Rs. 17728.56 crores in 2005-06. However, capital expenditures grew much faster in the second sub-period (25.22%) as compared to first sub-period (10.05%) as against of revenue expenditures which recorded faster growth in the first sub-period. Total expenditures also recorded a more than fourfold jump to Rs. 300873.8 crores in 2015-16 from Rs. 64345.7 crores in 2005-06 registering a CAGR of 16.68 percent.

The elasticity of total expenditure for the whole period of the study was 3.316 whereas it was 2.981 during first sub-period and 4.882 for the second sub-period. Expenditure buoyancies have gone up in the second sub-period for each major head except NDE and interest payments and debt servicing. However, decline in elasticity in the case of NDE and interest payments and debt servicing is a desirable change.

Except for roads and bridges, the shares of expenditure on all other heads like education, health, energy is lesser than the NSC average, however, the difference is not much. The share of expenditure on health is quite low in comparison to NSC average. The UP government share of expenditures is even lower than the low income states average. In terms of burden of committed expenditure, UP has lower extent of committed expenditure. To get better outcomes from public expenditure, regular monitoring of public expenditure should be done. Critical evaluation and comparison (with best performing states) of trends, patterns and changing shares of public expenditure should be ensured on regular basis. The practice of out of budget announcements of schemes by the public representatives should be kept in check and recourse to supplementary budgets should be only in case of urgent and unavoidable cases. The help of academicians, social activists

and stakeholders must be taken in prioritizing public expenditure and analyzing expenditure-outcome relationship.

Analysis of Debt and Deficit

GFD registered a moderate decline in 2006-07 from 2005-06 and for the first time GFD reached below 3 percent barrier (2.86 percent of GSDP) after the enactment of the State's FRBM Act. It again went beyond three percent for three consecutive years i.e. 2007-08 to 2009-10 before coming down to below 3 percent in 2010-11 and it remained below 3 percent till 2013-14. However, the signs of deterioration are sneaking as it marginally increased 3.21 percent in 2014-15 and an uneasy level of 5.22 percent in 2015-16. In the year 2005-06, revenue deficit was reported after which the State Government has been registering continuous revenue surpluses. Except for 2007-08 (-0.22) and 2011-12 (-0.01), primary deficit has been recorded for UP during the whole period of analysis. However, the recent trends indicate, once again, an alarming increase in primary deficit levels for both NSC states and UP.

The debt-GSDP ratio was low at the beginning of economic reforms. It was 24.66 percent in 1992-93 which gradually rose to a high of 38.18 percent in 2003-04. However, since then a steady decline has been reported in the debt-GSDP ratio till 2013-14. Interest payment (IP) on public debt as percent to GSDP also moved in synchronization with debt-GSDP ratio. The share of market borrowings grew constantly and now it is contributing more than 39 percent of total outstanding debt. Borrowings from small savings (NSSF) are the second highest contributor to the total debt. Small savings contributed around 28.34 percent in 2005-06, however, now its share has come down to 21.54 percent 2015-16.

Contingent liabilities (mainly guarantees) often ignored but are big threat to fiscal health. Maximum amount of guarantees have risen more than five

times from Rs. 15073 crore in 2005-06 to Rs. 78826 crore in 2015-16. The outstanding amount of guarantees (including interest) first increased from Rs. 8433 crore (2013-14) to Rs. 70,740 crore (2014-15) then it decreased to Rs. 57618 crore in 2015-16. As a percentage of Total Revenue Receipts, the maximum amount guaranteed showed fluctuating trend. From a low level of 20.19 percent in 2006-07, it went up to 35.84 percent in 2008-09. Then again it came down to 22.64 percent in 2011-12 before reaching all time high of 41.47 percent in 2013-14 during the study period. However, it has decreased from 41.47 per cent in 2013-14 to 34.71 per cent in 2015-16.

The fiscal situation of the state seems to be under control. This cannot be called a sheer coincidence that the post-FRBM Act years and the fiscal improvements are overlapping. Fiscal management in the state has definitely been benefitted from the fiscal rules legislation. Fiscal reforms taken under the umbrella of fiscal rules policy paid off. Under the States' Fiscal Reform Facility, a Medium Term Fiscal Reforms Programme (MTFRP) was taken up.

Implementation of FRBM Act and commitment towards targets

The study provides a scenario of target rates (as per MFRP of the state) and actual performance of different fiscal indicators from 2005-06 to 2015-16. There are two main observations which are getting reflected from the data. In terms of debt and deficit indicators, the UP government has been able to achieve its debt and deficit targets almost for every year. Whereas in the case of own tax revenue, it has not been able to achieve its targeted rate even for a single year. Discussion on each indicator is as follows. Although, the achievement of debt and deficit targets are commendable but failing to achieve revenue target is a matter of serious concern. UP government

should revisit their own tax revenue target and the assumptions upon which these targets are based.

Analysis of the state's transfers to urban and rural local bodies in the State

At present, there are 59162 Gram Panchayats, 821 Kshetra Panchayats and 75 Zila Panchayats in UP. In the case of ULBs, there are 426 Nagar Panchayats, 194 Nagar Palika Parishad and 14 Nagar Nigam. Total amount of devolution of shareable resources to local bodies increased from 11 percent to 12.5 percent (as percent share of own tax revenue of the state) during first SFC to second SFC and it remained the same for third and fourth SFCs. The PRIs share increased from 4 percent to 5.5 percent during first to third SFC. However, fourth SFC kept it at 5 percent. The share of ULBs was 7 percent under first and third SFCs and 7.5 percent under second and fourth SFCs. The main source of own revenues of PRIs is non-tax sources whereas in the case of ULBs it is tax revenues. However, the amount raised through these sources is not very significant. In the case of PRIs, total own revenues (tax + non-tax) constitute about 4 percent of total revenues only. On the other hand, the corresponding figure for ULBs is about 19 percent, significantly higher from PRIs.

Total funds devolved were Rs. 2328.76 crores during 2006-07 which went up to Rs. 6244.62 crores in 2012-13 registering an average CAGR of 17.87 percent. Allocation of funds to ULBs increased to Rs. 1153.56 crores to Rs. 2559.51 crore from 2006-07 to 2010-11 registering a CAGR of 22.82 percent. The similar CAGR was also recorded for 2011-12 to 2012-13, duration. Allocation of funds to PRIs, however, grew slower than to ULBs registering a CAGR of 11.62 percent during the time period of 2006-07 to 2010-11 which increased moderately to 13.01 percent during 2011-12 to 2012-13.

Not much headway has been made in UP towards functional distribution to the local bodies. The PRIs have been reduced to perform some agency function only. The government programmes are planned and implemented through the line departments. Out of total 18 functions to be performed by the ULBs as enlisted in the XIIth Schedule of the constitution, only 9 functions are exclusively performed by the ULBs. Thus, the functional devolution in case of ULBs has remained limited and truncated. These bodies also enjoy limited autonomy and remain under the effective control of the state government.

Impact of State Public Enterprises finances on the State's financial health

According to the CAG (2016) report, as on 31 March 2016, in Uttar Pradesh, there were 103 PSUs. Of these, no Company was listed on the stock exchange. The working SPSUs registered a turnover of Rs. 85281.53 crore in 2015-16 which was equal to 7.39 per cent of GSDP for 2015-16. The working SPSUs incurred an aggregate loss of Rs. 17789.91 crore 2015-16 and had employed 1.14 lakh employees at the end of 2015-16. As on 31 March 2016, there were 38 non working SPSUs which had an investment of Rs. 1058.90 crore. About 20 percent of GSDP is invested in terms of capital and long term loans in government companies and statutory corporations of UP which was about 14 percent in 2012. Out of this around 9 percent in 2012 and 12 percent in 2015 was in terms of share capital on which returns are not ensured.

On an average, the budgetary outgo in the form of equity, loans and grants/subsidies to SPSUs has an increasing trend and registered an increase of 144.04 per cent during 2009-10 to 2015-16. It may be seen that the amount of guarantees outstanding stood at Rs. 35,218.47 crore in 2015-16, which registered a significant decrease of 41.13 per cent during 2014-15 to 2015-16. In order to enable PSUs to obtain financial assistance

from Banks and Financial Institutions, Government of Uttar Pradesh (GoUP) gives guarantee for which the guarantee commission is being charged at the rate of 0.25 per cent to one per cent as decided by the GoUP depending upon the loanees. As per CAG (2016) report, there were 38 non-working SPSUs as on 31st March, 2016. Out of these, 12 SPSUs have commenced liquidation process (by Court order) for a period ranging from 10 years to 35 years. The remaining 26 non-working SPSUs (which are not working since 4 to 41 years) are under the process of closing (closing orders have been issued but liquidation process yet to start). Surprisingly, not a single SPSU has opted for voluntary winding up under the Companies Act which is a much faster and smooth way of liquidation.

Impact of Power Sector Reforms on States' fiscal health

The main principle of the reform programme was that the state Government should withdraw from the power sector and give autonomy to power sector utilities to function on commercial lines. To give legislative backing to these reforms, the UP Electricity Reforms Act was passed by the UP legislature and notified in July 1999. As part of the reform process, the Uttar Pradesh Electricity Regulatory Commission (UPERC) was established in 1999. The prime objectives of UPERC were to create a regulatory environment to promote transparency, efficiency and economy in the operations and management of the power utilities, encourage competition and help UP to attract private capital for the power sector development while safeguarding the interests of the consumers.

The supply of power has fallen short of demand throughout the last decade. The demand supply gap has ranged from 15 per cent to 22 per cent except in the year 2010-11 and 2011-12 when it was around ten per cent. The peak demand shortage has been quite high during early years (2005-06: to 2013-14) but showing some decline in the recent years (2015-16: 14.82%).

The T&D losses have remained in the range of 30 to 34 per cent during 2005-06 and 2012-13. However, it has come down below 30 percent in recent years only. The AT&C losses have been even higher. However, these have declined form a high level of 43.6 percent in 2005-06 to 31.85 percent in 2015-16. Thermal power plants in the state are working only at about 60 percent of their capacity, whereas national average improved from 55.70 percent in 2005-06 to over 75 percent in 2011-12 before coming to down to a dismal level of 62.

Since 2008-09 the UPPCL has not been able to meet its operation and maintenance cost. The gap between the operational revenue and operational costs has been increasing at an alarming pace. It stood at Rs. 5294.94 crore in 2011-12. However, operating surplus was reported in 2013-14. Total expenditure (including operation and maintenance charges, appropriation charges, interest payment, depreciation and other expenses) exceeded the total revenue of the UPPCL during the whole period under consideration. The loss has increased from Rs. 161.5 crore in 2005-06 to a high level of Rs. 8108.75 crore in 2011-12.

Analysis of State Subsidies

Following the recommendations of the Twelfth Finance Commission, the state government started giving data for explicit subsidies since 2008-09 budget. Explicit subsidies increased from Rs. 4362 crores in 2008-09 to Rs. 5601 crore in 2011-12 and Rs. 10060 crores in 2017-18 registering an annual compound growth of 9.73 percent between 2008-09 and 2017-18. Energy sector accounted for a major part of subsidy, its share grew from Rs. 1342 crore (30.76 percent) to Rs. 5260 crore in 2017-18 (52.29 per cent). The next most important component of subsidies was agriculture and allied activities sector. However, its share declined from 41.54 percent in 2008-09 to 27.48 percent in 2017-18. Another noticeable development is

the increase in the share of subsidies to the industries and on the other hand, decline in share of subsidy component of society welfare (SC/ST).

Total direct subsidies amounted to about 1 per cent of GSDP and 4 per cent of total expenditure in 2008-09. Subsidy exceeded financial commitment projections by 19 per cent in 2008-09 and by 3 per cent in 2009-10, but were within the projections in the year 2010-11. However, in all the years subsidies were within the targets of MTFRP.

Implicit subsidies are growing with a very fast pace, rising from Rs. 16045.1 crore in 2006-07 to Rs. 38915.3 crore in 2011-12 which further went up to Rs. 117973.78. The Merit Subsidy I accounted for about two thirds of the total implicit subsidy during 2006-07 to 2011-12 before coming down around 50 percent of the total in 2015-16. The share of Merit Subsidy II declined from 22.40 per cent in 2006-07 to 18.8 per cent in 2011-12 before rising moderately to 19.44 percent. However, the share of Non-Merit Subsidy has more than 2.5 fold increase from 12.10 per cent to 31.67 percent over this period. Total implicit subsidy has hovered around 5 percent of GSDP in most of the years. They account for over one fourth of total budgetary expenditure. Many of the subsidies being paid by the government can be justified on economic and social ground. However, a strict watch on the subsidies is needed to ensure that they reach the targeted beneficiaries and serve the purpose for which these are given. No systematic surveys of the state government services have been carried out.

GST and State Finances of Uttar Pradesh

UP government has implemented GST in the state from 1st July, 2017. Thus, GST collections of 2017-18 are for 9 months only. The GST collections are expected to increase from Rs. 39304 crores in 2017-18 to Rs. 110072 crores in 2019-20. The expected growth in GST is below than the promised growth rate of GST by the Act i.e. 14 percent per annum, during 2018-19 to

2019-20 (on the basis of full years collections). On the basis our calculations, the expected growth rates for the years 2020-21, 2021-22 and 2022-23 are expected to be 14.36, 14.78 and 15.20 percent respectively, which are more than 14 percent assured growth rate by the GST regulation. Given the paradigm shift in indirect taxation system, which is the major source of own revenue, and revival from the slowdown effect of demonetization, the economy must grow at the rate of 13-14 percent annum (nominal growth) to attain MFRP targets and to achieve sustainable fiscal health of state.

Conclusion & Suggestions

Although, the major suggestions regarding different aspects of state finances have been given in the respective chapters, however, few major suggestions as follows:

1. Adequate industrial reforms and incentive measures should be taken to bring industrial sector on higher growth trajectory. It would not only lead to overall higher growth of the state but also will enhance revenue capacity.
2. For measuring revenue capacity, estimation of true tax base is required. Due to lack of information about the relevant tax bases of different taxes, estimation of true revenue capacity is not possible. It also leads to lesser tax collections in absence of knowledge of tax base. Therefore, it is suggested that the state government should try to first create a real-time database of all commercial establishments, commercial buildings, professionals, residential houses, no. of registered vehicles, etc. whether small or big, whether falling in tax net or not to have a knowledge of correct tax bases.
3. The availability of detailed information regarding tax & non-tax revenues, public expenditure, financial performance of PSEs,

subsidies, contingent liabilities, devolution of funds to local bodies, etc. is very poor in the case of UP. The departmental websites are not regularly updated. The information is available for current points of time only that too not in detail. This seriously hampers the public scrutiny of the system and gives an opportunity to develop corruption and slackness. Thus, UP government must made sincere efforts to make available the all the information in public through different mechanism.

4. User charges are very low in many cases. It should be rationalized in the case of economic services. All efforts should be made to realize the cost at least. In the case of social services, multi-tariff system may be adopted, those who have higher ability to pay must pay cost plus user charges. Benefit of low charges should only be provided to the needy one especially in services other than education and health.
5. Contingent liabilities are rising with a rapid pace. Most of contingent liabilities are in terms of guarantees extended for energy sector. Efforts should be made to decrease the amount of contingent liabilities.
6. The pace of functional and financial devolution to the local bodies is slow. It seems that the state government did not want to decentralized the responsibilities and power to the local governments. Transfer of central taxes to the state government should also be linked with extent of devolution of to local bodies. A certain percentage of total transfer may be associated with extent of implementation of 73rd and 74th CAA.
7. SPSUs should be segregated between energy and non-energy SPSUs. Their evaluation of performance, efficiency and future prospects must be done separately. It is important as the nature of

work, revenue, expenditure and fixing of user charges is totally different in the case of energy and non-energy SPSUs. It is also important to get a clear picture of operating and financial performance of SPSUs.

8. Involvement of private sector through disinvestment should be encouraged to bring more accountability, professionalism and transparency.
9. These SPSUs must be encouraged to keep their financial data updated regularly which should be available in public. It has been seen that audit of their previous 5 to 6 years financial statements is due.
10. Targeting of subsidies is very important. Recent trends suggest higher allocation of subsidies to non-merit activities. The UP government should rethink upon this and it should redirect its subsidies to merit categories only.
11. To reduce the burden of committed expenditure especially salary expenditure, the state governments suggests abolishing all the vacant positions lying in the government departments. This is not the justified solution. Rather, redistribution of vacancies is need of the time. There are many departments which are understaffed and some are overstaffed. The government should make appropriate legal measures to reallocate vacancies to required places. This will ensure social justice along with higher output in terms of work.

(Nagendra Kumar Maurya)

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Chapter I

State of the Economy of Uttar Pradesh

Uttar Pradesh (UP) is characterized as the most economically backward state after Bihar. It is also the most populous state of the country. As per Census 2011, the population of Uttar Pradesh is 19.98 crore with a decennial growth of 20.09 percent.

1.1 Demographic profile

The demographic profile of the state is presented in the table 1.1. UP has added more than 33.6 million to the total population of the country in the last decade, the most by any state, recording an annual growth of 20.09 percent. However, the corresponding figure of growth for the previous decade (1991-2001) was 25.61 percent, thereby, displaying a decline of more than five percent which is quite significant. The compound annual growth rate has come down to 1.85 percent during 2001-2011 as compared to a high 2.33 percent during 1991-2001. The pressure on land is very high in the state as the population density is more than twice of national average. The deteriorating land-population ratio indicates rising pressure on natural resources as well as worsening forest land and residential land relation. Natural growth rate of population is much higher than the national average mainly because of high birth rate. Although, crude death rate is similar to the national level but infant mortality (41) is still high signifying poor maternal and child health care situation in the state.

Table 1.1: Major Demographic Indicators: Uttar Pradesh and India

Indicator	UP	India
1. Total Population (in million)*		
2001	166.0	1029.0
2011	199.6	1210.2
2. Decadal rate of population growth (		
Percentage) *	25.61	23.86
1981–1991	25.85	21.53
1991–2001	20.09	17.64
2001-2011		

3. Average Annual Exponential growth rate	2.27	2.14
(Percentage) *	2.33	1.94
1981-1991	1.85	1.64
1991-2001		
2001-2011	548	267
4. Population density (per sq. km.) *	690	325
1991	828	382
2001		
2011	876	927
5. Sex Ratio (Female per 1000 males) *	898	933
1991	908	940
2001		
2011		
6. Percentage of scheduled castes and scheduled	20.7	16.6
tribes	0.6	8.6
population in total population (2001)*	26.2	20.4
Scheduled Castes	6.9	6.4
Scheduled Tribes	19.3	14.0
7. Crude Birth Rate, 2016 **	41	34
8. Crude Death Rate 2016**		
9. Natural Growth Rate, 2016**	64.8	68.7
10. Infant mortality rate 2016**	63.9	67.4
11. Life expectancy at birth 2012-2016**	65.6	70.2
Total		
Male		
Female		

*Sources: *Registrar General, India, Census of India.*
***Registrar General, India, Sample Registration System, 2017*

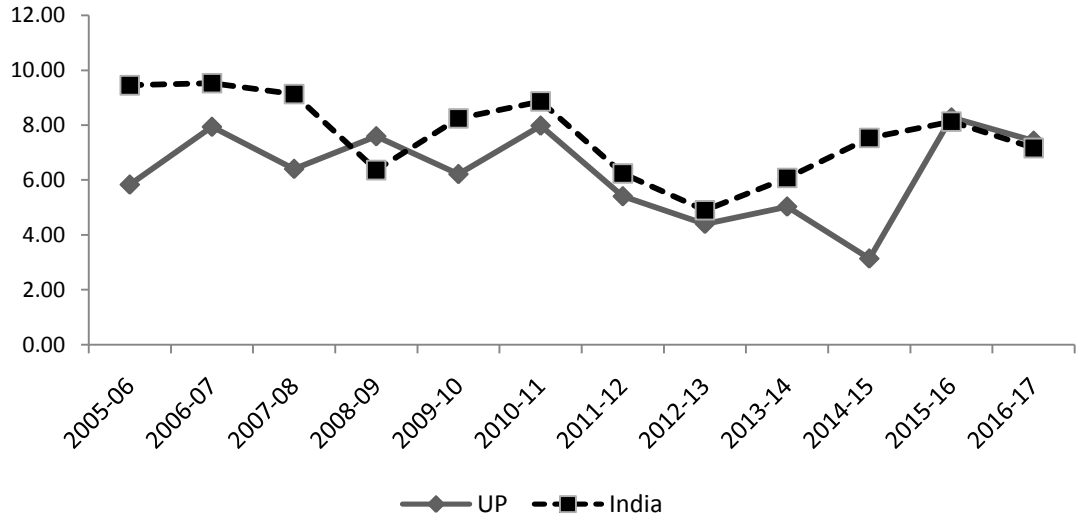
1.2 The state economy

The national economy cannot achieve high economic growth without handsome growth of UP[1]. Graph 1.1 shows annual growth rate of net state domestic product (at constant prices) from 2005-06 to 2016-17. In the last decade, growth in state's net domestic product (NDP) lagged behind the national growth rate except 2008-09 when it was about one percent more than the national growth rate.

National economy is experiencing a moderate decline in the growth rate in recent years, even then, the state was unable to match-up. It is in the last two years when both the growth rates are converging. This continued gap between growth rates has resulted in falling share of UP in all India NDP at constant prices (Graph 1.2). During early 2000s, the UP's share was around 9 percent which fell down to 7.80 in 2014-15 before a meager rise in 2016-17 to 7.83 percent.

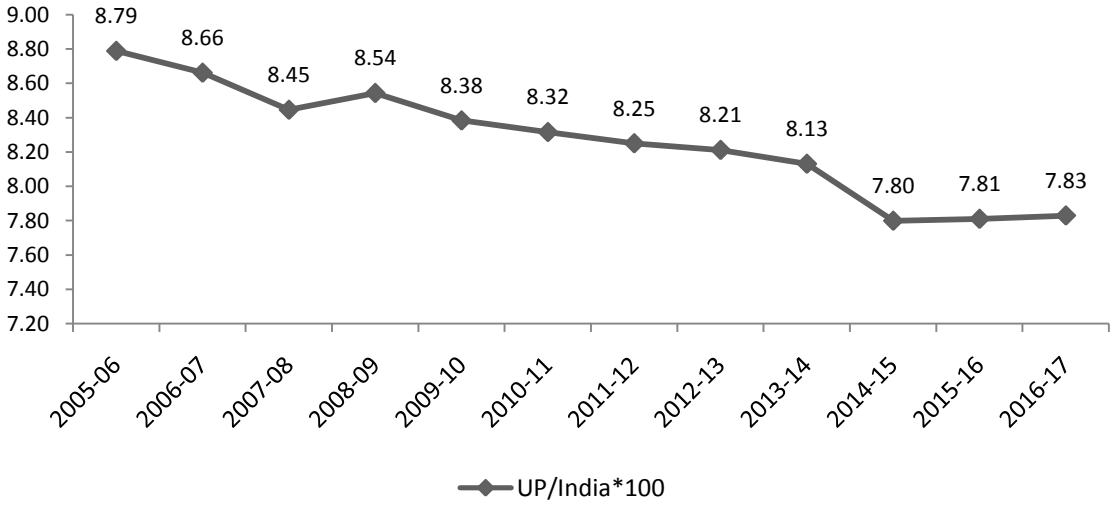
[1] Uttar Pradesh comprises 16.50 percent of total inhabitants of the country as per the Census 2011.

Figure 1.1: Growth Rate of Net State Domestic Product (at constant prices 2011-12)



Source: Author's calculation based on RBI's Handbook of Statistics on Indian States- 2018.

Figure 1.2: Share of UP's NDP in All India (At Constant prices 2011-12)



Source: Author's calculation based on RBI's Handbook of Statistics on Indian States- 2018. Note: 2013-14 Revised Provisional, 2014-15 Revised Quick & 2015-16 Revised Advance.

Table 1.2: Comparative Growth Rates in Income in India and UP in Recent Plans (%)

Plan Period	Annual Growth Rate of Total Income		Annual Growth Rate of Per Capita Income	
	India	U.P.	India	U.P.
VIII Five Year Plan (1992-97)	6.8	3.2	4.9	1.4
IX Five Year Plan (1997-2002)	5.6	2.0	3.6	-0.4
X Five Year plan (2002-07)	7.8	5.2	6.1	3.2
XI Five Year Plan (2007-2012)	7.8	6.6	6.2	4.7
XII Five Year Plan (2012-2017)	6.1	4.5	4.8	3.2

Source: Annual Plans, Uttar Pradesh Government.

The growth performance of the state during five years plan is given in table 1.2. It was the XI Five Year Plan (2007-12) which recorded the highest growth rate in NDP and per capita income. UP's Per capita income is the second lowest in the country after Bihar. The state's per capita income is half of the national level figure (Table 1.3). High growth rate of population and poor economic growth are widening the gap further. The main reasons for the low growth in the state are slow structural transformation along with low capital investment.

Table 1.4 represents the pace of structural transformation in the state. One third of the total state's product comes from agriculture and allied activities whereas services contribute around half of the total. The major cause of concern is the sluggish growth of the industrial sector. Huge fluctuation can be seen in yearly performance of the industrial output in both i.e. Uttar Pradesh and India (Graph 1.3).

Table 1.3: Per Capita Income at Constant Prices (2011-12)

Year	Per Capita Income (Rs.)		Growth Rate		UP/India*100
	UP	India	UP	India	
2004-05	23005	40269	-	-	57.13
2005-06	23885	43392	3.82	7.75	55.04
2006-07	25300	46814	5.93	7.89	54.04
2007-08	26425	50592	4.45	8.07	52.23
2008-09	27914	52964	5.63	4.69	52.70
2009-10	29118	56545	4.31	6.76	51.49
2010-11	30890	60383	6.09	6.79	51.16
2011-12	32002	63462	3.60	5.10	50.43
2012-13	32908	65538	2.83	3.27	50.21
2013-14	34044	68572	3.45	4.63	49.65
2014-15	34583	72862	1.58	6.26	47.46
2015-16	36883	77803	6.65	6.78	47.41
2016-17	39028	82269	5.82	5.74	47.44

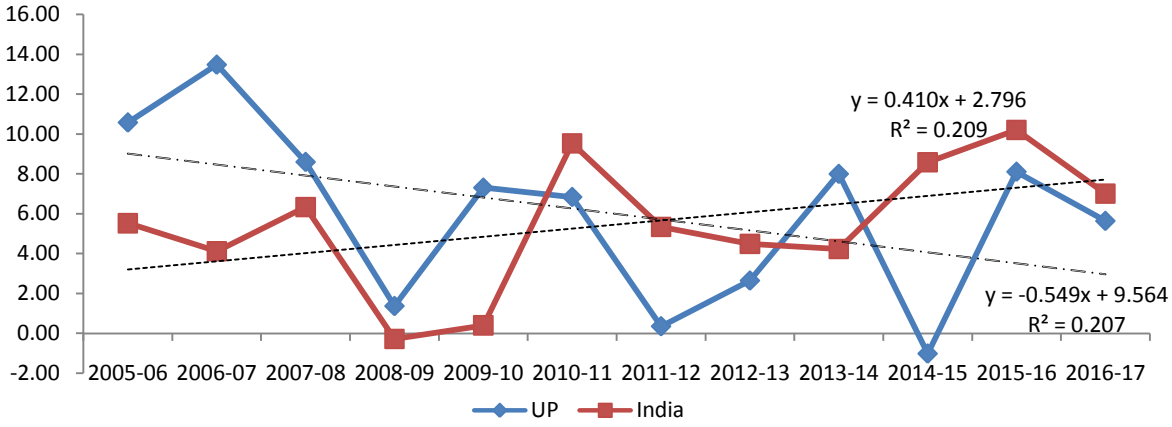
Source: Author's calculation based on RBI's Handbook of Statistics on Indian States- 2018. Note: 2013-14 Revised Provisional, 2014-15 Revised Quick & 2015-16 Revised Advance.

Table 1.4: Structural Changes in Uttar Pradesh (at constant prices in %)

Sector	2004-05	2011-12	2015-16 (RE)
(A) Primary	29.74	29.03	29.50
(B) Secondary	23.26	25.92	25.25
(i) Manufacturing	13.49	11.48	11.21
(ii) Construction	7.34	13.42	12.87
(C) Tertiary	47.01	45.05	45.25

Source: Author's calculation based on data from Directorate of Economic and Statistics, Government of Uttar Pradesh. Note: 2015-16 Revised Estimates.

Figure 1.3: Growth in Industrial Sector Output at Factor Cost (At 2011-12 prices)



Source: Author's calculations.

Although, the industrial sector is not very strong for the whole economy but it performed poorly even more in the case of Uttar Pradesh. Long term trends suggest average growth of industrial sector in the state is continuously falling.

1.3 Structural Transformation and Employment

Given the large labour force and low economic progress in the state, revival of the industrial sector is of utmost importance. It is the only sector which can fuel faster shifting of labour from agriculture to industries along with change in sectoral share of state's income. Structural shifts in employment have been shown in table 1.5. The process of structural shifts in employment is slow. About 50 percent of the total direct employment is still in agriculture sector. In recent years, the construction sector has emerged as the fastest growing activity under the industrial sector along with creating large employment opportunities. Employment share of construction sector grew six times from 2.34 percent in 1993-94 to 13.62 percent in 2011-12, however, questions on the sustainability of employment in construction sector are often raised. A majority of employment is casual in nature. It is either on daily basis or project basis with poor working conditions and almost no social security benefits. The quality of working condition is far from satisfactory. Further, construction and real estate activities are in boom phase in the

state, once the sector stabilizes many people will have to find the alternatives. Therefore, manufacturing has to break the low productivity and low growth cycle to become leading job provider and income generating sector. For the corresponding period, employment in manufacturing rose from 10.05 percent to 13.18 percent which is not very encouraging.

Table 1.5: Structural shifts in employment (share of workers, %)

Industry	1993-94	2004-05	2011-12
Uttar Pradesh			
Agriculture	67.19	58.66	49.73
Mining and Quarrying	0.17	0.22	0.58
Manufacturing	10.05	12.97	13.18
Electricity, Water, etc.	0.31	0.18	0.47
Construction	2.34	6.29	13.62
Trade, Hotels and Restaurants	7.5	10.5	10.13
Transport, Storage and Communication	2.76	3.81	3.6
Other services	9.69	7.37	8.69
Total	100	100	100
India			
Agriculture	62.63	55.09	46.2
Mining and Quarrying	0.78	0.62	0.59
Manufacturing	10.72	12.43	13
Electricity, Water, etc.	0.42	0.31	0.57
Construction	3.43	5.97	11
Trade, Hotels and Restaurants	7.7	11	11.46
Transport, Storage and Communication	3.1	4.3	5.26
Other services	11.22	10.28	11.92
Total	100	100	100

Source: Mamgain, P R and Sher Verick (2017), The state of employment in Uttar Pradesh: Unleashing the potential for inclusive growth, International Labour Organisation (ILO).

Table 1.6: Industry-wise growth in employment (compound annual growth rates)

	Uttar Pradesh		India	
Industry	1993-94/2004-05	2004-05/2011-12	1993-94/2004-05	2004-05/2011-12
Agriculture	1.2	-1.6	0.9	-1.9
Mining and Quarrying	4.9	16	-0.1	0
Manufacturing	4.9	1	3.5	1.2
Electricity, Water, etc.	-2.6	15.9	-0.7	9.7
Construction	12.1	12.5	7.4	9.8
Trade, Hotels and Restaurants	5.7	0.2	5.4	1.2
Transport, Storage and Communication	5.6	-0.1	5.2	3.6
Other services	0	3.1	1.3	2.8
Total	2.5	0.7	2.1	0.6

Source: Mamgain, P R and Sher Verick (2017), The state of employment in Uttar Pradesh: Unleashing the potential for inclusive growth, International Labour Organisation (ILO).

Table 1.7: Unemployment rate (UPSS), 15-59 years

Year	Uttar Pradesh			India		
	Male	Female	Total	Male	Female	Total
1993-94	1.37	0.43	1.14	2.33	1.79	2.15
2004-05	1.40	0.58	1.17	2.38	2.78	2.51
2011-12	1.96	1.23	1.79	2.28	2.57	2.36

Source: Mamgain, P R and Sher Verick (2017), The state of employment in Uttar Pradesh: Unleashing the potential for inclusive growth, International Labour Organisation (ILO).

Industry-wise growth of employment figures suggest growth in employment in the recent years is mainly generated by industrial sector particularly mining and quarrying, electricity, gas & water supply and construction (Table 1.6). Growth in employment is not able keep match with growth in labour force consequently unemployment is rising. Unemployment in the state rose from 1.17 percent in 2004-05 to 1.79 percent in 2011-12. However, unemployment at the country level is even higher (Table 1.7).

1.4 Poverty

The poverty estimates according to Tendulkar's poverty line are given in the table 1.8. The state had a higher incidence of poverty as compared to the country. Although, substantial decline has been registered in the case of overall poverty (by 11.5 percent[2]) during 2004-05 to 2011-12 and however, the rural poverty (a change of 25.38 percent), is still very high i.e. 29.4 percent in 2011-12. Its breakup as per place of residence i.e. rural and urban reveals some interesting outcomes. The decline in incidence of rural poverty (by 25.38 percent) is much higher as compared to urban poverty (by 5.07 percent). However, Uttar Pradesh is also among the few states of the country where urban poverty is higher than rural poverty.

This has serious implications for the policy makers. Reducing urban poverty is a bigger challenge. The urban growth is attributed to both

[2] The overall poverty in Uttar Pradesh was 40.9 percent in 2004-05 and 29.4 percent in 2011-12. The corresponding figures for India are 37.2 percent and 21.9 percent respectively.

natural population growth, and rural to urban migration. Urban centers "*provide opportunities for many, particularly the poor who are attracted by greater job prospects, the availability of services, and for some, an escape from constraining social and cultural traditions in rural villages. Yet city life can also present conditions of overcrowded living, congestion, unemployment, lack of social and community networks, stark inequalities, and crippling social problems such as crime and violence. Many of those who migrate will benefit from the opportunities in urban areas, while others, often those with low skill levels, may be left behind and find themselves struggling with the day to day challenges of city life*" (Baker 2008).

Table 1.8: Incidence of poverty in Uttar Pradesh and India, 2011-12

Region	Rural			Urban		
	2004-05	2011-12	Change	2004-05	2011-12	Change
Western	45.48	19.46	26.02	43.18	33.95	9.23
Central	51.3	41.06	10.24	29.57	37.11	-7.54
Eastern	62.81	32.72	30.09	49.74	44.62	5.12
Bundelkhand	53.9	29.86	24.04	56.14	37.38	18.76
UP	54.38	28.99	25.38	42.31	37.24	5.07
India	43.76	28.1	15.66	26.64	16.98	9.66

Source: Mamgain, P R and Sher Verick (2017), The state of employment in Uttar Pradesh: Unleashing the potential for inclusive growth, International Labour Organisation (ILO).

1.5 Human Development

Three indicators based HDI estimates (UPHDR 2008 methodology based)

The overall progress in human development in last one decade is depicted in table 1.9. The progress is slow. In last 15 years HDI value increased by about 17 percent only. Highest gain is recorded by the education and the least by health dimension which is already in better position as compared to other two dimensions. The higher progress in education and health is the result of continuous thrust by the central and state government. In the last one decade several programmes and policy measures have been undertaken to improve the status of education and health. For instance, Sarva Shiksha Abhiyan, Mid Day Meal Scheme, the Right to Free Education Act etc. are certain examples of it. Similarly huge

investments in developing public health infrastructure by both central and state governments are being made over the last decade. However, slow economic progress is still a cause of concern. At the state level, individual dimension indices score for health, education and income are 0.695, 0.677 and 0.535 respectively in 2015. The overall HDI comes to 0.635 by arithmetic mean and 0.631 by geometric mean method. Although according to the UPHDR (2008) classification, the state claims to be a high human development state, however, as per the international classification it is still a (lower) medium human development state. Traditional three indicators based measure uses arithmetic mean to aggregate individual dimension indices. The international HDR uses geometric mean (GM) from 2010 to aggregate individual dimension indices which is more appropriate method for aggregating index values. Applying GM to arrive at final HDI further reduces the HDI values.

Table 1.9: Human Development in Uttar Pradesh (UPHDR 2008 Methodology Based)

Year	Income	Education	Health	HDI	
				AM	GM
2001	0.449	0.563	0.621	0.544	0.539
2005	0.446	0.599	0.668	0.571	0.563
2015	0.535	0.677	0.695	0.635	0.631
change (2001-2015)	0.086	0.114	0.074	0.091	0.092
Change (2001-2015 in %)	19.15	20.25	11.92	16.73	17.07
change (2005-2015)	0.089	0.078	0.027	0.064	0.068
Change (2005-2015 in %)	19.96	13.02	4.04	11.21	12.08

Source: Values of 2001 and 2005 are taken from UPHDR (2008). Values of the 2015 are taken from the Maurya and Kanaujiya (2018). Others are authors' calculations.

Five indicators based HDI (UNDP 2010 methodology based)

Maurya and Kanaujiya (2018) have estimated HDI using the UNDP (2010) methodology. Indicators under each dimension are in consonance with the UNDP methodology except the health dimension. The UNDP takes life expectancy at birth for measuring long and healthy life, however, Maurya and Kanaujiya (2018) took infant mortality rate and institutional births for measuring health dimension. In the new estimates, overall human development score declines as compared to three

indicators based estimates. The HDI of UP is 0.558 which was 0.635 as per three indicators based approach, a 13.80 percent higher. Thus, it moves from a high medium human development state to a low medium human development state when measured by international methodology.

1.6 Concluding Remarks

To sum up, Uttar Pradesh is lagging behind in terms of indicators of economic and social development. The pace of economic progress and structural changes is inadequate to break the low equilibrium trap. Rising unemployment, high rural and urban poverty and low economic well being will definitely have downward pressure on state finances especially in terms of high expenditure needs and low revenue capacity.

Chapter II

Trends in Tax and Non-tax revenue in Uttar Pradesh

2.1 Introduction

As evident from the previous chapter, the growth performance of the state is not even at the par of the national economy except in the last two years. It is not because that the state grew faster rather it was the slowdown in the national economy. The progress on the front of social and human development is not very satisfactory too. Thus, the overall growth of the state is not adequate the bridge the gap between national average and state average which shows that the catching-up process is much slower than the required rate.

Level of development and growth performance of a state has a strong relationship with the revenue raising potential. A state with developed industrial and services sector may definitely have higher potential of direct and indirect tax collections. In Indian federal setup, state governments have been granted limited revenue raising powers. Even, the taxes which fall in the purview of the state governments are not very important in terms of the volume and have low buoyancy.

In this chapter, the trends in tax and non-tax revenue of the state government in the last ten years are being presented.

2.2 Trends in Own Tax Revenue

Table 2.1 presents the trends in own tax revenue of the state government from 2005-06 to 2015-16. Own tax revenue has gone up to Rs. 81106.29 crores from Rs. 18857.9 crores during 2005-06 and 2015-16 which is a more than fourfold rise. Similar increment has also been registered in different component of state's own tax revenue viz. taxes on income, taxes on property & capital transactions and taxes on commodities & services.

Compound annual growth rates (CAGR) of each source of state's own tax revenue is being presented in table 2.2. The CAGR has been estimated for the whole period as well as for two sub-periods i.e. 2005-06 to 2010-11 and 2010-11 to 2015-16. Own tax revenues registered a CAGR of 15.71 percent during the whole period of the study. Entertainment tax and taxes & duties on electricity are the fastest growing sources of revenue during the given period. In the first sub-period, revenue collection grew faster than the second sub-period. This may be due to slower economic progress in the second sub-period. It also reveals cyclicality in the revenue collections. Negative growth recorded by the land revenue in the second sub-period is the result of high collections in the year 2010-11, else, the growth has been normal.

State sales tax, state excise duty, stamps & registration fees and taxes on vehicles are the main contributors of own tax revenues (see Table 2.3). These four sources contribute more than 75 percent of total own tax revenue collections. There has not been much changes in the composition of own tax revenue during the given time period.

Total tax revenue which incorporates state's own tax revenue and share in central taxes rose more than four times from Rs. 37061 crore in 2005-06 to Rs. 172080 crores in 2015-16 (See table 2.4). State's own tax revenue and share in central taxes contribute almost equally to the total tax revenue of Uttar Pradesh.

2.3 Tax buoyancy

Tax buoyancy is an indicator to measure efficiency and responsiveness of revenue mobilisation to growth in state domestic product. Tax buoyancy said to be high if the proportionate increase in tax revenue is more than in response to a proportionate rise in state's income. Tax buoyancy has been estimated using double log regression. The following equation was estimated:

$$\ln(OTR_i) = \alpha_1 + \beta_1 \ln(GSDP_i) + u_i \quad (1)$$

Where, ln(OTR) = log of own tax revenue and ln(GSDP) log of GSDP[3]. The α is the intercept and β is the buoyancy coefficient. Equation (1) was estimated for the period 2005-06 to 2015-16 as well as for two sub-periods as discussed above.

Table 2.5: Tax Buoyancy: Estimates of double log regression model

Time period	B	t-statistics	R^2
2005-06 to 2015-16	1.153	38.855	0.997
2005-06 to 2010-11	1.033	18.728	0.989
2010-11 to 2015-16	1.141	16.130	0.985

Source: Author's calculations.

The tax buoyancy estimates are presented in the table 2.5. Tax buoyancy for the whole period can be referred to be buoyant as its value (1.153) is more than one. The buoyancy has improved in the second sub-period. These results are similar to the RBI (2018) estimates. The RBI study reports tax buoyancy of 1.01 for 2008-09 to 2017-18 time period as against of 1.22 for 2010-11 to 2017-18 time period.

2.4 Taxable capacity

Taxable capacity is the amount of tax revenue that can be raised if the tax bases are taxed at some given rate. Taxable capacity may be used in two senses: (1) Absolute taxable capacity and (2) Relative taxable capacity.

Absolute taxable capacity is defined as the maximum amount of the tax revenue a country or state can be raise by using its own tax bases. Relative taxable capacity on the other hand can be defined as the maximum amount of tax revenue a state can collect relative to a given base often presented in per cent or in ratio. Dalton (1983) rightly

[3] The back series of GSDP (2011-12=100) has been constructed by using splicing method of index numbers of combining two overlapping series of index numbers to obtain a longer series. At least one observation must be overlapping to apply splicing technique. As we have GSDP figure for the year 2011-12 at both bases i.e. 2004-05 and 2011-12, therefore, we were able to construct back GSDP series by taking base 2011-12.

observed that relative taxable capacity is a reality while absolute taxable capacity is a myth. The relative taxable capacity of a state depends upon the size of GSDP, size and rate of growth of population, distribution of income and wealth, administrative efficiency and other factors.

On the other hand, tax effort refers to the extent to which the taxable capacity is being utilized by the government to raise revenue. Lesser the gap between capacity and actual revenue collections, higher is the tax effort. However, tax effort must be differentiated from fiscal efforts which include both tax and non-tax efforts.

2.4.1 Tax-GSDP ratio

The tax/GSDP ratio is the most basic indicator of measuring tax efforts (Shome, 2012). The implied assumption involved in using such ratios for the purpose of comparing tax efforts is that GSDP is treated as an indicator of taxable capacity and thus suitable for comparisons across governmental units (Sen 1997, Maurya, Singh & Khare, 2016).

Table 2.6 presents the estimates of own tax revenue/GSDP ratio of Uttar Pradesh. The tax/GSDP ratio is rising continuously. It has increased from 6.09 per cent to 7.24 percent during 2005-06 to 2015-16 which corroborate the findings of high tax buoyancy. Rising own tax revenue/GSDP ratio indicates increase in tax efforts. It does not only show greater tax efforts but also better administrative and collection efficiency.

2.5 Trends in Non-tax Revenue

Non-tax revenues are also very important source of revenue for the state governments. Table 2.7 presents trends in non-tax revenues. State's own non-tax revenues rose from Rs. 2720 crores in 2005-06 to Rs. 23135 crores in 2015-16, more than eight fold rise. Similar increase has also been registered in grants from the center. The overall non-tax revenues rose to Rs. 54996 crores in 2015-16 from Rs. 6870 crores in 2005-06. Of

total non-tax revenues, around 60 percent is grants from the center and the remaining is state's own non-tax revenues (See table 2.9). Major sources of state's own non-tax revenues are general services, social services and economic services which contribute more than 85 percent of state's non-own tax revenues. Receipts from interest (received on loans given by the government to states and others) and dividends & profits received from public sector companies are quite low. Even, receipts from interests are continuously falling whereas the contribution of dividends and profits are below one percent.

The meager contribution of public sector companies reflects the poor financial health of public sector undertakings. It also reflects the fact that these units are suffering from administrative and managerial inefficiencies and are not able to generate sufficient operating surpluses. Various services provided by the state governments – law, order & policing, social & community services such as education, health and medical services; and economic services such as roads and others - also yield revenue for the state governments. However, the realizations are often treated as unsatisfactory because of below cost pricing and free riding problems.

Realisations from the general services rose up to 2010-11 and contributed more than 25 percent of total non-tax revenues. However, thereafter its share declined to 11.12 percent. Similarly, share of revenues from economic services also declined. On the other hand, there is steady increase in the share of revenues from social services and its contribution doubled during 2005-06 to 2015-16.

State's own non-tax revenues registered an annual compound growth of 23.9 percent for the entire period, large part of which has been recorded in the first sub-period (Table 2.8). Growth of revenues from social services has been smooth and steady as compared to growth of general

services. Total non-tax revenues also grew (23.12%) in similarity to state's own non-tax revenues.

Comparing the performance of Uttar Pradesh with other non-special category (NSC) states, we find that UP is at the 6th position among 18 NSC states on the basis of three years performance i.e. 2013-14 to 2015-16 (See table 2.). It is performing better than NSC average. It shows that revenue collections are quite buoyant in the recent years despite of economic slowdown.

2.6 Non-tax Buoyancy

Non-tax buoyancy has also been estimated using double log regression. The following equation was estimated:

$$\ln(ONTR_i) = \alpha_1 + \beta_1 \ln(GSDP_i) + u_i \quad (1)$$

Where, ln(ONTR) = log of own non-tax revenue and ln(GSDP) log of GSDP. The α is the intercept and β is the buoyancy coefficient.

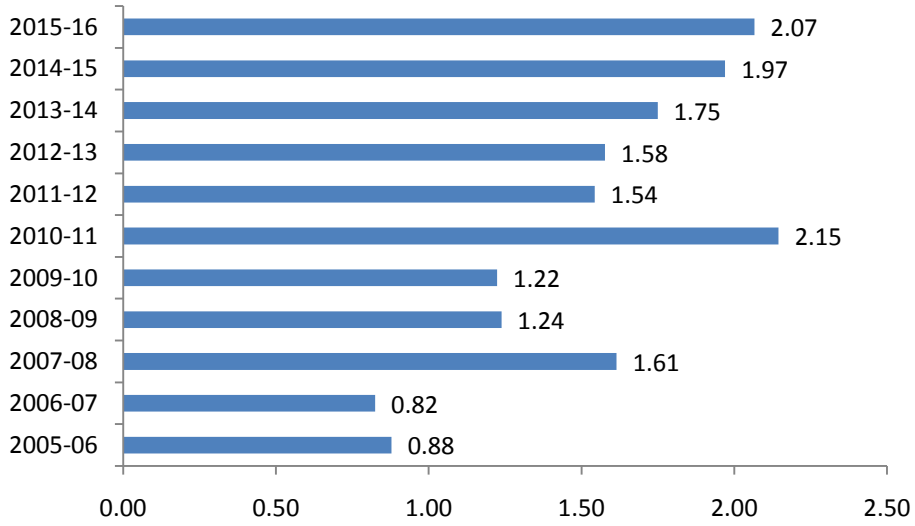
Table 2.10: Own non-tax buoyancy

Time period	β	t-Statistic	R^2
2005-06 to 15-16	1.601	11.19625	0.933014
2005-06 to 10-11	2.047	4.917958	0.858087
2010-11 to 15-16	1.120	3.472047	0.750858

Source: Author's calculations.

The results show that non-tax revenues are buoyant. The estimates for the whole period is 1.601 ($p<0.01$) which is higher than the tax buoyancy. Estimates for two sub-periods show higher elasticity in the first sub-period (2.047; $p<0.01$) as compared to second sub-period (1.120; $p<0.05$). The ONTR/GSDP (%) has been gradually rising during 2005-06 to 2015-16. It increased from less than one percent to 2.07 during the same period.

Figure 2.1: ONTR/GSDP (%)



Source: Author's calculations.

Figure 2.1 shows ONTR/GSDP ratio (%) has a rising trend in ONTR/GSDP except 2007-08 and 2010-11 when there is above trend increase. If we observe the values for other years except 2007-08 and 2010-11, there is steady rise in ONTR/GSDP ratio. This steady rise in both the years is because of high collections from general services.

2.7 Cost recovery and User charges

The state governments have been providing various general, economic and social services to the people. However, user charges and cost recovery are very complex issue which does not have any clear solution. In most of the cases, cost recovery is very low. Cost recovery has been estimated for the different social and economic services. Here, cost recovery has been defined as own non-tax revenue from the service to non-plan revenue expenditure on the service. These figures are expressed in terms of percent (See table 2.12).

Since, the segregation of total expenditure into plan and non-plan expenditure has been stopped from 2015-16, the estimation of cost recovery has been done upto 2014-15 only. In the case of social services, cost recovery would inevitably be low as it incorporates mainly

welfare services like education, health and other social welfare expenditures. Being a socially and economically backward region, the state government has to provide these services at low prices. Service-wise cost recovery estimates do not give any clear trend except education, sports, art and culture where cost recovery is slowly increasing.

In the case of economic services except forestry and wildlife, the cost recovery for all services is very poor. Low realisation in the case of power and road & transport are even more disturbing as they are the indicators of low user charges and large administrative inefficiency (Rao, 2002).

2.8 Computerisation and digitization of land records and titles

In order to improve the quality of land records, and make them more accessible, the central government implemented the National Land Records Modernization Programme (now Digital India Land Records Modernization Programme) implemented in August 2008. This programme seeks to achieve complete computerisation of the land property registration process and digitisation of all old and new land records.

Only about 1/3rd of total released funds have been utilized by the state government covering 32 percent of the total districts only (See table 2.13 & 2.14). The funds utilization and coverage of district is much lower than the national average. However, the status of computerization of land records is satisfactory and 96 percent land records were computerized till September 2017. Uttar Pradesh progress in terms of computerization of records is better than national average. Digitisation of record of rights is also moving well as about 79 percent records were digitized. However, digitization of maps is a bit slow. Efforts should be made to fasten the process of digitization of maps.

Table 2.13: Status of Computerization of Land Records

Fund utilisation under DILRMP (as of September 2017, in Rs crore)					
State	Funds sanctioned by centre	Funds released by centre	Utilised Amount	Unspent Balance	Districts covered (in %)
Uttar Pradesh	32.1	18.5	5.4	13.1	32%
India	1,926.50	1,157.80	745.8	409.7	69%
Status of computerisation of land records (CLR)					
State	No. of villages	CLR completed (%)	CLR Ongoing (%)	CLR not started (%)	Mutation Computerised (%)
Uttar Pradesh	1,09,109	96%	0%	4%	73%
India	6,55,502	86%	3%	11%	47%
Progress on Record of Rights (RoR)					
State	Total no. of ROR	No. of Villages	Issuance of digitally signed ROR (% of Villages)	ROR linkage with Aadhaar completed (% of Villages)	ROR linkage with Aadhaar Completed (% of ROR)
Uttar Pradesh	1,91,72,512	1,09,109	79.00%	1.40%	0.50%
India	26,48,53,810	6,55,502	28%	4%	8%

Source: Mishra and Suhad (2017). Note: Districts covered indicates all those districts where money released from the centre has been allocated.

Table 2.14: Status of map digitization

State	No. of villages	Total no. of maps	Maps in good condition (% of Maps)	Maps digitized (% of Maps)	Spatial data verified (% of villages)	Cadastral maps linked to ROR (% of Villages)	Real time updation of ROR and maps (%of villages)
Uttar Pradesh	1,09,109	97,970	78.00%	14.80%	12.10%	6.50%	4.00%
India	6,55,502	1,13,65,611	91%	46%	39%	26%	15%

Source: Mishra and Suhad (2017).

2.9 Measures taken by the State government to enhance revenue capacity

2.9.1 Suggestions to improve taxable capacity

The possible solutions to the low taxable capacity of the state lie in a multi-pronged approach which not only addresses the tax effort of the state but also focuses on the issues like governance, accountability,

expenditure efficiency, etc. The possible suggestions to improve taxable capacity (Tax/GSDP ratio) are:

1. Unexploited taxes like agricultural income tax, profession tax, land revenue should be utilized for raising the tax/gsdp ratio.
2. Entertainment industry is one of the fastest growing sectors in India. Entertainment tax is being the fastest growing tax source of the state too. Efforts should be made to broaden the entertainment tax base through simplified procedure and effective administrative machinery.
3. Tax bases should be widened by better exploitation of land-based taxes, better administration of property taxes and other taxes. Local bodies should be empowered and authorised to collect some taxes.
4. Property tax/house tax has not been exploited to its full potential. Suitable tax legislations amendment should be made to potential properties under tax net.
5. Rationalisation of tax exemptions and tax incentives.

2.9.2 Non-tax revenues

1. Receipts from dividends and profits received from the PSEs are very low. An all-round public sector enterprises (PSEs) reforms is required. Financial management of these PSEs is very poor. Faulty recruitment policy at all levels of management, high interference of government in the management of these PSEs and poor pricing policy are the reasons for ailing PSEs. The government must rationalize the financial support to PSEs. No implicit support should be given to these PSEs. The amount of investment in the PSEs must be curtailed to the minimum level.
2. Non-tax revenues from general, economic and social services are below expected level. Low user charges (which are not regularly updated) and their realization is the main problem. User charges should be linked with some suitable input cost index. The process

of period revision should be automatic. A commission may be setup for this purpose whose main task should be to advise to the government on revision of user charges of public services like bus fares and other administered prices while ensuring low cost service supply to the poor.

3. In the case of economic and social services, the recovery can be significantly improved. The state may target to increase recovery in phase manner. Initially it may target an estimated recovery rate of 25 percent of selected services which may later be increased to 30 percent. Major and medium irrigation, power and road and transport sectors may particularly be targeted.

Table 2.1: Trends in Own Tax Revenue of UP Government: 2005-16 (in Crore)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
1.Taxes on Income (I+II)	**11.8**	**14.92**	**18.96**	**20.9**	**20.94**	**25.44**	**30.46**	**34.95**	**39.57**	**43.29**	**50.27**
I)Agricultural Income Tax											
II)Taxes on Professions, Trades, Callings and Employment	11.8	14.92	18.96	20.9	20.94	25.44	30.46	34.95	39.57	43.29	50.27
2.Taxes on Property and Capital Transactions (I TO III)	**3105.47**	**4701.19**	**4369.21**	**4687.55**	**5225.37**	**7108.82**	**8185.09**	**9546.82**	**10292.92**	**12330.57**	**12909.02**
I) land revenue	108.69	187.52	392.53	549.28	663.14	1134.16	490.68	804.64	772	527.23	505.31
II) stamps and registration fees	2996.78	4513.67	3976.68	4138.27	4562.23	5974.66	7694.4	8742.17	9520.92	11803.34	12403.72
III)urban immovable property tax											
3.Taxes on Commodities and Services (I TO VII)	15740.63	18281.87	20571.15	23950.52	28631.29	34220.74	44397.88	48516.59	56249.58	61798.55	68147
I) a) Sales Tax (a to f)	11284.67	13278.82	15023.1	17482.05	20825.18	24836.52	33107.34	34870.16	39645.45	42934.56	47692.4
b) State Sales Tax	7473.29	8635.61	13281.2	14139.47	18819.49	22412.2	30695.85	32450.82	36206.17	39812.68	43161.66
c) Central Sales Tax	883.09	688.99	1384.97	1438.05	1397.51	1967.8	1769.59	1745.84	1793.33	1775.86	1886.88
d) Surcharge on Sales Tax	57.69	49.12	74.05	224.53	11.54	10.97					
e) Receipts of Turnover Tax											
f) Other Receipts	2870.6	3905.11	282.88	1680	596.64	445.55	641.9	673.49	1645.96	1346.02	2643.86
II) State Excise	3088.54	3551.25	3948.4	4720.01	5666.06	6723.49	8139.2	9782.49	11643.84	13482.57	14083.54
III) Taxes on Vehicles	965.2	1017.6	1145.84	1124.66	1403.5	1816.89	2375.86	2992.92	3441.42	3797.03	4409.74
IV) Taxes on Goods & Passengers	105.19	108.71	109.65	266.49	271.05	241.68	4.81	1.04	0.6	0.55	0.8
V) Taxes and Duties on Electricity	182.27	193.92	206.65	216.72	272.16	357.01	458.2	484.91	1048.5	1085.44	1338.26
VI) Entertainment Tax	83.1	80.87	94.34	129.85	186.6	238.85	308.73	380.29	465.67	494.65	596.58
VII) Other Taxes and Duties	31.66	50.7	43.16	10.74	6.75	6.3	3.73	4.79	4.1	3.76	25.68
State's Own Tax Revenue (1 to 3)	**18857.9**	**22997.98**	**24959.32**	**28658.97**	**33877.6**	**41355**	**52613.43**	**58098.36**	**66582.07**	**74172.42**	**81106.29**

Source: Author's calculations based on RBI data.

Table 2.2: Compound Annual Growth Rate of Own Tax Revenue of UP Government

Item	2005-06 to 2010-11	2010-11 to 2015-16	2005-06 to 2015-16
1.Taxes on Income (i+ii)	16.61	14.59	15.60
i)Agricultural Income Tax			
ii)Taxes on Professions, Trades, Callings and Employment	16.61	14.59	15.60
2.Taxes on Property and Capital Transactions (i to iii)	18.01	12.67	15.31
i) Land Revenue	59.84	-14.93	16.61
ii) Stamps and Registration fees	14.80	15.73	15.26
iii)Urban Immovable Property Tax			
3.Taxes on Commodities and Services (i to vii)	16.80	14.77	15.78
i) a) Sales Tax (a to f)	17.09	13.94	15.50
b) State Sales Tax	24.56	14.00	19.17
c) Central Sales Tax	17.38	-0.84	7.89
d) Surcharge on Sales Tax	-28.25	-100.00	-100.00
e) Receipts of Turnover Tax			
f) Other Receipts	-31.11	42.78	-0.82
ii) State Excise	16.83	15.94	16.38
iii) Taxes on Vehicles	13.49	19.40	16.41
iv) Taxes on Goods &Passengers	18.10	-68.09	-38.61
v) Taxes and Duties on Electricity	14.39	30.25	22.06
vi) Entertainment Tax	23.51	20.09	21.79
vii) Other Taxes and Duties	-27.60	32.45	-2.07
State's Own Tax Revenue (1 to 3)	**17.01**	**14.42**	**15.71**

Source: Author's calculations based on RBI data.

Table 2.3: Percent Share of Individual Taxes in Total Own Tax Revenue

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-2016
1.Taxes on Income (i+ii)	0.06	0.06	0.08	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06
i)Agricultural Income Tax											
ii)Taxes on Professions, Trades, Callings and Employment	0.06	0.06	0.08	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06
2.Taxes on Property and Capital Transactions (i to iii)	16.47	20.44	17.51	16.36	15.42	17.19	15.56	16.43	15.46	16.62	15.92
i) Land Revenue	0.58	0.82	1.57	1.92	1.96	2.74	0.93	1.38	1.16	0.71	0.62
ii) Stamps and Registration fees	15.89	19.63	15.93	14.44	13.47	14.45	14.62	15.05	14.30	15.91	15.29
iii)Urban Immovable Property Tax											
3.Taxes on Commodities and Services (i to vii)	83.47	79.49	82.42	83.57	84.51	82.75	84.39	83.51	84.48	83.32	84.02
i) a) Sales Tax (a to f)	59.84	57.74	60.19	61.00	61.47	60.06	62.93	60.02	59.54	57.88	58.80
b) State Sales Tax	39.63	37.55	53.21	49.34	55.55	54.19	58.34	55.85	54.38	53.68	53.22
c) Central Sales Tax	4.68	3.00	5.55	5.02	4.13	4.76	3.36	3.00	2.69	2.39	2.33
d) Surcharge on Sales Tax	0.31	0.21	0.30	0.78	0.03	0.03	0.00	0.00	0.00	0.00	0.00
e) Receipts of Turnover Tax											
f) Other Receipts	15.22	16.98	1.13	5.86	1.76	1.08	1.22	1.16	2.47	1.81	3.26
ii) State Excise	16.38	15.44	15.82	16.47	16.73	16.26	15.47	16.84	17.49	18.18	17.36
iii) Taxes on Vehicles	5.12	4.42	4.59	3.92	4.14	4.39	4.52	5.15	5.17	5.12	5.44
iv) Taxes on Goods &Passengers	0.56	0.47	0.44	0.93	0.80	0.58	0.01	0.00	0.00	0.00	0.00
v) Taxes and Duties on Electricity	0.97	0.84	0.83	0.76	0.80	0.86	0.87	0.83	1.57	1.46	1.65
vi) Entertainment Tax	0.44	0.35	0.38	0.45	0.55	0.58	0.59	0.65	0.70	0.67	0.74
vii) Other Taxes and Duties	0.17	0.22	0.17	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.03

Source: Author's calculations based on RBI data.

Table 2.4: Trends in Total Tax Revenue of UP Government (in Crore)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
A. State's Own Tax Revenue	18858	22998	24959	28659	33878	41355	52613	58098	66582	74172	81106
As % of Total Tax Revenue	50.88	49.76	46.01	48.11	51.59	48.9	51.1	50.26	51.8	52.7	47.13
B. Share in Central Taxes	18203	23218	29288	30906	31797	43219	50351	57498	62777	66623	90974
As % of Total Tax Revenue	49.12	50.24	53.99	51.89	48.42	51.1	48.9	49.8	48.5	47.32	52.9
TOTAL TAX REVENUE (A+B)	**37061**	**46216**	**54247**	**59565**	**65674**	**84574**	**102964**	**115596**	**129359**	**140795**	**172080**

Source: Author's calculations based on RBI data.

Table 2.6: Trends in Own Tax Revenue and GSDP of UP: 2005-06 to 2015-16 (Rs. Crore)

Year	Own Tax Revenue	GSDP	Tax/GSDP Ratio (%)
2005-06	18858	309660	6.09
2006-07	22998	355232	6.47
2007-08	24959	404568	6.17
2008-09	28659	469695	6.1
2009-10	33878	552831	6.13
2010-11	41355	634047	6.52
2011-12	52613	724050	7.27
2012-13	58098	822393	7.06
2013-14	66582	940356	7.08
2014-15	74172	1011790	7.33
2015-16	81106	1119862	7.24

Source: Author's calculations based on RBI data.

Table 2.7: Trends in Non-Tax Revenue in UP (in Crore)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Non-Tax Revenue	**6870**	**8288**	**14383**	**14425**	**18266**	**30747**	**26610**	**30308**	**38,855**	**52,626**	**54,996**
A. State's Own Non-Tax Revenue (1 to 6)	**2720**	**2930**	**6533**	**5816**	**6767**	**13601**	**11176**	**12,970**	**16,450**	**19,935**	**23,135**
1.Interest Receipts	598	458	829	1248	964	604	689	1,186	1,619	2,303	633
2.Dividends and Profits	9	8	9	11	50	27	27	63	5	8	43
3.General Services	344	359	2662	1511	2120	8482	5807	5,069	3,907	7,122	6,114
4.Social Services	693	1049	963	1451	1829	2622	3019	4,670	7,159	6,514	11,264
5.Fiscal Services	0	0	0	0	0	0	0	0	0	0	0
6.Economic Services	1076	1057	2070	1596	1805	1866	1633	1,982	3,760	3,988	5,081
B. Grants from the Centre	**4149**	**5358**	**7851**	**8609**	**11499**	**17146**	**15434**	**17,338**	**22,405**	**32,691**	**31,861**

Source: Author's calculations based on RBI data.

Table 2.8: Compound Growth Rate of Non-Tax Revenue UP: 2005-06 to 2015-16

Item	2005-06 to 2010-11	2010-11 to 2015-16	2005-06 to 2015-16
Non-Tax Revenue	**35.0**	**12.33**	**23.12**
A. State's Own Non-Tax Revenue (1 to 6)	**37.98**	**11.21**	**23.9**
1.Interest Receipts	0.11	0.94	0.57
2.Dividends and Profits	24.6	9.75	16.93
3.General Services	89.84	-6.34	33.34
4.Social Services	30.5	33.84	32.16
5.Fiscal Services			
6.Economic Services	11.6	22.2	16.8
B. Grants from the Centre	**32.8**	**13.2**	**22.6**

Source: Author's calculations based on RBI data.

Table 2.9: Composition of Non-Tax Revenue (%)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Non-Tax Revenue	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
A. State's Own Non-Tax Revenue (1 to 6)	**39.59**	**35.35**	**45.42**	**40.32**	**37.05**	**44.24**	**42**	**42.79**	**42.34**	**37.88**	**42.07**
1.Interest Receipts	8.7	5.53	5.76	8.65	5.28	1.96	2.59	3.91	4.17	4.38	1.15
2.Dividends and Profits	0.13	0.1	0.06	0.08	0.27	0.09	0.1	0.21	0.01	0.02	0.08
3.General Services	5.01	4.33	18.51	10.47	11.61	27.59	21.82	16.72	10.06	13.53	11.12
4.Social Services	10.09	12.66	6.7	10.06	10.01	8.53	11.35	15.41	18.42	12.38	20.48
5.Fiscal Services	0	0	0	0	0	0	0	0	0	0	0
6.Economic Services	15.66	12.75	14.39	11.06	9.88	6.07	6.14	6.54	9.68	7.58	9.24
B. Grants from the Centre	**60.39**	**64.65**	**54.59**	**59.68**	**62.95**	**55.76**	**58**	**57.21**	**57.66**	**62.12**	**57.93**

Source: Author's calculations based on RBI data.

Table 2.11: Own tax and non-tax revenues of Non-special category states

State	2013-14		2014-15		2015-16		Average		Rank	
	OTR/ GSDP	ONTR/ GSDP	OTR/ GSDP	ONTR/ GSDP	OTR/ GSDP	ONTR/ GSDP	OTR/ GSDP	ONTR/ GSDP	OTR/ GSDP	ONTR/ GSDP
West Bengal	5.1	0.3	4.9	0.2	4.6	0.2	4.9	0.2	18	18
Jharkhand	5.4	2.2	4.8	2.0	5.0	2.5	5.1	2.2	17	4
Bihar	5.8	0.4	5.5	0.4	6.7	0.6	6.0	0.5	16	17
Rajasthan	6.5	2.6	6.3	2.2	6.2	1.6	6.3	2.1	15	5
Telangana	-	-	5.7	1.3	7.0	2.5	6.4	1.9	14	7
Odisha	6.2	3.1	6.2	2.5	6.8	2.6	6.4	2.7	13	2
Haryana	6.6	1.3	6.3	1.1	6.4	1.0	6.4	1.1	12	11
Maharashtra	7.2	0.8	6.4	0.7	6.3	0.7	6.6	0.7	11	15
Gujarat	7.4	0.9	6.9	1.1	6.1	1.0	6.8	1.0	10	12
Chhattisgarh	7.7	2.7	6.7	2.1	6.5	2.0	7.0	2.3	9	3
Punjab	7.6	1.0	6.9	0.8	6.8	0.7	7.1	0.8	8	14
Kerala	8.1	1.4	6.7	1.4	7.0	1.5	7.3	1.4	7	10
Uttar Pradesh	**7.7**	**1.9**	**7.1**	**1.9**	**7.2**	**2.1**	**7.3**	**2.0**	**6**	**6**
Andhra Pradesh	7.5	1.8	8.1	2.1	6.5	0.8	7.4	1.6	5	9
Tamil Nadu	8.6	1.1	7.2	0.8	6.9	0.8	7.6	0.9	4	13
Madhya Pradesh	7.7	1.8	7.6	2.2	7.6	1.6	7.6	1.9	3	8
Goa	7.3	3.4	9.6	5.7	7.3	4.5	8.1	4.5	2	1
Karnataka	10.2	0.7	7.6	0.5	7.5	0.5	8.4	0.6	1	16
Non-Special Category	**7.1**	**1.3**	**6.7**	**1.2**	**6.6**	**1.2**	6.8	1.2		

Source: Author's calculations based on RBI data.

Table 2.12: Cost Recovery of Major Services in U.P. (%)

Service	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Social Services										
Education, Sports, Art and Culture	12.96	10.01	13.19	10.09	17.09	16.07	9.56	19.07	28.46	24.25
Medical and Public Health	2.34	3.38	3.33	24.79	2.80	2.63	2.64	2.66	2.50	3.06
Urban Development	1.41	0.20	0.17	0.21	24.08	3.08	24.46	1.71	8.80	8.32
Social Welfare	2.14	2.12	1.71	2.63	2.73	4.69	14.20	11.13	16.17	11.44
Economic Services										
Crop Husbandry	7.53	6.02	9.01	8.44	5.69	5.10	7.38	6.27	6.25	6.32
Forestry and Wildlife	114.88	125.88	167.39	133.68	104.26	81.52	81.62	79.08	77.13	84.38
Major and Medium Irrigation Projects	19.50	12.12	22.17	16.99	13.50	6.48	6.22	6.55	15.84	10.62
Minor Irrigation	10.78	8.49	5.41	4.71	3.58	4.68	5.23	6.95	7.20	4.64
Power	11.01	62.56	18.00	28.31	9.09	4.30	2.21	1.59	20.44	7.91
Road & Transport	1.20	0.17	0.33	0.54	0.28	0.17	0.16	0.17	0.15	0.27

Source: Author's calculations based on RBI data.

Chapter III

Public Expenditure in Uttar Pradesh: Trends and pattern

3.1 Introduction

Historically, the growth in public expenditures has been well above the growth of non-debt receipts of the States in general (Shome, Sen and Gopalakrishnan, 1996). However, it assumes greater importance in a poverty ridden low industrialized backward state like Uttar Pradesh. Public expenditures, if allocated and utilized efficiently, may take state to the higher growth trajectory and would help in decimating the gap between the state and the nation.

This chapter aims to critically analyse the pattern and trends in public expenditure separately for revenue and capital and major components of expenditure there under. Efforts will also be made to capture the measures taken by the government to enhance allocative and technical efficiency in expenditures during the last five years.

3.2 Trends in expenditures

Table 3.1 presents trends in expenditure from 2005-06 to 2015-16. Revenue expenditure quadrupled to Rs. 212736 crores 2015-16 from Rs. 46617.14 crores in 2005-06 registering a CAGR of 16.40 percent for the entire period (see table 3.2). It grew faster (18.23%) during 2005-06 to 2010-11 as compared to second sub-period (14.6%) 2010-11 to 2015-16. On other hand, capital expenditure also risen more than five times but on the background of low base. It rose to Rs. 88137.8 crores in 2015-16 at the CAGR of 17.4 percent from Rs. 17728.56 crores in 2005-06. However, capital expenditures grew much faster in the second sub-period (25.22%) as compared to first sub-period (10.05%) as against of revenue expenditures which recorded faster growth in the first sub-period. Total expenditures also recorded a more than fourfold jump to Rs. 300873.8 crores in 2015-16 from Rs. 64345.7 crores in 2005-06 registering a CAGR of 16.68 percent.

The share of revenue expenditure in total expenditures had been rising till 2012-13 after which it declined to even below 2005-06 levels (See Table 3.3). The share of revenue expenditure in total expenditure was 72.45 percent in 2005-06 and went up to 80.66 percent in 2012-13 before coming down to 70.71 percent in 2015-16. During the same corresponding period, capital expenditure share first declined to 19.34 percent from 27.55 percent before reaching to 29.29 percent in 2015-16. However, revenue expenditure as percent of GSDP is rising continuously. Revenue expenditure is now 19 percent of GSDP in 2015-16 as compared to 15.05 percent in 2005-06, a 4 points increase during the given period. The capital expenditure share rose to 7.87 percent from 5.73 percent during the same period, an about 2 percent hike.

3.2.1 Revenue Expenditure

Revenue expenditure by major heads is presented in the table 3.4. Developmental expenditure (DE) has grown faster than non-developmental expenditure (NDE). DE increased more than six times (CAGR 18.76%) as compared to NDE (CAGR 13.19%) which recorded less than fourfold increase (Table 3.5). Expenditure on social services and economic services grew by 18.11 and 19.96 percent respectively during 2005-06 to 2015-16. Expenditures on family welfare (26.04%), housing & urban development (37.56%), industry & minerals (26.63%) and energy (31.84%) recorded the highest growth during the same period. Higher growth in developmental expenditure is a desirable trend for Uttar Pradesh.

The share of DE which comprised about 50 percent of total revenue expenditure in the beginning of the selected period is steadily rising (Table 3.6). It has been more than 60 percent of the same in the year 2015-16. During the same corresponding period, the share of NDE has come down to 33.95 percent from 44.88 percent. Grants in aid are being remained in periphery of 5 percent. The share of social services has

increased till 2011-12 (38.25%), however, after that it remained stable around it. The share of economic services in total revenue expenditure has a fluctuating trend. After registering an increase during 2005-06 to 2008-09, it declines to 14.6 percent in 2010-11. After then, its share is gradually rising and it is 22.51 percent in 2015-16.

Among the individual heads, major expenditure items are education, sports, art & culture, interest payments, and pensions which account for more than 40 percent of total revenue expenditure. Few developments in the revenue expenditure are noteworthy. Expenditure on energy has recorded tremendous increase as percent of total revenue expenditure. Its share was about 3 percent in 2005-06 which has gone up to more than 10 percent in 2015-16. Majority of this change has taken place during last two years only i.e. 2014-15 and 2015-16. Another important change is significant decline in interest burden.

Interest payment was 19.52 percent of total revenue expenditure in 2005-06 which has gradually come down to 10.08 percent in 2015-16. Decline in share of interest payment, a significant portion of total debt servicing, shows reduction in committed expenditure and greater flexibility in the hands of government in terms of utilization of resources. However, on the contrary of this the pension burden has gone up from 8.56 percent to 11.35 percent.

3.2.2 Trends in capital expenditure

Capital expenditure is the expenditure done on productive and long term assets. The table 3.7 presents head-wise capital expenditure during the study period. Total capital outlay increased more than eight times from Rs. 8711.2 crores to Rs. 69789.12 crores during 2005-06 to 2015-16. This increase mainly came in last three years i.e. 2013-14 to 2015-16. In last three years it tripled. Capital outlay on developmental activities also followed the same trends. Capital outlay on non-developmental activities grew more than 18 times with a low base. However, discharge of internal

debt and repayment of loans to the Center recorded a moderate growth as compared to capital outlay.

Capital outlay on social services recorded a tremendous growth (CAGR 30.93%) whereas economic services grew by a CAGR of 20.55 percent (Table 3.8). Capital outlay on non-developmental activities recorded a CAGR of 33.71 percent. The growth of capital outlay for most of the items during second sub-period is much higher as compared to first sub-period. Housing activities has recorded highest growth during the study period i.e. a CAGR of 68.98 percent. However, capital outlay on rural development and special area programmes experienced absolute decline.

The composition of total capital disbursement has been very variable which is given in table 3.9. The share of capital outlay has increased to 82.53 percent in 2014-15 before declining to 72.07 percent in 2015-16 from 64.14 percent in 2006-07. Similar fluctuating trend has also been seen in the case of development expenditure. However, in the recent years it is more than 65 percent of total capital disbursement. Despite of recording a good growth in capital outlay on social services during the study period, its share has not increased much. Its share rose to 22.52 percent in 2012-13 before sliding down to 17.71 percent from 10.49 percent in 2006-07. The share of economic services in total capital disbursement remained around 50 percent. Surprisingly, the share of agriculture and allied activities, rural development, special area programmes and major & medium irrigation and flood control has declined from about 15 percent to about 10 percent during the study period. Agriculture and allied activities not only significantly contributed to the state's output but also a major source of employment in the state. Declining share of allocation of capital outlay will further escalate the problem of poor performance of the state's primary sector. Although, the increase in the share of housing is commendable but stagnation in the share of education, medical and water supply and sanitation is matter of concern.

3.2.3 Public expenditure (as % of GSDP)

Revenue expenditure as percent to GSDP increased from 15.06 percent to 19 percent during 2005-06 to 2015-16, whereas, capital outlay increased from 2.81 percent and 6.23 percent during the same period. High growth in capital outlay can also been seen from increased capital outlay/GSDP ratio (See table 3.10).

Table 3.10: Trends in Expenditure (As % of GSDP)

	Revenue Expenditure as % of GSDP			**Capital Outlay as % of GSDP**		
Head Of Expenditure	**2005-06**	**2010-11**	**2015-16**	**2005-06**	**2010-11**	**2015-16**
A. Developmental Expenditure	7.55	8.72	11.64	2.71	3.04	5.72
1. Social Services	5.04	6.24	7.37	0.37	0.76	1.53
2. Economic Services	2.50	2.48	4.28	2.34	2.28	4.19
B. Non-developmental Expenditure	6.76	7.57	6.45	0.10	0.16	0.51
C. Grants-In-Aid And Contributions	0.75	0.69	0.91	-	-	-
Total	15.06	16.98	19	2.81	3.2	6.23

Source: Author's calculations.

It can be easily seen that revenue expenditures are more than triple in terms of size as compared to capital outlay. Although, it is not mandatory that capital outlay should be more than or equal to revenue expenditure but such a high gap is not desired. Revenue expenditure on social services is much higher than capital expenditure. In 2015-16 revenue expenditure is 7.37 percent whereas the corresponding figure for capital expenditure is 1.53 percent. It implies that the burden of salary and other regular payment is much higher in social services. In the case of economic services, revenue and capital expenditure are quite similar for each points of time. Revenue expenditure on NDE is also very high and it varied between 6 to 8 percent during the study period.

3.3 Expenditure elasticity (Double log regression approach)

An attempt has been made to measure the relationship between the growth of government expenditure and state's income. This has been

done by working out the income elasticity of certain important categories of expenditure. Table 3.11 presents income elasticity of expenditure (at current prices) using double-log regression.

Table 3.11: Income elasticity of Public Expenditure: Double log regression approach

	2005-06 to 15-16			2005-06 to 10-11			2010-11 to 15-16		
Variable	**β**	**t-Statistic**	**R^2**	**B**	**t-Statistic**	**R^2**	**B**	**t-Statistic**	**R^2**
Revenue Expenditure	3.439***	19.108	0.976	3.211***	6.961	0.924	4.175***	9.67	0.959
Capital Expenditure	2.899***	5.21	0.751	2.236**	3.135	0.711	7.092**	3.974	0.798
Total Expenditure	3.316***	13.393	0.952	2.981***	6.472	0.913	4.882***	6.657	0.917
Developmental Expenditure	3.675***	13.289	0.952	3.197***	5.021	0.863	5.141***	7.494	0.934
Social Services	3.696***	17.345	0.971	3.530***	6.08	0.902	4.289***	8.01	0.941
Education, Sports, Art and Culture	3.789***	18.205	0.974	3.226***	6.92	0.923	4.401***	7.649	0.936
Non-developmental Expenditure	3.090***	24.344	0.985	3.364***	9.418	0.957	2.528***	13.157	0.977
Interest Payments And Servicing Of Debt	2.168***	13.004	0.949	2.169***	5.533	0.884	1.329*	2.679	0.642

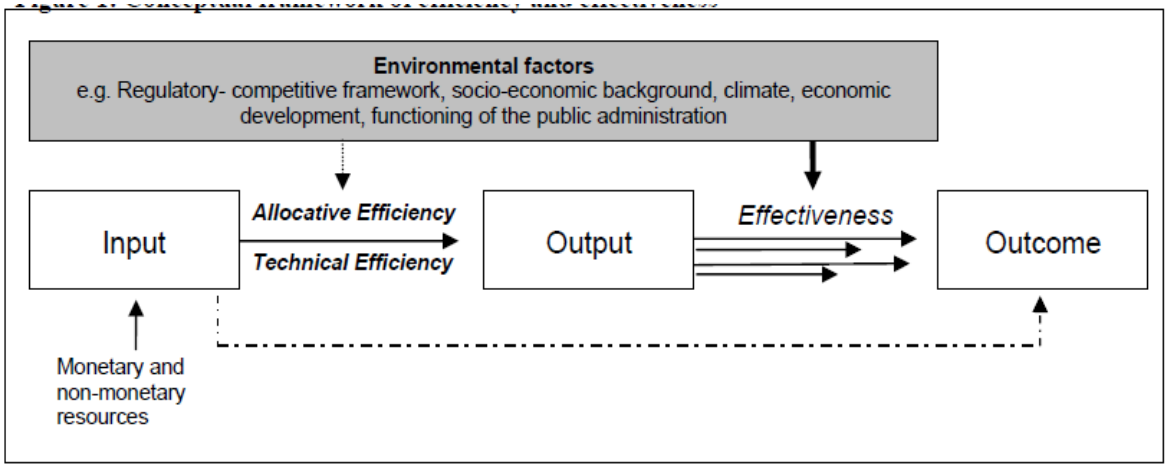
Source: Author's Calculations on the basis of RBI and MoSPI Data. Note: ***p>0.01; **p>0.05; *p>0.1.

The estimation has been done for three points of time. The coefficients of income elasticity of all categories are statistically significant. The elasticity of total expenditure for the whole period of the study was 3.316 whereas it was 2.981 during first sub-period and 4.882 for the second sub-period. Expenditure buoyancies have gone up in the second sub-period for each major head except NDE and interest payments and debt servicing. However, decline in elasticity in the case of NDE and interest payments and debt servicing is a desirable change.

3.4 Public Expenditure Efficiency

Public expenditure is efficient when the government, using its given resources, produces a maximum possible benefit for the country's population. Allocating higher share of public expenditure to those sectors which have strongest growth effects promotes efficiency of public expenditure. The literature suggests that the issue of measuring public sector efficiency is complex. The analysis of efficiency and effectiveness is about the relationship between inputs, outputs and outcomes.

Figure 3.1: Public Expenditure Efficiency Framework



Source: Mandl, Dierx and Ilzkovitz (2008).

It is essential to know the conceptual understanding of efficiency. As per Mandl, Dierx and Ilzkovitz (2008), efficiency is related with the mechanical relationship between inputs and outputs. Higher efficiency is said to be achieved when higher output is produced in the given inputs and or a given output is produced in fewer inputs. However, effectiveness relates the input or the output to the final objectives to be achieved. Efficiency can further be divided into technical and allocative efficiency. Mandl, Dierx and Ilzkovitz (2008) said,

> "Technical efficiency measures the pure relation between inputs and outputs taking the production possibility frontier into account. Technical efficiency gains are movement towards this production possibility frontier. Allocative efficiency reflects the link between the optimal combination of inputs taking into account costs and benefits and the output achieved. A high degree of technical efficiency achieved at the level of each individual input does not guarantee an efficient functioning of public sector activities if alternative combinations of inputs would result in higher outputs."

The incentive to reallocate is inherently weak in public organizations. Program evaluation and performance information can prod departments to adjust their program mix, but there is no self-enforcing mechanism to ensure that resources are shifted to more effective use.

A study by Mohanty and Bhanumurthy (2018) using input and output oriented DEA model finds that Uttar Pradesh is among the most inefficient states in terms of public expenditure efficiency. Their finding is based on cases of expenditure on education, health and social sector expenditure. It is important to note that UP has been found inefficient in all cases by output-oriented DEA model which suggests that UP government has to utilize its resources efficiently to increase outcome. The findings of the study imply that UP can increase its social sector outcomes by 20 to 25 percent which may push growth by 2 to 3 percent further.

Not only this, as per the RBI (2016) study, 'states in lower income brackets need to improve social sector spending, given the correlation of around 0.5 between expenditure on health and education and the human development index (HDI) of NSC states. These adjustments would enhance labour productivity and enable states to reap the benefits of the "demographic dividend".'

Table 3.12: Expenditure on Select Indicators as percentage of aggregate expenditure (2013-14)

	Social Sector		Physical Infrastructure		Committed Expenditure		
States	**Education**	**Health**	**Roads & Bridges**	**Energy**	**Int. Pay.**	**Pension**	**Admin. Exp.**
Group A							
Goa	16.4	5.8	4.7	16.9	11.4	7.2	5.8
Maharashtra	21.7	3.8	4.8	4.8	12	7.3	7.9
Haryana	16.2	3.5	5.6	12	12.6	8.9	5.9
Gujarat	15.9	4.6	5.8	5.8	13.5	8.4	4
Tamil Nadu	16.7	3.8	4.2	3.9	9.6	11.5	4.8
Mean	17.4	4.3	5	8.7	11.8	8.7	5.7
CV	12.6	19.4	12	57.6	11.1	13.5	23.3
Group B							
Kerala	18	5	4.6	0.3	12.5	15.1	5
Punjab	15.4	4.1	1.7	11	17.8	14.3	11.7
Karnataka	15.5	3.8	6.6	6	7.3	8.6	4.7
Andhra Pradesh	14.5	3.9	3.4	5.9	10	10.6	5.7
West Bengal	18.8	4.3	2.1	2	20.9	11.7	5.7
Mean	16.4	4.2	3.7	5	13.7	12	6.6
CV	10.2	9.9	48.5	73.2	36.4	20.3	39.6
Group C							
Rajasthan	17.1	4.2	4.1	12.4	10.1	8.7	4.6
Jharkhand	14.3	3.8	7.4	6	9.2	12.3	11.5
Chhattisgarh	18.3	3.6	7.2	1.3	3.5	7.1	7
Madhya Pradesh	16.1	3.6	4.3	9.7	7.5	6.9	5.6

Odisha	15.7	3.3	7	2.1	5.4	11	7.1
Uttar Pradesh	16.7	3.5	6.8	6.2	9	10.1	6.4
Bihar	19.5	2.9	7.1	7.6	7.1	12.3	6.7
Mean	16.8	3.6	6.3	6.5	7.4	9.8	7
CV	9.4	10.9	21.2	56.5	29.3	21.4	28.9
All NSC States							
Mean	16.9	4	5.1	6.7	10.5	10.1	6.5
CV	10.9	16.6	33.3	64.8	39.4	24	32.6

Source: RBI (2016), State Finances: A Study of Budgets.

Table 3.12 gives share of select indicators as percentage of aggregate expenditure (2013-14). Except for roads and bridges, the shares of expenditure on all other heads like education, health, energy is lesser than the NSC average, however, the difference is not much. The share of expenditure on health is quite low in comparison to NSC average. The UP government share of expenditures is even lower than the low income states average. In terms of burden of committed expenditure, UP has lower extent of committed expenditure.

To get better outcomes from public expenditure, regular monitoring of public expenditure should be done. Critical evaluation and comparison (with best performing states) of trends, patterns and changing shares of public expenditure should be ensured on regular basis. The practice of out of budget announcements of schemes by the public representatives should be kept in check and recourse to supplementary budgets should be only in case of urgent and unavoidable cases. The help of academicians, social activists and stakeholders must be taken in prioritizing public expenditure and analyzing expenditure-outcome relationship.

3.5 Suggestions to improve allocative and technical efficiency of public spending

1. The composition of public expenditure should be restructured in favour of areas like primary education & health care, supply of basic needs like water supply, sanitation and infrastructure like roads and bridges.

2. The State government should be incentivized to set up a pension fund for lesser burden on states resources.
3. Redistribution of vacant posts in the government department and government funded institutions. Few departments have overstaffing and some are understaffed, thus, redistribution will not only bring balance between demand and supply of manpower but will also bring higher outcome.
4. Subsidy reforms to focus on selected sectors which would yield maximum output. Attention can be focused on agriculture, irrigation, power, industries and transport sectors at the state level.

Table 3.1: Trends in Total Expenditure (in Crore)

	Revenue Expenditure			Capital Expenditure			Total Expenditure
Year	Plan	Non Plan	Total	Plan	Non Plan	Total	
2005-06	6444.81	40172.33	46617.14	8750.66	8977.9	17728.56	64345.7
2006-07	9698.48	46000.42	55698.9	13874.35	6909.41	20783.76	76482.66
2007-08	11743.92	53479.29	65223.21	14087.28	8973.92	23061.2	88284.41
2008-09	17291.34	58677.55	75968.89	18477.82	11451.41	29929.23	105898.1
2009-10	15701.18	73672.42	89373.6	19603.71	14097.95	33701.66	123075.3
2010-11	21039.54	86636.07	107675.61	20198.36	8425.75	28624.11	136299.7
2011-12	22615.92	101269.25	123885.17	21149.59	9687.56	30837.15	154722.3
2012-13	25,877.8	114,845.8	140,723.6	22,992.3	10,754.32	33,746.58	174,470.2
2013-14	31,657.4	126,489.5	158,146.9	31,431.4	11071.32	42,502.73	200,649.6
2014-15	33,262.5	137,764.9	171,027.3	45,445.0	19136.16	64,581.14	235,608.5
2015-16			212,736.0			88,137.8	300,873.8

Source: State Finances: A Study of Budgets (various years), RBI, India.

Table 3.2: Compound Annual Growth Rate of Public Expenditure in UP (%)

Year	Revenue Expenditure	Capital Expenditure	Total Expenditure
	Total	Total	
2005-06 to 2010-11	18.23	10.05	16.2
2010-11 to 2015-16	14.6	25.22	17.16
2005-06 to 2015-16	16.4	17.4	16.68

Source: State Finances: A Study of Budgets (various years), RBI, India.

Table 3.3: Revenue and Capital Expenditure as Percent of Total Expenditure and GSDP

	Revenue Expenditure			Capital Expenditure			As % of GSDP	
Year	Plan	Non Plan	Total	Plan	Non Plan	Total	Revenue Expenditure	Capital Expenditure
2005-06	10.02	62.43	72.45	13.6	13.95	27.55	15.05	5.73
2006-07	12.68	60.14	72.83	18.14	9.03	27.17	15.68	5.85
2007-08	13.3	60.58	73.88	15.96	10.16	26.12	16.12	5.7
2008-09	16.33	55.41	71.74	17.45	10.81	28.26	16.17	6.37
2009-10	12.76	59.86	72.62	15.93	11.45	27.38	16.17	6.1
2010-11	15.44	63.56	79	14.82	6.18	21	16.98	4.51
2011-12	14.62	65.45	80.07	13.67	6.26	19.93	17.11	4.26
2012-13	14.83	65.83	80.66	13.18	6.16	19.34	17.11	4.1
2013-14	15.78	63.04	78.82	15.66	5.52	21.18	16.82	4.52
2014-15	14.12	58.47	72.59	19.29	8.12	27.41	16.9	6.38
2015-16			70.71			29.29	19	7.87

Source: State Finances: A Study of Budgets (various years), RBI, India.

Table 3.4: Total Revenue Expenditure by Major Heads of UP Government (in Crore)

Head Of Expenditure	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
TOTAL EXPENDITURE (I+II+III)	46617.1	55698.9	65223.2	75968.9	89373.6	107675.6	123885.2	140723.64	158146.87	171027.3	212735.95
I. DEVELOPMENTAL EXPENDITURE (A + B)	**23365.6**	**28657.3**	**35123**	**42695.4**	**45372.3**	**55291.7**	**65683.2**	**74637.67**	**86467.01**	**95791.02**	**130367.75**
A. Social Services (1 to 6)	15609.7	19248.1	23085.6	28546	32064.3	39566.7	47390.9	53300.32	60756.28	60905.79	82486.46
1. Education, Sports, Art and Culture	8789.9	10704.4	11675.7	12944.3	16181.7	20954.2	25975	29382.62	31425.17	33949.05	45077.35
2. Medical and Public Health	2154.2	2368.1	2615.9	2875.7	3532.8	4074.3	4371.3	5068.2	5470.95	6138.91	6730.26
3. Family Welfare	441.4	452.1	485.9	827.3	1246.7	1369.9	1398.8	2450.65	2526.68	3936.82	4464.95
4. Water Supply and Sanitation	624.4	639.1	572.2	6827.5	778	698.8	893.2	23	134.01	190.96	795.19
5. Housing & Urban Development	129	549.3	1396.4	3194.5	869.7	1016.9	1001.8	937.23	2581.77	1857.37	3129.14
6. Others	3470.9	4535.1	6339.6	8021.4	9455.4	11452.6	13750.8	15438.61	18617.7	14832.69	22289.56
B. Economic Services (1 to	7755.8	9409.3	12037.4	14149.4	13308	15725	18292.22	21337.35	25710.72	34885.24	47881.29

9)											
1. Agriculture and Allied Activities	1480.4	1848.7	2522.1	2917.4	2860.2	3569.9	3651.6	4598.43	4604.8	5626.58	5097.83
2. Rural Development	2259.4	1974.2	2936.3	4507.8	3590.9	4003.1	4529.5	4625.28	6595.94	6292.02	7714.16
3. Special Area Programmes	49.5	83.5	53.7	22.9	79.3	80.8	61	27.38	282.89	373.27	11.68
4. Irrigation and Flood Control	1390.7	1919.7	2411	2713.2	2822.6	3610.3	4009.3	4674.06	4758.12	5348.6	5221.93
5. Energy	1401.1	1869.8	1914.1	1650.8	1896.5	2174.2	3570.7	4650.24	5256.69	12340.18	22225
6. Industry And Minerals	290.7	232.4	638.2	738	339.7	299	319.7	368.68	486.6	1001.39	3082.18
7.Transport And Communications	764.5	1335.1	1403.6	1439.4	1520.2	1742.5	1943.9	2122.93	3375.13	3173.23	3572.6
8.Science, Technology And Environment	7.6	22.7	35.2	49.9	30.3	28	30.7	32.66	118.73	37.79	37.77
9.General Economic Services	111.9	123.1	123.4	140.7	168.3	214.1	211.1	237.68	35.66	692.18	918.14
II. Non-developmental Expenditure (A To F)	**20919.7**	**24299.3**	**26550.8**	**29769.3**	**40641.3**	**48019.2**	**52946.9**	**59906.72**	**61983.49**	**64305.73**	**72227.91**
A. Organs Of State	489.2	673.1	630	744.8	975.1	1194.8	1475.6	1595.73	1619.26	1896.4	1977.87
B. Fiscal Services	939.2	1096.2	1192.3	1440.9	2389.7	3025.6	2319.2	3295.33	2625.63	2828.96	2993.33
C. Interest Payments And Servicing Of Debt (1 + 2)	11735.1	13348.9	13878.1	14538.9	16855.1	21538.3	24107.6	25182.28	25776.69	23364.44	28414.64
1.Appropriation For Reduction Or Avoidance Of Debt	2636.8	2872.1	3057.9	3163.8	4866.6	7322.7	8626.6	8261.69	8364.25	4500	6966.78
2. Interest Payments	9098.3	10476.8	10820.2	11375.1	11988.5	14215.6	15481	16920.59	17412.44	18864.44	21447.86
D. Administrative Services	3738	4296.8	4691.3	6091	9314.6	9607.9	10390.7	11881.13	12409.41	13875.37	14657.62
E. Pensions	3990.8	4849.6	6136.2	6926.3	11074.4	12617.8	14127.1	17920.61	19521.21	22304.61	24149.57
F. Miscellaneous General Services	27.4	34.9	22.8	27.5	32.4	34.8	30.3	31.64	31.3	35.95	34.88
III. Grants-In-Aid And Contributions	**2331.9**	**2742.3**	**3549.5**	**3504.2**	**3360**	**4364.7**	**5255.1**	**6179.24**	**9696.37**	**10930.57**	**10140.29**
1. Compensation & Assignments To Local Bodies And PRI Institutions	2331.9	2742.3	3549.5	3504.2	3360	4364.7	5255.1	6179.24	9696.37	10930.57	10140.29

Source: State Finances: A Study of Budgets (various years), RBI, India.

Table 3.5: Compound Annual Growth Rate of Revenue Expenditure by Major Heads (%)

Head Of Expenditure	2005-06 to 2010-11	2010-11 to 2015-16	2005-06 to 2015-16
TOTAL EXPENDITURE (I+II+III)	18.23	14.59	16.39
I. DEVELOPMENTAL EXPENDITURE (A + B)	**18.8**	**18.71**	**18.76**
A. Social Services (1 to 6)	20.44	15.83	18.11
1. Education, Sports, Art and Culture	18.98	16.56	17.76
2. Medical and Public Health	13.59	10.56	12.07
3. Family Welfare	25.42	26.66	26.04
4. Water Supply and Sanitation	2.28	2.62	2.45
5. Housing & Urban Development	51.13	25.21	37.56
6. Others	26.97	14.25	20.44
B. Economic Services (1 to 9)	15.18	24.94	19.96
1. Agriculture and Allied Activities	19.25	7.39	13.16
2. Rural Development	12.12	14.02	13.07
3. Special Area Programmes	10.3	-32.08	-13.45
4. Irrigation and Flood Control	21.02	7.66	14.15
5. Energy	9.19	59.19	31.84
6. Industry And Minerals	0.56	59.45	26.63
7.Transport And Communications	17.91	15.44	16.67
8.Science, Technology And Environment	29.8	6.17	17.39
9.General Economic Services	13.86	33.8	23.43
II. Non-developmental Expenditure (A To F)	**18.08**	**8.51**	**13.19**
A. Organs Of State	19.55	10.61	14.99
B. Fiscal Services	26.36	-0.21	12.29
C. Interest Payments And Servicing Of Debt (1 + 2)	12.91	5.7	9.25
1.Appropriation For Reduction Or Avoidance Of Debt	22.66	-0.99	10.2
2. Interest Payments	9.34	8.57	8.95
D. Administrative Services	20.78	8.81	14.64
E. Pensions	25.89	13.86	19.73
F. Miscellaneous General Services	4.9	0.05	2.44
III. Grants-In-Aid And Contributions	**13.36**	**18.36**	**15.83**
1. Compensation & Assignments To Local Bodies And PRI Institutions	13.36	18.36	15.83

Source: Calculated from the RBI data.

Table 3.6: Per Cent Share of Different Heads in Total Revenue Expenditure (%)

Head Of Expenditure	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Expenditure (I+II+III)	100	100	100	100	100	100	100	100	100	100	100
I. Developmental Expenditure (A + B)	**50.12**	**51.45**	**53.85**	**56.2**	**50.77**	**51.35**	**53.02**	**53.04**	**54.68**	**56.01**	**61.28**
A. Social Services (1 to 6)	33.48	34.56	35.39	37.58	35.88	36.75	38.25	37.88	38.42	35.61	38.77
1. Education, Sports, Art	18.86	19.22	17.9	17.04	18.11	19.46	20.97	20.88	19.87	19.85	21.19
2. Medical and Public Health	4.62	4.25	4.01	3.79	3.95	3.78	3.53	3.6	3.46	3.59	3.16
3. Family Welfare	0.95	0.81	0.74	1.09	1.39	1.27	1.13	1.74	1.6	2.3	2.1
4. Water Supply and Sanitation	1.34	1.15	0.88	8.99	0.87	0.65	0.72	0.02	0.08	0.11	0.37
5. Housing & Urban Dev.	0.28	0.99	2.14	4.21	0.97	0.94	0.81	0.67	1.63	1.09	1.47
6. Others	7.45	8.14	9.72	10.56	10.58	10.64	11.1	10.97	11.77	8.67	10.48
B. Economic Services (1 to 9)	16.64	16.89	18.46	18.63	14.89	14.6	14.77	15.16	16.26	20.4	22.51
1. Agriculture and Allied Activities	3.18	3.32	3.87	3.84	3.2	3.32	2.95	3.27	2.91	3.29	2.4
2. Rural Development	4.85	3.54	4.5	5.93	4.02	3.72	3.66	3.29	4.17	3.68	3.63
3. Special Area Programmes	0.11	0.15	0.08	0.03	0.09	0.08	0.05	0.02	0.18	0.22	0.01
4. Irrigation and Flood Control	2.98	3.45	3.7	3.57	3.16	3.35	3.24	3.32	3.01	3.13	2.45
5. Energy	3.01	3.36	2.93	2.17	2.12	2.02	2.88	3.3	3.32	7.22	10.45
6. Industry And Minerals	0.62	0.42	0.98	0.97	0.38	0.28	0.26	0.26	0.31	0.59	1.45
7.Transport And Comm.	1.64	2.4	2.15	1.89	1.7	1.62	1.57	1.51	2.13	1.86	1.68
8.Science, Technology & Env.	0.02	0.04	0.05	0.07	0.03	0.03	0.02	0.02	0.08	0.02	0.02
9.General Economic Services	0.24	0.22	0.19	0.19	0.19	0.2	0.17	0.17	0.02	0.4	0.43
II. Non-developmental Expenditure (A To F)	**44.88**	**43.63**	**40.71**	**39.19**	**45.47**	**44.6**	**42.74**	**42.57**	**39.19**	**37.6**	**33.95**
A. Organs Of State	1.05	1.21	0.97	0.98	1.09	1.11	1.19	1.13	1.02	1.11	0.93
B. Fiscal Services	2.01	1.97	1.83	1.9	2.67	2.81	1.87	2.34	1.66	1.65	1.41
C. Interest Payments And Servicing Of Debt (1 + 2)	25.17	23.97	21.28	19.14	18.86	20	19.46	17.89	16.3	13.66	13.36
1.Appropriation For Reduction Or Avoidance Of Debt	5.66	5.16	4.69	4.16	5.45	6.8	6.96	5.87	5.29	2.63	3.27
2. Interest Payments	19.52	18.81	16.59	14.97	13.41	13.2	12.5	12.02	11.01	11.03	10.08
D. Administrative Services	8.02	7.71	7.19	8.02	10.42	8.92	8.39	8.44	7.85	8.11	6.89
E. Pensions	8.56	8.71	9.41	9.12	12.39	11.72	11.4	12.73	12.34	13.04	11.35
F. Miscellaneous General Services	0.06	0.06	0.03	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02
III. Grants-in-aid and contributions	**5**	**4.92**	**5.44**	**4.61**	**3.76**	**4.05**	**4.24**	**4.39**	**6.13**	**6.39**	**4.77**
1. Compensation & Assignments To Local Bodies And PRI Institutions	5	4.92	5.44	4.61	3.76	4.05	4.24	4.39	6.13	6.39	4.77

Source: Calculated from the RBI data.

Table 3.7: Trends in Capital Expenditure of UP Government by Major Heads (in Crore)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Capital Disbursements	**17728.6**	**20783.8**	**23061.2**	**29929.2**	**33701.7**	**28624.1**	**30837.2**	**33718.9**	**42502.73**	**64581.14**	**96832.87**
I. Total Capital Outlay	**8711.2**	**13984.1**	**16950.4**	**22345.7**	**25091.2**	**20272.8**	**21574**	**23834.29**	**32862.65**	**53297.28**	**69789.12**
1. Developmental (A + B)	8397.7	13330.3	16375.5	21504.4	24480.3	19270.7	20430.3	22429.34	29399.3	49288.6	64061.82
A. Social Services (1 to 7)	1158.8	2179.8	2113.6	2945.5	4702	4795.5	5187.1	7594.51	6759.5	12754.72	17150.47
1. Education, Sports, Art and Culture	322.1	297.3	652.7	887.3	526.7	710	331.2	707.08	739.05	1385.18	2018.3
2. Medical and Public Health	471.8	1481.7	1074	1230.5	1263.8	1032.2	942.4	1115.62	1318.17	1900.71	2922.3
3. Water Supply and Sanitation	232.1	259.1	79.3	36.1	30.6	275.3	147	1498.05	1493.08	2615.73	3109.02
4. Housing	35.1	59.9	132.8	119.1	77.1	90.7	652	1281.49	1277.23	4996.26	6662.12
5. Urban Development	0	0	28.2	366.6	2466.2	2111.2	2752.4	2243.56	703.43	871.48	886.46
6. Others	97.7	81.8	146.6	305.9	337.8	576	362.2	748.7	1228.54	985.36	1552.26
B. Economic Services	7238.9	11150.5	14261.9	18558.9	19778.3	14475.3	15243.2	14834.83	22639.8	36533.88	46911.35
1. Agriculture and Allied Activities	231.6	-151.5	1035.4	2625.7	4355.5	-837.6	-127.4	888.5	518.66	1406.46	3921.13
2. Rural Development	663.2	505.3	680.9	736.1	2394.4	2732.3	2755.8	1051.7	1600.07	4442.94	2249.22
3. Special Area Programmes	546.3	718.9	689.5	1275.7	1047	1192.8	1480.8	840.31	779.07	1081.99	698.02
4. Major and Medium Irrigation and Flood Control	1641.3	2373.1	2192.1	2602	2311	2549.9	2124.9	1896.69	2955.28	4093.03	5200.76
5. Energy	760.1	3083.8	5216.9	6131.9	1445.3	4099.5	4314.4	3625.88	6650.17	10959.96	11735.09
6. Industry And Minerals	166.2	13.9	25.4	-4.5	180.8	7.8	3.6	6.55	3.68	54.75	152.03
7.Transport	3187	4557.3	4381.8	5013.3	4219.1	4633.7	4651.2	6454.52	10051.74	14337.73	22653.08
8. Others	43.3	49.8	39.9	37.9	178	96.8	39.9	70.69	81.13	147.02	297.6
2.Non-Developmental (General Services)	313.5	653.8	574.9	841.4	611	1002.1	1143.6	1404.95	3463.35	4008.68	5727.3
II. Discharge of Internal Debt	**7151.8**	**3737.7**	**4178.7**	**5577.1**	**6468.7**	**6082.7**	**6973**	**7513.86**	**6701.42**	**8050.64**	**18862.99**
III. Repayment of Loans to the Centre	**1181.7**	**2174.4**	**1190.2**	**1199.4**	**1199.9**	**1300.4**	**1314.6**	**1395.17**	**1465.32**	**1360.58**	**1439.67**
IV. Loans and Advances by State Governments	**683.8**	**887.6**	**742**	**807**	**941.9**	**968.2**	**975.6**	**975.58**	**1473.34**	**1872.64**	**6741.09**

Source: State Finances: A Study of Budgets (various years), RBI, India.

Table 3.8: Compound Annual Growth Rate of Capital Expenditure by Major Heads (%)

Item	2005-06 to 2010-11	2010-11 to 2015-16	2005-06 to 2015-16
Total Capital Disbursements	**10.06**	**27.6**	**18.5**
I. Total Capital Outlay	**18.4**	**28.05**	**23.13**
1. Developmental (A + B)	18.07	27.16	22.53
A. Social Services (1 to 6)	32.85	29.03	30.93
1. Education, Sports, Art and Culture	17.13	23.24	20.14
2. Medical and Public Health	16.95	23.14	20
3. Water Supply and Sanitation	3.47	62.39	29.63
4. Housing	20.91	136.16	68.98
5. Urban Development	0	-15.93	0
6. Others	42.6	21.93	31.86
B. Economic Services	14.87	26.51	20.55
1. Agriculture and Allied Activities	-229.32	-236.17	32.7
2. Rural Development	32.73	-3.82	12.99
3. Special Area Programmes	16.9	-10.16	2.48
4. Major and Medium Irrigation and Flood Control	9.21	15.32	12.22
5. Energy	40.08	23.41	31.48
6. Industry And Minerals	-45.76	81.12	-0.89
7.Transport	7.77	37.35	21.67
8. Others	17.46	25.18	21.26
2.Non-Developmental (General Services)	26.16	41.71	33.71
II. Discharge of Internal Debt	**-3.19**	**25.4**	**10.18**
III. Repayment of Loans to the Centre	**1.93**	**2.06**	**1.99**
IV. Loans and Advances by State Governments	**7.2**	**47.42**	**25.71**

Source: Calculated from the RBI data.

Table 3.9: Per Cent Share of Different Heads in Total Capital Expenditure

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Capital Disbursements	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
I. Total Capital Outlay	**49.14**	**67.28**	**73.5**	**74.66**	**74.45**	**70.82**	**69.96**	**70.69**	**77.32**	**82.53**	**72.07**
1. Developmental (A + B)	47.37	64.14	71.01	71.85	72.64	67.32	66.25	66.52	69.17	76.32	66.16
A. Social Services (1 to 6)	6.54	10.49	9.17	9.84	13.95	16.75	16.82	22.52	15.9	19.75	17.71
1. Education, Sports, Art and Culture	1.82	1.43	2.83	2.96	1.56	2.48	1.07	2.1	1.74	2.14	2.08
2. Medical and Public Health	2.66	7.13	4.66	4.11	3.75	3.61	3.06	3.31	3.1	2.94	3.02
3. Water Supply and Sanitation	1.31	1.25	0.34	0.12	0.09	0.96	0.48	4.44	3.51	4.05	3.21
4. Housing	0.2	0.29	0.58	0.4	0.23	0.32	2.11	3.8	3.01	7.74	6.88
5. Urban Development	0	0	0.12	1.22	7.32	7.38	8.93	6.65	1.66	1.35	0.92
6. Others	0.55	0.39	0.64	1.02	1	2.01	1.17	2.22	2.89	1.53	1.6
B. Economic Services	40.83	53.65	61.84	62.01	58.69	50.57	49.43	44	53.27	56.57	48.45
1. Agriculture and Allied Activities	1.31	-0.73	4.49	8.77	12.92	-2.93	-0.41	2.64	1.22	2.18	4.05
2. Rural Development	3.74	2.43	2.95	2.46	7.1	9.55	8.94	3.12	3.76	6.88	2.32
3. Special Area Programmes	3.08	3.46	2.99	4.26	3.11	4.17	4.8	2.49	1.83	1.68	0.72
4. Major and Medium Irrigation and Flood Control	9.26	11.42	9.51	8.69	6.86	8.91	6.89	5.63	6.95	6.34	5.37
5. Energy	4.29	14.84	22.62	20.49	4.29	14.32	13.99	10.75	15.65	16.97	12.12
6. Industry And Minerals	0.94	0.07	0.11	-0.02	0.54	0.03	0.01	0.02	0.01	0.08	0.16
7.Transport	17.98	21.93	19	16.75	12.52	16.19	15.08	19.14	23.65	22.2	23.39
8. Others	0.24	0.24	0.17	0.13	0.53	0.34	0.13	0.21	0.19	0.23	0.31
2.Non-Developmental (General Services)	1.77	3.15	2.49	2.81	1.81	3.5	3.71	4.17	8.15	6.21	5.91
II. Discharge of Internal Debt	**40.34**	**17.98**	**18.12**	**18.63**	**19.19**	**21.25**	**22.61**	**22.28**	**15.77**	**12.47**	**19.48**
III. Repayment of Loans to the Centre	**6.67**	**10.46**	**5.16**	**4.01**	**3.56**	**4.54**	**4.26**	**4.14**	**3.45**	**2.11**	**1.49**
IV. Loans and Advances by State Governments	**3.86**	**4.27**	**3.22**	**2.7**	**2.79**	**3.38**	**3.16**	**2.89**	**3.47**	**2.9**	**6.96**

Source: Calculated from the RBI Data.

Chapter IV

Analysis of Debt and Deficit

4.1 Introduction

In the Indian context, fiscal policy of state governments had not been treated as significant interventionist tool to bring desirable changes in the states' economy as majority of their revenue depend upon the share in the central shareable tax revenue pool. But after the enactment of Fiscal Responsibility and Budget Management (FRBM) Act by the central government and subsequently by state governments and the greater autonomy and revenue raising powers given by the finance commissions to the state governments, importance of state fiscal policy has now come into the mainstream of sub-national public finance debate. The main instruments exhibiting state government intentions are still the same as the central government i.e. debt and deficit.

Nonetheless, the issue of deficit and debt and their implications are often centered on national governments. The simple fact that the public finance of state governments is not same as national governments is often ignored. In the case of India where state governments are given more execution responsibilities than revenue resources, effects of fiscal policy diverge from theoretical explanations. Therefore, theories guiding national fiscal policy and rules and tools for managing deficit and debt may not simply be applicable on state finances.

UP's fiscal affairs have particular implications on state's economy as well as on national economy. Being a backward state and the most populated state of the country, it has been receiving the largest chunk in the central shareable pool. Low deficits and debt will not only promote investment and growth in the state but also release some funds for other states to share with.

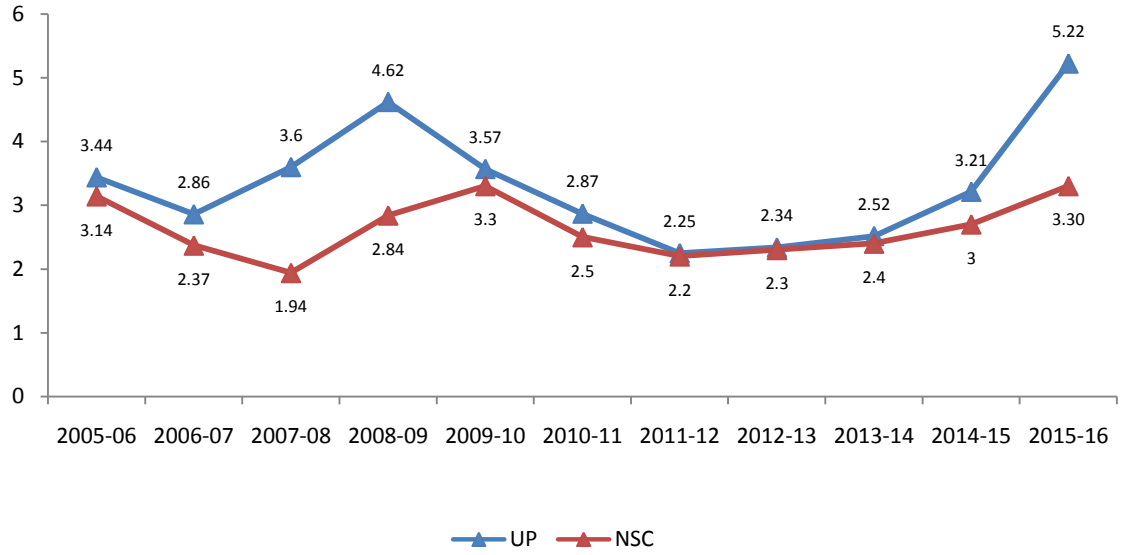
4.2 Trends in Key Deficit Indicators

Persistently large revenue deficits lead to higher fiscal deficit and public debt which was the case with Uttar Pradesh starting from the mid-1990s to early 2000s. As a result of this, a cycle of high deficit, debt and interest payments emerged (Singh, 1999, 2000, 2007, 2013; Shankar, 2001, 2002; Maurya, 2016).

4.2.1 Gross Fiscal Deficit (GFD)

GFD registered a moderate decline in 2006-07 from 2005-06 and for the first time GFD reached below 3 percent barrier (2.86 percent of GSDP) after the enactment of the State's FRBM Act (Figure 4.1).

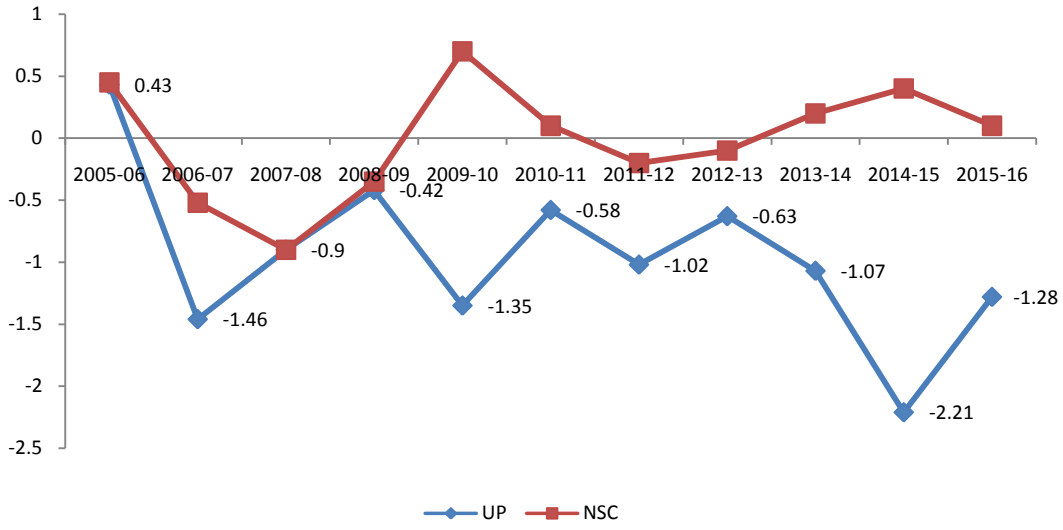
Figure 4.1: Gross Fiscal Deficit (as percent of GSDP)



Source: Author's calculations.

It again went beyond three percent for three consecutive years i.e. 2007-08 to 2009-10 before coming down to below 3 percent in 2010-11 and it remained below 3 percent till 2013-14. However, the signs of deterioration are sneaking as it marginally increased 3.21 percent in 2014-15 and an uneasy level of 5.22 percent in 2015-16. However, the increase for NSC states is considerably lower. This rise in GFD coupled with slow down in GSDP growth is real worrying situation.

Figure 4.2: Revenue Deficit (as percent of GSDP)



Source: Author's Calculations.

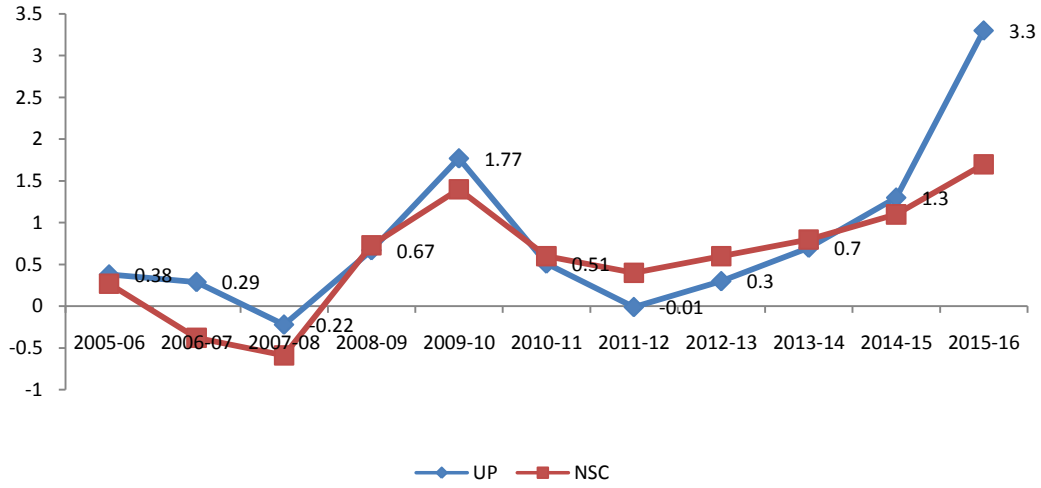
4.2.2 Revenue Deficit

In the year 2005-06, revenue deficit was reported after which the State Government has been registering continuous revenue surplus. This turnaround can be ascribed to two factors. First, over the years State Government has shown increased awareness about the importance of sound fiscal health taking timely fiscal corrections and policy initiatives like State's FRBM Act, 2004 and second, impressive rise in revenue collections. Preferably, state governments should generate enough revenue to service their debts, so that there would be no revenue deficit and GFD will be comprised of the capital outlay only (also known as the golden rule of deficit) (for detail see Balassone, F. & D. Franco, 2000, 2001). Golden rule states that the Government should borrow only to invest and not to fund current spending (current expenditure means day to day running expenses) which means that the government should borrow to finance investment (capital outlay) only that benefits future generations. Accordingly, zero revenue deficit is the key condition for achieving this golden rule which seems to be fulfilling in the case of UP since 2006-07 although there is huge fluctuation in it over the selected period. UP is much better as compared to NSC states as aggregate.

4.2.3 Primary Deficit

Primary deficit indicates total borrowing requirement of the Government in current year and is very important in maintaining sustainable level of debt. With interest payments on previously accumulated debt, it directs the pace at which public debt builds up (Maurya, 2016). It also shows the extent of current expenditure which the government is unable to meet from its current revenue, and is therefore controllable to some extent. Unlike national government, there is no scope for monetizing budget deficits at state level and, thus, these cannot be financed through seigniorage.

Figure 4.3: Primary Deficit (as percent of GSDP)



Source: Author's Calculations.

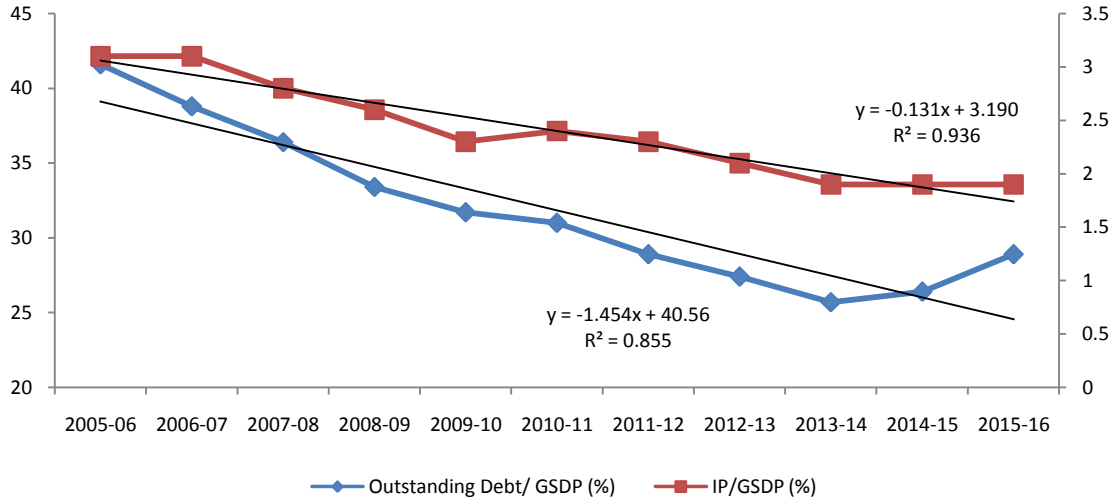
Except for 2007-08 (-0.22) and 2011-12 (-0.01), primary deficit has been recorded for UP during the whole period of analysis (Figure 4.3). During the 1990s, primary deficit was at alarmingly high level in NSC states and UP both, which moderated during the first half of 2000s but rose to high levels again in 2008-09 and 2009-10 (Maurya, 2016). However, the recent trends indicate, once again, an alarming increase in primary deficit levels for both NSC states and UP. It indicates that it would be a very difficult task to achieve the situation of zero primary

deficits. Trends in deficit indicators of Uttar Pradesh government are in similarity with the NSC states.

4.3 Debt Burden and Interest Liability of the State

As a consequence of good performance in revenue and capital receipts and the moderate increase in revenue and capital expenditure, since 2005-06, the debt burden of the state is diminishing as evident from the debt-GSDP (Figure 4.4) ratio. Consequently, the interest payments as per cent of GSDP have also been declining.

Figure 4.4: Total Outstanding Debt and Interest Payment (as percent of GSDP)



Source: Author's Calculations.

A gradual decline in outstanding debt as percent of GSDP can be observed. The debt-GSDP ratio was low at the beginning of economic reforms. It was 24.66 percent in 1992-93 which gradually rose to a high of 38.18 percent in 2003-04. However, since then a steady decline has been reported in the debt-GSDP ratio till 2013-14. Interest payment (IP) on public debt as percent to GSDP also moved in synchronization with debt-GSDP ratio. So, definitely fewer amounts of financial resources are now being paid as interest on public debt. Growth of interest payment also slowed down in recent years. These are healthy signs for the state finances. Arguably, the state's FRBM Act can also be credited for the reduction in the burden of public debt and interest payment thereon.

Nevertheless, there has been decline in interest payment post-FRBM Act for both NSC states and UP. As per the revised dates for attaining fiscal rules, the state was supposed to maintain 46.9 per cent debt-GSDP ratio in 2011-12 but UP is much ahead of the target. However, recent trends are giving a warning signal as outstanding debt has been rising again.

The comparison of long term trends of financial indicators shows that fiscal health of the state, particularly, before enactment of FRBM Act was in stress. High fiscal, revenue and primary deficits, rising interest liability and debt burden were the highlights in pre-FRBM Act period. Nevertheless, fiscal indicators have shown significant improvements since enactment of FRBM Act. An additional general observation emerging from the analysis is that trends in all fiscal variables for NSC states and UP followed the similar path. However, despite the downward trend in debt and deficit indicators '*the government's long run debt-deficit behavior is fairly a question of stability and sustainability in the fiscal situation*' (Das, 2013).

4.4 Composition and Term Structure of Public Debt

The composition and structure of public debt gives an idea about the expected interest liability and liable debt burden on the state. The total outstanding liabilities of a state have two components – public debt and other liabilities. In this section we try to see the changes in composition of debt with the changing mode of interest rate and share of individual sources in overall debt count.

4.4.1 Public Debt of the State

Public debt is different from the total liabilities or total debt of a state government. Public debt is a part of state liabilities. The detail is given in the table 4.1. Public debt is further divided in two main components – internal debt and loans and advances from the Center. Internal debt includes market loans, borrowings from NSSF, ways and means

advances, loans from banks and other financial institutions and power bonds.

Table 4.1: Public Debt and Total Liabilities: Concept and Composition

	Components
1. Public Debt (A To F)	A. Market Loans B. Borrowing From NSSF C. Ways And Means Advances D. Loans From Banks And Other Financial Institutions E. Power Bonds F. Loans And Advances From The Centre
2. Other Liabilities (A To D)	A. State Provident Funds B. Reserve Funds C. Deposits And Advances D. Contingency Fund.
3. Total Liabilities (1+2)	

Source: Author's construction.

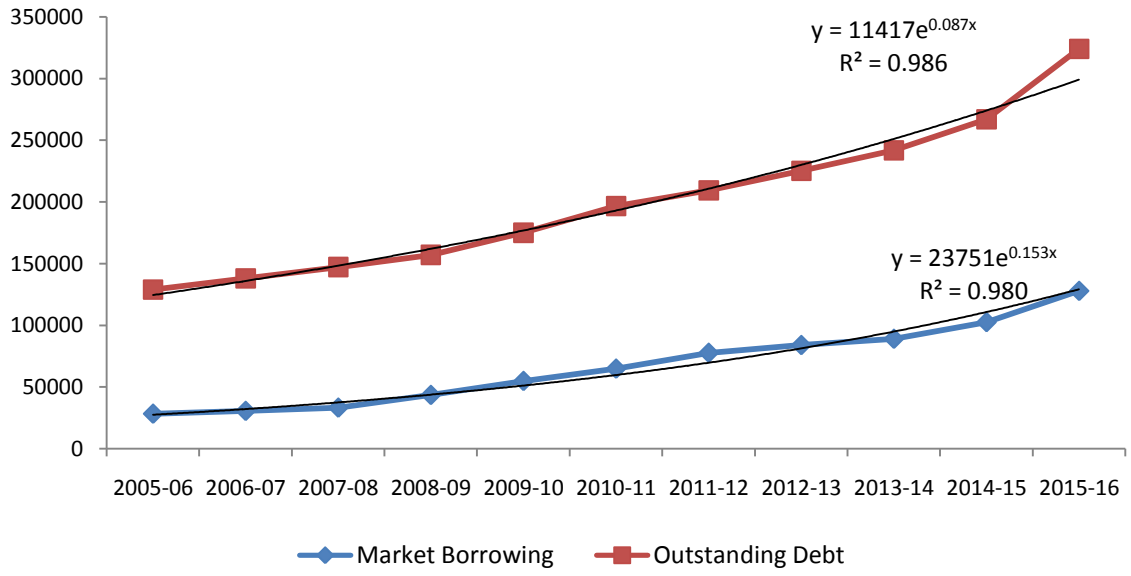
The composition of public debt and its changing pattern are very important because it gives an idea about the cost of debt and government's approach towards public debt. Market borrowings are generally low cost borrowings. On the other hand, small savings are very expensive source of funds for the government because of high rate of interest. Thus, a government interested in reducing burden of debt and its cost will try to shift its stock of debt from high cost loans to low cost loans.

4.4.2 Changing Composition of Outstanding Debt

The components of total outstanding debt with their share in total are detailed in table 8. During 1990s, Uttar Pradesh had borrowed mainly from the Center amounting to 3/4th of total borrowings (Maurya 2016). However, over the period of time steady decline in the share of Center in favour of internal debt took place. Now, internal debts comprise more than ninety percent of total public debt (Maurya 2016). The share of market borrowings grew constantly and now it is contributing more than 39 percent of total outstanding debt. Borrowings from small savings (NSSF) are the second highest contributor to the total debt. Small

savings contributed around 28.34 percent in 2005-06, however, now its share has come down to 21.54 percent 2015-16.

Figure 4.5: Trend in Public debt



Source: Author's Calculations.

The rising share of market borrowings is evident from its growth pattern. In fact, there is significant difference in growth rate of total outstanding debt and market borrowings. Market borrowings have grown twice faster than total debt (Figure 4.5).

Power bonds in terms of their share were losing their relevance and their contribution declined below one percent in 2013-14 before a significant increase in 2015-16 to 10.77 percent of total outstanding debt (it includes the impact of UDAY scheme). The share of loans from banks and financial institutions grew in magnitude till 2007-08, however from then onwards its share has been gradually declining and was 2.55 percent in 2015-16.

The significance of changes in the composition lies in the fact that it affects the overall cost of public debt. Rise in share of low cost source (market borrowings) as compared to high cost loans (NSSF, power bonds and loans from banks and financial institutions) reduces overall cost of

public debt and this is what has been happening with UP. UP not only has been able to move to low cost borrowings but it has also been able to reduce its reliance on the Center for borrowings. The share of loans and advances from the central government in total debt declined to 4.21 percent in 2015-16 from more than 18 percent in 2005-06. This signifies that state government has an upward movement in its market credibility.

Table 4.2: Composition of Interests (Rs. Crore) 2005-06 to 2013-14

Year	Interest on Internal Debt	As a percent of total	Interest on loans from the Center	As a percent of total	Total Interest
2005-06	6679.23	77.59	1928.67	22.41	8607.90
2006-07	7860.21	80.97	1847.63	19.03	9707.85
2007-08	8373.89	83.00	1715.56	17.00	10089.46
2008-09	8933.79	84.36	1656.44	15.64	10590.22
2009-10	9980.18	86.85	1510.49	13.15	11490.68
2010-11	12155.26	88.81	1531.57	11.19	13686.83
2011-12	13418.99	90.28	1445.19	9.72	14864.18
2012-13	14430.33	91.59	1324.30	8.41	15754.63
2013-14	15057.78	92.34	1249.38	7.66	16307.16

Source: Author's calculations on the basis of UP Budget Document data.

The relative share of interest paid on internal debt and on other borrowings in total interest is very similar to the composition of public debt, internal debt is comprising more than 90 percent of total interest paid on public debt in 2013-14 (See Table 4.2).The interesting trend is that there is a continuous decline in the share of interest on loans from the Centre. It came down to 7.66 percent in 2013-14.

4.4.3 Term Structure of Market Borrowings

The maturity pattern of the market loans and bonds of the Center and the state has been changing. During 1970s and 1980s market loans, with an aim to secure funds for investment in long-term projects for capital formation, bonds with a longer maturity period were floated. The maximum maturity period of the bonds was twenty years to thirty years. On the basis of the recommendations of the Monetary Committee Report (1986-87), the maximum maturity period was reduced to twenty years. Again, short term bonds of 0 to 5 years were issued at the Centre level (Alesina, Prati and Tabellini, 1990; Calvo and Guidotti, 1990).

In the case of Uttar Pradesh, the term structure of market borrowings had also gone through important changes over the period of time. Before 2000, the market borrowings comprised varying debt maturity mainly from 10 years to 15 years (For details see Uttar Pradesh Budget Document (2007-08)- Vol. II, Annexure 1, pp. 9.01). However, since then market borrowings are of mostly 10 years maturity (For details see Uttar Pradesh Budget Document (2012-13) - Vol. II, Statement 1, pp. 8.01). Barro (1997) said that the stylized fact that long-maturity debt tends to be more expensive than short-maturity debt, is not so obviously rationalized, because, in principle, governments can default on both short and long term debt. Although there is no optimum maturity period but, from the point of view of cost of debt, maturity may not be the main issue as interest rate on government debts and securities is often administered interest rate.

However, one thing is sure that the market borrowings which were earlier of varying maturity period are now issued mostly for stable maturity periods i.e. 10 years. The 10 years maturity period is neither very long nor a short time period. A stable maturity for different market borrowings provides certainty in payment cycle and gives sufficient flexibility for sound debt management.

The challenge against the state debt managers is to maintain this momentum which is not an easy task looking at the economic scenario of the state. Economic growth of the state has not been very encouraging in last 3 years and growth projections are also moderate. Slowdown in growth will adversely affect state's revenue collections (both direct and indirect). On the contrary to this, expenditure is on the rise on the same rate. Thus, tough time lies ahead for the policy makers. Although, some fiscal space is there for high public debt but it should not make policy makers complacent.

4.5 Contingent liabilities

According to the RBI, "contingent liabilities are obligations triggered by a discrete event that may or may not occur. The distinction between government's contingent and non-contingent liabilities is that nominal obligation and the settlement date of the latter are fixed at the date of issue, whereas in case of former (contingent liabilities), the contractual obligation is dependent on its timing and amount, on the occurrence of an event such as, default by the principal obligant / borrower." According to FRBM Act, 2004, the State Government should not give guarantee for any amount exceeding the limit stipulated under any rule or law of the State Government. However, the state government had not formulated any law or any rules for determining the level of the guarantees to be given by the State Government (CAG, 2016). The government had also not set up any fund for meeting contingent liabilities as recommended by the Twelfth and onwards Finance Commissions.

As a result of this, the Guarantee Fee charged by the Government on the outstanding guarantees formed a part of the Revenue Receipts rather than being kept in the designated fund to meet any outgo in the eventuality of invoking of the State guarantees (CAG, 2016).

Table 4.3: Contingent Liabilities of UP Government (in Crore)

Year	Maximum amount guaranteed	Outstanding amount of guarantees (including Interest)	Percentage of total amount guaranteed to total revenue receipt
2005-06	15073	8433	33.24
2006-07	12235	11056	20.19
2007-08	18144	12736	26.42
2008-09	27892	16084	35.84
2009-10	29311	20038	30.40
2010-11	29778	20162	26.78
2011-12	29629	21752	22.64
2012-13	50459	43337	34.58
2013-14	69752	62822	41.47
2014-15	78023	70740	40.34
2015-16	78826	57618	34.71

Source: CAG Reports on State Finance.

The status of contingent liabilities of UP government is given in the table 4.3. Maximum amount of guarantees have risen more than five times from Rs. 15073 crore in 2005-06 to Rs. 78826 crore in 2015-16. The outstanding amount of guarantees (including interest) first increased from Rs. 8433 crore (2013-14) to Rs. 70,740 crore (2014-15) then it decreased to Rs. 57618 crore in 2015-16. The maximum amount guaranteed in 2015-16 was for three institutions of power sector (Rs. 72214.23 crore), 11 institutions of other sectors (Rs. 2730.52 crore), two banks of co-operative sector (RS. 2670.42 crore) and one institution of State Financial Corporation (Rs 1,210.47 crore).

As a percentage of Total Revenue Receipts, the maximum amount guaranteed showed fluctuating trend. From a low level of 20.19 percent in 2006-07, it went up to 35.84 percent in 2008-09. Then again it came down to 22.64 percent in 2011-12 before reaching all time high of 41.47 percent in 2013-14 during the study period. However, it has decreased from 41.47 per cent in 2013-14 to 34.71 per cent in 2015-16. The outstanding amount of guarantees, including interest, as on 31 March 2016 against State Financial Corporation was (Rs. 27.46 crore - one institution), Power sector (Rs. 54,428.82 crore - three institutions), Co-operative (Rs. 1,895.04 crore - two institutions) and for Other Institutions (Rs. 1,267.03 crore - 11 institutions) (CAG, 2016).

4.6 Summing up

Debt reaching to unsustainable levels lead to increased vulnerability of state finances by growing debt servicing burden along with leaving lesser fiscal space for the State to carry out developmental activities. As State governments are increasingly accessing the market for financial resources, governments with unsustainable debts and poor fiscal affairs might not get adequate market response to their bond issues and it may also get reflected in high cost through high risk premium and problems in marketing of their debt (RBI, 2004).

The fiscal situation of the state seems to be under control. This cannot be called a sheer coincidence that the post-FRBM Act years and the fiscal improvements are overlapping. Fiscal management in the state has definitely been benefitted from the fiscal rules legislation. Fiscal reforms taken under the umbrella of fiscal rules policy paid off. Under the States' Fiscal Reform Facility, a Medium Term Fiscal Reforms Programme (MTFRP) was taken up.

Debt *per se* may not be bad. It depends on the utilisation of funds raised through borrowings. The use of public debt to finance only current expenditure poses the risk of accumulation of debts rising to unsustainable levels. A steady decline in debt stock and consequently in debt servicing were visible. Not only the overall debt burden reduced during this time period but significant changes in its component and effective interest rate were also evident. Decline in dependence on the loans and advances from the Center and increased reliance on internal debt was the major highlight of the component changes. The share of market borrowings is growing and that of NSSF is declining. This is what has been observed for majority of the state governments.

This implies two things. First, due to improved fiscal health of the state governments, they are able to build good reputation in the market, hence, now have easier access to large amount of funds. Second, decline in the share of NSSF will lead to lower interest burden. The Gopinath Committee had also suggested a reduction in the mandatory share of State governments in the collection of small savings under NSSF from 80 per cent to 50 per cent. The main argument behind reducing the share of NSSF is to "equalise the burden shared by the Centre and the States, as the interest rates on borrowings from the NSSF are higher than the market rates."

With market borrowings becoming a predominant instrument of financing the fiscal deficit of the States, there are many new challenges as well.

RBI (2012) warned and suggested that this would necessitate the central bank "to sensitise the States to build cushions for timely repayments of their future liabilities as also for unforeseen contingences, which would be essential to maintain the confidence of investors in State Government securities in a market-driven system."

Table 4.4: Trend in Revenue and Fiscal Deficit in U.P. (in Crore)

Year	Gross Fiscal Deficit	FD/GSDP (%)	Revenue Deficit	RD/GSDP (%)	Primary Deficit	PD/GSDP(%)	RD/FD(%)
2005-06	10078	3.44	1268	0.43	1125	0.38	12.58
2006-07	9615	2.86	-4901	-1.46	980	0.29	-50.97
2007-08	13794	3.6	-3449	-0.9	-861	-0.22	-25.00
2008-09	20557	4.62	-1862	-0.42	2974	0.67	-9.06
2009-10	18693	3.57	-7050	-1.35	9282	1.77	-37.71
2010-11	17248	2.87	-3510	-0.58	3032	0.51	-20.35
2011-12	15430	2.25	-6984	-1.02	-48	-0.01	-45.26
2012-13	19240	2.34	-5180	-0.63	2467	0.3	-26.92
2013-14	23680	2.52	-10070	-1.07	6582	0.7	-42.52
2014-15	32510	3.21	-22390	-2.21	13153	1.3	-68.87
2015-16	58480	5.22	-14340	-1.28	36955	3.3	-24.52

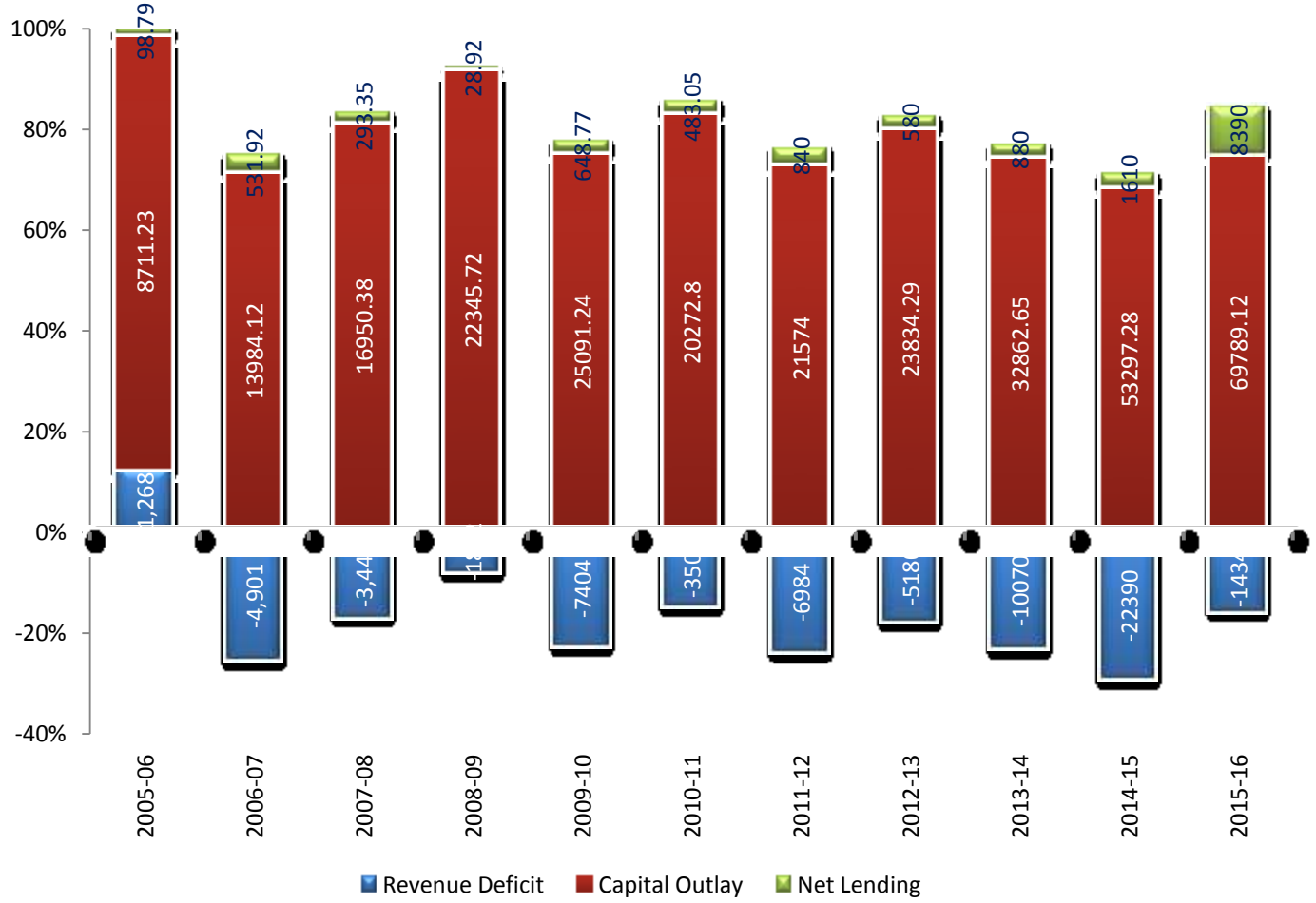
Source: Calculations based on RBI, India.

Table 4.5: Composition of Fiscal Deficit (in crore)

Year	Revenue Deficit	Capital Outlay	Net Lending	Fiscal Deficit
2005-06	1,268	8711.2	98.79	10,078
2006-07	-4,901	13984	531.92	9,615
2007-08	-3,449	16950	293.35	13,794
2008-09	-1862	22346	28.92	20,513
2009-10	-7404	25091	648.77	18,336
2010-11	-3508	20273	483.05	17,248
2011-12	-6984	21574	840	15430
2012-13	-5180	23834	586	19240
2013-14	-10070	32863	887	23680
2014-15	-22390	53297	1603	32510
2015-16	-14340	69789	3031	58480
		as percent of GFD		
2005-06	12.58	86.44	0.98	
2006-07	-50.97	145.44	5.53	
2007-08	-25.00	122.88	2.13	
2008-09	-9.08	108.93	0.14	
2009-10	-40.38	136.84	3.54	
2010-11	-20.34	117.54	2.80	
2011-12	-45.26	139.82	5.44	
2012-13	-26.92	123.88	3.01	
2013-14	-42.53	138.78	3.75	
2014-15	-68.87	163.94	4.93	
2015-16	-24.52	119.34	5.18	
		as percent of GSDP		
2005-06	0.46	3.15	0.04	3.64
2006-07	-1.58	4.51	0.17	3.10
2007-08	-1.00	4.92	0.09	4.01
2008-09	-0.46	5.58	0.01	5.12
2009-10	-1.64	5.54	0.14	4.13
2010-11	-0.61	3.53	0.08	3.00
2011-12	-1.02	3.50	0.12	2.25
2012-13	-0.63	2.90	0.07	2.34
2013-14	-1.07	3.50	0.09	2.59
2014-15	-2.21	5.30	0.16	3.21
2015-16	-1.28	6.20	0.30	5.22

Source: Calculations based on RBI, India.

Figure 4.6: Composition of Fiscal Deficit (%)



Source: Author's calculations based on RBI data.

Table 4.6: Financing of Fiscal Deficit:

Year	Market Borrowings	Loans from Centre	Special Securities issued to NSSF	Loans from financial Institutions	State Provident Funds, etc.	Reserve Funds	Deposits and Advances	Suspense and Miscellaneous	Remittances	Others	Overall Surplus / Deficit	Gross Fiscal Surplus / Deficit (+) (Col.2 to 12)
1	2	3	4	5	6	7	8	9	10	11	12	13
In Rs. Crore												
2005-06	2007	35	6734	234	1960	3162	3339	755	140	136	-8424	10078
2006-07	2219	-1795	5831	3	2733	2962	1794	2277	407	176	-6992	9615
2007-08	2628	-821	1423	1025	2451	3247	2683	654	273	-57	288	13794
2008-09	10296	-778	426	580	2944	2760	-2525	974	78	-369	6128	20513
2009-10	11420	-920	3900	1030	3870	-4470	90	-1370	0	-530	5660	18690
2010-11	10070	-940	5410	180	4870	2340	1840	760	370	-760	-6900	17250
2011-12	12830	-1000	390	-240	3630	5490	-2040	610	-210	-900	-3140	15430
2012-13	6260	-1100	2430	-100	3340	4390	1750	3540	990	-570	-1700	19240
2013-14	5050	-1080	2770	490	2360	7950	5040	-9640	-100	-330	11150	23680
2014-15	13510	-870	6320	650	1690	-2690	1050	540	1610	4560	6150	32510
2015-16	25300	-800	4340	610	1530	2560	-1540	-680	-200	29280	-1930	58480
As percent of GFD												
2005-06	19.91	0.35	66.82	2.32	19.45	31.38	33.13	7.49	1.39	1.35	-83.59	100
2006-07	23.08	-18.67	60.64	0.03	28.42	30.81	18.66	23.68	4.23	1.83	-72.72	100
2007-08	19.05	-5.95	10.32	7.43	17.77	23.54	19.45	4.74	1.98	-0.41	2.09	100
2008-09	50.19	-3.79	2.08	2.83	14.35	13.45	-12.31	4.75	0.38	-1.8	29.87	100
2009-10	61.1	-4.92	20.87	5.51	20.71	-23.92	0.48	-7.33		-2.84	30.28	100
2010-11	58.38	-5.45	31.36	1.04	28.23	13.57	10.67	4.41	2.14	-4.41	-40	100
2011-12	83.2	-6.5	2.6	-1.5	23.5	35.6	-13.2	3.9	-1.4	-5.8	-20.4	100
2012-13	32.6	-5.7	12.6	-0.5	17.4	22.8	9.1	18.4	5.1	-2.9	-8.8	100
2013-14	21.3	-4.5	11.7	2.1	10	33.6	21.3	-40.7	-0.4	-1.4	47.1	100
2014-15	41.6	-2.7	19.5	2	5.2	-8.3	3.2	1.6	4.9	14	18.9	100
2015-16	43.3	-1.4	7.4	1	2.6	4.4	-2.6	-1.2	-0.3	50.1	-3.3	100

Source: Calculations based on RBI, India.

Table 4.7: Total Outstanding Debt and Interest Liability of the State

Year	Outstanding Debt (in Crore)	Outstanding Debt/ GSDP (%)	IP/GSDP (%)	IP/RR (%)	IP/RE (%)
2005-06	128935.83	41.6	3.1	20.06	19.5
2006-07	137914.92	38.8	3.1	17.29	18.8
2007-08	147164.72	36.4	2.8	15.76	16.6
2008-09	157016.25	33.4	2.6	14.62	15
2009-10	174971.63	31.7	2.3	12.43	13.4
2010-11	196639.91	31.0	2.4	13.2	13.2
2011-12	209227.32	28.9	2.3	11.8	12.5
2012-13	225123.59	27.4	2.1	11.6	12
2013-14	241685.87	25.7	1.9	10.4	11
2014-15	266820.69	26.4	1.9	9.8	11
2015-16	323935.66	28.9	1.9	9.4	10.1

Source : Outstanding debt taken from Budget document of Uttar Pradesh and Interest liability from RBI data.

Note : IP- Interest Payment; RR- Revenue Receipts; RE- Revenue Expenditure.

Table 4.8: Composition of Outstanding Debt (in Crore)

Year	Market Borrowing	Small Savings	Loans & Advances from FIs	Power Bonds	Loans & Advances from CG	Provident & Pension Fund	Deposits & advances	Other liabilities	Outstanding Debt
2005-06	28494.85	36534.75	3802.94	5871.86	23747.17	21035.39	9407.33	41.54	128935.8
2006-07	30762.62	43607.27	4121.27	5578.27	23224.91	23601.79	6977.19	41.6	137914.9
2007-08	33392.92	43788.71	4987.89	4697.49	21131.09	23996.84	15114.43	55.35	147164.7
2008-09	43688.78	44214.61	5028.45	4110.3	20352.63	26401.73	13164.4	55.35	157016.3
2009-10	55022.97	48113.19	5446.12	3523.12	19435.43	30137.18	13238.28	55.34	174971.6
2010-11	65006.63	53527.8	6753.12	2935.93	18498.42	35000.93	14861.74	55.34	196639.9
2011-12	77840.91	53922.69	6474.86	2348.75	17499.47	38636.19	12480.41	24.04	209227.3
2012-13	84103.42	56351.56	6349.9	1761.56	16400.26	41935.55	18197.31	24.04	225123.6
2013-14	89157.44	59119.36	6817.74	1174.37	15324.84	44297.81	25771.3	23.01	241685.9
2014-15	102666.9	65444.26	9280.93	5857.32	14450.24	45480.38	23617.64	23.01	266820.7
2015-16	127967.87	69782.94	8270.25	34872.73	13636.63	47014.66	22367.46	23.12	323935.7
As percent of GSDP									
2006-07	8.66	12.28	1.16	1.57	6.54	6.64	1.96	0.01	38.82
2007-08	8.25	10.82	1.23	1.16	5.22	5.93	3.74	0.01	36.38
2008-09	9.30	9.41	1.07	0.88	4.33	5.62	2.80	0.01	33.43
2009-10	9.95	8.70	0.99	0.64	3.52	5.45	2.40	0.01	31.65
2010-11	10.25	8.44	1.07	0.46	2.92	5.52	2.34	0.01	31.01
2011-12	10.75	7.45	0.89	0.32	2.42	5.34	1.72	0.00	28.90
2012-13	10.23	6.85	0.77	0.21	1.99	5.10	2.21	0.00	27.37
2013-14	9.48	6.29	0.73	0.12	1.63	4.71	2.74	0.00	25.70
2014-15	10.15	6.47	0.92	0.58	1.43	4.50	2.33	0.00	26.37
2015-16	11.43	6.23	0.74	3.11	1.22	4.20	2.00	0.00	28.93
As percent of total Outstanding Debt									
2006-07	22.31	31.62	2.99	4.04	16.84	17.11	5.06	0.03	100
2007-08	22.69	29.75	3.39	3.19	14.36	16.31	10.27	0.04	100
2008-09	27.82	28.16	3.20	2.62	12.96	16.81	8.38	0.04	100
2009-10	31.45	27.50	3.11	2.01	11.11	17.22	7.57	0.03	100
2010-11	33.06	27.22	3.43	1.49	9.41	17.80	7.56	0.03	100
2011-12	37.20	25.77	3.09	1.12	8.36	18.47	5.97	0.01	100
2012-13	37.36	25.03	2.82	0.78	7.29	18.63	8.08	0.01	100
2013-14	36.89	24.46	2.82	0.49	6.34	18.33	10.66	0.01	100
2014-15	38.48	24.53	3.48	2.20	5.42	17.05	8.85	0.01	100
2015-16	39.50	21.54	2.55	10.77	4.21	14.51	6.90	0.01	100

Source: Calculations based on RBI, India.

Table 4.9: Domar Condition for Debt Sustainability for Uttar Pradesh (in %)

Year	At Current Prices		Primary Deficit as percent of GSDP (p)	d_{t-1} (i - n) + $p_t \leq 0$
	GSDP Growth Rate (n)	Average Interest Rate (i)		
2005-06			0.38	
2006-07	14.72	8.54	0.29	-256.86
2007-08	13.89	8.21	-0.22	-220.53
2008-09	16.10	8.30	0.67	-283.05
2009-10	17.70	8.10	1.77	-319.22
2010-11	14.69	8.70	0.51	-189.20
2011-12	14.20	8.47	-0.01	-177.60
2012-13	13.58	8.09	0.30	-158.50
2013-14	14.34	7.73	0.70	-180.25
2014-15	7.60	7.80	1.30	6.62
2015-16	12.40	8.16	3.30	-108.31

Source: Calculated from RBI and U.P Government Budget data.

Chapter V

Implementation of FRBM Act and commitment towards targets

5.1 Introduction

The *Fiscal Responsibility and Budget Management Act* passed in UP in February 2004 aimed at ensuring fiscal consolidation and sustainability, while enhancing the scope of improving social and physical infrastructure as well as human development. The Act emphasized the need for achieving revenue surplus, attenuation in fiscal deficit and prudent management of debt. It envisioned limit on fiscal and revenue deficits as well as government guarantees. It envisaged fiscal targets for the state government to be achieved in the given time frame (Maurya, 2014). The following specific targets have been laid down in the Act:

(a) Reduction of the revenue deficit to nil within a period of five financial years beginning from the 1st day of April 2004 and ending on the 31st day of March 2009;

(b) Reduction of fiscal deficit to not more than three per cent of the estimated Gross State Domestic Product by 31st day of March 2009; and,

(c) Reduction in total liabilities of the government to twenty-five percent of estimated gross state domestic product within a period of fourteen financial years, beginning from the initial financial year on the 1st day of April, 2004, and ending on the 31st day of March 2018.

The Act also stipulates that wherever there is a prospect of either shortfall in revenue or excess of expenditure over pre-specified levels for a given year on account of any new policy decision of the State Government that affects either the State Government or its Public Sector Undertakings, State

Government, prior to taking such policy decision, shall take measures to fully offset the fiscal impact for the current and future years by curtailing the sums authorized to be paid and applied from and out of the Consolidated fund of the State under any Act to provide for the appropriation of such sums, or by taking interim measures for revenue augmentation, or by taking up a combination of both.

5.2 The Revised MTFR Policy

A revised MTFRP for the period of 2004-05 to 2008-09 was prepared and the following targets were fixed:

1. To bring down revenue deficit to zero by the end of 2008-09.
2. To reduce fiscal deficit to 3 percent of GSDP by the end of 2008-09.
3. To re-prioritise expenditures so that unproductive expenditures can be reduced.
4. To stabilise debt/ GSDP ratio and reduce it to sustainable levels.
5. To meet out these targets, a three sector strategy was formulated covering (a) revenue augmentation, (b) reprioritization of expenditures, and (c) reforms in expenditure management.

The revenue augmentation strategy included the following measures:

1. To increase own tax revenue as percent of GSDP from 5.0 percent in the year 1999-2000 to 8.3 percent by 2008-09.
2. Attaining an annual growth of 13 percent in own tax revenue.
3. As per Entry Tax Act 22 new categories of commodities were brought under the net of entry tax.
4. Motor Vehicle Act was amended to incorporate provision of annual revision of motor vehicle tax as well as to impose tax on the vehicles entering into the state from the other states.

5. To avoid undervaluation of land transactions and ensure right valuation, district magistrates were authorized to update rates annually. Computerisation of land records has also been made to avoid malpractices.
6. User charges on various public and semi government services were revised and reforms were taken in phased manner to ensure right distribution of subsidy to the needy section of the society.
7. Revision of royalties from mines was also made.

For reprioritization of expenditure, following main decisions were taken:

1. Except education, police and medical and health departments, no new appointments will be made except in exceptional cases.
2. Reforms will also be taken to improve the state pension system on the line of New Pension Scheme of central government.
3. Infrastructure development has been assigned highest priority.
4. Reduction in subsidy and reduction in budgetary support to the loss making state public enterprises.

For the efficient management of expenditure, automation of treasury operations was promoted. It was also proposed that high priority development expenditure should be marked and assessed at every six months. Efforts should be made to make budget estimates accurate and transparent so that dependence on contingency fund may be reduced. To limit government securities to manageable limits, it was proposed to bring Guarantee Limitation Act and setup a Guarantee Redemption Fund as per guidelines of Reserve Bank of India.

Some important accounting changes were made in the year 2009-10. Earlier, state government grants given to the autonomous institutions under government and other institutions were shown in the revenue account. Due to which the true picture of expenditure made on asset creation in the state

was not reflected correctly. Therefore, for prudent financial management from 2009-10 budget onwards, the abovementioned expenditure is charged under the head of 'Item – 48: government aid for capital expenditure' in the capital account. Besides earlier establishment expenditure and interest amount of Food and Civil supplies Department were recorded in revenue account, but after 2009-10 these are shown in the capital account as 'Item no. 4408- Capital Expenditure on Food Storage and Warehousing'.

5.3 Projections made under MFRP

The following projections were made under MFRP 2012-13:

Table 5.1: Fiscal Targets for the Year 2015-16 (As percent of GSDP)

Resources	Target	Actual	Expenditure	Target	Actual
Own tax revenue	9.6	7.24	Salary	3.7	-
Non tax revenue	4.8	4.91	Pension	2.8	2.16
Share in central taxes	8.3	8.12	Interest	2.6	1.92
Grants in aid from the center	3.0	2.85	Capital outlay	6.1	6.23

Source: Uttar Pradesh Budget Documents, 2012-13 & 2017-18.

Table 5.2: Difference between FRBM Targets and Actual Performance (As Percent of GSDP)

Year	Revenue Deficit/GSDP		Fiscal Deficit/GSDP		Outstanding Debt/GSDP		Own Tax Revenue/GSDP		Nominal GSDP Growth Rate	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
2005-06	1.7	0.43	4	3.44	48.9	41.6	7.1	6.09	12	12.39
2006-07	1.1	-1.46	3.6	2.86	48.5	38.8	7.3	6.47	12	14.72
2007-08	0.6	-0.9	3.2	3.6	47.7	36.4	7.6	6.17	12	13.89
2008-09	0	-0.42	3	4.62	46.6	33.4	7.9	6.1	12	16.10
2009-10	-0.4	-1.35	5.3	3.57	40	31.7	7.6	6.13	13	17.70
2010-11	-0.1	-0.58	4.4	2.87	38.7	31.0	8.3	6.52	13	14.69
2011-12	-0.88	-1.02	2.97	2.25	32.09	28.9	7.9	7.27	13	14.20
2012-13	-0.81	-0.63	2.96	2.34	31.37	27.4	8.5	7.06	11.5	13.58
2013-14	-0.85	-1.07	2.93	2.52	31.06	25.7	8.9	7.08	11.5	14.34
2014-15	-0.86	-2.21	2.93	3.21	30.79	26.4	9.2	7.33	11.5	7.60
2015-16	-0.88	-1.28	2.92	5.22	30.54	28.9	9.6	7.24	11.5	10.68

Source: Uttar Pradesh Budget Documents.

Target rates for different fiscal indicators for the year 2015-16 as per MFRP, 2012-13 are given in the table 5.1. These targets are given as percent of

GSDP. Table 5.2 provides a scenario of target (as per MFRP of the state) and actual performance of different fiscal indicators from 2005-06 to 2015-16. There are two main observations which are getting reflected from the table. In terms of debt and deficit indicators, the UP government has been able to achieve its debt and deficit targets almost for every year. Whereas in the case of own tax revenue, it has not been able to achieve its targeted rate even for a single year. Discussion on each indicator is as follows.

5.3.1 Revenue deficit

The state government has not only been able to achieve targets but it performed beyond. Since 2006-07, UP is continuously reporting revenue surplus and its surplus has always been more than the target. As per FRBM Act, the state government should reduce the revenue deficit to zero and make efforts to earn revenue surplus which the state has been able to achieve it.

5.3.2 Fiscal Deficit

The scenario in the case of fiscal deficit is quite similar to the revenue deficit but with few differences. The government was not being able to achieve target rate of fiscal deficit in years 2007-08 & 2008-09 and in the recent years i.e. 2014-15 and 2015-16. The recent deviations from the target are significant (by 2.30 points) as the actual value exceeded by more than 75 percent of the target rate. The FRBM Act mandates fiscal deficit of below 3 percent. The UP government has brought down its fiscal deficit below 3 percent in 2010-11 and maintained it till 2013-14.

5.3.2 Outstanding Debt

In the case of outstanding debt too, the state has done well. The outstanding debt gradually reduced below 30 percent in 2011-12 and from then onward it remained below 30 percent. However, an increasing trend

has been observed in the recent years which in synchronous with rise in fiscal deficit.

5.3.3 Own Tax revenue

The state has always fell short of own tax revenue targets. The gap between target and actual performance has gone up in the recent years. It was around one percentage point during early years which has gone up to more than two percentage points in the later years of the selected period of the study.

Although, the achievement of debt and deficit targets are commendable but failing to achieve revenue target is a matter of serious concern. UP government should revisit their own tax revenue target and the assumptions upon which these targets are based. It can also be seen that targets of revenue resources are not being met whereas expenditure targets have been achieved. This implies that FRBM targets are being met through revenue reduction policies not through revenue enhancement.

5.4 Analysis of MTFP of various departments and aggregate

A format of medium-term fiscal reform policy (MFRP) was ascertained under Uttar Pradesh Fiscal Responsibility and Budget Management Rules, 2006. Thereafter MFRPs are prepared as per this format along with the presumptions made for making medium-term targets.

In the budget 2017-18, as per the provisions of the Act and Rules, the MFRP (2017) has been prepared. Under this policy, estimates have been presented for following three years i.e. 2018-19, 2019-20 and 2020-21. Following assumptions were taken for MFRP, 2017:

1. Gross State Domestic product: Taking the base year of 2011-12, advance estimates are prepared on the basis of new series.

Estimates of GSDP are taken same as taken by the Central government for the year 2016-17 and for 2017-18 and for next years, 14th Finance Commissions estimates have been taken.

2. Base Year: Receipts and expenditures are estimated by taking 2017-18 as base year.
3. During MFRP period, own tax revenue are assumed to increase by 10 percent per annum.
4. Non-tax revenues assumed to grow at 6 percent per annum.
5. State's share in central taxes assumed to grow at 12 percent per annum during the selected period.
6. Grants-in-aid are supposed to grow at the rate of 10 percent per annum.
7. Revenue expenditure: Due to an unexpected rise in revenue expenditure in 2017-18 because of loan repayment of small and marginal farmers, assuming 11 percent growth per annum on the basis of 2016-17 values for the consecutive two years, estimates were calculated for 2018-19. Same growth rate has been taken for next two years estimates.
8. Salary expenditure on state employees and state government aided institutions' employees are assumed to grow at the rate of 10 percent. Pensions are also assumed to grow by 10 percent per annum. Rate of interest on public debt is assumed to be 9 percent.
9. Capital expenditure for 2018-19 is estimated on the basis of 2016-17 taking growth rate of 15.5 percent for two years. For the next two years, 11.5 and 11 percent growth has been assumed. Loans and advances are assumed to grow at 10 percent per annum.

5.5 Departmental targets

Sales tax department, entertainment tax department, excise department, transport department, registry department, forest

department, mining & minerals department, and irrigation department are the main sources of the revenue. Department-wise steps taken in the recent years to increase the resources are as follows:

5.5.1 Sales Tax Department

Uttar Pradesh Government has also adopted GST from 1st July, 2017 which amalgamated all other indirect taxes. Following efforts have been made by the department to increase the resources:

- 4 percent additional tax has been imposed on Cement.
- 5 percent entry tax on high density polythene (HDPE) and polypropylene (PP) un-laminated bags.
- 5 percent entry tax on high density polythene (HDPE) and polypropylene (PP) un-laminated fabrics.
- 5 percent entry tax on all online purchase of goods except goods listed in Schedule I under VAT Act.

5.5.2 Transportation Department

- Increase in tax on the diesel run non-transport vehicles.
- New revenue sources are being generated through advertisement, parcel/courier services in corporation's buses and tourist plaza

5.5.3 Stamp and Registry Department

- Annual valuation of circle rates w.e.f. 1-08-2014 in the districts on the place of once in a two years.

5.5.4 Entertainment tax

- Incentive scheme for reopening of closed theaters from 16-12-2016 without any additional investment. 30 percent of collected entertainment tax will be given as grant for the same.

- 50 percent of three years collected entertainment tax will be given as grant to the loss making theaters to remodel into multiplexes with commercial activities.
- From date of the approval of grant for the construction of single screen theater, there is an arrangement of grant 100 percent in first year, 75 percent in 2^{nd} and 3^{rd} year and 50 percent in 4^{th} and 5^{th} years.
- Entertainment tax on the cricket matches like international test match, one day match, T-20 has been waived off.

5.5.5 Excise Department

- Application processing of country made liquor has been increased from Rs. 10000 to Rs. 11000/- per application.
- Renewable fees of retailers of country made liquor increased from Rs. 1000 to Rs. 5000 per shop.
- 4 percent increase in MGQ of country made liquor.
- Increase in license fee of supply contract of country made liquor CL-1B by Rs. 60 lakhs per contract.
- Increase in the brand registration fee of country made liquor by Rs. 5000 per brand.
- Increase in the label approval fee of country made liquor by Rs. 5000 per label.
- Increase in the label approval of foreign liquor by Rs. 5000 to Rs. 50000 per label.
- Increase in brand registration fee of foreign liquor.
- Increase in the brand registration fee of imported liquor by Rs. 5000.
- Processing fee of model shops application increased by Rs. 1000 to Rs. 12000 per application.
- Renewable fees of retailers of model shops increased by Rs. 5000 per shop.

- Processing fee of beer shops application increased by Rs. 1000 to Rs. 11000 per application.
- Renewable fees of retailers of beer shops increased by Rs. 5000 per shop.
- Increase in the brand registration fee of beer by Rs. 5000 per brand.
- Increase in the brand registration fee of imported beer by Rs. 5000 per brand.
- Increase in the label approval of beer by Rs. 5000 to Rs. 30000 per label.

5.6 Debt burden on the state government

The expected estimate of outstanding debt as percent of GSDP was 28.6 percent. On the basis of this, outstanding debt as percent of GSDP has been aimed to keep at 29 percent of GSDP for the next three financial years.

To sum-up, it can be said that UP government is taking various steps to meet out its FRBM targets and follow MFRP framework. UP government has been able contain debt and major deficit indicators within prescribed limits. However, it will have to revise its strategy regarding revenue resources. Revenue realizations are falling behind the targets. For this purpose, government should implement measures to improve tax and non-tax revenues along with reprioritization of expenditure for enhanced allocative and technical efficiency as suggested in the previous chapters of this study.

Chapter VI

Analysis of the state's transfers to urban and rural local bodies in the State

6.1 Introduction

The 73rd and 74th Amendments of the Constitution have been a breakthrough event in the Indian democracy. The 73rd and 74th Constitutional Amendment Act (CAA) sought to empower the urban and rural local bodies to carry out their civic and development functions in an effective manner. These amendments provided a mechanism through which own tax revenue of the state government will be shared between urban local bodies (ULBs) and panchayati raj institutions (PRIs) or rural local bodies as similar to the arrangement of revenue sharing between the center and state governments through the central finance commission awards. Article 243I of the Indian Constitution prescribes that the Governor of a State shall, as soon as may be within one year from the commencement of the Constitution (Seventy-third Amendment) Act, 1992, and thereafter at the expiration of every fifth year, constitute a State Finance Commission to review the financial position of the Panchayats and to make recommendations to the Governor as to the distribution between the State and the Panchayats of the net proceeds of the taxes, duties, tolls and fees leviable by the State. The Article 243Y of the Constitution further provides that the Finance Commission constituted under Article 243I shall make similar recommendation vis-a-vis municipalities (CAG, 2015).

Present status of PRIs and ULBs is given in the following table 6.1. At present, there are 59162 Gram Panchayats, 821 Kshetra Panchayats and 75 Zila Panchayats in UP. In the case of ULBs, there are 426 Nagar Panchayats, 194 Nagar Palika Parishad and 14 Nagar Nigam.

Table 6.1: The Number of PRIs and ULBs in UP

Panchayati Raj Institutions		Urban Local Bodies	
Gram Panchayats	59,162*	Nagar Panchayats	426
Kshetra Panchayats	821	Nagar Palika Parishad	194
Zila Panchayats	75	Nagar Nigam	14

*(Source: Thirteenth Finance Commission, Director, Panchayati Raj, Lucknow and Census Report, 2011) * Increased due to de-limitation of constituencies*

6.2 Devolution scheme of State Finance Commissions (SFCs)

The devolution scheme of last four SFCs of Uttar Pradesh is given in table 6.2. Total amount of devolution of shareable resources to local bodies increased from 11 percent to 12.5 percent (as percent share of own tax revenue of the state) during first SFC to second SFC and it remained the same for third and fourth SFCs. The PRIs share increased from 4 percent to 5.5 percent during first to third SFC. However, fourth SFC kept it at 5 percent. The share of ULBs was 7 percent under first and third SFCs and 7.5 percent under second and fourth SFCs.

However, the allocation of devolved funds among ULBs and PRIs has seen regular changes. In the case of PRIs, the share of Gram Panchayats increased to 3.85 percent in thirds SFC award period from 2.8 percent from first SFC award period. Under the fourth SFC award period, the share of Gram Panchayats, Kshetra Panchayats and Zila Panchayats are 3.75 percent, 0.5 percent and 0.75 percent respectively. On the other hand, the share of Nagar Nigam, Nagar Palika Parishad and Nagar Panchayat are 3.15 percent, 2.85 percent and 1.5 percent respectively. The amount of funds devolved to the Nagar Panchayats has doubled from first SFC to fourth SFC award period.

6.3 Own Tax and non-tax revenue of PRIs and ULBs

It can be observed from table 6.3 that main source of own revenues of PRIs is non-tax sources whereas in the case of ULBs it is tax revenues. However,

the amount raised through these sources is not very significant. In the case of PRIs, total own revenues (tax + non-tax) constitute about 4 percent of total revenues only. On the other hand, the corresponding figure for ULBs is about 19 percent, significantly higher from PRIs.

Table 6.3: Own Tax and Non-tax Revenue of PRIs and ULBs (In Rs. Crore)

Year	PRIs		ULBs	
	Own Tax revenue	Own non-tax revenue	Own Tax revenue	Own non-tax revenue
2007-08	14.62	85.20	458.85	75.45
2008-09	15.02	85.75	457.96	140.95
2009-10	15.90	96.28	540.11	85.04
2010-11	15.75	124.60	565.91	84.87
2011-12	15.58	137.65	751.03	105.45
2012-13*	17.94	170.21	859.26	-
2013-14*	19.57	172.21	-	-
2014-15*	21.35	194.90	-	-

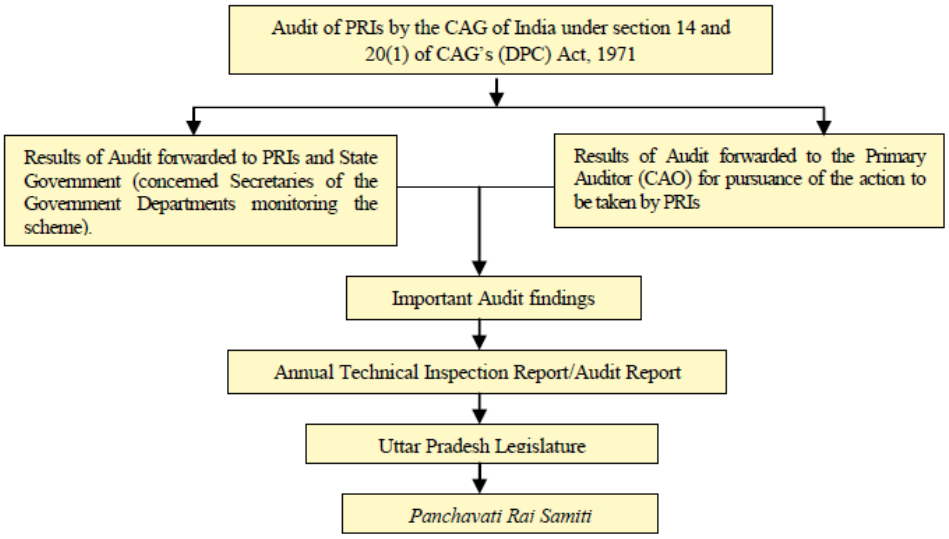
Source: 4th State Finance Commission Report. *Projected Figures as given in 4th State Finance Commission Report.

6.3.1 Mechanism of auditing of accounts of PRIs and ULBs[4]

In the case of PRIs, the Rule 186 of Uttar Pradesh *Panchayat Raj* (17th amendment) Act, 2011 laid down the provisions for tabling the Annual Report of Chief Audit Officer (CAO), Cooperative Societies and *Panchayats* and Annual Technical Inspection Report (ATIR) of the Comptroller and Auditor General of India (CAG) before the State Legislature. Chief Audit Officer, Co-operative Societies and *Panchayats* (CAO) is the primary auditor for all the three tiers of PRIs. In the case of ULBs, the Director, Local Fund Audit (DLFA) is the primary auditor of ULBs. As per section 8(3) of the Local Fund Audit Act, 1984, the DLFA is to prepare a consolidated audit report of accounts and forward to the State Government every year for laying it in each house of the State Legislature. The Eleventh Finance Commission recommended Technical Guidance and Support (TGS) for proper maintenance of accounts of local bodies and their audit by CAG**.**

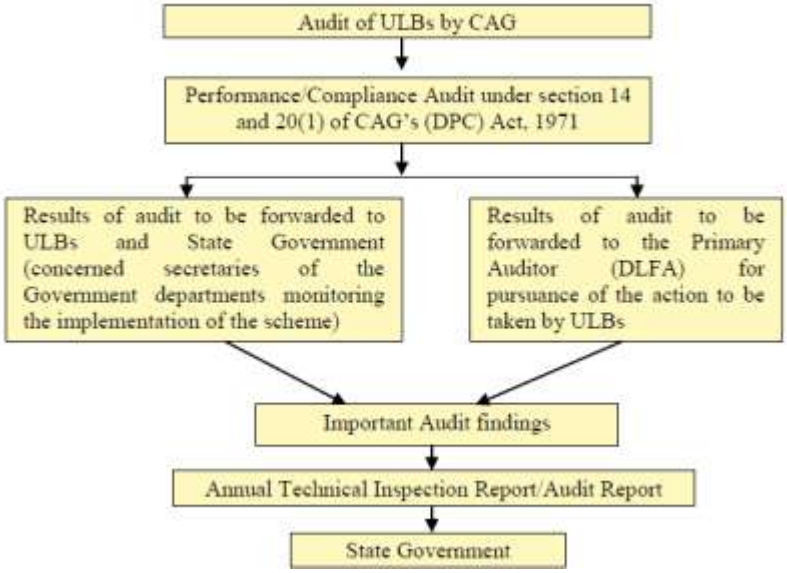
[4] This whole sub-section is mainly based upon the CAG (2015) Reports.

Chart 6.1: Mechanism of audit of PRIs by CAG



Source: CAG, 2015.

Chart 6.2: Mechanism of audit of ULBs by CAG



Source: CAG, 2015

Para 10.121 and 10.122 of the recommendations of Thirteenth Finance Commission stipulate that CAG is to be entrusted with TGS for all Local Bodies of all States and also provides that ATIRs of the CAG as well as Annual Report of the Director of Local Fund Audit should be placed before the State Legislature which will provide a credible assurance of the audit of accounts. The audit mandate of CAG regarding audit of PRIs is as under:

1. The Audit of accounts of PRIs is conducted by the CAG of India under section 14 and 20(1) of CAG's (DPC) Act, 1971. TGS to the audit of PRIs to CAO is given by the CAG under Section 20 (1) of CAG's (DPC) Act, 1971.
2. The result of audit/audit reports will be sent to the State Government, Director, PRI and CAO/ DLFA for pursuance of action to be taken by local bodies.

6.4 Allocation of funds to ULBs and PRIs

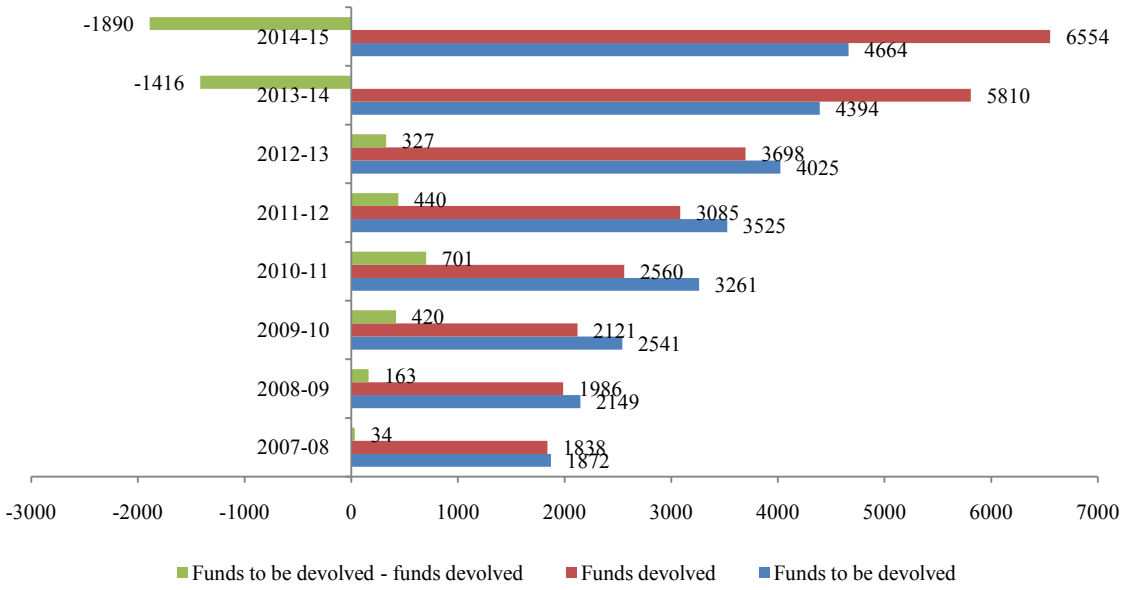
Table 6.4 and 6.5 present the status of allocated funds to the local bodies on the recommendation of the SFCs during 2006-07 to 2012-13. Total funds devolved were Rs. 2328.76 crores during 2006-07 which went up to Rs. 6244.62 crores in 2012-13 registering an average CAGR of 17.87 percent. Allocation of funds to ULBs increased to Rs. 1153.56 crores to Rs. 2559.51 crore from 2006-07 to 2010-11 registering a CAGR of 22.82 percent. The similar CAGR was also recorded for 2011-12 to 2012-13, duration. Allocation of funds to PRIs, however, grew slower than to ULBs registering a CAGR of 11.62 percent during the time period of 2006-07 to 2010-11 which increased moderately to 13.01 percent during 2011-12 to 2012-13.

Figures 1 and 2 are showing the gap between funds to be devolved and actual devolution to ULBs and PRIs during 2007-08 to 2014-15. Figure 3 shows the said gap as percent of funds to be devolved for ULBs and PRIs separately. Actual devolution of funds to the ULBs has been lesser than the funds to be devolved from 2007-08 to 2012-13.

The gap increased from a meager amount of 34 crores (1.82%) in 2007-08 to a significant level of 701 crores (21.50%) in 2010-11. From then onward, the gap is declining and in the years 2013-14 and 2014-15, the amount of fund devolved was much greater than the funds should have been devolved

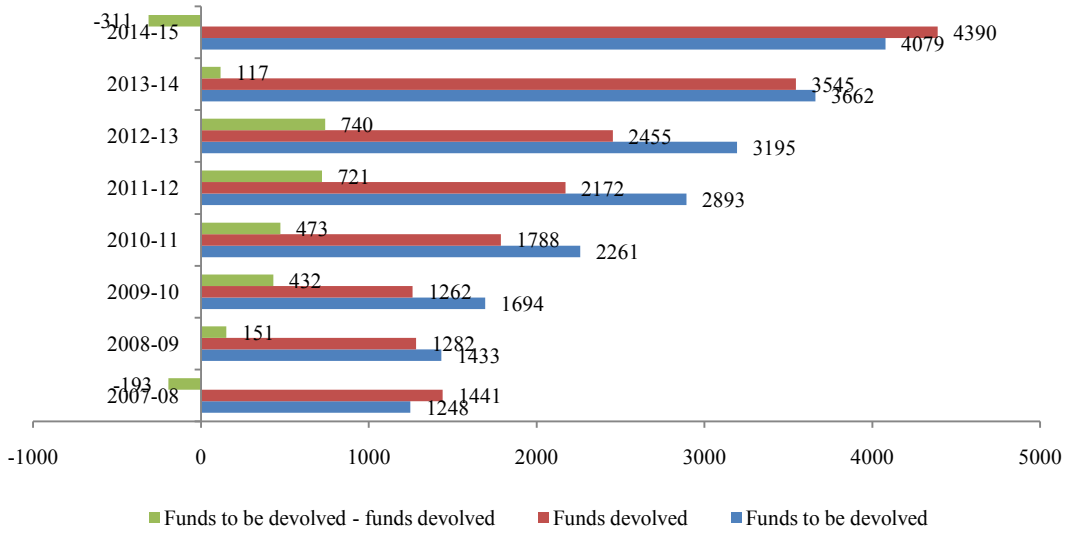
to ULBs. The actual funds devolved were 40.52 percent higher than the funds to be devolved.

Figure 6.1: Devolution of Funds to ULBs (Rs. Crore)



Source: Author's Calculations.

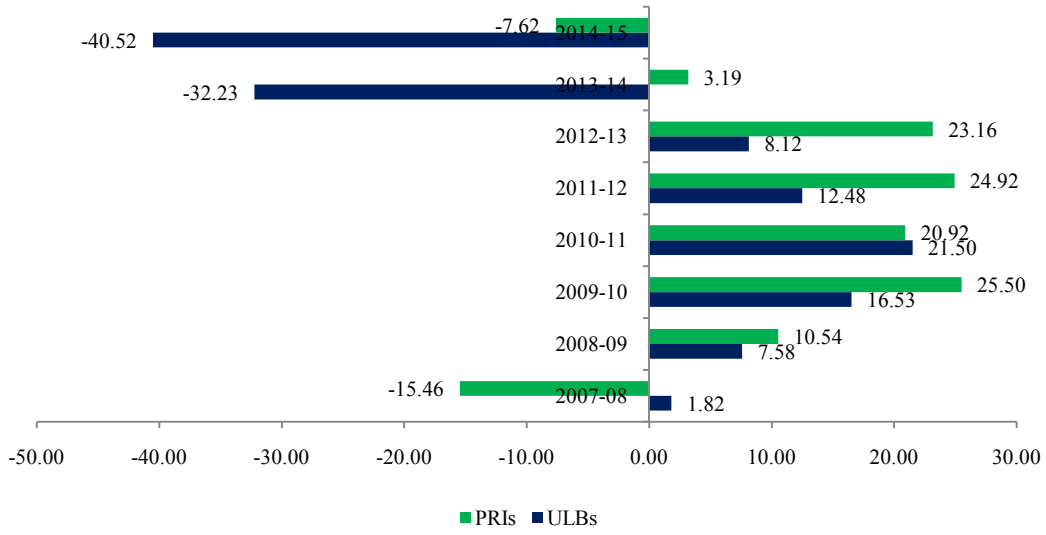
Figure 6.2: Devolution of Funds to PRIs (Rs. Crore)



In the case of PRIs, actual funds devolved were lower than funds to be devolved for the entire period except for 2007-08 and 2014-15 when

opposite was the case. The gap was more than 20 percent of funds to be devolved during 2009-10 to 2012-13.

Figure 6.3: The gap between funds to be devolved and funds devolved (as percent of funds to be devolved)



Source: Author's Calculations.

6.5 Major decentralisation initiatives

This section highlights the major decentralisation initiative regarding devolution of power and responsibility to the ULBs and PRIs, taken by the UP government. The recommended functions to be decentralized to the local governments by the state government have not been devolved yet. The functions which have been devolved to the local governments did not get enough financial resources to meet those responsibilities. In the case of PRIs, following functions are yet to be devolved to the Panchayats:

Table 6.6: Status of devolution of functions and financial resources to the Panchayats

S.n.	Function (as per XI Schedule of the Constitution)	Undertaken by the Agriculture Department. No decentralisation to the Panchayats.	Financial allocation for the function	Functions and finances were devolved in April 1999 but were taken back in July 1999
1	Agriculture including agri extension	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	Functions and finances were devolved but taken back due to order by the court.

2	Land development, land reclamation, consolidation of holding and land perseveration	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
3	Small irrigation, water management and development of water segregated areas	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
4	Animal Husbandry, Dairy and poultry farming	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
5	Fisheries	Panchayats are engaged in only leasing out the ponds for fisheries. Remaining work is undertaking the concerned department.	Yes	Gram Panchayats earn from lease of ponds.
6	Social forestry and forestry	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
7	Small forest produce	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
8	Small industries including food processing industries	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
9	Khadi, village and cottage industries	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
10	Rural Housing	Gram Panchayats only selects beneficiaries under Indira Awas and Dr. Ram Manohar Lohiya Awas through an open meeting of rural houses.	No	Amount is directly transferred to the beneficiaries account by the Rural Development Department. Construction and controlling are directly managed by Rural Development Department.
11	Drinking Water	Selection of places of hand pump was given to the Gram Panchayats but not active right now. Only repairing and minor repairing work of Marka-2 Hand pump is looked after by the Gram Panchayats.	No	
12	Fuel and Fodder	Gobar Gas and Bio gas plants are being operated in	Yes	Funds for gobar gas and bio gas plant are

		association with Rural Development Department. IN terms of fodder, nothing is undertaken by the Gram Panchayats.		allocated by the Rural Development Department. Supply of fodder is made available by the Animal Husbandry Department.
13	Road, underpass, bridges, Ferries, waterways and other transportations	Local road construction, construction of small bridges, underpass are undertaken by the Gram Panchayats. CC Road and K C drain are being constructed in association with Rural Engineering Department. However, ferries, waterways and communication works are not being performed by the GRam Panchayats.	No	Gram Panchayats get funds from Panchayati Raj Department and other sources for the construction of roads, bridges and underpasses etc. They construct these things by their own.
14	Rural electrification and distribution of electricity	Undertaken by the respective Department. No decentralisation to the Panchayats.	No	
15	Non-conventional sources of energy	Undertaken by the respective Department. No decentralisation to the Panchayats.	Yes	Gram Panchayats only send proposal regarding street lightings. Works regarding non-conventional energy/alternative energy is performed by the concerned department.
16	Poverty elimination programmes	Gram Panchayats are managing Swarna Jayanti Rojgar Yojana/MNREGA Scheme. Poverty elimination programmes are managed by the respective departments.	No	
17	Education including primary and upper primary	In the case of primary education, the Gram Panchayats participates in mid-day meal, scholarship and school management committee but they do not have any role in operation of upper primary schools.	No	
18	Technical and professional education	Undertaken by the respective Department. Rural artisan training program was supposed to be undertaken by the Gram Panchayats but nothing is happening right now.	No	
19	adult and informal education	The Gram Panchayats are not undertaking the adult and informal education.	No	
20	Libraries	There are no libraries in the gram panchayats. However, few magazines are newspapers	No	Gram Panchatayats did not get any fund from the administration or

		are kept by them.		from any department to setup libraries.
21	cultural activities	The Gram Panchayats are not undertaking any cultural activities.	No	Cultural activities are organised by Yuvak Mangal Dal established by the Yuva Kalyan Department.
22	Markets and Fares	Haat Bazaar and fairs are not directly organised by Gram Panchayats.	No	Establishment of Haat Bazaar and promotion of cleanliness works are directly performed by the Panchayati Raj Department.
23	Health and Cleanliness which includes Hospitals, Primary Health Centres and Pharmacy	The Gram Panchayats undertake the sweeping work of PHCs with the help Rs. 10000 received from the Health department. However, construction of toilets and cleaning works are undertaken by the Panchayati Raj Department. This work is not decentralized.	Yes	
24	Family welfare	Gram Pradhan only motivates villagers to adopt family welfare measures.	No	
25	Woman and Child Development	Woman and child development programmes were under the Gram Panchayats but presently these are not devolved to the Panchayats.	No	Due to complaint in the distribution of Nutritional Food and other works, this work was taken back in the year 2001.
26	Social Welfare which includes specially-abled person welfare	The Gram Panchayats only select the beneficiaries while pension approval etc. is managed by the Viklang Welfare Department.	No	
27	welfare of weaker sections especially SCs/STs	Gram Panchayats distribute scholarships to the children of weaker sections and SCs/STs from the Education Fund for the purpose open by the Gram Pradhan or Samiti.	Yes	
28	Public Distribution System	Selection of shopkeeper and beneficiaries are managed by Gram Panchayats through open meetings.	No	
29	Protection of community assets	Community assets are managed by Gram Panchayats themselves.	Yes	Gram Panchayats get funds from Panchayati Raj Department and other departments as well as from state finance and central finance commission to manage and maintain community assets.

Source: 4th State Finance Commission Report 2014, Uttar Pradesh.

It is evident from table 6.6 that devolution of functions to the Panchayat has been very slow. Even the functions, which have already been devolved to the panchayats, are devolved partially. The devolution of resources to meet out these devolved functions is even scarcer. To meet out the given functional responsibilities, gram panchayats are getting some funds in the form of recommendation of the state finance commissions and central finance commissions. The funds are given for the following functions:

1. Poverty elimination programmes (Limited functions)
2. Operation and maintenance of rural water supply schemes (limited responsibility)
3. Operation and maintenance of rural Markets and Haats (Limited responsibilities)
4. Rural cleanliness programmes/ Nirmal Bharat Abhiyaan (Limited responsibility)
5. Social welfare scholarship distribution (Limited responsibility)
6. Rural Libraries (Limited responsibility)
7. Youth Welfare Programmes (Limited responsibility)
8. Mid-day Meal Scheme (Limited responsibility)
9. Maintenance of Lamp Posts of rural area

It can be observed that these functions are nominal in nature and do not empower the PRIs to function as effective bodies for rural development. Not much headway has been made in UP towards functional distribution to the local bodies. No additional functions have been transferred to the PRIs since then. The political commitment of the State Government for real empowerment of PRIs has been missing. The PRIs have been reduced to perform some agency function only. The government programmes are planned and implemented through the line departments.

One of the initiatives for strengthening of local level planning at village, block, town and district panchayat levels is the ESD-GIS project, which aims

to set up GIS infrastructure and applications in the state of Uttar Pradesh to facilitate collection and dissemination of information at the local level. A funding of Rs. 5 crore has been allotted for the project which is jointly initiated by Economics & Statistics Division (ESD) of Planning Department, Government of Uttar Pradesh and NIC-UP State Unit (NIC-UPSU). The project has the following objectives:

- Creation of GIS infrastructure
- Creation/updation of digital base maps
- Development of thematic planning atlases
- Satellite imagery based application for integrated decentralised district planning
- Development of state GIS portal
- Development of multi-layered GIS system
- Human resource development

6.6 Functional Devolution to the ULBs

Out of total 18 functions to be performed by the ULBs as enlisted in the XIIth Schedule of the constitution, only 9 functions are exclusively performed by the ULBs. Among these, road and bridge works are undertaken in association with the respective government department and remaining other works are undertaken by the ULBs independently. The following functions would be performed exclusively by the ULBs:

- Roads and Bridges
- Water supply for domestic, industrial and commercial purposes.
- Public health, sanitation, conservancy and solid waste management.
- Provision of urban amenities and facilities such as parks, gardens and playgrounds.
- Burials and burial grounds, cremation and cremation grounds and electric crematoriums.

- Cattle ponds, prevention of cruelty to animals.
- Vital statistics including registration of births and deaths.
- Public amenities including street lighting, parking lots, bus stops and public conveniences.
- Regulation of slaughter houses and tanneries.

The following functions would continue to be performed by government departments / agencies as mentioned below:-

1	Fire services	Fire Fighting Department
2	Urban forestry	Forest Department
3	Protection of environment and Promotion of ecological aspects	Environment Department
4	Safeguarding the interest of Weaker sections of society including the handicapped and mentally retarded	Urban Poverty Alleviation through SUDA and DUDA and Employment Department
5	Slum improvement and up-gradation	Urban Poverty Alleviation through SUDA and DUDA and Employment Department
6	Urban planning including town planning	Urban Development Authorities in 22 cities and by ULBs in Remaining towns.
7	Regulation of land use and Construction of buildings	Development Authorities in 22 cities, Regulated area Authorities in 95 towns and ULBs in remaining towns
8	Planning for economic and social Development	Various Government Departments
9	Promotion of culture, education and aesthetic aspects	Sanskriti Vibhag, Awas evanm Shahari Niyojan Vibhag.

Thus, the functional devolution in case of ULBs has remained limited and truncated. These bodies also enjoy limited autonomy and remain under the effective control of the state government.

Table 6.2: The Share of Local Bodies in Own Tax Revenue of the State Government as Recommended by the State Finance Commission in UP (%)

Type of Local Body	First SFC	Second SFC	Third SFC	Fourth SFC
A. Panchayati Raj Institutions	**4**	**5**	**5.5**	**5**
Gram Panchayats	2.8	3.5	3.85	3.75
Kshetra Panchayats	0.4	0.5	0.55	0.5
Zila Panchayats	0.8	1	1.1	0.75
B. Urban Local Bodies	**7**	**7.5**	**7**	**7.5**
Nagar Nigam	3.125	3.2	2.8	3.15
Nagar Palika Parishad	3.125	3.2	2.8	2.85
Nagar Panchayat	0.75	1.1	1.4	1.5
Total Devolution	11	12.5	12.5	12.5

Source: Report of the Second State Finance Commission, UP.

Table 6.4: Allocation of Funds to Local Bodies on the Recommendation of the State Finance Commission: 2006-07 to 2012-13
(In Rs. Crore)

Year	Urban Local Bodies				Panchayati Raj Institutions				Total Local Bodies
	Nagar Nigam	Nagar Palika Parishad	Nagar Panchayat	Total ULB	Zila Panchayat	Kshetra Panchayat	Gram Panchayat	Total PRIs	
2006-07	454.39	535.05	164.12	1153.56	235	117.5	822.6	1175.2	2328.76
2007-08	927.52	867.05	303.05	2097.62	288.5	144.3	1009.8	1442.5	3540.12
2008-09	915.7	915.7	318.1	2149.5	256.3	128.2	897.2	1281.7	3431.2
2009-10	931.77	858.05	299.81	2090.27	252.4	126.2	883.5	1262.1	3352.37
2010-11	1033.88	1017.57	507.96	2559.51	364.8	182.4	1276.8	1824	4383.51
CAGR (2006-07 to 2010-11)	**22.82**	**17.43**	**32.64**	**22.05**	**11.62**	**11.62**	**11.62**	**11.62**	**17.13**
2011-12	1237.04	1237.04	618.52	3092.6	438.42	219.21	1534.47	2192.1	5284.7
2012-13	1506.93	1506.93	753.43	3767.29	495.47	247.73	1734.13	2477.33	6244.62
CAGR (2011-12 to 2012-13)	**21.81**	**21.81**	**21.81**	**21.81**	**13.01**	**13.01**	**13.01**	**13.01**	**18.16**

Source: Data obtained from Finance Department, UP Government.

Table 6.5: Devolution of Funds to Local Bodies on Recommendations of the State Finance Commission: 2007-15 (In Crore)

Year	Net Tax Revenue of state Government For ULBs	Urban Local Bodies		Net Tax Revenue of state Government For PRIs	Panchayati Raj Institutions		Funds to be devolved – funds devolved		Total Funds Devolved To Local Bodies	Devolution as % of OTR of State Govt.
		Funds to be devolved	Funds devolved		Funds to be devolved	Funds devolved	ULBs	PRIs		
2007-08	24959	1872	1838	24959	1248	1441	34	-193	3279	13.14
2008-09	28659	2149	1986	28659	1433	1282	163	151	3268	11.40
2009-10	33878	2541	2121	33878	1694	1262	420	432	3383	9.99
2010-11	43464	3261	2560	41110	2261	1788	701	473	4348	10.51
2011-12	50351	3525	3085	52613	2893	2172	440	721	5257	9.99
2012-13	57498	4025	3698	58098	3195	2455	327	740	6153	10.59
2013-14	62777	4394	5810	66582	3662	3545	-1416	117	9355	14.05
2014-15	66623	4664	6554	74172	4079	4390	-1890	-311	10944	14.75

Source: Report of the CAG on State Finances of UP-2015.

Chapter VII

Impact of State Public Enterprises finances on the State's financial health

7.1 Introduction

State public sector undertakings (SPSUs) provide a huge leverage to the government to intervene in the economy directly or indirectly to achieve the desired socio-economic objectives. At times, these objectives may be misplaced but at others SPSUs play a key role in steering the sub-national economy in the right direction. However, Nagraj (2015) rightly said "Though the public sector's contribution to national development is well acknowledged, inadequate financial return is its widely accepted drawback." In UP too, the financial health of SPSUs is not an exception and these SPSUs crippling with huge financial losses and operational inefficiencies.

According to the CAG (2016) report, as on 31 March 2016, in Uttar Pradesh, there were 103 PSUs. Of these, no Company was listed on the stock exchange. The working SPSUs registered a turnover of Rs. 85281.53 crore in 2015-16 which was equal to 7.39 per cent of GSDP for 2015-16. The working SPSUs incurred an aggregate loss of Rs. 17789.91 crore 2015-16 and had employed 1.14 lakh employees at the end of 2015-16. As on 31 March 2016, there were 38 non working SPSUs which had an investment of Rs. 1058.90 crore. It is a critical issue as the investment in non working SPSUs does not contribute to the economic growth of the State (CAG, 2016).

The state government provides financial support in the form of share capital and loans, special financial support by way of grants and subsidies and guarantees. The total amount of investment in all SPSUs as on 31st march, 2015 is given in table 7.2. There has been significant increase in the

investment in government companies in the last four years. Amount of investment in terms of share capital and long term loans in the government companies has almost doubled. In the case of statutory corporations, however, marginal increase has been noted. About 20 percent of GSDP is invested in terms of capital and long term loans in government companies and statutory corporations of UP which was about 14 percent in 2012. Out of this around 9 percent in 2012 and 12 percent in 2015 was in terms of share capital on which returns are not ensured.

Table 7.1: Total Number of SPSUs as on 31st March, 2016

Type of PSUs	Working PSUs	PSUs not working	Total
Government companies	58	38	96
Statutory corporations	7	NIL	7
Total	65	38	103

Source: CAG (2016).

Table 7.2: Total Investment in SPSUs in UP (in crore)

Types of PSU's	Government companies			Statutory corporations			Grand Total
	Capital	Long Term Loan's	Total	Capital	Long Term Loan's	Total	
			2012				
Working	60617.1	34434.0	95051.0	601.3	1040.0	1641.3	96692.3
Non Working	696.6	478.8	1175.4	-	-	-	1175.4
Total	61313.6	34912.8	96226.4	601.3	1040.0	1641.3	97867.7
			2015				
Working	119012.4	74375.3	193387	610.73	1220.42	1831.15	195218.9
Non Working	704.35	354.55	1058.9	-	-		1058.9
Total	119716.8	74729.85	194446	610.73	1220.42	1831.15	196277.8
			Percentage Growth from 2012 to 2015				
Working	96.3	116.0	103.5	1.6	17.3	11.6	101.9
Non Working	1.1	-26.0	-9.9	-	-	-	-9.9
Total	95.3	114.0	102.1	1.6	17.3	11.6	100.6
As % of GSDP 2012	8.47	4.82	13.29	0.08	0.14	0.23	13.52
As % of GSDP 2015	11.83	7.39	19.22	0.06	0.12	0.18	19.40

Source: Report of CAG on the Working of Public Sector in UP, 2016.

Indicators of operating performance of SPSUs are given in table 7.3. The gap between total income and total expenditure is rising. Consequently, the losses are continuously mounting-up. Net loss went up to Rs. 16154.2 crores in 2015-16 from Rs. 6176.7 crores in 2008-09 more than 2.5 times increase.

The major sectors receiving investment in 2015-16 are power (95.97%), manufacturing (2.09%), finance (0.70%) and services (0.41%). The corresponding figures for 2011-12 are 93.38, 3.65, 1.65 and 0.79 percent respectively. Out of four sectors, the focus of SPSUs investment was mainly in the power sector which increased from Rs. 91386.46 crores in 2011-12 to Rs. 188358.47 crores in 2015-16.

7.2 Operating performance of energy and non-energy SPSUs

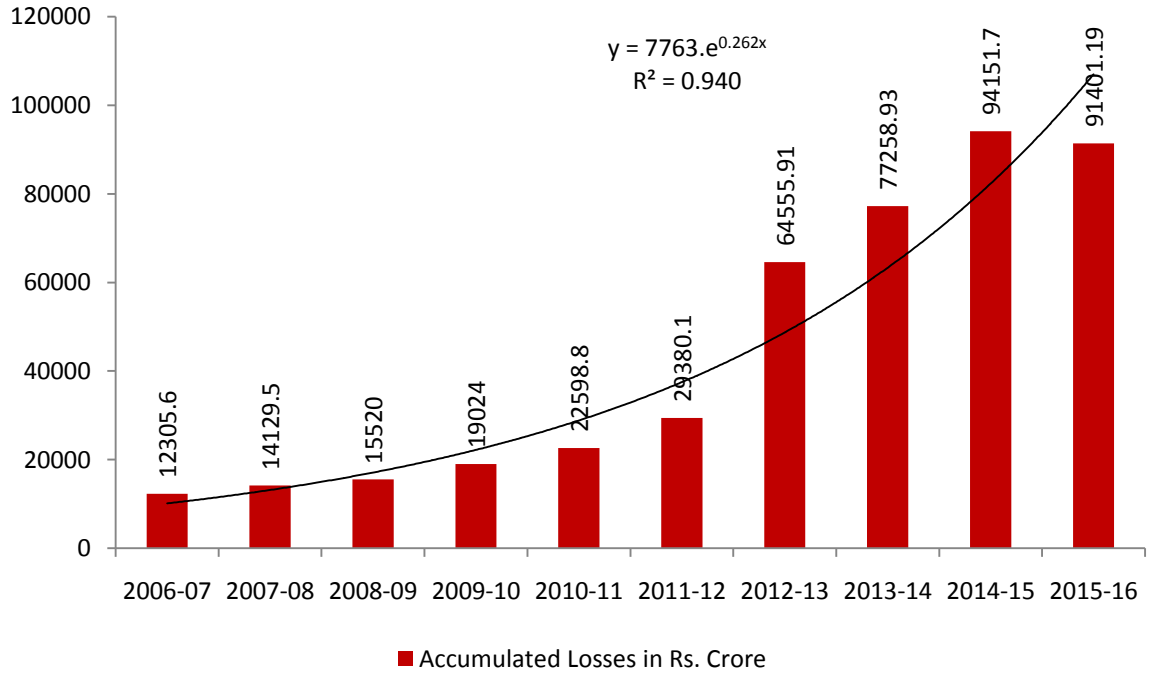
Operating performance of energy and non-energy SPSUs separately is given in table 7.5. It is clearly evident that energy PSUs are making huge losses, whereas, working PSUs on aggregate level are earning profit. The losses of energy PSUs went up from 7062.4 crores in 2008-09 to 14806.3 crores in 2015-16, an increase of more than 100 percent. This necessitates our special attention as more than ninety percent of total investment goes to energy PSUs but they are incurring heavy losses which mean negative return on investment.

CAG (2016) report states,

> "during the year 2015-16, out of 65 working PSUs, 33 PSUs earned profit of Rs. 707.52 crore and 24 PSUs incurred loss of Rs. 18,497.43 crore. Four working PSUs had not submitted their first Accounts whereas four working PSUs prepared their Accounts on a "no profit no loss" basis. The major contributors to profit were Uttar Pradesh Rajkiya Nirman Nigam Limited (Rs.

207.19 crore), Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (Rs. 98.71 crore), Uttar Pradesh State Industrial Development Corporation Limited (Rs. 92.63 crore) and Uttar Pradesh State Warehousing Corporation (Rs. 66.15 crore). The heavy losses were incurred by Dakshinanchal Vidyut Vitran Nigam Limited (Rs. 5,521 crore), Purvanchal Vidyut Vitran Nigam Limited (Rs. 4,094.62 crore), Madhyanchal Vidyut Vitran Nigam Limited (Rs. 3,262.77 crore) and Paschimanchal Vidyut Vitran Nigam Limited (Rs. 3,171.51 crore)."

Figure 7.1: Accumulated Losses



Source: Author's Calculations.

During 2015-16, 33 working PSUs earned an aggregate profit of Rs. 707.52 crore and 10 PSUs declared a dividend of Rs. 7.90 crore to the state government. The remaining profit earning PSUs did not comply with the State Government policy of 5 percent dividend formulated in 2002 from profit earning SPSUs regarding payment of minimum dividend. Figure 7.1

depicts that accumulated losses of working SPSUs have increased from Rs. 12305.6 crores in 2006-07 to Rs. 91401.19 crores in 2015-16 which reflected a deteriorating financial position of SPSUs.

The State Government provides financial support to PSUs in various forms through annual budget like budgetary outgo towards equity, loans, grants/ subsidies, loans written off and interest waived in respect of SPSUs. These are given in table 7.7. On an average, the budgetary outgo in the form of equity, loans and grants/subsidies to SPSUs has an increasing trend and registered an increase of 144.04 per cent during 2009-10 to 2015-16. It may be seen that the amount of guarantees outstanding stood at Rs. 35,218.47 crore in 2015-16, which registered a significant decrease of 41.13 per cent during 2014-15 to 2015-16. In order to enable PSUs to obtain financial assistance from Banks and Financial Institutions, Government of Uttar Pradesh (GoUP) gives guarantee for which the guarantee commission is being charged at the rate of 0.25 per cent to one per cent as decided by the GoUP depending upon the loanees. As per CAG (2016), the amount of guarantee commission payable up to 2014-15 by five PSUs was Rs. 4.46 crore, out of which four PSUs had paid guarantee commission of Rs. 3.36 crore during 2015-16. The outstanding guarantee commission decreased to Rs. 1.17 crore which included Rs. seven lakh payable by one PSU during the same year.

7.3 Closure of non-working SPSUs

As per CAG (2016) report, there were 38 non-working SPSUs as on 31st March, 2016. Out of these, 12 SPSUs have commenced liquidation process (by Court order) for a period ranging from 10 years to 35 years. The remaining 26 non-working SPSUs (which are not working since 4 to 41 years) are under the process of closing (closing orders have been issued but liquidation process yet to start). Surprisingly, not a single SPSU has opted

for voluntary winding up under the Companies Act which is a much faster and smooth way of liquidation.

7.4 Reforms in SPSUs

In June, 2007 the state government issued Guidelines for Selection of consultants/advisors, developers for Public Private Partnership (PPP) projects and private partners for disinvestment in Uttar Pradesh. The guidelines provide for formation of various committees, prices to be followed for disinvestment, appointment and functions of lead advisor, legal advisor, accounting advisors, assets valuers, procedure to be followed for bidding and methodologies of valuation of enterprise. A decision was also undertaken by the state government in June 2007 to privatise/sell the sugar mills of UP State Sugar Corporation Ltd. (UPSSCL) including all its subsidiaries. Consequent on these decisions the sale of 10 mills of UPSSCL was finalized in July 2010. In March 2011, the sale of 11 mills of UP Rajya Chini evam Ganna Vikas Nigam Ltd. Was finalized. After 2010-11 till 2015-16, no further disinvestment was done by the Government.

Table 7.3: Consolidated Results of 39 State PSUs (In Crore)

Particulars	2008-2009	2009-10	2010-2011	2011-12	2012-13	2013-14	2014-15	2015-16
Total Income	29287.4	34510.8	36616.0	42239.3	47733.7	60601.4	62085.9	66232.7
Cost of Sales/Operation	33910.2	34136.8	37560.3	46126.9	50020.1	60345.9	74529.3	80388.7
Interest on Loan	1225.0	1613.7	2180.9	3083.5	1258.4	1456.1	1421.9	1371.5
Tax Provision	130.9	168.2	120.6	116.1	167.8	183.3	192.9	304.3
Provision for bad debts	198.1	189.1	275.1	376.3	352.5	341.0	331.0	322.3
Total Expenditure	35464.1	36107.7	40136.8	49702.8	51798.8	62326.3	76475.1	82386.9
Net Profit/Loss	-6176.7	-1596.9	-3520.8	-7463.5	-4065.2	-1724.9	-14389.2	-16154.2

Source: Bureau of Public Enterprises, Uttar Pradesh.

Table 7.4: Annual Percentage change of Consolidated Results of 39 State PSUs (In Crore)

Particulars	2009-10	2010-2011	2011-12	2012-13	2013-14	2014-15	2015-16
Total Income	17.83	6.10	15.36	13.01	26.96	2.45	6.68
Cost of Sales/Operation	0.67	10.03	22.81	8.44	20.64	23.50	7.86
Interest on Loan	31.73	35.15	41.39	-59.19	15.71	-2.35	-3.54
Tax Provision	28.47	-28.31	-3.71	44.57	9.25	5.20	57.78
Provision for bad debts	-4.53	45.49	36.79	-6.33	-3.26	-2.93	-2.62
Total Expenditure	1.81	11.16	23.83	4.22	20.32	22.70	7.73

Source: Bureau of Public Enterprises, Uttar Pradesh.

Table 7.5: Operating Performance of Energy and Non-Energy PSUs (` Crore)

Year	Financial Indicator	Non-Energy PSUs	Energy PSUs	Total PSUs
2008-09	Total Income	11153.1	18133.9	29287
	Total Expenditure	10267.9	25196.3	35464.3
	Net Profit/Loss	885.2	-7062.4	-6177.2
2009-10	Total Income	13607.8	20903	34510.8
	Total Expenditure	12823.4	23284.4	36107.7
	Net Profit/Loss	784.4	-2381.3	-1596.9
2010-11	Total Income	14450.1	22165.9	36616
	Total Expenditure	13566.6	26570.2	40136.8
	Net Profit/Loss	883.5	-4404.3	-3520.8
2011-12	Total Income	15192.7	27046.6	42239.3
	Total Expenditure	14583	35119.8	49702.8
	Net Profit/Loss	609.7	-8073.2	-7463.5
2012-13	Total Income	13758.9	33974.8	47733.7
	Total Expenditure	12761.6	37258.5	50020.1
	Net Profit/Loss	997.3	-3283.7	-2286.4
2013-14	Total Income	14273.8	46327.6	60601.4
	Total Expenditure	13441.1	46904.7	60345.9
	Net Profit/Loss	832.7	-577.1	255.5
2014-15	Total Income	15380.6	46705.3	62085.9
	Total Expenditure	14908.0	59621.3	74529.3
	Net Profit/Loss	472.6	-12916.0	-12443.4
2015-16	Total Income	18229.5	48003.2	66232.7
	Total Expenditure	17579.2	62809.5	80388.7
	Net Profit/Loss	650.3	-14806.3	-14156

Source: Bureau of Public Enterprises, UP.

Table 7.6: Accumulated Losses of State PSUs in UP

Year	Accumulated Losses (` Crore)
2006-07	12305.6
2007-08	14129.5
2008-09	15520
2009-10	19024
2010-11	22598.8
2011-12	29380.1
2012-13	64555.91
2013-14	77258.93
2014-15	94151.7
2015-16	91401.19

Source: Report of CAG on the Working of Public Sector Undertakings in UP, 2016.

Table 7.7: Budgetary Outgo towards PSUs (in Crore)

Particulars	2009-10	2010-11	2011-12	2013-14	2014-15	2015-16
Equity Capital	5146.82	3502.49	4325.5	5324.42	11464.85	19251.33
Loans	1021.96	113.2	11.85	123.8	138.78	162.73
Grants and Subsidy	1943.13	3617.53	3108.81	2890.07	3977.38	380.1
Total Outgo	**8111.91**	**7233.22**	**7446.16**	**8338.29**	**15581.01**	**19794.16**
Loans Converted in equity	1943.13	3617.53	3108.81	-	1210.28	-
Guarantees Issued	6245.25	10549.5	1194.65	124.68	241	2761.25
Guarantee Commitment	7380.11	17718.22	9578.49	9120.15	59822.93	35218.47

Source: Report of CAG on the Working of Public Sector Undertakings in UP, 2016.

Chapter VIII

Impact of Power Sector Reforms on States' fiscal health

8.1 Introduction

The poor performance of the power sector utilities has been adversely affecting the health of the state finances for a long period. Uttar Pradesh (UP) was among the first states to introduce power sector reforms at the state level in 1999. In this chapter we have discussed the power sector reforms undertaken in the state and their impact on the operational efficiency and financial situation of the power sector utilities.

In the 1990s the power sector in UP, as in most other states, was characterised by low and inadequate investment, acute power shortage, high transmission and distribution losses, irrational tariff structure and operational inefficiencies (Thakur, Deshmukh and Kaushik, 2006; Urpelainen, 2016). These problems manifested themselves in huge cash losses for UP State Electricity Board (UPSEB) year after year. By March 1999, the accumulated losses of UPSEB were Rs 10300 crore or 6 percent of gross state domestic product (GSDP). The outstanding payables to power suppliers were about Rs 3400 crore and to fuel suppliers Rs. 2100 crore (Planning Commission, 2006). The cumulative subsidy payable by the state government to UPSEB rose from Rs. 1715 crore in March 1991 to Rs. 11,266 crore in March 1999. It is against the above background that the power sector reforms were introduced in the state, with the UP Government issuing a power sector policy statement in January 1999. The main objectives of this policy were to: Supply electricity under the most efficient conditions in terms of cost and quality to support the economic development of the state of Uttar Pradesh; Make the power sector commercially viable so that it ceases to be a burden to the state's budget

and eventually becomes a net generator of financial resources; and Protect the interest of the consumers.

The state is implementing several policy reforms to make organizational, structural and technological improvements in the power sector especially in last ten years or so.

8.2 Power Sector Reforms in UP

The main principle of the reform programme was that the state Government should withdraw from the power sector and give autonomy to power sector utilities to function on commercial lines. To give legislative backing to these reforms, the UP Electricity Reforms Act was passed by the UP legislature and notified in July 1999. The power sector reform program envisaged the following steps:

a. Restructuring and unbundling of UP State Electricity Board while segregating power generation, transmission and distribution functions into autonomous and separately accountable entities, through transfer of assets, liabilities and personnel;

b. Corporatization and commercialization of new emerging entities in phased manner.

c. Establishing an independent Regulatory Body.

d. Promotion of private sector participation in power generation and privatise distribution business in phases.

e. Tariff reform with the objective to rationalise tariff for full cost recovery and minimise cross subsidy.

As part of the reform process, the Uttar Pradesh Electricity Regulatory Commission (UPERC) was established in 1999. The prime objectives of

UPERC were to create a regulatory environment to promote transparency, efficiency and economy in the operations and management of the power utilities, encourage competition and help UP to attract private capital for the power sector development while safeguarding the interests of the consumers.

Under the reform and restructuring process of power sector, the former Uttar Pradesh State Electricity Board (UPSEB) was unbundled into the following three separate entities through the first reforms Transfer Scheme dated 14th January, 2000:

1. Uttar Pradesh Power Corporation Limited (UPPCL) vested with the function of transmission and distribution within the State.
2. Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) vested with the function of Thermal Generation within the State
3. Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) vested with the function of Hydro Generation within the State.

Further, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company Limited (KESCO), a company registered under the Companies Act, 1956 (UPERC, 2013).

The reforms mandated to minimum interference of the Government in the routine management of the new Corporations. New entities are to be given complete autonomy to conduct their operations on commercial basis to achieve economic viability and credit worthiness. Reforms were also carried out in the selection of directors, their term of appointment, new accounting system of new entities as per the Companies Act regulations and provisions of electricity supply legislation. Reform measures also planned that

Generation and Distribution companies will be horizontally divided into number of companies which will be later on privatised (UPERC, 2013).

The endorsement of the Electricity Act, 2003 pushed for unbundling of UPPCL along functional lines. Consequently, the following four new distribution companies 'Discoms' were created *vide* Uttar Pradesh Transfer of Distribution Undertaking Scheme, 2003 dated 12th August, 2003 to undertake distribution and supply of electricity in the areas under their respective zones specified in the scheme:

1. Dakshinanchal Vidyut Vitran Nigam Limited
2. Madhyanchal Vidyut Vitran Nigam Limited
3. Paschimanchal Vidyut Vitran Nigam Limited
4. Purvanchal Vidyut Vitran Nigam Limited

The role of UPPCL was specified as "Bulk Supply Licensee" as per the UPERC and as "State Transmission Utility" as notified by the State Government. Subsequently, the Uttar Pradesh Power Transmission Corporation Limited (UPPTCL), a Transmission Company, was incorporated under the Companies Act, 1956. The main function of the UPPTCL is transmission of electricity to various utilities within Uttar Pradesh. Further, the state government notified UPPTCL as the "State Transmission Utility" of Uttar Pradesh in July 2007. On 23rd December 2010, the state government notified the Uttar Pradesh Electricity Reforms (Transfer of Transmission and Related Activities Including the Assets, Liabilities and Related Proceedings) Scheme, 2010 which provided for the transfer of assets and liabilities from UPPCL to UPPTCL w.e.f. 1st April, 2007 (UPERC, 2013).

Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2006 are applicable for the

purposes of ARR filing and Tariff determination to all the Distribution Licensees within Uttar Pradesh from FY 2007-08 onwards. Similarly, the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations 2006 are applicable for the purposes of ARR filing and Tariff determination of the Transmission Licensees within Uttar Pradesh from FY 2007-08 onwards (UPERC, 2015). Uttar Pradesh Government signed a Memorandum of Understanding (MoU) in February 2000 with the Union Ministry of Power as a joint commitment for implementation of reforms programmed in power sector with identified milestones. The progress achieved so far in respect of important milestones is stated below:

In 2002, the UPERC adopted a multiyear tariff (MYT) framework which has been working as the prime incentive for the utilities. Under MYT, annual performance targets for the utility have been fixed for five years in terms of T&D losses and collection efficiency, assuming 2000/01 as the base year. If the utility fails to achieve the targets and, hence, incurs a loss, the regulator would not treat the loss as a regulatory asset, implying that the consumers will not be required to bear the burden resulting from the failure of the utility to achieve targets. On the other hand, if the utility exceeds the targets, it would retain the resultant profits. However, UPPCL and other power utilities have not been able to fulfill these targets in any year, thus, unable to get incentives.

8.2.1 Participation of Private Sector

In its power policy, the government of Uttar Pradesh aims to facilitate consumers benefiting from competition and towards this end encourage private sector participation in all areas viz. generation, transmission, distribution, trading and R&M. The government's efforts have resulted into huge participation by private sector in U.P. Power Sector. Three important

projects viz Anpara 'C' (1200 MW), Bara (1980 MW), Karchana (1320 MW) have already been awarded on competitive bidding basis. Others projects planned include Jawaharpur (1320 MW), Dopaha (1980 MW), Lalitpur (2000 MW) and NCR project (2000 MW). In the joint sector two plants viz., Meja NTPC (1320 MW) and Fatehpur Neyvile Lignite (2000 MW) have been approved. Increasing demand for power can only be met through joint working of public and private sector. It is sure that along with state utilities substantial investment has to be brought in by the private sector as well. The state government further intends for private participation in the generation sector. Not only this, the State proposes to throw open the refurbishment, renovation and modernization of the existing plants to the private sector for more efficient management practices(Source:http://udyogbandhu.com/topics.aspx?mid=Energy%20Policy%20200).

8.3 Data and Methods

Operating performance has been assessed in terms of electricity demand-supply gap, transmission & distribution (T&D) losses, aggregate technical and commercial (AT&C) losses, and capacity utilization (Plant Load Factor). T&D losses and AT&C losses measure the overall efficiency as they measure both technical as well as commercial losses in transmission and distribution. Financial health of the power utilities has been analysed in terms of revenue-expenditure gap and financial ratios (See table 8.2 for details). Four types of ratios have been applied namely liquidity ratios, profitability ratios, leverage ratios and asset management ratios. To assess the liquidity position of the state power utilities, current and quick ratios have been estimated. Gross profit/loss to total income, gross profit/loss to capital employed and net profit/loss to net worth ratios have been used for measuring the profitability of state power utilities. With a view to estimate the capital structure of undertakings, debt-equity ratio and state government funds/total funds ratio have been calculated and the asset

management quality was assessed through value added to capital employed and value added to employee ratios. The financial ratios used in the analysis are explained below:

The data for the study regarding operating performance of the power utilities has been compiled from the UPPCL's annual publication *Statistics at a Glance.* Financial information has been collected from the Bureau of Public Enterprises, Government of Uttar Pradesh Reports. The analysis is done for the period of 2005-06 to the latest available data time period i.e. 2015-16.

8.4 Assessment of Power Sector Reforms

Reform initiatives taken in recent years have been in the right direction. Significant changes have been brought about in the organizational, institutional and financial structure of the power utilities in the state. Tariff setting has been substantially insulated from political interference and some degree of tariff rationalization has been achieved. Efforts have been made to improve the performance of the generation and distribution of power and collection of revenue.

The reforms have, however, fallen short of bringing about a change in the ownership arrangement and market structure (Joseph 2010). The power industry in UP is still predominantly government-owned in all its segments. The progress towards privatization of generation and distribution has been very slow and halting. Thus, the reform measures taken so far have virtually done nothing to change the market structure which could introduce competition into the sector. There has been no scope for competition for the distribution market as the distribution companies continue to be owned by the Government. There is complete lack of competition in the power sector (Planning Commission, 2006).

True autonomy has not been given to the power sector utilities. The government has continued to interfere in the day to day operations of the newly formed corporations. Their management holds the same bureaucratic approach and the same work culture continues as before (Planning Commission 2006; Joseph 2010). Their relationship vis-à-vis the state government has also remained unchanged (Planning Commission 2006). The government ownership has led to an absence of hard budget constraints. Assessment of power sector reforms is being looked from the perspective of improvement in operating performance and financial performance.

8.4.1 Power Sector Reforms and Operating Performance of the Power Utilities

We may now discuss the impact of the power sector reforms on the operating performance of the power utilities. Table 8.3 shows the situation with respect to power demand and supply. The supply of power has fallen short of demand throughout the last decade. The demand supply gap has ranged from 15 per cent to 22 per cent except in the year 2010-11 and 2011-12 when it was around ten per cent. The peak demand shortage has been quite high during early years (2005-06: to 2013-14) but showing some decline in the recent years (2015-16: 14.82%). Power shortage has remained a critical bottleneck in the economic development of the state. Economic growth and power availability have been found highly correlated with the high level of employment in Indian scenario (Ghosh 2009). Adequate investment in power generation, distribution and technological advancement may shift the growth trajectory of the state upward along with creation of gainful employment.

The state power utilities also failed to bring any significant reduction in T&D losses, which was a major aim of power sector reforms. T&D losses are the

power losses that are caused in the process of transmission of electricity from the generation end to the consumers. The T&D losses have remained in the range of 30 to 34 per cent during 2005-06 and 2012-13 (Table 8.4). However, it has come down below 30 percent in recent years only. The principal factors behind high T&D losses are inefficient use of electricity, power theft, unmetered connections and political interference (Bhattacharyya 2007). Unwarranted political interference makes hard decisions difficult to take (Joseph 2010). Especially, unmetered connections, free power and power theft are major contributors for higher T&D losses (Bhattacharyya 2007; Aniti 2015). AT&C losses provide a realistic picture of the actual energy loss at the distribution end. The technical losses depend on the technology used, type of conductors used, transformer capacity, and other equipments used for transmission and distribution of power. However, the commercial losses are caused due to discrepancy in meter reading, faulty meters, power theft and collection inefficiency (Ranganathan 2005; Bhattacharya 2007; Singh 2010; Aniti 2015). The AT&C losses have been even higher. However, these have declined form a high level of 43.6 percent in 2005-06 to 31.85 percent in 2015-16. There are reports of widespread theft of power and unmetered connections in the state (Golden and Min 2012). Effective steps to check power thefts have not been initiated due to political considerations.

The high level of AT&C losses have been a major cause of poor financial performance of the power utilities. Losses due to technical reasons can be lessened by using modern technology and equipments for transmitting and distributing electricity (The Economic Times, 2016). On the other hand, the commercial losses can be managed by refusing to go along with the pressure to supply free electricity and reducing the electricity thefts by devious entities. Also, efficient pricing of the electricity by taking into

account the input, production, transmission and distribution cost along with a healthy profit is of utmost importance.

8.4.2 Plant load factor

Plant load factor (PLF) of thermal power plants is also lower in the state than the national average (Table 8.5). Thermal power plants in the state are working only at about 60 percent of their capacity, whereas national average improved from 55.70 percent in 2005-06 to over 75 percent in 2011-12 before coming to down to a dismal level of 62. One of the reasons for the low PLF in UP is that the plants are of very old vintage and adequate investment has not been made in their modernization and maintenance.

Thus, in most of the indicators of performance like PLF and AT&C losses the power utilities in the state present a dismal picture without any significant improvement over the years.

8.4.3 Financial Performance of the Power Sector

The consolidated financial results of the four state power utilities (UP Power Corporation Ltd., UP Jal Vidyut Nigam Ltd., UP Rajya Vidyut Utpadan Nigam Ltd. and UP Power Transmission Corporation Ltd.) are shown in Table 8.6. State power utilities taken together have been incurring heavy losses in the last four years, mainly on account of the poor financial performance of UPPCL.

Table 8.7 shows the item-wise income and expenditure of UPPCL during the period 2005-06 to 2013-14. Since 2008-09 the UPPCL has not been able to meet its operation and maintenance cost. The gap between the operational revenue and operational costs has been increasing at an alarming pace. It stood at Rs. 5294.94 crore in 2011-12. However, operating surplus was reported in 2013-14. Total expenditure (including operation and maintenance charges, appropriation charges, interest payment, depreciation

and other expenses) exceeded the total revenue of the UPPCL during the whole period under consideration. The loss has increased from Rs. 161.5 crore in 2005-06 to a high level of Rs. 8108.75 crore in 2011-12.

Thus, the reform process has not resulted in any improvement in the financial performance of the power sector. The accumulated losses of the UPPCL have been continuously increasing. These stood at a staggering Rs. 36083.37 crore in 2013-14. The major factors contributing to the recurring losses of the UPPCL are the heavy T&D losses, low tariff rates, widespread theft of power and poor collection efficiency as we have shown above the T&D losses have remained above 25 percent. Similarly, the AT&C losses have declined to 31.85 percent in 2015-16, but are still very high.

8.4.4 Analysis of Financial Ratios

Consolidated financial performance as indicated by the ratios explains the dismal financial health of the state power utilities. Leverage ratios help in assessing the risk arising from the use of debt capital. In general, the lower the debt/equity ratio, the higher the degree of protection enjoyed by the creditors. Optimal debt-to-equity ratio is very industry specific because it depends on the proportion of current and non-current assets. The more non-current assets as in the capital-intensive industries are, the more equity is required to finance these long term investments. Power utilities in UP are mostly equity financed.

As power sector is a highly capital intensive industry, the present capital structure is appropriate for them. However, equity is a costlier source of finance as compared to debt. Nonetheless, in the recent years average debt/equity ratio went up which shows power utilities are increasing their reliance on debt funds which is a cheaper source of finance as well. Use of more debt funds not only indicates possibility of higher earnings per share but also brings long term financial stability (Maurya, Singh and Singh 2015).

Higher debt/equity ratio means higher risk too but it is not a matter of much concern as in our case debt/equity is still below one.

The share of state government in total funds is declining which is a welcome sign and it may be ascribed an outcome of reforms measures (especially disinvestment initiatives) initiated by the state governments in the last decade.

Poor profitability is the real cause of concern for these state power utilities. It reflects poor financial and operational management. The whole power sector is under financial stress. They are incurring huge losses. Return on capital employed (ROCE) is a long-term profitability ratio because it shows how effectively assets are performing while taking into consideration long-term financing. Negative returns on capital employed further show the extent of fiscal stress through which these state power utilities are undergoing. This poor profitability can be ascribed to the reasons like low user charges, low collection rate, high transmission and distribution losses, high power theft, vintage technology, administrative slackness and highly subsidised or free power to certain sections (Maurya, Singh and Singh 2015). Due to continuous losses consequently negative returns on capital employed led to erosion of their net worth by more than 150 percent during 2008-09 to 2011-12 which has come down to 40 percent during 2012-13 to 2015-16.

Significant change can be noticed in the liquidity scenario during two selected points of time. During 2008-09 to 2011-12, current and quick ratios (2.95 & 2.68 respectively) showed excess liquidity. Excess liquidity, although a guarantor of solvency, would reflect lower profitability, deterioration in managerial efficiency, extension of too liberal credit and dividend policies. However, 2012-13 to 2015-16 time period reflects better liquidity management neither too high or too low. This improvement in

managerial efficiency can be ascribed to greater focus on bringing professionalism in management of power utilities.

Asset management and productivity ratios explain the effectiveness of the organization in utilizing its resources in terms of value added or sales. Poor operating and financial performance of state power utilities is also reflected from asset management and productivity ratios. UPPCL has a negative value added to capital employed ratio (-130.55) and negative labour productivity (-0.16) during 2008-09 to 2011-12 which has affected whole power sector outcome. In spite of that value added per unit of capital employed is positive but far from satisfactory. Here too, ratio outcome of 2012-13 to 2015-16 time period showed improvement in value added to capital employed and labour productivity ratios. Value added to capital employed ratio improved to 0.14 whereas labour productivity turned positive to 25.50. Nevertheless, low asset management and productivity ratios show not only underutilization of capital employed but also inefficient employee management. "In short, lack of professionalism and management has been a constant deterrent in the swift performance of power utilities. It has not only hampered the progress of these units in the competitive markets but has also contributed to their poor profitability" (Maurya, Singh and Singh 2015).

8.5 Cost of power supply and revenue realization

The average tariff per unit in the state has been rising over time (Table 8.8). There is heavy cross subsidization also. Average tariff per unit for the industrial sector is almost double as compared to domestic consumers, while the agricultural sector is paying much lower charges for electricity.

The average revenue per unit has fallen short of the average cost of supply of power per unit consistently over the years (Table 8.9 & 8.10). In some years the gap was almost 50 per cent. Power distribution and revenue

realisation remain the weakest link in the energy value chain, which has an adverse impact on the financial health of power generation companies. State governments have tried various options to improve the situation including privatization and adopting a franchisee model to bring in efficiency but did not make much difference.

The woes of generation companies are compounded by the fact that industrial consumers are relying more on renewable energy particularly solar power which is available at a cheaper tariff than those for industries. A large amount of unmetered power consumption especially in agriculture sector and non-payment or partial payment of power bills by the powerful and politically strong consumers (alternatively frail administration) are the main reasons for poor revenue realisation by the distribution companies. Uttar Pradesh is the only state that allows its power employees to enjoy the unmetered and hence unlimited and unaccounted use of electricity against the nominal fixed monthly charges even as all other domestic consumers are being forced to pay as per tariff schedule.

Though there has been an improvement in the collection efficiency, considerable amount remains un-collected every year with the result that the cumulative arrears have been going up. The arrear increased from Rs. 10143.40 crore in 2006-07 to Rs. 25029.47 crore in 2015-16 (Table 8.11). About one-third of the arrears are due on the government departments.

8.6 Conclusion

The UP Government came out with a power sector policy statement in January 1999 with a view to improve the power situation and to make the power sector commercially viable so that it ceases to be a burden to the state's budget and eventually becomes a net generator of financial resources. The reforms aimed at giving autonomy to power sector utilities to function on commercial lines and to encourage entry of private sector in

power generation and distribution. To give legislative backing to these reforms, the UP Electricity Reforms Act was passed by the UP legislature and notified in July 1999. As part of the reform process, the Uttar Pradesh Electricity Regulatory Commission (UPERC) was established in 1999. The erstwhile Uttar Pradesh State Electricity Board (UPSEB) was unbundled in January 2000 into three separate entities entrusted with generation, transmission and distribution of power.

The precarious financial situation of the power sector is affecting the fiscal health of the state government, which has been providing direct subsidy to UPPCL for concessional supply of power to the agricultural sector, handloom weavers and BPL families. The state government has also been meeting the expenses on account of restructuring of the power sector utilities. Total budgetary support under Non Plan head to the power sector amounted to Rs. 1878.8 crore in 2008-09 and further to Rs. 3483.6 crore in 2011-12. In addition, the state government has been giving guarantees on the market loan raised by UPPCL, which add to the contingent liabilities of the state government. Losses constrict distribution firms from expanding their network to cater to the unmet demand. Sluggishness in reforms has also affected the sector viability.

However, impact of sequence of reform measures introduced by the UP government after 1999 the financial situation of the sector has improved and state's budgetary support and subsidy (direct and indirect) as a proportion to gross state domestic product has declined (Bhattacharya and Patel 2008). Aggregate technical and commercial losses and transmission and distribution losses, while having dipped slightly, have remained stubbornly high. The major cause of fiscal vulnerability as also explained by Bhattacharya and Patel (2008) is lower revenue realisation as compared to cost of power supply. The positive impact of reforms measures are sprouting as visible from the improvement in financial ratios and operating

performance indicators during 2012-13 to 2015-16. This gives an incentive to the policy makers to continue the reform process. The power utilities, nevertheless, are still far from financial ease.

The power sector in the state is still in the crisis. It is not only affecting the financial health of the state government, but is also one of the major constraints on faster economic development of the state. Unless hard budget constraint is imposed on the power sector utilities, they are unlikely to take steps to become commercially viable. Effective autonomy has to be given to the public power sector units. Their management has to be professionalised and government interference in their day to day working has to be stopped. A competitive environment has to be created in the generation, transmission and distribution of power by encouraging the private sector to enter in the field in a big way. These reforms require a strong political commitment, which has not been forthcoming so far. Ujwal Discom Assurance Yojana (UDAY), the ambitious central government scheme aimed at improving operational and bill collection efficiency of state power distribution companies (launched in 2015) is a welcome step towards continuing power reform agenda to make power utilities financially and commercially viable.

Table 8.1: Reforms Programme Commitment of Uttar Pradesh

Sl. No.	Reforms program commitment as per MOU	Targeted completion schedule	Status as of October 2010
I	**By the state government**		
(i)	Installation of meters on all 11 KV feeders	30 September 2000	Kanpur Electricity Supply Company Limited, Madhyanchal Vidyut Vitaran Nigam Limited and Purvanchal Vidyut Vitaran Nigam Limited have completed the work as per information received from the companies. The information is awaited from others companies.
(ii)	100 percent metering of all consumers	31 March 2001	Kanpur Electricity Supply Company Limited (dated 06.11.2009) has completed the works. In Madhyanchal Vidyut Vitran Nigam Limited only 61.17 *per cent* consumers could be metered (July 2009), Purvanchal Vidyut Vitaran Nigam Limited metered only 43 *per cent* consumers (August 2009)
(iii)	Online billing at 20 selected towns	Nil	As per available information on-line billing is being done at Lucknow Electricity Supply Authority and Kanpur Electricity Supply Company Limited.
(iv)	Privatization of distribution sector, if commercial viability is not achieved	Nil	Cent *per cent* work has been completed in Kanpur Electricity Supply Company Limited (September 2010).
(v)	Privatisation of distribution sector, if commercial viability is not achieved	Nil	An agreement has been made between Torrent Power Limited and Kanpur Electricity Supply Company Limited for Distribution arrangements of Electricity (18.05.2009) and Distribution of electricity work in Agra has been handed over to Torrent Power Limited (01.04.2009).
II	**By the Central Government:**		
(i)	Support from the Government of India for financing renovation and modernisation of existing thermal and hydro power stations	Nil	Loan of 2,773.676 crore has been sanctioned by the Power Finance Corporation to Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited for renovation and modernisation of Power plants (March 2010). Besides loan of Rs.18.06 crore and subsidy of equal amount has been sanctioned by Government of India under Accelerated Power Development Reform Programme (APDRP) (March 2006).
(ii)	Support from the Government of India for undertaking construction of important transmission works	Nil	Power Finance Corporation has sanctioned a total loan of Rs.3,889.47 crore for 96 schemes. Against this the loan of Rs.1,616.58 crore had already been received for 85 schemes. (March 2009). In addition to above Power Finance Corporation sanctioned Rs.216.5 crore for 26 projects in principle. At present, 05 schemes are pending for Rs.63.31 crore for sanction.

Source: CAG Report On Power Sector on UP, 2010.

Table 8.2: Financial Ratios

Liquidity Ratios	Profitability Ratio	Leverage Ratios	Asset Management Ratios
Current Ratio = CA*+L&A)/CL&P	Gross P/L to Total Income = GP&L/TY	D/E Ratio = LT Debt/SF	VA to CE ratio = VA/CE
Quick Ratio =(CA + L&A – I)/ (CL&P-BO)	Return on Capital Employed (RoCE) = GP&L/CE	SGF to TF Ratio = SGF/TF	Labour Productivity or VA to E ratio = VA/E
	Net worth ratio = NP&L/NW		

Where CA – Current assets; L&A – Loans and advances; CL&P – Current liabilities and provisions; I – Inventory; BO – Bank overdraft; GP/L – Gross profit and loss; TY – Total income; CE– Capital employed; NP&L – Net profit and loss; NW – Net worth; D/E – Debt to equity; LT Debt – Long term debt; SGF – State government funds; TF – Total funds; VA – Value added; E – Employees.

Source: Author's compilation.

Table 8.3: Position of Electricity Demand and Availability in UP: 2002-03 to 2015-16

Year	Electricity Demand (MU)			Peak Demand (MW)		
	Demand	Availability	Shortage / Excess	Demand	Availability	Shortage / Excess
2005-06	58158	44929	-13229 (22.34%)	8537	6477	-2060 (24.13%)
2006-07	58872	49908	-8964 (15.22%)	8753	7531	-1222 (13.96%)
2007-08	65679	53901	-11778 (17.93%)	10104	8568	-1536 (15.20%)
2008-09	70138	55807	-14331 (20.43%)	10587	8248	-2339 (22.09%)
2009-10	76685	59749	-16935.2 (22.08%)	10856	8550	-2306 (21.24%)
2010-11	77855	69994	-7861 (10.09%)	11082	10672	-410 (3.69 %)
2011-12	82313	74284	-8029 (9.75%)	12123	11767	-356 (2.93%)
2012-13	91690	76615	-15075 (16.44%)	14300	12048	-2252 (15.75%)
2013-14	95265	82713	-12552 (15.2%)	15044	12327	-2717 (22%)
2014-15	103514	87058	-16456 (18.9%)	15670	13003	-2667 (20.5%)
2015-16	106433	93058	-13334 (14.3%)	16988	14503	-2485 (14.82%)

Note: Figures in brackets show percentages. Source: UPPCL, Statistics at a Glance, 2015-16.

Table 8.4: T&D and AT&C Losses in U.P.: 2005-06 to 2015-16

Year	T & D Losses (M.U.)	Losses as % to Total Energy available at Bus Bar	AT & C Losses (%)
2005 – 06	15166	33.47	43.6
2006 – 07	17221	33.98	41.2
2007 – 08	16846	31.21	39.4
2008 – 09	16844	29.88	33.7
2009 – 10	19677	32.23	NA
2010 – 11	20344	31.01	36.7
2011 – 12	23115	31.20	NA
2012 – 13	24580	31.43	42.85*
2013 – 14	24466	29.58	38.85*
2014 – 15	23646	27.16	34.85*
2015 – 16	24541	26.36	31.85*

Source: UPPCL, Statistics at a Glance, 2015-16.* DISCOM wise AT&C Loss trajectory up to 2021-22 (Finalised by MoP in consultation with Discoms)
http://www.ipds.gov.in/IPDS_Order_Guidelines/AT_And_C_Loss_Trajectory.pdf.

Table 8.5: Plant Load Factor of Thermal Power Plants in UP (in Per Cent): 2005-06 to 2015-16

Year	Plant Load Factor (UP)	Plant Load Factor (India)
2005 – 06	55.70	73.60
2006 – 07	59.60	76.80
2007 – 08	56.33	78.61
2008 – 09	61.69	78.61
2009 – 10	64.26	77.68
2010 – 11	60.43	75.08
2011 – 12	58.46	73.30
2012 – 13	53.76	69.90
2013 – 14	60.35	65.60
2014 – 15	58.07	64.46
2015 – 16	62.43	62.29

Source: UPPCL, Statistics at a Glance, 2015-16

Table 8.6: Consolidated Accounts of All Four Energy Companies (in Rs. Crore)

Year	Total Income	Total Expenditure	Net Profit/Loss
2008-09	18133.89	25196.30	-7062.41
2009-10	20903.03	23284.36	-2381.33
2010-11	22165.94	26570.23	-4404.28
2011-12	27046.57	35119.81	-8073.24
2012-13	33974.77	37258.51	-3283.74
2013-14	46327.64	46904.73	-577.09
2014-15	46705.33	59621.32	-12916.0
2015-16	48003.15	62809.54	-14806.40

Source: Information supplied by the Bureau of Public Enterprises, UP.

Table 8.7: Revenue and Operating Expenditure of UPPCL (in Rs. crore)

Item	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Operating Revenue									
Sale of Power	10094.3	11549.7	13125.5	14177.4	15644.6	16397.8	21218.1	26617.01	36521.05
Subsidies & Grants	3.1	1.6	0	0	0	0	0	0	0
Other Income	27	17.6	17.2	31.5	39.7	17.4	17.5	13.16	24.91
Total Income	10124.4	11568.8	13142.7	14208.9	15684.3	16415.2	21235.7	26630.17	36545.96
Operation & Maintenance Expenditure									
Purchase Of Power	9465.5	11191.3	11984.6	14277.3	15956.3	18686.6	26383.5	29557.94	33233.64
Repair & maintenance	45.7	51.5	67.9	73.1	90.7	5.9	7.3	6.1	5.95
Employee Costs	168.8	105.6	134.1	405.7	304.8	118.7	118.3	128.95	138.48
General Expenses	12.3	7.8	14.9	14.6	16.8	12.8	21.5	18.29	19.23
Total Operation and Maintenance cost	9692.3	11356.2	12201.5	14770.7	16368.5	18824	26530.6	29711.28	33397.3
Operation Cost-Operating Revenue	**432.1**	**212.6**	**941.2**	**-561.8**	**-684.2**	**-2408.8**	**-5294.9**	**-3081.11**	**3148.66**
Appropriation Charges	248.5	399.5	698.2	837.6	173.2	1599.7	2472.1	261.97	4118.63
Interest	191.6	192.9	200	163.8	1248.7	2	2	198	174.6
Depreciation	153.5	204.9	258.9	246.8	165.6	321.5	339.8	2.13	2.29
Misc. Expenses	593.5	797.4	1157.2	1248.2	1587.6	1923.3	2813.8	*	*
Total Expenditure	10285.8	12153.6	13358.6	16018.9	17956	20747.3	29344.4	30173.38	37692.82
Profit/Loss	**-161.5**	**-584.7**	**-216**	**-1810**	**-2271.8**	**-4332.1**	**-8108.8**	**-3543.21**	**-1146.86**
Accumulated Losses	-	-	**10087.3**	**16587.3**	**18968.6**	**23279**	**31393.3**	**34936.51**	**36083.37**

Source: UPPCL, Statistics at a Glance 2011-12 & 2015-16.

Table 8.8: Consolidated Financial Ratios of Power Utilities

Measurement	Ratio	2008-09 to 2011-12	2012-13 to 2015-16
Liquidity ratios	Current ratio	2.95	1.48
	Quick ratio	2.68	1.38
Profitability ratios	Gross Profit/Loss to Total Income	-20.50	-17.35
	Return on Capital Employed	-9.59	-23.20
	Net Worth Ratio	-161.22	-40.00
Leverage Ratios	Debt/Equity	0.77	0.98
	State Government Funds/Total Funds	0.70	0.62
Asset Management and Productivity ratios	Value Added/Capital Employed	0.09	0.14
	Valued Added/Employees	-23.29	25.50

Source: Author's calculations based on Bureau of Public Enterprises, Uttar Pradesh data.

Table 8.9: Consumer Category-wise Average Tariff Per Unit (in Rs.)

Year	Domestic	Industrial	Agricultural	Others	Total
2004 – 05	1.94	4.54	1.52	3.40	2.74
2005 – 06	1.89	4.42	1.67	3.23	2.92
2006 – 07	1.80	4.30	1.69	3.04	2.62
2007 – 08	1.88	4.31	1.62	3.12	2.68
2008 – 09	1.83	4.30	1.73	4.50	2.90
2009 - 10	2.45	4.76	2.09	4.30	3.31
2010-11	2.45	5.40	2.37	5.14	3.83
2011-12	2.78	5.40	2.22	4.67	3.77
2012-13	2.88	6.14	2.26	3.98	4.00
2013-14	3.14	7.45	2.46	6.02	4.68
2014-15	3.24	7.78	2.25	6.24	4.80
2015-16	3.63	8.38	2.51	7.34	5.15

Source: UPPCL, Statistics at a Glance 2011-12 & 2015-16.

Table 8.10: Year wise Average Revenue and Average Cost of Supply Per Unit (in Rs.)

Year	Average Revenue	Average Cost of Supply	Gap	Percent Gap
2005 – 06	2.92	3.41	-0.49	16.87
2006 – 07	2.62	3.63	-1.01	38.64
2007 – 08	2.68	3.60	-0.92	34.23
2008 – 09	2.90	4.05	-1.15	39.74
2009 – 10	3.31	4.34	-1.03	31.15
2010 – 11	3.83	4.58	-0.75	19.70
2011 - 12*	3.77	5.12	-1.35	35.81
2012 – 13	4.00	5.65	-1.65	41.25
2013 – 14	4.68	6.26	-1.58	33.76
2014 – 15	4.80	6.93	-2.13	44.38
2015 – 16	5.15	7.67	-2.52	48.93

Source: UPPCL, Statistics at a Glance, 2011-12 & 2015-16. * Average cost of supply values for the period 2011-12 to 2015-16 are projected using second order polynomial equation i.e. $y = 0.034x^2 - 0.246x + 3.709$; $R^2 = 0.928$ (Time period 2001-02 to 2015-16).

Table 8.11: Total Arrears of UPPCL (in Rs. Crore)

Year	Total Arrears	Year	Total Arrears
Mar-05	8389.59	Mar-11	23662.10
Mar-06	9618.04	Mar-12	25517.70
Mar-07	10143.40	Mar-13	27690.79
Mar-08	11249.00	Mar-14	22092.82
Mar-09	10597.60	Mar-15	23130.18
Mar-10	23497.70	Mar-16	25029.47

Source: UPPCL, Statistics at a Glance, 2011-12 & 2015-16.

Chapter IX

Analysis of State Subsidies

9.1 Introduction

Subsidies are classified into subsidy for merit goods and non-merit goods. Whereas, it is argued that the merit goods qualify for subsidy, these are socially not justified in the case of non-merit goods. Shrivastava and others (2003) have divided subsidies into three categories–(i) Merit I; (ii) Merit II; and (iii) Non-merit. These broadly refer to categories of services with desired high, medium and low amount of subsidization (Maurya, 2014). Following this approach, the services provided by the state government may be classified in three categories as indicated in Table 9.1.

Table 9.1: Classification of Public Services at the State Level

Merit I	Merit II	Non-Merit
1. Elementary Education	1. Technical Education, Sports, Art and Culture	1. Labour and Labour Welfare
2. Medical and Public Health	2. Family Welfare	2. Relief on account of Natural Calamities and others
3. Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes	3. Water Supply and Sanitation	3. Crop Husbandry
4. Social welfare and nutrition	4. Housing	4. Animal Husbandry
5. Soil and water conservation	5. Urban Development	5. Dairy Development
6. Science, Technology and Environment	6. Forestry and Wild Life	6. Fisheries
	7. Agricultural Research and Education	7. Plantations
	8. Other Agricultural Programmes	8. Food Storage and Warehousing
	9. Rural Development	9. Agricultural Finance Institutions
	10. Special Area Programmes	10. Co-operation
	11. Major and Medium Irrigation	11. Minor Irrigation
	12. Flood Control and Drainage	12. Power
	13. Energy except power	13. Industries
	14. Village and Small Industries	14. Transport and Communications others
	15. Roads and Bridges	15. Tourism, Civil Supplies and others
	16. Secretariat - Economic Services	16. Civil Supplies

Source: Author's construction based on Shrivastava and others (2003) classification.

9.2 Calculation of Subsidies

Subsidies can further be classified into explicit or implicit. Explicit subsidies are direct support to the particular sector reported in the budget/government documents. However, many times subsidies are given indirectly which cannot be traced easily from the government documents. Thus, it needs to be calculated through a suitable method for a broad view on subsidy. Two main approaches have been followed to calculate overall subsidies – national income accounting approach and subsidies as unrecovered cost approach.

As per national income accounting approach, subsidies are equal to GDP at factor cost plus indirect taxes minus GDP at market prices. The national income accounting approach cannot be used for subsidy calculation in the case of state governments as GSDP series at market prices are not available for the states. The second more commonly followed approach treats subsidies as unrecovered costs of providing public services. Under this approach, subsidies are measured as unrecovered costs of governmental provision of goods/services that are not classified as public goods. In particular, the goods and services under consideration are those that are categorized as social services and economic services. The unrecovered costs are quantified as excess of sum of current costs and annualized capital costs over receipts from the respective budgetary head. Whereas current costs include revenue expenditures related to the provision of services classified under different heads, the annualized cost of capital is obtained by adding interest paid on borrowed funds by the state to capital stock and depreciation cost on physical capital, if any. The receipts is summation of three things- revenue receipts from the user charges, interest receipts on loans and dividends on equity investments. However, the required information is not available for the state. Hence a simple cost recovery approach to measure state level subsidy has been adopted in this study as

is also being done by RBI. In this approach subsidy is simply the difference between revenue expenditure and cost recovery. The idea is that the state should, at least, recover operation and maintenance cost of providing goods and services, especially in the case of non-merit goods/services.

9.3 The Extent of Explicit Subsidies

Following the recommendations of Twelfth Finance Commission, the state government started giving data for explicit subsidies since 2008-09 budget. Table 9.2 shows the explicit subsidies of UP Government for the period 2008-09 to 2011-12. Explicit subsidies increased from Rs. 4362 crores in 2008-09 to Rs. 5601 crore in 2011-12 and Rs. 10060 crores in 2017-18 registering an annual compound growth of 9.73 percent between 2008-09 and 2017-18. Energy sector accounted for a major part of subsidy, its share grew from Rs. 1342 crore (30.76 percent) to Rs. 5260 crore in 2017-18 (52.29 per cent). The next most important component of subsidies was agriculture and allied activities sector. However, its share declined from 41.54 percent in 2008-09 to 27.48 percent in 2017-18. Another noticeable development is the increase in the share of subsidies to the industries and on the other hand, decline in share of subsidy component of society welfare (SC/ST).

Table 9.2: Explicit Subsidy Given by UP Government

Sector	Rs. Crore			As percent to total		
	2008-09	2011-12	2017-18	2008-09	2011-12	2017-18
Industries	233.42	239.32	1022.2	5.35	4.03	10.16
Energy	1341.8	2985.0	5260.0	30.76	50.29	52.29
Agriculture and other allied activities	1812.1	2163.8	2764.0	41.54	36.45	27.48
Planning Department	150.00	0.00	44.05	3.44	0.00	0.44
Science & technology	23.35	24.06	107.12	0.54	0.41	1.06
Society welfare (SC/ST)	801.44	523.71	862.67	18.37	8.82	8.58
Total Subsidy	4362.1	5935.9	10060	100.0	100.00	100.00
Subsidy As Percent of GSDP	0.98	0.87	0.70	-	-	-

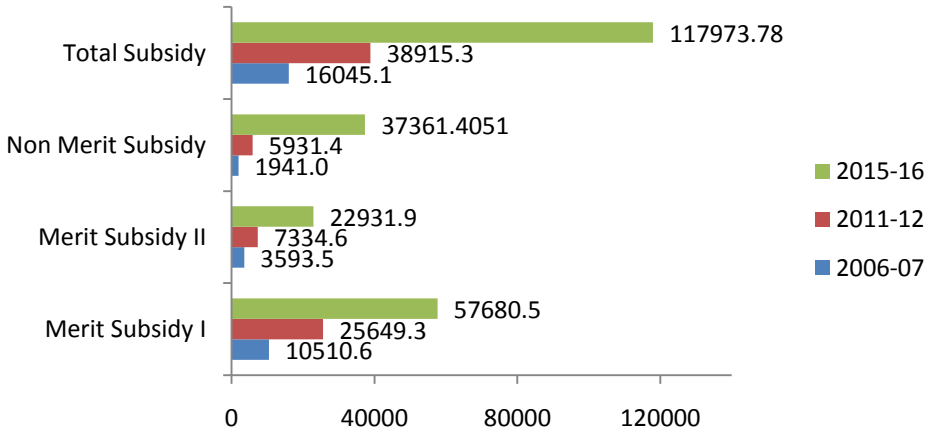
Source: Budget Documents of the UP Government.

Total direct subsidies amounted to about 1 per cent of GSDP and 4 per cent of total expenditure in 2008-09. Subsidy exceeded financial commitment projections by 19 per cent in 2008-09 and by 3 per cent in 2009-10, but were within the projections in the year 2010-11. However, in all the years subsidies were within the targets of MTFRP.

9.4 Analysis of Implicit Subsidies

Table 9.3 shows the trends in implicit subsidies (simple cost recovery approach). It is clearly evident from the table that subsidies are growing with a very fast pace, rising from Rs. 16045.1 crore in 2006-07 to Rs. 38915.3 crore in 2011-12 which further went up to Rs. 117973.78 in 2015-16. The Merit Subsidy I accounted for about two thirds of the total implicit subsidy during 2006-07 to 2011-12 before coming down around 50 percent of the total in 2015-16. The share of Merit Subsidy II declined from 22.40 per cent in 2006-07 to 18.8 per cent in 2011-12 before rising moderately to 19.44 percent. However, the share of Non-Merit Subsidy has more than 2.5 fold increase from 12.10 per cent to 31.67 percent over this period.

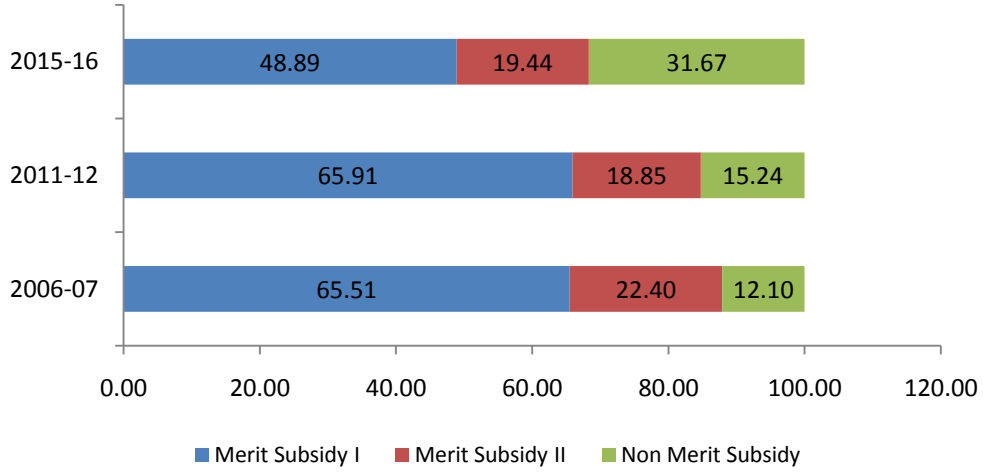
Figure 9.1: Trends in Implicit Subsidy in UP: 2006-07 to 2015-16



Source: Author's calculations.

Total implicit subsidy as percent of GSDP has been rising gradually. It rose from 4.52 percent of GSDP in 2006-07 to 10.53 per cent of GSDP in 2015-16.

Figure 9.2: Composition of Implicit Subsidy in UP (%):2002-03 to 2015-16



Source: Author's calculations.

9.4.1 Merit I subsidy

Total Merit I subsidy increased from Rs. 10510.6 crores in 2006-07 to Rs. 57680.5 crores in 2015-16, i.e. at a compound annual growth rate of 20.82 per cent. Education, sports, art and culture accounted for 74.1 per cent of total Merit I subsidy in 2011-12 which has come down to 59.68 percent in 2015-16. The share of medical and health was 15.5 per cent in 2011-12 out of it about 10 per cent of subsidy was accounted for social welfare. Hardly one per cent went to productive sectors like soil and water conservation and science and technology.

9.4.2 Merit II Subsidy

Total implicit subsidy in case of Merit II category increased from Rs. 3593.5 crores in 2006-07 to Rs. 7334.6 crore in 2011-12 and to a whooping level Rs. 22931.9 crores in 2015-16. The growth rate of merit II subsidy was 22.87 percent for the entire duration. In the subsidies falling under the

category of Merit-II, major share has gone to rural Development, Major and Medium Irrigation, family welfare and urban development.

Table 9.3: Trends in Implicit Subsidy: Merit and Non-merit

	In Rs. Crore			As % of respective total		
Item	**2006-07**	**2011-12**	**2015-16**	**2006-07**	**2011-12**	**2015-16**
Education, Sports, Art & Culture	7324.3	19008.5	34425.3	69.68	74.11	59.68
Medical & Public Health	1793.9	3975.1	6488.2	17.07	15.50	11.25
Welfare of SC, ST & OBC	580.8	1563.4	4510.8	5.53	6.10	7.82
Social welfare and nutrition	729.5	930.4	11570.5	6.94	3.63	20.06
Soil and water conservation	78.5	159.1	647.9	0.75	0.62	1.12
Science & Technology	3.6	12.8	37.8	0.03	0.05	0.07
Total Merit I	**10510.6**	**25649.3**	**57680.5**	**100**	**100**	**100**
Family Welfare	114.6	258.8	4464.4	3.19	3.53	19.47
Water Supply & Sanitation	-3.3	2.6	795.1	-0.09	0.04	3.47
Housing	13.1	34.6	60.1	0.36	0.47	0.26
Urban Development	115.6	141.3	3016.7	3.22	1.93	13.15
Forestry and Wild Life	-43.7	64.4	-100.5	-1.22	0.88	-0.44
Agricultural Research and Education	55.8	114.4	170.0	1.55	1.56	0.74
Other Agricultural Prog.	3.3	-9.1	3.3	0.09	-0.12	0.01
Rural Development	814.4	2337.7	7567.0	22.66	31.87	33.00
Special Area Prog.	25	0	11.6	0.70	0.00	0.05
Major & Medium Irrigation	1077.5	2260	6264.4	29.98	30.81	27.32
Flood Control & Drainage	33.4	73.6	105.1	0.93	1.00	0.46
Village and Small Industries	54.6	125.5	471.5	1.52	1.71	2.06
Secretariat - Economic Services	40.8	81.4	103.1	1.14	1.11	0.45
Total Merit II	**3593.5**	**7334.6**	**22931.9**	**100**	**100**	**100**
Labour and Labour Welfare	135.2	70.3	514.1	6.97	1.19	1.38
Relief on account of Natural Calamities	113.3	1134.8	5274.0	5.84	19.13	14.12
Crop Husbandry	530	736	2098.6	27.31	12.41	5.62
Animal Husbandry	168.9	350.9	713.6	8.70	5.92	1.91
Dairy Development	8.4	17.3	89.4	0.43	0.29	0.24
Fisheries	13.6	32.1	53.2	0.70	0.54	0.14
Plantations	2.6	4.6	14.8	0.13	0.08	0.04
Food Storage and Warehousing	93		162.9	4.79	0.00	0.44
Co-operation	65.7	32.8	293.7	3.38	0.55	0.79
Minor Irrigation	356	868.7	1412.7	18.34	14.65	3.78
Power	697.9	3458.7	20899.5	35.96	58.31	55.94
Industries and others	-249.3	-531	1327.3	-12.84	-8.95	3.55
Transport and Communications	39	84.5	3756.0	2.01	1.42	10.05
Tourism, Civil Supplies and Others	-33.3	-328.2	751.6	-1.72	-5.53	2.01
Total Non Merit Subsidy	**1941**	**5931.4**	**37361.4**	**100**	**100**	**100**

Source: Calculated from Budget Documents, UP Government.

These sectors accounted for 33.0 per cent, 27.32 per cent, 19.47 and 13.15 per cent respectively in 2015-16. The share of other subsidies was about 17 per cent.

9.4.3 Non-merit Subsidies

Non-Merit subsidy increased from Rs. 1941 crores in 2006-07 to Rs. 37361.4 crores in 2015-16 mainly on account of significant rise in subsidy to power and transport and communications. The compound annual growth rate came to 38.90 percent during the entire period. The largest share of Non-Merit subsidy went to power sector, which accounted for nearly 60 per cent of total Non-Merit subsidy in 20011-12 and 55 percent in 2015-16. Other important sectors getting Non-merit subsidy are Natural Calamities, Crop Husbandry and Minor Irrigation.

9.5 Conclusion

Total implicit subsidy has hovered around 5 percent of GSDP in most of the years. They account for over one fourth of total budgetary expenditure. Many of the subsidies being paid by the government can be justified on economic and social ground. However, a strict watch on the subsidies is needed to ensure that they reach the targeted beneficiaries and serve the purpose for which these are given. No systematic surveys of the state government services have been carried out. However, the limited field surveys, which are supported by general perception, indicate that the subsidies are not well targeted and there are significant errors of exclusion and inclusion in the list of beneficiaries. Bureaucratic corruption leads to significant leakages in the benefits and culture of touts has become dominant. Subsidies need to be scrutinized carefully to see if they are serving a useful purpose. The deficiencies in the distribution of subsidies need to be minimized through an effective system of monitoring and evaluation.

Chapter X

GST and State Finances of Uttar Pradesh

10.1 Introduction

Twelve years after the implementation of value added tax (VAT) in 2005, India took its one of the biggest indirect tax reforms i.e. rolling out of the goods and services tax (GST) on July 1, 2017 moving towards one nation, one market, and one tax regime. The GST is a destination-based single tax on the supply of goods and services by manufacturers to the consumer (RBI, 2018). GST is expected to reduce cascading effect, promote smooth inter-state trade, simplified procedure, raise international competitiveness and attract stable foreign investment. GST is also expected to have a positive impact on state finances as it would prevent leakages and broaden the indirect tax base (RBI, 2018).

Table 10.1 presents the number of central and state level taxes which has been merged under GST. All major indirect taxes of central as well as state level have been converted into a unified GST. The comparison between two indirect tax regimes i.e. VAT and GST is shown in table 10.2. Although, VAT was an improvement over the previous sales tax regime but it was not enough to reduce cascading effect of taxes. Every state had a freedom to decide their VAT rates. Therefore, a same product has different VAT rate in different state which was not inter-state trade friendly. Separate taxation system prevailed for goods and services. All these issues are expected to be sorted by the GST regime which is much simpler, user friendly and easier to implement.

However, the success of GST largely depends upon the effective implementation of system through extensive use of information technology.

Table 10.1: Taxes subsumed under GST

Central level	State level
1. Central Excise Duty 2. Duties of Excise (Medicinal and Toilet Preparations) 3. Additional Excise Duty 4. Service Tax 5. Additional Customs Duty commonly known as Countervailing Duty 6. Special Additional Duty of Customs 7. Cesses and surcharges in so far as they relate to supply of goods or services	1. State Value Added Tax 2. Entertainment Tax (other than the tax levied by the local bodies) 3. Central Sales Tax (levied by the Centre and collected by the States) 4. Octroi and Entry tax 5. Purchase Tax 6. Luxury tax 7. Taxes on lottery, betting and gambling 8. Taxes on advertisements 9. State Cesses and surcharges in so far as they relate to supply of goods and service

Note: GST would apply to all goods and services (including tobacco and tobacco products), except Alcohol for human consumption. GST on five specified petroleum products (Crude, Petrol, Diesel, Aviation Turbine Fuel & Natural gas) would be applicable from a date to be recommended by the GST Council. Source: www.cbec.gov.in.

Table 10.2: VAT and GST

Sn.	Major Features	Present VAT	Proposed GST
1	Structure	Structure of VAT in different states differ; VAT rates also differ.	A dual tax with both Central GST and state GST will be levied on the same base. GST to have four rates.
2	Cascading effect	CENVAT and VAT have not yet been extended to include the chain of value addition and thus the benefits of a comprehensive input tax and service tax set-off remains out of the reach of manufacturers/dealers.	The introduction of GST will not only include more indirect Central taxes and integrate goods and services taxes for set-off relief, but will also capture value addition in distributive trade and a continuous chain of set-off from the original producer's and service provider's point upto the retailer's level. This would eliminate the burden of all cascading effects. Also, major Central and state taxes will get subsumed into the GST, reducing the multiplicity of taxes.
3	Coverage	Relatively narrow base and separate service tax.	Wider base and applied on both goods and services. GST is a consumption based tax which will be collected by the states where the goods or services are actually consumed.
4	Procedures for collection of tax	It varies from state to state.	Likely to be uniform throughout the country.
5	Tax Administration	Complex due to number of taxes.	Intention is to make it simple, easy and tax-payer friendly.
6	Use of Information Technology	Not much.	Completely IT-based. Its success to a great extent will depend on IT for which the goods and services tax network (GSTN) – a separate company has been formed.

Source: http://empcom.gov.in

10.2 Status of GST in Uttar Pradesh

UP government has implemented GST in the state from 1st July, 2017. Thus, GST collections of 2017-18 are for 9 months only. The status of GST collections is given in table 11.3. The GST collections are expected to increase from Rs. 39304 crores in 2017-18 to Rs. 110072 crores in 2019-20. The expected growth in GST is below than the promised growth rate of GST by the Act i.e. 14 percent per annum, during 2018-19 to 2019-20 (on the basis of full years collections).

Table 10.3: Goods and Services Tax in Uttar Pradesh

Item	In Rs. Crore			As % of Total			Change %	
	2017-18	2018-19 RE	2019-20 BE	2017-18	2018-19 RE	2019-20 BE	2017-18 to 2018-19	2018-19 to 2019-20
CGST	1718.29	49091.6	53018.9	4.37	45.93	48.17	2757.00	8.00
SGST	25374	54025	52980.1	64.56	50.54	48.13	112.92	-1.93
IGST	12211.8	3771.39	4073.1	31.07	3.53	3.70	-69.12	8.00
GST	39304	106888	110072	100	100	100	171.95	2.98

Source: UP Budget Document 2019-20, Uttar Pradesh.

The GST collections (for full years) of the State are available for only two years i.e. 2018-19 and 2019-20. In these two, one is revised estimates and another is budget estimates. Thus, on the basis of these trends, it is not a good idea to forecast GST collections for the coming years and the extent of compensation will be required by the state. However, we attempted to estimate GST collections and extent of compensation will be required by the state for the period of 2020-21 to 2022-23. Following methodology was used to estimate the future values of GST. It has been noticed that the budget estimates of 2018-19 were revised upwards by 12.33, 9.31 and 5.99 percent in the case of CGST, SGST and IGST respectively. Assuming the same revision rate in each respective component for the 2019-20 budgeted estimates, revised estimates have been calculated for the year 2019-20.

Table 10.4: Estimated GST collections for the years 2020-21, 2021-22 and 2022-23 (in Rs. Crore)

Item	2019-20 BE (Given in budget documents)	2019-20 RE (Calculated values)	Change (%) RE – BE	Projections		
				2020-21	2021-22	2022-23
CGST	53018.90	59556.13	21.32	72251.32	87652.65	106336.98
SGST	52980.10	57912.55	7.20	62079.84	66547.00	71335.60
IGST	4073.10	4317.08	14.47	4941.72	5656.75	6475.23
GST	110072.00	121785.76	13.94	139272.88	159856.39	184147.82

Source: Author's calculations.

Table 10.5: Select fiscal indicators: Projections for the next three years (Rs. Crore)

Indicator	2018-19 BE	2018-19 RE	2019-20 BE	Projections for the next three years		
				2020-21	2021-22	2022-23
Revenue Receipts	348619.4	380021.7	391734.4	442765.3	499105.6	562872.8
Tax revenues	256248.4	275840.0	293039.2	334064.7	380833.7	434150.4
Own tax revenues	122700.0	134300.0	140176.0	159800.6	182172.7	207676.9
Share in central taxes	133548.4	141540.0	152863.2	174264.0	198661.0	226473.5
Non tax revenues	92371.0	104181.8	98695.2	108700.7	118271.9	128722.3
Own non-tax revenues	28821.7	28821.7	30633.0	32470.9	34419.2	36484.4
Grant in aids from Central Government	63549.3	75360.1	68062.3	76229.7	83852.7	92238.0
Revenue expenditure	321520.3	332774.1	363957.0	402564.9	445393.9	498841.2
Interest payment	32433.8	31870.7	35373.9	38557.6	42027.8	45810.3
Salary	54766.8	51651.8	63927.3	66734.7	73408.1	80749.0
Grant-in-aid for salary	48497.0	48809.1	53852.1	56483.8	62132.1	68345.4
Pension	45495.5	47617.5	53134.3	58447.7	64292.5	70721.8
Subsidy	11563.5	14598.6	14848.9	16333.8	17967.2	19763.9
As percent of GSDP						
Own Tax Revenue	8.2	9.1	8.9	9.1	9.3	9.4
Own Non-tax revenue	1.9	2	1.9	1.9	1.8	1.6
Revenue surplus	1.8	3.2	1.8	2.3	2.7	2.9
Fiscal Deficit	2.96	2.97	2.97	2.97	2.7	2.69
Total outstanding debt	29.78	29.97	29.98	29.97	29.46	28.77

Source: UP Budget Document 2019-20, Uttar Pradesh.

After calculating revised estimates for 2019-20, the growth rates of each component of GST between 2018-19 (RE) and 2019-20 (RE) were calculated. Thus obtained growth rates were assumed to prevail during 2020-21 to 2022-23 and estimates of revenue collections were calculated.

On the basis these calculations, the expected growth rates for the years 2020-21, 2021-22 and 2022-23 are 14.36, 14.78 and 15.20 percent respectively, which are more than 14 percent assured growth rate by the GST regulation. These estimates are given in table 10.4.

10.3 The road ahead

Given the paradigm shift in indirect taxation system, which is the major source of own revenue, and revival from the slowdown effect of demonetization, the economy must grow at the rate of 13-14 percent annum (nominal growth) to attain MFRP targets and to achieve sustainable fiscal health of state. The projections presented in the table 10.5 present a favorable picture. It shows that all the debt and deficit targets are within the limit suggested by 14th Finance Commission. Further, the revised estimates of revenue indicators for 2018-19 have improved as compared to budget estimates of the same year. With high economic progress and expected high GST collections, the government expects to achieve the projection which not only improve fiscal health of the state but also provide space to increase allocative and technical efficiency of expenditure. However, revenue impact of 7th pay commission award (Salary + Arrear) must also be accounted for while making any future fiscal projections.

Chapter XI

Conclusion & Suggestions

This study attempted to evaluate the state finances of Uttar Pradesh for the duration of 2005-06 to 2015-16. The terms of references of the study were provided by the Commission which mainly incorporated analysis of tax and non-tax revenues, revenue and capital expenditure, debt and deficits, financial health of energy and non-energy SPSUs, subsidies, status of financial and functional devolution to the local bodies and current status of implementation of the FRBM act.

The pace of social and economic progress of the state is not satisfactory. The gap between national and state economy is rising. The state is also suffering from high urban and rural poverty and unemployment. The land-population ratio is deteriorating posing serious challenges to the state in terms of providing basic services and food security. The industrial sector, considered as growth engine in initial stages of development, is also not performing well. The worrying state of economic affairs of UP is reflected in low HDI value as well.

10.1 Major findings

The major findings of the study are as follows:

Tax Revenue

1. The own tax revenue collections are buoyant as the tax buoyancy during the period of study was more than one (1.153). The buoyancy has improved during 2010-11 to 2017-18 as compared to 2005-06 to 2010-11.
2. Entertainment tax and taxes and duties on electricity are the fastest growing sources of revenue during the given period of the study.

3. Tax/GSDP ratio is rising continuously. It has increased from 6.09 percent to 7.24 percent during 2005-06 to 2016-17. It indicates increase in tax efforts.

Non-tax revenue

1. Receipts from interest and dividends & profits received from public sector companies are quite low. The share of receipts from interest is continuously falling whereas the contribution of dividends & profits are below one percent.
2. State's own non-tax revenues registered an annual compound growth of 23.9 percent for the entire period, large part of which has been recorded in the first sub-period. Growth of revenues from social services has been smooth and steady as compared to growth of general services. Total non-tax revenues also grew (23.12%) in similarity to state's own non-tax revenues.
3. The non-tax buoyancy estimates for the whole period is 1.601 ($p<0.01$) which is higher than the tax buoyancy. Estimates for two sub-periods show higher elasticity in the first sub-period (2.047; $p<0.01$) as compared to second sub-period (1.120; $p<0.05$).
4. The ONTR/GSDP (%) has been gradually rising during 2005-06 to 2015-16. It increased from less than one percent to 2.07 during the same period.
5. Cost recovery estimates show poor realisation in all services.

Public Expenditure

1. Developmental expenditure (DE) has grown faster than non-developmental expenditure (NDE). DE increased more than six times (CAGR 18.76%) as compared to NDE (CAGR 13.19%) which recorded less than fourfold increase.
2. Expenditure on social services and economic services grew by 18.11 and 19.96 percent respectively during 2005-06 to 2015-16.

Expenditures on family welfare (26.04%), housing & urban development (37.56%), industry & minerals (26.63%) and energy (31.84%) recorded the highest growth during the same period.

3. Expenditure on energy has recorded tremendous increase as percent of total revenue expenditure. Its share was about 3 percent in 2005-06 which has gone up to more than 10 percent in 2015-16. Majority of this change has taken place during last two years only i.e. 2014-15 and 2015-16.
4. Interest payment was 19.52 percent of total revenue expenditure in 2005-06 which has gradually come down to 10.08 percent in 2015-16.
5. However, on the contrary of this the pension burden has gone up from 8.56 percent to 11.35 percent.
6. The share of capital outlay in total capital disbursement has increased to 82.53 percent in 2014-15 before declining to 72.07 percent in 2015-16 from 64.14 percent in 2006-07.
7. The share of social services in capital disbursement has not increased much. Its share rose to 22.52 percent in 2012-13 before sliding down to 17.71 percent from 10.49 percent in 2006-07.
8. The share of economic services in total capital disbursement remained around 50 percent.
9. Surprisingly, the share of agriculture and allied activities, rural development, special area programmes and major & medium irrigation and flood control has declined from about 15 percent to about 10 percent during the study period.
10. Revenue expenditure as percent to GSDP increased from 15.06 percent to 19 percent during 2005-06 to 2015-16, whereas, capital outlay increased from 2.81 percent and 6.23 percent during the same period.

Debt and Deficits

1. Gross fiscal deficit is prone to external shocks. It was more than 3 percent for most of the years during the given time period. It reached to an uneasy level of 5.22 percent (as percent of GSDP) in 2015-16.
2. The state has been able to attain continuous revenue surplus since 2006-07 to 2015-16.
3. Except for 2007-08 (-0.22) and 2011-12 (-0.01), there has been primary deficit during the whole period of analysis.
4. A gradual decline in outstanding debt/GSDP and IP/GSDP has been noticed in the case of Uttar Pradesh. These are within the limits suggested by the FRBM Act.
5. The share of market borrowings grew constantly and now it is contributing more than 39 percent of total outstanding debt. Small savings have contributed around 28.34 percent in 2005-06 which has come down to 21.54 percent in 2015-16.
6. Maximum amount of guarantees have risen more than five times from Rs. 15073 crores in 2005-06 to Rs. 78826 crores in 2015-16. The outstanding amount of guarantees was 34.17 percent of revenue receipts in 2015-16.

MFRP targets and actual performance

1. In terms of debt and deficit indicators, the UP government has been able to achieve its debt and deficit targets almost for every year. Whereas in the case of own tax revenue, it has not been able to achieve its targeted rate even for a single year.

2. In the case of outstanding debt too, the state has done well. The outstanding debt gradually reduced below 30 percent in 2011-12 and from then onward it remained below 30 percent. However, an increasing trend has been observed in the recent years which in synchronous with rise in fiscal deficit.

3. The state has always fell short of own tax revenue targets. The gap between target and actual performance has gone up in the recent years. It was around one percentage point during early years which has gone up to more than two percentage points in the later years of the selected period of the study.

Devolution of funds to local bodies

1. Actual devolution of funds to the ULBs has been lesser than the funds to be devolved from 2007-08 to 2012-13. The gap increased from a meager amount of 34 crores (1.82%) in 2007-08 to a significant level of 701 crores (21.50%) in 2010-11. From then onward, the gap is declining and in the years 2013-14 and 2014-15, the amount of fund devolved was much greater than the funds should have been devolved to ULBs. The actual funds devolved were 40.52 percent higher than the funds to be devolved.
2. In the case of PRIs, actual funds devolved were lower than funds to be devolved for0 the entire period except for 2007-08 and 2014-15 when opposite was the case. The gap was more than 20 percent of funds to be devolved during 2009-10 to 2012-13.
3. The pace of functional and financial devolution to the PRIs is very slow. Even the functions which are devolved to the ULBs are being done partially.
4. Out of the total 18 functions to be performed by the ULBs only 9 are being devolved to them.

Financial performance of SPSUs

1. As on 31st march, 2016, there were 65 working and 38 non-working SPSUs. Investment in non-working SPSUs was Rs. 1058.90 crores. More than 20 percent of GSDP is invested in the SPSUs.

2. Energy SPSUs are making huge losses, where, working PSUs on aggregate level are earning profit.
3. The losses of energy PSUs went up from 7062.4 crores in 2008-09 to 14806.3 crores in 2015-16.
4. More than ninety percent of total investment in SPSUs goes to energy SPSUs but they are incurring heavy losses which mean negative return on investment.
5. The accumulated losses of working SPSUs have increased from Rs. 12305.6 crores in 2006-07 to Rs. 91401.19 crores in 2015-16, more than 7 times increase.
6. The process of closure of non-working entities is very slow. No disinvestment took place after 2010-11 till 2015-16.

Power sector and state finances

1. The peak demand shortage has been quite high during early years but showing some decline in the recent years (2015-16: 14.82%).

2. The T&D losses have remained in the range of 30 to 34 percent during 2005-06 and 2012-13. However, it has come down to below 30 percent in recent years only.
3. The AT&C losses have been even higher. These have declined from a high level of 43.6 percent in 2005-06 to 31.85 percent in 2015-16.
4. Thermal power plants in the state are working only at about 60 percent in 2005-06 to over 75 percent in 2011-12 before coming to down to a dismal level of 62 percent.
5. State power utilities taken together have been incurring heavy losses in the last four years, mainly on account of the poor financial performance of UPPCL.
6. The average revenue per unit has fallen short of the average cost of supply of power per unit consistently over the years.

Subsidies

1. Explicit subsidies increased from Rs. 4362 crores in 2008-09 to Rs. 10060 crores in 2017-18. Energy sector accounted for a major part of subsidy, its share grew from 30.76 percent to 52.29 percent during 2008-09 to 2017-18.
2. Total direct subsidies amounted to about 1 percent of GSDP and 4 percent of total expenditure in 2008-09.
3. The merit subsidy I accounted for about two thirds of the total implicit subsidy during 2006-07 to 2011-12 before coming down to 50 percent o the total in 2015-16.
4. The share of merit subsidy II declined from 22.40 percent in 2006-07 to 18.8 percent in 2011-12 before rising moderately to 19.44 percent in 2015-16.
5. However, the share of non-merit subsidy has more than 2.5 fold increase from 12.10 percent to 31.67 percent during 2006-07 to 2015-16.

Status of GST

1. The GST collections are expected to increase from Rs. 39304 crores in 2017-18 to Rs. 110072 crores in 2019-20. The expected growth in GST is below than the promised growth rate of GST by the Act i.e. 14 percent per annum.

10.2 Suggestions

Although, the major suggestions regarding different aspects of state finances have been given in the respective chapters, however, few additional suggestions as follows:

12. Adequate industrial reforms and incentive measures should be taken to bring industrial sector on higher growth trajectory. It would not

only lead to overall higher growth of the state but also will enhance revenue capacity.

13. For measuring revenue capacity, estimation of true tax base is required. Due to lack of information about the relevant tax bases of different taxes, estimation of true revenue capacity is not possible. It also leads to lesser tax collections in absence of knowledge of tax base. Therefore, it is suggested that the state government should try to first create a real-time database of all commercial establishments, commercial buildings, professionals, residential houses, no. of registered vehicles, etc. whether small or big, whether falling in tax net or not to have a knowledge of correct tax bases.
14. Good governance is an important issue. Good governance can bring in improved transparency, greater accountability, greater confidence of general public, and streamlining the mechanism and structure of the government. It will also bring in improved flow of information to general public on ways and form of decision making and hence lead to less arbitrariness as decisions come under public scrutiny. Thus, an integrated information management system is very important.
15. The availability of detailed information regarding tax & non-tax revenues, public expenditure, financial performance of PSEs, subsidies, contingent liabilities, devolution of funds to local bodies, etc. is very poor in the case of UP. The departmental websites are not regularly updated. The information is available for current points of time only that too not in detail. This seriously hampers the public scrutiny of the system and gives an opportunity to develop corruption and slackness. Thus, UP government must made sincere efforts to make available the all the information in public through different mechanism.

16. User charges are very low in many cases. It should be rationalized in the case of economic services. All efforts should be made to realize the cost at least. In the case of social services, multi-tariff system may be adopted, those who have higher ability to pay must pay cost plus user charges. Benefit of low charges should only be provided to the needy one especially in services other than education and health.
17. Higher allocation of capital outlay should be made on social services for attaining better allocative efficiency of public expenditure.
18. The decline in the share of agriculture and allied activities, rural development, special area programmes and major & medium irrigation and flood control in total capital disbursement is not a positive change. In fact, agriculture sector in UP demands higher capital investment. Therefore, it is suggested that the state government should make higher allocation of capital expenditure to the agriculture sector.
19. Contingent liabilities are rising with a rapid pace. Most of contingent liabilities are in terms of guarantees extended for energy sector. Efforts should be made to decrease the amount of contingent liabilities.
20. To bridge the gap between own revenue target and actual collections, UP government need to rework its target and especially the assumptions on which these are based.
21. The pace of functional and financial devolution to the local bodies is slow. It seems that the state government did not want to decentralized the responsibilities and power to the local governments. Transfer of central taxes to the state government should also be linked with extent of devolution of to local bodies. A

certain percentage of total transfer may be associated with extent of implementation of 73rd and 74th CAA.

22. SPSUs should be segregated between energy and non-energy SPSUs. Their evaluation of performance, efficiency and future prospects must be done separately. It is important as the nature of work, revenue, expenditure and fixing of user charges is totally different in the case of energy and non-energy SPSUs. It is also important to get a clear picture of operating and financial performance of SPSUs.
23. Performance audit of energy SPSUs should be made compulsory as these are the principal source of losses involving more than 90 percent of total investment made in SPSUs.
24. Closure of non-working SPSUs is very slow. It must be expedited to precious resources invested in the non-working entities.
25. Involvement of private sector through disinvestment should be encouraged to bring more accountability, professionalism and transparency.
26. These SPSUs must be encouraged to keep their financial data updated regularly which should be available in public. It has been seen that audit of their previous 5 to 6 years financial statements is due.
27. Energy PSUs must undertake sincere measures to decrease T&D losses and AT&C losses. Along with that, these should also try to utilize their plant load capacity up to maximum extent.
28. Targeting of subsidies is very important. Recent trends suggest higher allocation of subsidies to non-merit activities. The UP government should rethink upon this and it should redirect its subsidies to merit categories only.

29. To reduce the burden of committed expenditure especially salary expenditure, the state governments suggests abolishing all the vacant positions lying in the government departments. This is not the justified solution. Rather, redistribution of vacancies is need of the time. There are many departments which are understaffed and some are overstaffed. The government should make appropriate legal measures to reallocate vacancies to required places. This will ensure social justice along with higher output in terms of work.

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