SIGNIFICANCE OF FISCAL DEFICIT AND PUBLIC DEBT IN INDIAN ECONOMY-TWIN PERSPECTIVES OF SOVEREIGN CREDIT RATING AGENCY AND GOVERNMENT OF INDIA

A Dissertation submitted to Indian Institute of Public Administration (IIPA) in Partial fulfilment of the requirement for the Advanced Professional Programme in Public Administration (APPPA)

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CERTIFICATE

I have the pleasure to certify that Mrs. Renuka Mishra has pursued her research work and prepared the present dissertation titled ***'Significance of fiscal deficit and public debt in Indian Economy-twin perspectives of Sovereign Credit Rating Agency and Government of India'*** under my guidance and supervision.

The same is result of research done by her and to best of my knowledge; no part of the same has been part of any monograph, dissertation or book earlier. This is being submitted to the Panjab University, Chandigarh, for the purpose of Master of Philosophy in Social Sciences based on the curriculum and in partial fulfillment of the requirement for the Advanced Professional Programme in Public Administration (APPPA) of Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of Mrs. Renuka Mishra is worthy of consideration for the award of M. Phil degree of the Panjab University, Chandigarh.

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It is hereby declared that this submission is my original piece of work and to the best of my knowledge and belief, it contains no material previously published or written by any other person. I am aware of the University's norms and regulations regarding the plagiarism including the disciplinary action that it may invite. Any one of the works by any another author, in any form, is adequately at their point of use or in the Bibliography.

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ABBREVIATIONS USED IN THE STUDY

S.No	Abbreviated form	Full form
1.	SCRAs	Sovereign Credit Rating Agencies
2.	GoI	Government of India
3.	IMF	International Monetary Fund
4.	MIS	Moody’s Investor Service
5.	S&P	Standard and Poor’s
6.	GFC	Global Financial Crisis
7.	ANBA	Atma Nirbhar Bharat Abhiyaan
8.	WB	World Bank
9.	SAP	Structural Adjustment Programme
10.	GFD	Gross Fiscal Deficit
11.	PD	Primary Deficit
12.	RD	Revenue Deficit
13.	SRMs	Sovereign Rating Methodologies
14.	EMDEs	Emerging Market and Developing Economies
15.	WEF	World Economic Forum
16.	WDIs	World Development Indicators
17.	UNCTAD	United Nations Conference on Trade and Development
18.	CAG	Comptroller and Auditor General of India
19.	MI	Multilateral Institutions
20.	IGST	Integrated Goods and Services Tax

ABSTRACT

1. India along with the world has faced the Global Financial Economic Crisis and the COVID-19 Pandemic. Such crisis situations from time to time necessitate fiscal stimulus for giving boost to the economy. This also raises the fiscal deficit. Consistent fiscal deficits result in rising public debt. The fiscal deficit needs to be financed through Market borrowing. A considerable part of this borrowing comes from the Government Bond Market. Sovereign Credit Rating Agencies(SCRAs) assigns rating to the Sovereign based on the performance of a couple of macro-economic indicators of the country. SCRAs primarily assess the capacity of the Sovereign to repay its debt and its intent to pays its obligations. A downgrade in Sovereign Rating makes market borrowing costlier for the Sovereign. The purpose of this study is to look at the fiscal deficit and public debt of India from the twin lenses of Government of India and Sovereign Rating Agencies.

2. Objectives of this study are given as under:

   (i) To study relevant macro-economic indicators of India from Sovereign Credit Rating Perspective
   (ii) To understand fiscal deficit and public debt in India from the twin perspectives of SCRA and GoI.
   (iii) To examine the trend in Public Expenditure, Fiscal Deficit and Public Debt in India in the last three decades (1990-91-2020-21)
   (iv) To suggest measures for better efficacy and transparency.

3. **Research Method**: Comparative, descriptive, analytical, and exploratory research methods based on secondary data have been resorted to for this study. In a nutshell, Quantitative research method has been adopted for the study. The research was conducted through a desk-based analysis.

4. **Data Sources** for the study include:

   (i) Economic Surveys, GoI
   (ii) Budget documents, GoI
   (iii) RBI handbook of Statistics on Indian Economy
   (iv) Ministry of Finance Reports on Debt Management

(v) IMF data on Global Debt Database

(vi) SCRA Rating Methodology and relevant datasets.

(vii) Bank of International Settlements

(viii) Other online secondary data sources the majority of which are online data sources including Google, and Google Scholar, as well as reputable newspapers. Articles from online media and journals, research papers, and government agency releases.

5. **Brief on the study done in this dissertation**:

5.1 **Chapter 1** first gives an overview on the Crisis generated fiscal stimulus packages world over including India during the Global Financial Crisis and the Pandemic and the resulting Fiscal Deficit, Public Debt, and Sovereign Rating Downgrade; second provides an understanding on the relevance of Sovereign Credit Rating; and then finally introduces the topic of dissertation.

5.2 In **chapter 2**, review of the existing literature and studies done in fiscal deficit, public debt, sovereign credit rating and relevant key words and concepts has been done. The national as well as the international perspective on the subject has been covered. The study covers books and papers starting from 1960 to 2021. For each paper read, the research gap is identified so that the focus of the current study becomes sharp. The review of literature here is an incisive study to see through the key issues, findings and research gaps in the papers and books selected for the purpose of this study. Based on this review of literature, some of the research gaps have been identified to take the study forward in terms of statement of the problem with specific reference to India, rationale, and objectives.

5.3 **Chapter 3** lays down the foundation for conducting this study by logically stating the issues and the problems which necessitate conduct of this study. The way study is to be conducted is well linked with the objectives, research questions and hypothesis. While describing the research design, research strategy and research method, the research plan along with data sources for this study is systematically delineated.

5.4 In **Chapter 4**, an analysis of Sovereign Rating Methodologies of Moody's Investor Service(MIS), Standard & Poor's(S&P) and FitchRating to list out and understand the macro-economic indicators factored in the assessment of a Sovereign has been done. The weightage given to each of these macro-economic indicators by the Rating agencies is also observed. Since Sovereign Rating is basically the Government Bond Rating, a comparative analysis of global data has been done to understand the level of development of Government Bond market of India. A comparative analysis of World Bank data with respect to GDP per capita income and per capita growth rate for peer group countries in terms of Sovereign Rating has been done. India's data as reported in World Bank data with respect to Gini Index, Unemployment rate, Labour Market Efficiency Index, Total Labour force, working age population, labour force participation rate of female has also been seen and India's standing as per the Rating Methodology of Moody's Investor Service has been examined.

5.5 In **Chapter 5**, an examination of fiscal deficit and public debt in India from the twin lenses of Sovereign Credit Rating Agency (SCRA) and Government of India (GoI) has been done. For SCRA a detailed insight on the SCRA's perspective on fiscal strength and fiscal flexibility and public debt and debt sustainability of two most popular SCRAs Moody's Investor Service and Standard and Poor's have been presented. Simultaneously, basic regulatory framework of India with respect to monitoring key fiscal and debt parameters has been examined considering the fiscal and debt monitoring framework envisaged by the SCRAs in their Sovereign Rating Methodologies. GoI perspective on fiscal deficit and public debt indicators has been presented as per the Fiscal Responsibility and Budget Management Act (FRBMA), 2003.

5.6 In **Chapter 6**, covers study of trends in (i) Capital and development expenditure (ii) Combined deficits of Central and State Governments and Interest Payments as percentage of GDP (iii) Select debt indicators of Centre and States as percentage of GDP (iv) Tax Revenue, Non -Tax Revenue and Revenue deficit as percentage of GDP. Three decades starting from 1990-91 to 2020-21 has been covered for study of the trends.

5.7 In **Chapter 7**, findings based on the comparative analytical exercise in chapters 4,5 and 6 have been presented, 5.8 In **Chapter 8**, presents an overview of the key insights associated with the findings and proposes a way forward as suggestions. Limitations of the study and what can be taken up for future study has also been indicated in this concluding Chapter.

6. Table A1 and Table A2 on Sovereign Rating Methodologies may be seen below.

Table A1: Sovereign Bond Ratings Sector Scorecard Overview			
1.Economic Strength			
Sub-factor			
Subcategory	**Weight(%)**	**Indicators**	**Weightage (in %)**
(i)Growth Dynamics	35	(i)Average Real GDP Growth t-4 to t+5	25
		(ii)Volatility in Real GDP Growth t-9 to $_t$	10
(ii)Scale of Economy	30	(iii) Nominal GDP	30
(iii)National Income	35	(iv) GDP per Capita (PPP, Int. USD) $_t$	35
Adjustment to the factor	Score 0-9 notches	Other	
2. Institutions and Governance Strength			
(iv) Quality of Institutions	40	(v) Quality of Legislative and Executive Institutions	20
		(vi) Strength of Civil Society and the Judiciary	20
(v) Policy Effectiveness	60	(vii) Fiscal Policy Effectiveness	30
		(viii) Monetary and Macroeconomic Policy Effectiveness	30
Adjustment to Factor	Score 0-3 notches	(ix) Government Default History and Track Record of Arrears	
	Score 0-3 notches	Other	
3. Fiscal Strength			
(vi) Debt Burden	50	(x) General Government Debt / GDP $_t$	25
		(xi) General Government Debt / Revenue $_t$	25
(vii) Debt Affordability	50	(xii) General Government Interest Payments / Revenue $_t$	25
		(xiii) General Government Interest Payments / GDP $_t$	25
Adjustments to Factor Score	Score 0 - 6 notches	(xiv) Debt Trend t-4 to t+1	
	Score 0 - 6 notches	(xv) General Government Foreign Currency Debt / General Government Debt $_t$	
	Score 0 - 6 notches	(xiv)Other Non-Financial Public Sector Debt / GDP $_t$	
	Score 0 - 6 notches	(xv)Public Sector Financial Assets and Sovereign Wealth Funds / General Government Debt	
	0 - 3 notches	Other	
4. Susceptibility to Event Risk			
(viii)Political Risk	Minimum Function2	(xvi)Domestic Political and Geopolitical Risk	
(ix)Government Liquidity Risk	Minimum Function2	(xvii) Ease of Access to Funding	
	0 - 2 scoring categories		Adjustment to Sub-factor Score High Refinancing Risk.
(x) Banking Sector Risk	Minimum Function2	(xviii)Risk of Banking Sector Credit Event (BSCE)	
	Minimum Function2 Function2	(xix)Total Domestic Bank Assets / GDP $_t$	
	0 - 2 scoring categories		Adjustment to Sub-factor Score.
(xi) External Vulnerability Risk	Minimum Function2	(xx) External Vulnerability Risk	
		0 - 2 scoring categories	Adjustment to Sub-factor Score.
1 For more details about how these weights may vary, please refer to our discussion on the Treatment of Reserve Currency Countries and HIPC/IDA Countries within the Fiscal Strength section of the methodology.			
2 The aggregation of Political Risk, Government Liquidity Risk, Banking Sector Risk and External Vulnerability Risk follows a minimum function, i.e. as soon as one area of risk warrants an assessment of elevated risk, the country's overall Susceptibility to Event Risk is scored at that specific, elevated level.			
Source: Moody's Investors Service			

Table A2: S&P Rating Methodology	
Factor	**Sub Factor**
1. Institution and government effectiveness score	(I) Effectiveness, stability, and predictability of policymaking, political institutions, and civil society
	(ii)Transparency and accountability of institutions, data, and processes
	(iii) A sovereign's debt payment culture
2. Economic score	(iv) Per capita GDP
	(v)Per capita GDP growth rate
	(vi) Economic diversity and volatility.
3. External score	(vii)Currency status
	(viii)Country's external liquidity
	(ix)Resident's liabilities and incomes
4. Fiscal score	(x) Fiscal performance and flexibility
	(xi)Debt burden
5. Monetary score	(xii) A sovereign's ability to use monetary policy and the exchange rate regime
	(xiii) Monetary policy's credibility and effectiveness and inflation trends
Source: S&P	

6.1 Table A1 and Table A2 are also presented as Table 5 and 6 in Chapter 4 of this dissertation. These tables provide information on the factors and sub-factors considered by Sovereign Credit rating Agencies viz. Moody's Investor Service (MIS) and Standard and Poor's (S&P) while assigning Ratings to the Sovereigns. In Chapters 4 and 5, a detailed dissection of these Rating Methodologies has been done in light of the objectives of the study.

6.2 A credit rating assesses the likelihood of a business or transaction failing to meet its financial obligations, such as interest payments and principal repayment, on time. These relative hazards are translated into discrete rating grades, which are commonly given alphanumeric names. For example, Fitch and S&P utilise AAA, AA, A, and BBB for investment-grade long-term credit risk, and BB, B, CCC, CC, C, and D for "speculative" long-term credit risk, from the most creditworthy to the least. Fitch and S&P employ pluses and minuses (e.g., AA+ and AA-), while Moody's utilises numbers to further identify and rank ratings within each of the broader classes (Aa1 and Aa3). The relative scales used by these agencies for rating long term debt are depicted on Table 4 of Chapter 4.

7. Hypothesis tested during the study

7.1 Since the study is basically a comparative analysis of position of India vis-à-vis the Sovereign Rating Methodologies (SRMs), the findings on the hypothesis set in this dissertation is based on thorough reading of the Moody's Investor Service (MIS) and Standard and Poors(S&P) and the position of India with respect to the macro-economic indicators(as in global data sources) for examination in each of the hypothesis. Findings against each of the hypothesis are given below.

7.2 Hypothesis Number 1: Per Capita income is a significant variable in determination of Sovereign Credit Rating of India.

Finding: From the data-based analysis vis-à-vis the rating methodologies of MIS and S&P conducted and presented in chapter 4, it is learnt that:

(a) India is not faring well in terms of per capita income when compared with its cohort group of countries.

(b) India's GDP per capita is the lowest in this cohort of countries and that these countries had a GDP per capita negative growth rate. The large populace of India is becoming a limiting factor despite India posting high rates of growth.

(c) India's GDP per capita (in PPP US dollars) qualifies for a position in the B3 range in which the countries with growth rate of 0.9-1.1% are to be placed. But India's GDP rate of growth[1] is much higher than this.

(d) India's position with respect to Gini Index shows that India qualifies to remain in '**baa**' category.

[1] India's GDP may grow 9.2% in the current financial year ending March 2022, according to the first advance estimates released by the government.

Therefore, it can be concluded that per capita income is a significant variable putting downward pressure on India's Sovereign Rating.

7.3 Hypothesis Number 2: Unemployment is a significant variable in the determination of Sovereign Credit rating of India.

Finding: A study of the Rating Methodology of MIS in Chapter 4, Table **9** and the corresponding relevant figures of India in **Table 10** (with respect to Gini Index, Unemployment rate, Labour market efficiency index, total labour force, working age population and female labour force participation rate) and comparative picture with respect to peer group countries in **Table 11** indicate that India qualifies to fall in the category of **Baa**. Since the comparative scale for rating with respect to unemployment has been provided in detail in the Rating Methodology of Moody's, based on the same we arrive at the conclusion that unemployment is another important factor in the determination of Sovereign Rating of India which is critically compressing its position to **Baa level**.

7.4 Hypothesis Number 3: Capital expenditure is a significant variable in the determination of Sovereign Credit rating of India.

Findings: Both MIS and S&P do not use the term capital expenditure in their Rating Methodology. Their chief concern is pressures on expenditure that may arise due to increase in ageing profile of the population or due to poor Human development index of the population. Therefore, we can conclude that capital expenditure per se is not a significant variable in the determination of Sovereign Credit Rating of India.

7.5 Hypothesis: Fiscal deficit is a significant variable in determination of Sovereign Credit Rating of India

Finding: From the study in chapter 5, it is established that fiscal deficit though not mentioned as a factor or sub-factor in Rating Methodology of either MIS or S&P, it indirectly forms a very important factor in the assessment of a Sovereign as nearly 40% of the weightage is assigned to factors and sub-factors related to fiscal strength and public debt sustainability and public debt burden. SCRAs strongly believe that **Consistent fiscal deficits** frequently lead to increased leverage and poor debt affordability, making the sovereign more exposed to financial shocks and increasing the risk of default. Consistent fiscal deficits and high debt burden creates downward pressure on India's Sovereign Rating.

8. **Findings of the study**:

(a) In case of Moody's Investor Service (MIS), out of the 22 sub-factors 16 concerns the key macro-economic indicators viz. (i)Average Real GDP Growth, (ii) Volatility in Real GDP Growth , (iii)Nominal GDP , (iv) Fiscal Policy Effectiveness, (v)Monetary and Macroeconomic Policy Effectiveness, (vi)Government Default History and Track Record of Arrears, (vii)General Government Debt / GDP , (viii)General Government Debt / Revenue, (ix)General Government Interest Payments / Revenue, (x)General Government Interest Payments / GDP , (xi)Debt Trend, (xii)General Government Foreign Currency Debt /General Government Debt, (xiii)Other Non-Financial Public Sector Debt / GDP, (xiv)Public Sector Financial Assets and Sovereign Wealth Funds / General Government Debt, (xv)Total Domestic Bank Assets / GDP and (xvi) External Vulnerability Risk. **In effect, 73% of the indicators concern macro-economic indicators. In total weightage of 300% given to Factors and Sub-factors in score card , 200% is directly due to macro-economic indicators.**

(b) Similarly in case of S&P, it is observed that out of 13 sub-factors 9 concerns the macro-economic indicators viz. (i) Per capita GDP, (ii) Per capita GDP growth rate,(iii) Economic diversity and volatility, (iv) Currency status,(v) Country's external liquidity,(vi) Resident's liabilities and incomes,(v) Fiscal performance and flexibility,(vi) Fiscal performance and flexibility,(vii) Debt burden,(viii) A sovereign's ability to use monetary policy and the exchange rate regime and (ix) Monetary policy's credibility and effectiveness and inflation trends. **In other words, in S&Ps Rating Methodology, 69% of the indicators concern macro-fundamentals.**

(c) In their overall assessment of fiscal policy effectiveness and fiscal strength, government strength and government effectiveness play an important role. The intention of the Government to pay is the starting point for S&P. Both the SCRAs give so much importance to the intention of the Government to pay its debt that even if the Government were to resort to international financial aid to tide over the crisis and shows efforts in changing its policies in line with the conditionalities placed by the international agencies for aid, the act of the government is viewed positively. When there is a history of government default or considerable arrears, the Institutions and Governance Strength component score is lowered downward.

(d) Both MIS and S&P assigns around 40% weightage to fiscal strength and public debt related factors.

(e) Existence of independent bodies for review of budget- making process and for public debt management is often rated positively.

(f) SCRAs are more concerned with the General Government Debt (GGD). GGD includes debt of the central government, as well as regional and municipal governments, social security system (if different from Central Government) and the central bank's debt only (not its obligations). On the other hand, Fiscal Responsibility Budget Management Act (FRBMA) indicator on debt is concerned only with the Union Government's debt. FRBMA monitors the figures on revenue deficit, fiscal deficit, tax-revenue, primary deficit, non-tax revenue and Union Government's debt. Each of these indicators are measured in terms of percentage of GDP.

(g) Net General Government debt is also the concern of S&P. World Bank maintains data of different countries of the world on this indicator. Information for India on this data is not available.

(h) Quarterly Public Debt Management Reports released by the PDMC cell of Ministry of Finance, GoI and India's Quarterly External Debt Report released by RBI do not cover indicators emphasized by SCRAs in their assessment.

(i) There has been a general tendency for decline in public expenditure both for capital expenditure and developmental expenditure when taken as a percentage of Total expenditure. Capital expenditure declined from 40% of total expenditure in 1990-91 to 35% in 2021-22, while the development expenditure as percentage of total expenditure declined from 52% in 1990-91 to 47% in 2021-22.

(j) In absolute terms, both total expenditure and capital expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total capital expenditure has increased by 96%. This figure can be taken as a signal of gradual development of the economy.

(k) In absolute terms, both total expenditure (development + non-development) and development expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total development expenditure has increased by 96% and 97%. The total development expenditure declined from 52% in 1990-91 to 47% in 2020-21.

(m) The expenditure on social services which was 6% of total expenditure in 1990-91 is halved to 3% in 2020-21.

(n) **Expenditure on social services as a percentage of GDP has been much less when compared to expenditure on Economic Services as a percentage of Total Expenditure.** Expenditure on all the three components of Total development expenditure viz. Social Services, Economic Services and Development Expenditure has declined during this period.

(o) Over a period of 30 years, it is observed that all the three key deficit indicators viz. Gross Fiscal Deficit, Gross Primary Deficit and Revenue Deficit as percentage of GDP have declined but they do not match the benchmarks set under FRBMA.

(p) Interest Payments as a percentage of GDP have remained higher than the Gross Primary deficit as a percentage of GDP except for a few years (2009-10 to 2010-12). Average amount of interest payments as percentage of GDP has been around 3.87% during the 1990-91 to 2020-21. This means that the government has been compelled to borrow due to interest obligations (on previous loans).

(q) With respect to Interest payments as percentage of GDP, it is observed that there has been a declining trend since 2003-04, but Interest Payments account for considerable part of the Gross Fiscal Deficit.

(r) Gross Primary Deficit as a percentage of GDP was more than the Interest Payments as percentage of GDP for the period 2009-10 to 2011-12 implying deteriorating fiscal condition.

(s) External liabilities of the Centre as percentage of GDP have declined to a considerable extent in 2020-21(2.62% of GDP) when compared to the position in 1991-92(16.28% of GDP).

(t) The total liabilities, domestic liabilities and external liabilities of the Centre as percentage of GDP have continued to decline steadily except for a moderate increase in 2018-19 and 2019-20.

(u) State Liabilities as percentage of GDP have increased to 26.63% in 2020-21 when compared to 21.86% in 1990-91.

(v) The Gross Tax revenue as percentage of GDP has always remained above 3% during the three-decade period of 1990-91 to 2020-21.

(w) The combined Tax Revenue and Non-Tax Revenue during 1991-92 to 2021-22 has been above 11% except for a dip in 2020-21.

(x) Required data by an SCRA is not available at one spot. The data in international sources is not updated.

9. Recommendations: Based on the above findings, following points of action on the part of GoI has been suggested:

8.1 <u>Strengthening macro-economic fundamentals</u>: Since nearly 70% of the Sovereign Rating Exercise is guided by the macro-economic indicators, it is crucial for a nation to keep working on further strengthening its macro-economic fundamentals.

8.2 <u>Prioritizing and Linking Government policy actions with the weightage of factors and sub-factors under Sovereign Rating Methodologies:</u> Since weightage is also assigned to each of the factors and sub-factors related to macro-indicators in the Sovereign Rating Methodologies, it is important to link the policy actions and the targets for development with factors and sub-factors and prioritize action as per the weightage and priority in terms of Sovereign Rating.

8.3 <u>Showcase India's efforts in Atma Nirbhar Bharat Abhiyaan (ANBA)</u> : As a country, India should be able to showcase its efforts in Atma Nirbhar Bharat Abhiyaan (ANBA), because the philosophy behind ANBA is one step ahead of Sovereign's debt payment culture. It emphasises the fact that India no longer wants to remain dependent on debt, rather has a strategy to build its own assets and finances for development of the nation, that economic development of the country and its people is the top priority of the leadership of the nation.

8.4 Developing data on indicators examined by SCRAs**:** Since both MIS and S&P assigns around 40% weightage to fiscal strength and public debt related factors, reporting on the related indicators as required as per the rating methodologies of these SCRAs may be worked upon. This would imply that India will need to churn out readily available data on indicators like (i) General Government debt as ratio of GDP and Revenue, (ii) General Government Interest Payment ratio of Revenue and GDP, (iii) Net General Government Debt, (iv) General government interest expenditures as a percentage of general government revenues and (v) Contingent liabilities and guarantees.

8.5 Establishing Independent body for debt management and fiscal management : Though the work on evolution of independent body for Independent Debt Management office is underway, the task needs to be executed at the earliest. Likewise, an independent fiscal institution (in the form of a fiscal council) staffed by non-elected specialists/experts to provide nonpartisan advise (based on impartial and scientific study) and direction on critical issues of fiscal policy, from either a positive or normative perspective in the interest of sustainable public finances. Besides, such an independent body also need to address issues of comprehensiveness, transparency, and accountability in the Budgets.

8.6 Focus on human development and inclusive growth: Given the fact that the SCRAs also consider the qualitative factors as well as quantitative factors of human and social development, it is important that the GoI has a clear-cut prioritized policy focus for development of its social milieu not only in terms of basic human development indicators but also in terms of Gini index, Labour Market efficiency index, Training, and skill development. Human Development Index indicators include life expectancy at birth, expected years of schooling, mean years of schooling and gross national income per capita. There is need to emphasize increase in targeted public expenditure for inclusive growth.

8.7 Establish the democratic connect for realised and responsible frugal governance: Running deficits and having considerable debt liabilities/burden from the past implies that indeed debt liabilities are a burden on the future generation. Citizens of India need to feel responsible for these burdens. It is essential to establish the democratic connect for realised and responsible frugal governance. Instead of creating new institutions with additional cost burden of governance, it is desirable that best is made of existing administrative structure in terms of best co-ordination efforts and eliminate Corrupt officers and Ministers from the system. Free doles and subsidies need to be better targeted and restricted.

8.8 Taxing big agriculturists/ farmers: In the backdrop of existing politico-economic dimensions and an aware citizenry, Taxation of hitherto untouched sectors such as agriculture needs to be explored. Option of adding big Agriculturists/ Farmers to income tax can be explored.

8.9 Updating data annually with international bodies: Since the SCRAs refer to the international data sources for their annual review exercise, it is essential that the GoI provides updated data annually to these international organizations.

8.10 Calibrating and digitizing expenditure for inclusive growth: Given the findings related to expenditure profile with respect to developmental expenditure and non-developmental expenditure, social services, economic services, there is need to calibrate the same for more efficacy in terms of achieving the goals set for inclusive growth. There is need to reduce non-developmental expenditure. Digitization of expenditure and linking it with Direct Beneficiary transfer through innovative methods can further ensure transparency.

8.11 Developing India's Government Bond Market: There is need to further develop India's Government Bond Market. Government is currently working on registration in Global Bond Index. This action needs to be expedited.

CHAPTER 1: INTRODUCTION

1. Crisis related fiscal stimulus and resulting Fiscal Deficit, Public Debt, and Sovereign Rating Downgrade- An Overview

1.1 The first quarter of 21st century has been marked by a number of financial crisis[2] prominent among them being the Global Financial Crisis (GFC) of 2007-09. Historical evidence suggests deadly effects of financial crisis on the economy viz. downturns, banking crisis, reduced government revenues, fiscal deficit, public debt, rating downgrades and a default (for some countries). These effects of GFC were also visible in the advanced economies of United States of America and European Union. GFC necessitated for fiscal stimulus packages from governments across the world for restoration of badly affected financial sector. At that point of time, Government of India (GoI) also delivered effective stimulus package[3] to tide over the crisis. Between December 2008 and February 2009, the government announced three stimulus packages totalling Rs 1,86,000 crore, or 3.5 percent of GDP[4].

1.2 The declaration of COVID-19 as global pandemic by World Health Organization on 11th March 2020 was open acceptance of the fact that the world economies had landed into yet another serious perennial crisis. COVID-19 is a health crisis for individuals across the world. To stall the spread of the pandemic virus, nations observed complete lockdown from time to time. International travel and domestic travel have remained disrupted to a considerable extent. With the invention of anti-corona vaccines and the mass vaccination programmes, economies have gradually started to open. But the 'new normal world' is different.

1.3 Circular Economy strategies could be the new normal. GoI has also echoed this stance through its policy on 'Atma Nirbhar Bharat Abhiyaan'[5] (ANBA). The fiscal stimulus package[6] of Rs 20 lakh crores announced on 12 May 2020 by Prime Minister

[2] 2001–2002 Argentine Economic Crisis, the Global Financial crisis of 2007-2009 and the Russian Financial crisis in 2014.
[3] In 2008-09 GoI announced fiscal stimulus consisting of (a) a blanket 4 percentage point reduction in the excise duty rates, (b) Rs 20,000 crore in planned public spending , (c)Rs10,000 crore funding for infrastructure finance, (d) export subsidies and (e)a large government order for new buses to replace State public transport fleets.
[4] This fiscal stimulus was never withdrawn.
[5] A self-reliant India.
[6] Special economic and comprehensive package.

(PM) Shri Narendra Modi is named ANBA. The five pillars of ANBA were outlined as *Economy, Infrastructure, System, Vibrant Demography and Demand*. This position cannot be equated with the clarion calls for 'Swadeshi' or 'Home Rule' during British rule. These movements then were voluntary stance of Indians geared by the desire for independence from British rule. The British rule still at that point of time provided the opportunity for connecting with the entire world. Today the situation is quite different. Today, Indians would like to interact with the world on their own terms, but the world perhaps may not open its walls/ barriers owing to the COVID -19 pandemic. India first needs to fight its battle with the pandemic. While fighting the battle India also needs to rise as a strong self-reliant economy. ANBA calls for efforts for more and more rapid economic development for removing the chains of dependency. 'Atma Nirbharta' at the national level today means that India is preparing herself for a leadership role at the international level. In the words of PM Narendra Modi "When India speaks of becoming self-reliant, it doesn't advocate a self-centred system. In India's self-reliance, there is a concern for the whole world's happiness, cooperation and peace".

1.4 Since the Covid-19 pandemic hit India, the total cost of the fiscal stimulus provided by fiscal authorities amounted to US$ 16 trillion [7](15.3 per cent of the GDP). Central Government's fiscal deficit for 2021-22 has been estimated to be 6.9 % of GDP whereas its accumulated Central Public Debt over the years is estimated to be 59.9 % of GDP in 2021-22. Such high levels of fiscal deficit and public debt indicate dependency of GoI on borrowings to run its economy both in the short and in the long run. As per IMF Global debt database, India's General Government Debt[8] in 2020 was 89.61% of GDP and Central Government Debt was 55.34% of GDP in 2020.

1.5 During the fiscal year 2019-20, actual gross and net market borrowings through dated securities were Rs 7,10,000 crore and Rs 4,73,972 crore, respectively. In 2020-21, net market borrowings through dated securities were expected to fund 64.15 percent of the Gross Fiscal Deficit (BE)[9]. Foreign Banks are dominant players in Government securities secondary market an important segment of Government debt sector.

[7]Of the total amount, US$ 10 trillion consisted of additional spending or foregone revenue, while US$ 6 trillion comprised liquidity support in the form of guarantees, loans, asset/debt purchases, and equity injections.

[8] Combined debt of Centre and the States.

[9] To finance the remaining 35.85% of the GFD, other sources such as net borrowing from Treasury Bills, small savings fund, state provident fund, net external aid, and cash drawdown were budgeted.

Therefore, Sovereign Credit Ratings Agencies (such as Moody's, S&P, Fitch etc) come into picture as they provide credit ratings for the benefit of foreign investors. These ratings also act as benchmarks for domestic investors.

1.6 On June 1, 2020, Moody's Investors Service ("Moody's") downgraded the Government of India's foreign-currency and local-currency long-term issuer ratings to Baa3 (from Baa2) with outlook as 'negative'. A rating downgrade means it becomes difficult for GoI as well as all Indian companies to raise funds because the world sees such debt as a riskier proposition. On 21 October 2021 Moody's has changed India's sovereign rating outlook to "Stable" from "Negative" and affirmed the country's rating at "Baa3" keeping in view the improvements in the economic scenario[10] from negative to positive. However, this still remains a major concern because another downgrade by the SCRA would push India's sovereign rating into the non-investment grade category.

2. Global Perspective on Fiscal deficit and Public Debt

2.1 Conventionally, Fiscal deficit =Total expenditure (including Revenue plus Capital) – Total Revenue excluding borrowings. In other words, fiscal deficit indicates excess expenditure. It is a flow variable. Since this expenditure is to be covered by borrowing, fiscal deficit is considered synonymous to net borrowing by the Government in that particular year (or at that point of time). If fiscal deficit is positive, it means an equivalent addition to public debt in that year. Therefore, there is an identity as under:

Fiscal deficit in a particular year =Net borrowing by the government=Net addition to public debt

2.2 On the other hand, public debt is a stock variable and is defined as the debt and liabilities of the Government (in the case of India those debt and liabilities contracted in the Consolidated Fund of India). It is an accumulation of all net borrowings/fiscal deficits of the Government over a period. It is a cumulative concept.

2.3 Therefore, both Fiscal deficit and Public Debt imply:

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[10] As per IMF World Economic Outlook October 2021 projections, India's GDP projections for 2021 and 2022 are 9.5% and 8.5% respectively.

- increase in liabilities of Government which need to be paid later (tax on future generation)
- increase in interest burden as fiscal deficit is invariably financed through borrowings
- Crowding out of private borrowings
- Inflationary effects

2.4 It is obvious from the above understanding that curtailing fiscal deficit is viewed as the key to macro-economic stability.

2.5 However, in the words of Martin Feldstein[11]: *Fiscal deficits are like obesity. You can see your weight rising on the scale and your clothing size increasing, but there is no sense of urgency in dealing with the problem.* Introduction of High fiscal deficits in relation to GDP not only create sharp increases in the debt-to-GDP ratio, but also have a negative impact on savings and investment, and thus growth. When the fiscal imbalance is large and structural, fiscal policy's effectiveness as a countercyclical intervention tool is compromised.

2.6 According to Gale and Orszag (2002), a one-percentage-point drop in the forecast budget surplus (or rise in the projected budget deficit) raises long-term interest rates by 50 to 100 basis points. Fiscal discipline, they believe, supports long-term growth since budget surpluses are a type of national saving. However, Keynsians believe that increased aggregate demand, on the other hand, increases the profitability of private investment and leads to larger investment at any given rate of interest. Fiscal deficits are considered as neutral in terms of their impact on growth from the standpoint of Ricardian equivalence. The use of deficits to fund budgets is nothing more than a tax delay.

2.7 But economies across the world experience crisis situations[12] of huge dimensions from time to time. This calls for deficit budgets and deficit spending through borrowings to save mankind. Deficit budgets are matters of compulsion. Deficits in Government Budget[13] was introduced first time to fight the Great Depression

[11] Martin Feldstein Address to Reserve Bank of India, January 12, 2004.
12 Economic depressions, natural calamities, man-made disasters, financial crisis like sub-prime crisis , health-care system failures in the current pandemic etc.
13 The idea of deficit budget was first propagated by Economist Sir J.M. Keynes.

in the 1930s. Thereafter, mainstream economics supports deficit spending and considers counter-cyclical fiscal policy[14] desirable. But structural deficit in the economic system of a country is not supported. Running deficits in Government budgets even during a boom period indicates structural deficit.

3. Understanding the relevance of Sovereign Credit Rating

3.1 The credit rating of a sovereign entity, such as a national government, is known as a Sovereign Credit Rating (SCR). Investors wishing to invest overseas use the sovereign credit rating of the country to look at the risk[15] level they need to grapple with while remaining invested in that country. Credit Rating (CR) can serve as a "credit passport," allowing investors to see an entity's credit rating and enabling 'rated sovereign' get access to more capital markets based on its Rating[16](Vanza and Cosimo,2013). A credit rating condenses a huge amount of information on a bond issuer's creditworthiness and the creditworthiness of certain other financial instruments. As a result, Credit Rating Agencies (CRAs) assist lenders to "pierce the fog of asymmetric information that surrounds lending relationships and help borrowers emerge from that same fog" (White, 2001).

3.2 Credit ratings are sought by governments not just to facilitate their access to international capital markets, but also because these assessments have an impact on the ratings of other borrowers of the same nationality.

3.3 Because of domestic[17] and international[18] prudential supervision, many investors, particularly institutional investors, prefer rated assets as against unrated securities.

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14 More public expenditure during depression and recession and curtailing public expenditure during boom periods in business cycle in the economy

15 Sovereign Rating factors in political risk also.

16 Bozic,Vanza.Magazzino,Cosimo.(2013).Credit Rating agencies: The importance of fundamentals in the assessment of Sovereign Ratings. Economic Analysis and Policy Volume.33 No.2 September 2013.

17 Securities and Exchange Board of India (Credit Rating Agencies) Regulations, 1999 amended in August 2021.

18 In the United States recognition is reserved for Nationally Recognized Statistical Rating Organizations (NRSROs), a designation conferred on only a limited number of agencies including the major three, Moody's, Standard & Poor's and Fitch.

3.4 The function of credit rating agencies has grown because of financial globalisation, and it has been bolstered further by Basel II, which incorporates CRA ratings into the procedures for determining credit risk weights.

3.5 The surge in private capital flows, along with the stagnation of concessional financial aid, has increased credit rating agencies' control over the terms on which Emerging Economies can access global financial markets.

3.6 Investors use SCRs as a screening tool to help them decide how to build their portfolios and make investment decisions.

3.7 Due to national restrictions prohibiting investment in speculative grade bonds, ratings govern the eligibility for debt of Institutional investors and eligibility of keeping other financial instruments in their portfolios.

3.8 For borrowing countries, a rating downgrade has negative effects on their access to credit and the cost of their borrowing (Cantor and Packer, 1996).

4. Introducing the topic of dissertation

4.1 It is important to understand that these Sovereign Ratings and Outlook on the economy are based on the performance of a couple of macro-economic indicators of the country. To make the understanding even more simple. Let us consider the fact that each one of us run our own budgets at home. While running our home budgets, our situation is almost like that of a finance minister of a country. We are very critical of unproductive expenditures sometimes in our homes also. We feel the stress when unplanned and emergent expenditures come up. We are critical of family, friends etc at times more so when we find that they are asking for a loan without strong credentials. This is exactly the situation where we act like a Sovereign Credit Rating Agency[19]. We look at the credentials before providing financial support. We also act like the IMF looking for projections of positive or negative outlook based on which we may take an informed decision. The concern and interest become even more deep when it takes the shape of a national budget. Here the Sovereign Credit Rating Agency plays the critical role, assessing the outlook for the economy based on some key macro-economic

[19] A Credit Rating Agency examines the capacity of a defaulter, generally a firm, a business, or a government to make interest payments on their debt, and the contingency of omission.

indicators and projections for the economy. Sovereign rating for the economy decides the level of ease or difficulty for market borrowing.

4.2 But individual assessment of a person seeking credit may differ from the assessment done by another person. He/she may have better idea about his/her potential to pay back the loan in the long run. The same analogy may apply to a Nation. The National Leadership and Policy makers may hold a different perception of the possibilities of development in the long run. The Sovereign Credit Rating Agency may not be taking such long-term perspective while rating the Sovereign[20]. What the Sovereign thinks of itself, and its prospects may not match the perception of a Rating agency and may not be any concern to a Sovereign Rating agency. It is this thought which brings us to the topic of this dissertation wherein it is proposed to look at the two fiscal indicators viz Fiscal deficit and Public debt from the perspective of a SCRA on the one hand and Sovereign on the other with specific reference to India. It is obvious that the visions of both are different. For the SCRA the allegiance is to the investors, For the sovereign what matters is their people. Particularly developing countries are more concerned with the developmental needs of their people. So, the immediate question that arises is what is new in the topic? How does this become a research topic. That's where the challenge is: Let us first answer this question- Yes of course there are many international studies moving around the topic of fiscal debt, public debt, and sovereign credit rating agency but not a combined study of afore-mentioned two perspectives at one place specific to a country. Singular studies have their own biases. When we pick up twin lenses of SCRA and Sovereign for analysis of fiscal indicators fiscal deficit and public debt there is bound to be more rigour in terms of understanding in this specific area. The intention is to look at the bias or difference if any between the approach of a SCRA and a Sovereign.

4.3 In the above backdrop, it is proposed to take up this dissertation writing exercise on 'Significance of Fiscal deficit and Public Debt in Indian Economy- twin perspectives of Sovereign Credit Rating Agency and Government of India'.

[20] Nations and states are also referred to as "sovereign" at times. This means they have control over themselves; rather than being under the jurisdiction of an outside authority, their government is under their control.

4. Structure of Dissertation

4.1 The chapterization scheme of the report is presented as under:

4.2 **Chapter 1** first gives an overview on the Crisis generated fiscal stimulus packages world over including India during the Global Financial Crisis and the Pandemic and the resulting Fiscal Deficit, Public Debt, and Sovereign Rating Downgrade; second provides an understanding on the relevance of Sovereign Credit Rating ; and then finally introduces the topic of dissertation.

4.3 In **chapter 2**, review of the existing literature and studies done in fiscal deficit, public debt, sovereign credit rating and relevant key words and concepts has been done. The national as well as the international perspective on the subject has been covered. The study covers books and papers starting from 1960 to 2021. For each paper read, the research gap is identified so that the focus of the current study becomes sharp. The review of literature here is an incisive study to see through the key issues, findings and research gaps in the papers and books selected for the purpose of this study. Based on this review of literature, some of the research gaps have been identified to take the study forward in terms of statement of the problem with specific reference to India, rationale, and objectives.

4.4 **Chapter 3** lays down the foundation for conducting this study by logically stating the issues and the problems which necessitate conduct of this study. The way study is to be conducted is well linked with the objectives, research questions and hypothesis. While describing the research design, research strategy and research method, the research plan along with data sources for this study is systematically delineated.

4.5 In **Chapter 4**, an analysis of Sovereign Rating Methodologies of Moody's Investor Service, Standard & Poor's and FitchRating to list out and understand the macro-economic indicators factored in the assessment of a Sovereign has been done. The weightage given to each of these macro-economic indicators by the Rating agencies is also observed. Since Sovereign Rating is basically the Government Bond Rating, a comparative analysis of global data has been done to understand the level of development of Government Bond market of India. A comparative analysis of World Bank data with respect to GDP per capita income and per capita growth rate for peer group countries in terms of Sovereign Rating has been done. India's data as reported in World Bank data with respect to Gini Index, Unemployment rate, Labour Market Efficiency Index, Total Labour force, working age population, labour force participation rate of female has also been seen and India's standing as per the Rating Methodology of Moody's Investor Service has been examined.

4.6 In **Chapter 5**, an examination of fiscal deficit and public debt in India from the twin lenses of Sovereign Credit Rating Agency (SCRA) and Government of India (GoI) has been done. For SCRA a detailed insight on the SCRA's perspective on fiscal strength and fiscal flexibility and public debt and debt sustainability of two most popular SCRAs Moody's Investor Service and Standard and Poor's have been presented. Simultaneously, basic regulatory framework of India with respect to monitoring key fiscal and debt parameters has been examined considering the fiscal and debt monitoring framework envisaged by the SCRAs in their Sovereign Rating Methodologies. GoI perspective on fiscal deficit and public debt indicators has been presented as per the Fiscal Responsibility and Budget Management Act (FRBMA), 2003.

4.7 In **Chapter 6**, trends in Capital and development expenditure in India has been studied and presented. Likewise, trends in key fiscal indicators and public debt indicators of India have been studied and presented.

4.8 In **Chapter 7**, findings based on the comparative analytical exercise in chapters 4,5 and 6 have been presented,

4.9 In **Chapter 8**, presents an overview of the key insights associated with the findings and proposes a way forward as suggestions . Limitations of the study and what can be taken up for future study has also been indicated in this concluding Chapter.

5. Conclusion: This chapter introduces the topic in the backdrop the Crisis generated fiscal stimulus packages world over including India during the Global Financial Crisis and the Pandemic and the resulting Fiscal Deficit, Public Debt, and Sovereign Rating Downgrade. This is followed by an understanding on the relevance of Sovereign Credit Rating; and finally the topic has been introduced through an analogy of the Sovereign Borrowing credibility and a layman's borrowing credibility from a household. Having thus introduced the topic, a detailed Chapterisation plan covering key areas of study in the dissertation has been delineated.

CHAPTER 2: LITERATURE REVIEW

1. Review of Literature has been done keeping in view the prime objectives of the study and the key words in the topic of study viz. fiscal policy and fiscal deficit, public debt and debt sustainability, public expenditure, credit rating, sovereign credit rating and market borrowing. Review of literature is done in the backdrop of their relevance and role in economic growth and development. Though lot of literature is available on fiscal deficit, public expenditure, public debt, and sovereign credit rating, focus of the review of literature has been on books, papers and documents which directly relate to the topic of the study. A brief on the review of literature is given as under:

2. **Fiscal policy and fiscal deficit**

2.1 Fiscal Policy in Underdeveloped countries with specific reference to India (Chelliah, 2011)

Issue & Objective: In 1960, no study was available to address fiscal policy issues from the perspective of supporting economic growth in developing countries. The objective was to establish theory of fiscal policy with specific reference to developing countries. It focuses on tax policy issues and discusses the economic principles that can be used to build and analyse the structure of taxes in developing economies. By reorienting the theory of fiscal policy originally developed in economically advanced countries to the problems, requirements, and institutional structure of an underdeveloped, over-populated country with a mixed enterprise system, the work made a significant contribution to the field of Development studies.

Methodology: Qualitative interpretive and Quantitative descriptive method has been used.

Findings: One of India's fiscal policy goals has been to make the country self-sustaining, based on the development of economic surplus. Any credible theory of public finance for impoverished countries starts with economic surplus. Taxation is the sole effective tool for generating economic surplus in a developing economy. Taxation reduces private consumption and investment while transferring these resources or surpluses to the government for economic development.

Research gap: The book has been first published in 1960. It was published for the third time in 2011 but does not include the recent developments in India with respect to fiscal policy and FRBMA. The book only covers fiscal policy of India till 1960.

2.2 Reserve Bank of India (RBI) data on fiscal deficit

A look at the RBI data on fiscal deficit shows that India has been running high fiscal deficit in its budget since the 1977-78 (since the last 44 years). The combined fiscal deficit of Centre and State has together ranged between 9.1% in 1990-91 to 4% in 2007-08. In its Report on Currency and Finance for 2001-02, RBI provides estimates of structural and cyclical fiscal deficits. According to their estimations, India's fiscal deficits are primarily structural, with a modest cyclical component, ranging from a deficit of 0.12 percent of GDP to a surplus of 0.21 percent of GDP.

2.3 An essay on Fiscal Deficit (Chelliah, 1993).

Issue & Objective**:** The paper was written in the backdrop of adoption of a series of large-scale economic reforms in India in 1991 under the IMF's structural adjustment programme (SAP) with emphasis on fiscal consolidation. In the context of macro-economic stabilization in India and in many other countries, fiscal deficit had become an important variable and a policy target. The objective of the study was to bring forward a strategy for reduction of the relative size of fiscal deficit. This included (a) thorough analysis of various components viz. fiscal deficit, revenue deficit and monetised deficit; and (b) Relationship of fiscal deficit with Public Debt and their impact on economic growth.

Methodology: Both Qualitative Explanatory analysis and Quantitative descriptive analysis has been employed.

Arguments (based on quantitative analysis) for reduction of fiscal deficit to enhance real economic growth:

(a) The best accessible summary indication of the short-term macroeconomic impact on demand and the balance of payments is the fiscal deficit. It tends to push out private investment, causing economic imbalances. If the government uses the channel of borrowings to cover shortfalls in the current account of the budget (non-productive purposes), increased budget fiscal deficit means displacement of capital formation in the economy, resulting in low levels of economic growth. Furthermore, the government's net borrowings add to the national debt. A rapid increase in public debt indicates an increase in the debt-to-GDP ratio, which may not be sustainable after a certain point.

(b) The revenue deficit is the gap between current receipts and revenue expenditure (which does not result in capital formation). This indicator shows whether the government is saving or not. A modest percentage of the government's revenue spending required for new services in sectors such as health and education can be financed by government borrowing in a growing country like India.

(c) The monetised deficit, or RBI credit to the government, is the third deficit that is essential from a policy standpoint. The extent of the 'monetised deficit'[21] is not accurately reflected in the overall budgetary deficit calculated in the Budget. Furthermore, while the government may be able to pre-empt savings through special laws like as the Statutory Liquidity Ratio (SLR), rising government borrowings leads to an increase in the rate of interest, which affects the growth rate.

(d) Income Tax collection is insufficient to meet the needs of the Indian economy's development. However, a significant portion of the tax money is used to pay interest on earlier debt.

Findings: Government needs to be more concerned with raising the rate of economic growth. Growth is easier to achieve when the macroeconomic environment is relatively stable. The necessity to reduce India's fiscal and revenue deficits stems from the need to keep inflation under control to boost real economic growth. Prof. Chelliah suggested as under:

(a) Real rate of growth of Indian Economy to be maintained at 5.5 -6 % for the next 10 years.

(b) Given fulfilment of condition (a) above fiscal deficit of 3% for Centre and 2% for States within 10 years.

[21] Dr.Rangarajan, former Governor, RBI brought out the ill-effects of automatic monetisation of Government deficit. Later this was replaced by Ways and Means Advances (WMA). WMA scheme was introduced to meet mismatches in the receipts and payments of the government. The government can avail of immediate cash from the RBI, if required. But it must return the amount within 90 days.

(c) The monetised deficit of the Centre to be limited to not more than the additional demand for cash balances.
(d) The revenue deficit should be eliminated 'as early as possible' (within 10 years)
(e) To raise the revenue buoyancy to 1.2 through a reform of the tax system and better enforcement.

Research gap: The suggestions are very well theoretically supported and have also been adopted by Government of India in the form of Fiscal Responsibility and Management Act (FRBM) 2003. However, lot of time has passed since then. The need is to look at the financing strategies adopted to achieve the fiscal targets suggested.

2.4 Fiscal Responsibility and Management Act (FRBMA) 2003 and FRBM Rules 2004, Revisions in 2012, 2018 and 2021

Issue & Objective: The key issue was deteriorating fiscal situation. To give credibility to the macroeconomic policies of the Government of India and to remove discretionary interventions by the Government, FRBM Act[22] was enacted in 2003. The main objectives of the FRBM Act are elimination of revenue deficit, bringing down the fiscal deficit, ensuring equitable distribution of debt over the years, ensuring fiscal stability in the long run, introduction of a transparent system of fiscal management within the country and to give necessary flexibility to RBI for managing necessary inflation in India. The Act mandates submission of statements on Medium-Term Fiscal Policy, Fiscal Policy Strategy, Macro-Economic Framework and Medium-Term Expenditure Framework.

Methodology: Methodology is monitoring key fiscal(quantitative) indicators.

Strategy and review based on monitoring: The FRBM Rules were framed in 2004. As per FRBM rules, Medium-Term Fiscal Policy Statement must give information on 6 fiscal indicators viz. revenue deficit, fiscal deficit, tax-revenue, primary deficit and non-tax revenue and Union Government's debt. Each of these indicators are to be projected as percentage of GDP in the Statement. Information on these indicators is essential as

[22] To ensure that the States too are financially prudent, the 12th Finance Commission's recommendations in 2004 linked debt relief to States with their enactment of similar laws. The States have since enacted their own respective Fiscal Responsibility Legislation and set 3% of Gross State Domestic Product (GSDP) cap on their annual fiscal deficit.

targets have been set under FRBM for these indicators. The initial targets[23] were set for 2008-09 but were not met due to the Global Financial Crisis. These targets have been deferred thrice (2012,2015 and 2018) through revision of FRBM Rules. Government has not been able to achieve the set deficit targets under the FRBMA. Now, owing to the COVID-19 pandemic the fiscal consolidation position has further disrupted.

Findings: In 2017, on the recommendation of the Review Committee on FRBM constituted by Ministry of Finance, an escape clause has been resorted to in the Union Budget 2019-20 by taking a deviation of 0.5 percentage points from the fiscal deficit targets set out earlier.

The FRBMA 2003 mandates that the federal government reduce its outstanding debt, revenue deficit, and fiscal imbalance over time. When the Union Budget is presented each year, the central government sets three-year rolling targets for certain indicators. By March 31, 2021, the government was supposed to have a budget deficit of 3% of GDP. The fiscal deficit target was adjusted to 3.5 percent in Budget 2020-21 (as permitted by the FRBMA), and a fiscal deficit target of 3.1 percent was set for 2022-23. The fiscal deficit increased from 3.5 percent of GDP in BE 2020-21 to 9.5 percent of GDP in RE 2020-21 due to the unprecedented nature of the CoVID-19 shock on economic growth and other fiscal parameters. Pandemic-related uncertainty has persisted through 2021 and 2022.Therefore, no rolling targets for fiscal indicators has been set by the Union Budget 2021-22 and 2022-23. Instead, in the Union Budget 2021-22, it has been stated that GoI will revise the FRBMA to account for the increased fiscal deficit.

Research Gap: Introduction of FRBM rules helped consolidate the finances of both the Central and State governments. However, the linkage between budget policy setting, operational framework of FRBMA and impact on public expenditure needs to be studied.

2.5 Fiscal situation of India in the time of COVID-19- Study done by Centre for Advanced Financial Research and Learning (CAFRAL[24],2020)

[23] revenue deficit, fiscal deficit, tax-revenue, and primary deficit as percentage of GDP.

[24] Centre for Advanced Financial Research and Learning (CAFRAL) (CAFRAL) is an independent body set up by the Reserve Bank of India (RBI) in the backdrop of India's evolving role in the global economy, in the financial services sector and its position in various international fora.

Issue & Objective: Because of the COVID-19 epidemic, the world economy has ground to a halt. The forced economic shutdowns being implemented all around the world are unprecedented and will come at a high cost to the economy. The objective of the study is to provide inputs for Fiscal policy which could provide temporary relief to those most affected and revive the economy to its full potential.

India's current fiscal spending might be characterised as fiscal populism. The government spends money on social security, such as cash transfers or food programmes, as well as on boosting jobs, maintaining aeroplanes, and a variety of other things. All this spending has resulted in a large fiscal deficit. Many analyses have shown that India's fiscal status has been one of profligacy during the last few decades when compared to similar economies throughout the world. The aggregate deficit of the federal and state governments has been approximately 6.5 percent for 2018-19 and 2019-20. The decrease in international demand and domestic consumption is likely to result in considerable employment losses in India's official and informal sectors. Even if the health catastrophe is averted, there remain concerns about the economy's long-term consequences. The budgetary push appears to be the obvious policy lever in these uncertain times. This support should be proportional to the severity of the situation and the government's fiscal space. Current spending, on the other hand, should be managed in such a way that India's fiscal health stays strong and the country does not suffer from credit flight, which could result in a credit rating drop. This is a major concern because another level of downgrade would push India's sovereign rating into the non-investment grade category. A country with a higher credit rating is in a better position to issue more debt with less risk, allowing for increased spending if necessary.

Methodology: Quantitative Method with Regression Technique has been adopted. The study analyses the association between fiscal spending and COVID-19 spread, economic stringency, and macroeconomic parameters using data from a diverse set of nations.

Findings: First, based on the worldwide benchmark, it is estimated that India can spend 2.2-4.8 percent of its GDP. Second, based on the worldwide study, the central government's fiscal deficit is estimated to be as high as 8.4% in the most pessimistic case, and 3.7 percent in the most optimistic one, after accounting for revenue and output shortfalls caused by the pandemic. Finally, the current COVID-19 pandemic problem is also an opportunity to take a 360-degree look at the government's expenditure profile to find areas from where monies can be released for needed additional expenditures. Further, it is argued that subsidy reduction[25] is the best method to pay for critical health spending and transfers while maintaining budgetary discipline.

Research gap: Till June 2021, the fiscal package announced by the government in view of the COVID -19 pandemic amounted to Rs 30 lakh crore[26](15% of GDP). What has been the financing strategy for this additional expenditure by the GoI needs to be seen.

2.6 Enhancing fiscal transparency and reporting in India, Working Paper (Blagrave and Gonguet,2020) India's current fiscal transparency and reporting policies lag behind those of most of its G20[27] peers, meaning that policymakers lack essential data on which to base their fiscal and other economic planning decisions. One key example of reduced transparency is the increased use of off-budget financing at the central government level in recent year. The paper provides (a) estimates of the public sector borrowing requirement and an expanded notion of the fiscal deficit, both of which show a more expansionary stance in recent years than 'headline' deficit figures presented in budget documents and (b) India's current fiscal reporting methods and provide recommendations for reforms, such as better IT systems, better central-local coordination, and a gradual shift to accrual accounting.

3. Public Debt and Debt Sustainability

3.1 Public Debt and Economic Planning in India (Saket, 2006)

The condition of Indian economy (both agriculture and industry) was not in good shape at the time of independence. Different strategies were adopted through Five Year Plans for economic development. India had to resort to public borrowing that led to public debt. The supporters of the Big Push hypothesis and the Critical Minimum

[25]If the government can cut one-third of the current fertiliser, food, and petroleum subsidies, it will save up INR 0.75 trillion right away (around 0.35 percent of the GDP). This alternative will not only allow India to instantly increase health and social security spending, but it will also allow us to resolve long-standing market distortions caused by these subsidies. However, it will take lot of time to create an environment wherein beneficiaries are willing to forego the subsidies.

[26] (i) Rs 20 Lakh crore announced on 13 April 2020 plus (ii) Rs 2.65 lakh crore on 12 November 2020 plus (iii) Rs 22810 crore on 8 February 2021. (iv) Rs 6.28 Lakh crore announced on 28 June 2021

[27] The G-20 comprises of 19 countries and the European Union(EU) . Besides, EU other member countries are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia ,Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom and United States.

Effort thesis also claimed that in the early phases of economic development, a considerable quantity of economic resources is required to place the economy on a growth path. The underdeveloped character of the economy, as well as institutional flaws, make financing economic development a difficult task. The government will play a significant role in boosting capital formation and fostering the economy's rapid development. Because of this, the government cannot rely solely on domestic financial resources (tax income, public-sector surpluses, and deficit financing). Public debt is significant because it has an impact on many aspects of economic development, including capital formation, investment, and resource allocation as a stability tool. Borrowing on a big scale from the public bank and other financial institutions is required to supplement the source of money. Public borrowing not only meets a significant portion of the country's financial needs, but it also helps to build the capital and money markets and provides the essential institutional framework for monetary policy implementation. External help has a positive impact on economic development. Import restrictions, export promotion, private foreign investment, and grants can all help ensure the external financial resources needed for development.

Obligations originating from governmental debt, both internal and foreign, are a levy on national income, tax revenue, and the economy's export generating capacity. As a result, the borrowed money should be allocated in such a way that it boosts the economy's Gross national Product (GNP), tax income, or export earning capability, or improves society's welfare. However, the rise in the national welfare criterion is broad because it considers not just the effect of a public borrowing programme on productive capacity that can be assessed, but also additional non-measurable benefits. A project financed with borrowed funds may not yield a tangible return in the short term, but it may be socially desirable in the long run. When allocating the borrowed funds, the long-term effects should be considered rather than the short-term effects.

However, the loan payment costs must be considered as well. The fundamental principle based on the concept of proportionality for allocating resources to diverse uses can also be used to the allocation of the borrowed sum. It should be allocated in such a way that the marginal benefit received from borrowing exceeds the marginal disutility resulting from debt servicing and transfer payments.

Internal and external public borrowing should not be considered in isolation, but rather in relation to their effects on productive capacity. The effect of external borrowing should be considered in connection to foreign exchange earning capacity because the payment involves foreign exchange. However, in addition to these consequences, the problem of time preference or the opportunity cost associated with the borrowing programme should be considered. It is safe to assume that public debt has a favourable function in economic growth funding.

3.2 Economic Survey 2020-21, Chapter 2: Does Growth Lead to Debt Sustainability? Yes, But Not Vice-Versa!

Issue & Objective: Given the need for more public expenditure during the COVID-19 pandemic period, the debate of fiscal policy and debt sustainability has once again come in the forefront. The objective of this study is to assess if the current debt situation of the country will provide fiscal space to address the need for additional public expenditure, whether there exists debt sustainability in the case of India.

In India's current situation, when private consumption, which accounts for 54% of GDP, is shrinking and investment, which accounts for roughly 29%, is uncertain, the importance of counter-cyclical fiscal measures is critical. In fact, as Krugman predicted, a long-term, effective stimulus programme aimed at public investment in both physical and human capital is urgently required (Krugman 2020). Only an active fiscal strategy, one that recognises that the costs of doing nothing are far greater than the hazards of doing too much, can ensure that this "economic bridge"[28] is properly constructed.

As the government's external debt is barely 2.7 percent of GDP[29], there is virtually little foreign exchange risk in its debt portfolio. Central Government is responsible for 70% of the entire national debt and the rest 30% is responsibility of the State Governments. This debt responsibility sharing pattern is compatible with the central government's charge of macroeconomic management. The long maturity profile of India's public debt (issuance of longer-term bonds) combined with a small share of floating rate debt (floating rate debt held by the Central Government accounts for less

[28] For arresting recession due to COVID-19 pandemic.
[29] External debt of GoI accounts for 5.9% of the total liabilities of the Central Government.

than 5% of total debt) helps to limit rollover risks and insulate the debt portfolio from interest rate fluctuations.

Methodology: Both qualitative method and quantitative method have been used. Regressive technique has been applied.

Findings: It is established through a detailed comparative quantitative analysis that economic growth leads to debt sustainability in the Indian context but not necessarily vice-versa. This is supported by fact that the interest rate on debt paid by the Indian government has been less than India's growth rate by norm, not by exception. This gives fiscal space which can be utilized especially during growth slowdowns and economic crises. Fiscal policy here can play a counter-cyclical role. The results of the study emphasize that even in a worst-case scenario where the real growth rate is only 4% till 2030, primary deficits and interest rates remain high, India's debt will remain sustainable. In the words of Economic Survey 'Active fiscal policy – one that recognises that fiscal multipliers are disproportionately higher during economic crises than during economic booms – can ensure that the full benefit of seminal economic reforms is reaped by limiting potential damage to productive capacity'.

***Research Gap**: The research gap here is that the detailed public expenditure analysis in terms of the capital and developmental expenditure of GoI has not been considered.*

3.2 UN Compendium on Debt sustainability (United Nations,2009)

Issue & Objective: Piecemeal country risk indicators utilised for external debt assessment did not provide a comprehensive picture. As a result, a broader and more systematic understanding of debt sustainability was necessary. The goal of this compendium is to examine a number of country studies and analyse issues related to debt sustainability. It also looks at national debt appraisal and management structures, the function of credit rating agencies, and significant features of global legislation that affect developing countries' external policy autonomy.

Methodology adopted is Qualitative descriptive method.

Findings: The case studies of Argentina and the Republic of Korea show that successful macroeconomic policies in a debt crisis do not follow a general model, but instead consist of measures tailored to specific country circumstances and based on a country-specific balancing of the benefits and costs of alternative options. One important lesson learned is the importance of external debt policies that allow for the investment needed to diversify a country's economic base. This lesson covers not only borrowing countries' debt management, but also the terms and conditions of funding negotiated with official creditors.

Research Gap: India has not been covered in this compendium.

4. Sovereign Credit Rating Agency and Fundamentals

4.1 The Importance of Fundamentals in the Assessment of Sovereign Ratings (*Bozic and Magazzino,2013)*

Issue & Objective: Ratings are critical in the economy since they are the key drivers of foreign investment and can influence interest rate dynamics. The question addressed in the study is whether improving a country's macroeconomic fundamentals improves its Sovereign Ratings. The goal of this research is to investigate the significance of a set of macroeconomic variables in the evaluation of sovereign ratings issued by the three major credit rating agencies over time and for countries belonging to various categories.

Methodology: By dividing the nations according to their degrees of development and indebtedness, as well as offering an analysis of the weights ascribed to each of the macroeconomic variables included in the analysis, quantitative panel data analysis was used. The research is based on an unbalanced panel of 139 nations from 1975 to 2010. Two sub-periods to examine the question of ratings' historical coherence: 1975-1996 and 1997 onwards has been considered.

Findings: According to static estimates in this study , Per capita GNI, inflation, unemployment, fiscal balance, government debt, and default history all have a considerable impact on ratings,, whereas GNI growth and current account balance are less important.

Research gap*: The research gap is that 139 countries under study in the research paper have been grouped as LDC, DC, LIC or HIC*[30] *. So, country specific information with respect to India is not available.*

[30] LDC-Least Developed Country, DC-Developed country

4.2 Credit Rating Agencies and their potential impact on Developing Countries (Elkhoury,2009)

Issue & Objective: Rating downgrade has negative effects for countries that borrow. It becomes costlier for them to access credit. It is also observed that orthodox policies focusing on the reduction of inflation and government budget deficits are favoured by the Sovereign Credit Rating Agency.

Methodology: Qualitative descriptive method has been adopted for the study.

Criteria for Sovereign Rating

The criteria for a rating assessment for any sovereign are based on a large set of indicators, including the assessment of the public finance situation (past dynamics through debt levels, current dynamics through budget deficits, and future dynamics through e.g., pension liabilities), interest rate levels, growth prospects, and the government's commitment to repay. They may also assess financial markets performance of the Sovereign as the financial markets act as the barometer of a country's creditworthiness. Furthermore, institutional investors such as pension funds and insurers are required by law or by their own rules to purchase and retain bonds with a minimum rating. Similarly, owing to regulatory constraints, banks' portfolios are based on credit ratings of the assets they own.

Sovereign-risk ratings are primarily based on publicly available information (such as debt and foreign-reserve levels or political and fiscal constraints). Consequently, announced or implemented rating changes will rarely be "uncontaminated" with other publicly-available news.

Global experience

The Euro area sovereign debt crisis has raised concerns about the value of safe assets, the risk of sovereign solvency in countries with weak fiscal fundamentals, and the potential of contagion among euro area sovereign spreads.

Credit rating changes have a big impact on worldwide financial markets. When emerging-market government bonds are put on review with a negative outlook, research

LIC-Low Income Country, HIC-High Income Country investigations have indicated a highly significant announcement effect. The outcomes of these studies suggest that negative rating announcements by the sovereign rating business could help to reduce excessive private capital inflows into emerging nations.

Nonetheless, the Mexican crisis of 1994-95 revealed that credit rating agencies were more likely responding than anticipating events. As a result, the credibility of their sovereign ratings on emerging countries has been questioned.

Findings**:** Ratings are notorious for being sticky, lagging markets, and overreacting when they do alter. This overreaction could have exacerbated financial crises in 2008, adding to financial instability and cross-border contagion. Furthermore, governments' efforts to maintain their credit ratings through tight macroeconomic policies may be counterproductive to long-term investment and growth. Enron, WorldCom, and Parmalat's recent bankruptcies have led lawmakers to investigate the agencies. While the ratings have been beneficial to countries seeking market access, the difficulties in gauging sovereign risk have led to agency disagreements and public outrage over specific rating assignments. Financial markets have expressed considerable scepticism toward sovereign ratings when pricing issues.

Who pays[31] for the Sovereign Credit Rating?

Most of the fee income for the sovereign credit rating industry comes from governments who ask for ratings on their bond issuance. The sector can be described as a duopoly, with the two largest agencies — Moody's Investor Service and Standard & Poor's — competing for market share both with one another and with smaller firms. In instances of large capital inflows, the concern of losing demand (and fee money) from governments seeking ratings on their assets may delay rating deterioration. The high percentage of split ratings (which indicate disagreement in the assessment of sovereign risk) can be attributed in part to small agencies' attempts to obtain market share by rating more generously than the industry heavyweights.

[31] In India, the issuer corporation is usually the one that pays for the Rating. The Indian Government does not pay for the Sovereign Rating. Corporate Bond Market is not developed in the country.

***Research gap**: Countries that borrow adopt policies that address the short-term concerns of Credit Rating Agencies even when they conflict with long term development requirements. However, this is an area that has not yet been thoroughly researched.*

4.3 Economic Survey, 2020-21 Chapter 3: Does India's Sovereign Credit Rating reflect its fundamentals No!

Issue & Objective: This Chapter highlights the fact that never in the history of sovereign credit ratings has the world's fifth largest economy been classified as investment grade (BBB-/Baa3). The fifth largest economy has been primarily rated AAA, indicating its economic size and thus ability to repay debt. The only exception to this norm is India. Even China when it was declared the fifth largest economy of the world in 2005 was rated both A-/A2 in 2005. Is this historical oddity explained by the facts that presumably influence sovereign credit ratings? The Survey asks this crucial question in this chapter. The key objective of the study is to examine if India's SCR reflect its fundamentals.

Research Methodology adopted for the study is Quantitative method and regression techniques.

Findings: Within its sovereign credit ratings cohort – countries with S&P/ Moody's ratings of A+/A1 to BBB-/ Baa3 – On various parameters, India is a clear outlier, i.e. a sovereign whose rating is much lower than the influence on the sovereign rating of the parameter mandates. GDP growth rate, inflation, general government debt (as a percentage of GDP), cyclically adjusted primary balance (as a percentage of potential GDP), current account balance (as a percentage of GDP), political stability, rule of law, corruption control, investor protection, ease of doing business, short-term external debt (as a percentage of reserves), reserve adequacy ratio, and sovereign default history are some of the factors to consider. Not just now, but also in the previous two decades, the position of outlier has remained unchanged.

Credit ratings depict the likelihood of default and so represent the borrower's willingness and ability to meet its obligations. India's willingness to pay is unmistakable, as seen by its lack of sovereign defaults. India's ability to pay is measured not just by the sovereign's extremely low foreign currency denominated debt, but also by the level of its foreign exchange reserves, which can cover both short-term private-sector debt and the full stock of India's external debt, including private-sector debt. In terms of corporate finance, India resembles a company with negative debt, which has a 0% likelihood of default.

Given that ratings do not reflect India's fundamentals, it is unsurprising that previous episodes of sovereign credit rating adjustments for India have had little impact on select metrics such as the Sensex return, foreign exchange rate, and government bond yield. Rating adjustments in the past have had little or no association with macroeconomic data. As a result, India's fiscal policy cannot be dictated by a noisy/biased measure of the country's fundamentals.

***Research Gaps**: (a) The important research gap in this study is that it does not consider GDP growth per capita, unemployment and fiscal transparency while assessing if SCRA does not take India's strong fundamentals into account.*

(b) Does not look at the level of development of Bond Market of India vis-à-vis other countries of the world falling in India's cohort of Sovereign Credit Rating.

(c) Assumes that 54 per cent of India's sovereign external foreign currency denominated debt owed to multilaterals and IMF as of end-March 2020 (DEA), is not expected to impact credit rating assessments.

5. In view of the literature mentioned above, there is research gap in respect of the following points:

(i) Suggestions as given in 'Essay on Fiscal Deficit' with respect to reduction of Fiscal deficit and Revenue deficit are already in operation through the adoption of FRBMA 2003. The need is to look at the strategies adopted to achieve these fiscal targets. Today, nearly 69% of the Fiscal deficit is being financed through market borrowings. However, getting a downgrade in Sovereign Credit Rating means costly market borrowings.

(ii) Countries that borrow adopt policies that address the short-term concerns of Credit Rating Agencies even when they conflict with long term development requirements. However, this is an area that has not yet been thoroughly researched.

(iii) Linkage of GDP growth per capita, unemployment and fiscal transparency with Sovereign Rating of India needs to be seen.

(iv) Need to look at the level of development of Bond Market of India vis-à-vis other countries of the world falling in India's cohort of Sovereign Credit Rating.

(v) Need to check if sovereign external foreign currency denominated debt owed to multilaterals and IMF impact credit rating assessments.

(vi) Public expenditure profile in terms of the capital and revenue expenditure of GoI needs to be seen.

6. **Conclusion:** Review of Literature described in this chapter cover period starting from 1960 to 2021 with specific reference to the topic of dissertation. The review also covers international papers such as the UN Compendium of Debt Sustainability, IMF working paper on 'Enhancing fiscal transparency and reporting in India', 'Credit rating agencies and their potential impact on Developing countries', 'Sovereign Credit Rating Agency and Fundamentals' etc.

6.1 The book on 'Fiscal policy in underdeveloped countries with specific reference to India' was written in 1960 with the purpose of orienting the theory of fiscal policy originally designed for advanced economies with the problems, requirements, and institutional structure of developing countries. 'An essay on fiscal deficit' written in 1993 lays the foundation of FRBMA which was passed by GoI in 2003. The enactment of the FRBMA 2003 and the fiscal targets and indicators, the FRBM Rules 2004, review of FRBM in 2012 and 2018 have also been seen. RBI Report on Currency and Finance (2001-02) highlighting the structural nature of fiscal deficit of India has been read. Trends in RBI data since 1970s on fiscal deficit has been observed. Two articles from Economic Survey 2020-21 on Debt sustainability and Sovereign Credit Rating Agencies which give a detailed picture on the subject have been studied as part of review of literature.

6.2 The review of literature here is an incisive study to see through the key issues, findings and research gaps in the papers and books selected for the purpose of this study. Based on this review of literature, some of the research gaps have been identified to take the study forward in terms of statement of the problem with specific reference to India, rationale, and objectives.

CHAPTER 3: RESEARCH METHODOLOGY

1. Introduction: Having identified the research gaps through a detailed Review of Literature, the objective of this chapter is to organize the research plan in terms of Statement of the problem with respect to conducting the study on "Significance of Fiscal Deficit and Public Debt in Indian Economy-twin perspectives of Sovereign Credit Rating Agency and Government of India" and to provide adequate rationale and justification in terms of utility of the exercise. Based on the research gaps related to the topic of study, objectives of the study have been identified. The study is further focussed on research questions to be answered and the related hypothesis to be tested. Research design and research methodology is also described.

2. Statement of the Problem

2.1 Since the mid-1970s[32], the commitment of Government of India towards development and poverty alleviation became more prominent particularly in its Fifth Five Year Plan. Consequently, various Plan schemes were launched and factored into the Budget. It is precisely at this point of time that cropping up of high fiscal deficit and gradual addition to public debt is observed. The fiscal deficit became a major issue in India in the late 1980s, when the fiscal deficit to GDP ratio reached levels of more than 7%. It reached above 9% in the early 1990s. By 1991, the deficits had become structural part of the budget of the GoI. By this time, existence of structural deficit in the budget was clear, as was the Hindu rate of growth[33]. Perhaps if the rate of growth was above the 3%, structural deficit in budget would not have become an issue. The 1991 economic crisis did come up where India was almost on the verge of default. This was an eye-opener for us. It was time for the new approach through the new economic policy. Instead of too many tax exemptions, it was time for tax simplification, broad basing the taxation system and more competition for private and public sector both. Fiscal consolidation became the key word then.

[32] The objectives of the Fifth Five Year Plan (1974 to 1979) were increasing the employment level, reducing poverty (Garibi Hatao), and attaining self-reliance(Atma Nirbhar).
[33] India's annual rate of GDP growth which was 3% since the time of independence in 1947 came to be known as the Hindu rate of growth.

2.2 In June 1991, foreign exchange reserves were barely sufficient to carry out essential imports for two weeks; and the economy was weeks away from defaulting on its external debt payment obligations. The immediate response was to secure an emergency loan[34] of $7 billion from the IMF by pledging 67 tonnes of India's gold reserves as collateral. Balance of Payment crisis left no choice but to accept the terms and conditionalities[35] and modalities of IMF & WB who provided financial aid at that critical moment. A series of large-scale economic reforms then began under the IMF's structural adjustment programme (SAP) with emphasis on fiscal consolidation.

2.3 Asian Financial crisis of 1997-98 once again created stress on the attempts of GoI for fiscal consolidation which started in 1991. During this period, fiscal deficit began to rise again, eventually reaching the 10% mark in 2001-02. At that point GoI worked on enacting the Fiscal Responsibility and Budget Management Act (FRBMA), 2003. The FRBMA's fiscal management principles in India, at both the central and state levels, require the government to formulate the budget in a realistic and objective manner, considering the general economic outlook and realistic revenue prospects, and to minimise deviations throughout the year. FRBM rules 2004 set the target for Revenue Deficit (RD) at zero as soon as possible and Fiscal Deficit(FD) at 3% by 2008-09. The target could not be achieved then due to the Global Financial Crisis. To smoothly float through the crisis, it was necessary for GoI to come up with fiscal stimulus package. It was a difficult time for the world. But India's domestic macro-economic fundamentals were strong, India continued to post positive rate of growth. Despite growth, we missed the targets for RD and FD set under the FRBMA. The target has been chased since then again. Today, the COVID-19 pandemic crisis has again called for huge public expenditures in the health sector and for mass anti COVID vaccinations.

2.4 Besides, it is also a fact that developing country like India with large population and the corresponding developmental needs invariably incur public expenditure which is much more than the tax revenue generated. As such there appears to be a structural deficit in India's budget. India is in a sort of financial crisis from time to time otherwise

[34] Under pressure from the US administration, then-Prime Minister Chandra Shekhar agreed to let US planes returning from the Phillipines to refuel at Bombay's International Airport in exchange for helping to save the Indian economy through the IMF's reconstruction money and the help of western capital.
[35] India has had a history of taking loans from IMF from time to time. Please see Annexure 1

also during the year owing to its vast expanse and diversity of geography. Every year some States are marooned by floods, while others are jittered by droughts and earthquakes. Recurrent Fiscal deficits every year culminate in Huge public debt. This does not mean that the FRBMA is ineffective. The purpose of FRBMA was to ensure credibility of government actions and to avoid discretionary actions of the government with respect to spending. Basically, the act inspires certain austerity measures [36] in Government spending from time to time.

2.5 Today we have pandemic generated economic crisis. Here again the economy has been hard hit and there is need for fiscal expansion to counter the cycle towards depression. Once again deficit budget has become part of our national life. These budgets with rising deficit means rising needs for net borrowing by the government. There are many other instruments of borrowing of which market borrowing accounts for 69% of the financing of the fiscal deficit. For market borrowing Government issues Government securities/bonds in the primary market and make provisions for trading of the same in the G-SEC secondary market. In GSec secondary market 23-24 % of the trade is dominated by foreign banks. These foreign investors look for Sovereign Rating. SCRAs provide Sovereign rating based on certain criteria wherein fiscal deficit and public debt also feature.

2.6 Fiscal deficit calls for financing the same through borrowings. Sovereign borrowings are made possible through well-developed financial markets and banking system[37] of the country. Whenever a debt obligation is made, the Government needs to acknowledge it through the Government securities, Treasury Bills and Cash Management Bills[38]. Long term Government securities or Bonds are an important instrument for sovereign borrowings through the channel of international capital markets. As per their Rating Methodology, SCRAs provide Credit Rating for the country. Based on these ratings, investors take informed decision regarding investment of their funds. Therefore, nations look forward to upgrade in ratings.

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[36] The circular with respect to quarterly ceilings and austerity measures is issued by Department of Expenditure during the fiscal year.

[37] RBI is among the best central banks in the world and controls the monetary policy of India and acts as a watchdog over the banking system. SEBI acts as the regulator of the stock exchanges –BSE and NSE, has been applauded for its strong mechanisms that weathered the 2008 global crisis.

[38] Please see Annexure 2 for description of these terms.

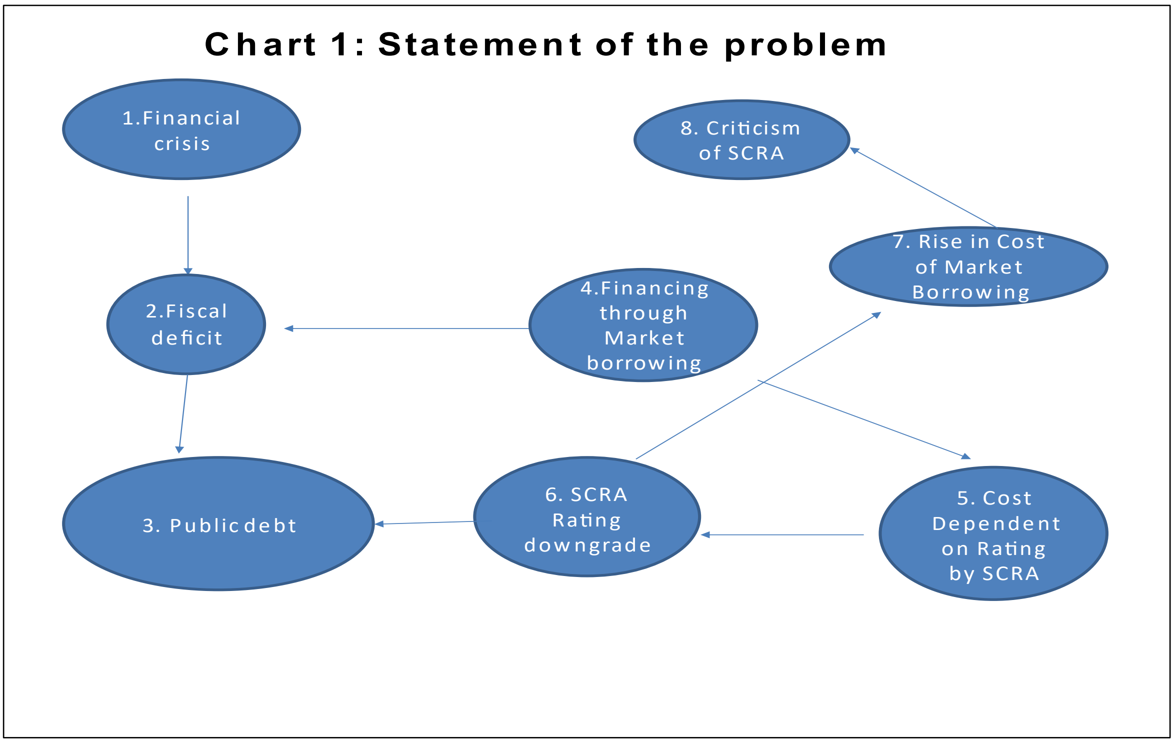
2.7 India’s fiscal deficit is estimated at 6.9% in 2021-22 and Central Public Debt has been estimated to be 59.9 % of GDP in 2021-22. There has been a Sovereign Rating Downgrade by Moody’s in June 2020 bringing India to Baa3 (from Baa2) with outlook as ‘negative’. This has made market borrowing for financing fiscal deficit costlier for India. On 21 October 2021, Moody’s has changed India's sovereign rating outlook to “Stable" from “Negative" and affirmed the country's rating at “Baa3" keeping in view the improvements in the economic scenario from negative to positive. However, this remains a major concern because another downgrade by the SCRA would push India's sovereign rating into the non-investment grade category.

2.8 There appears to be a clear systemic relationship between the three parameters fiscal deficit, public debt, and Sovereign Ratings. There appears to be a gap in the perception of GoI and SCRAs with respect to the factors that determine or should determine Sovereign Rating. This gap is perceptible in the following GoI documents:

(a) Economic Survey 2016-17 Chapter 1, Pg.4-5, **Box 1. Poor Standards? The Rating Agencies, China & India:** Comparing Sovereign Ratings of India and China over the years this brief raises the question if the Rating Methodology of SCRAs are economically sound.

(b) Economic Survey 2020-21 Chapter 3, Pg 84-119**, Does India’s Sovereign Credit Rating reflect its fundamentals No!** This Chapter highlights the fact that never before in the history of sovereign credit ratings has the world's fifth largest economy been classified as investment grade (BBB-/Baa3). The fifth largest economy has been primarily rated AAA, indicating its economic size and thus ability to repay debt. The only exception to this norm is India. Even China when it was declared the fifth largest economy of the world in 2005 was rated both A-/A2 in 2005.

The above scenario also needs to be examined from the angle of a Sovereign Credit Rating Agency and its Rating Methodology for better understanding of the subject. On the one hand, GoI considers that the SCRA has been biased by not factoring in the strong macro fundamentals of the Indian Economy. On the other hand, SCRA has perhaps taken cognizance of some other factors[39] while rating the country. There is need to understand this problem (as depicted in Chart **1** below) and find amicable way forward:



3. Rationale and Justification for the study

3.1 The rationale for undertaking this study lies in the fact that though India is committed to reduction of fiscal deficit since long, instead of achieving the target, it has been chasing the target for too long. The fiscal deficit for the 2021-22 is around 6.9%. Accumulation of fiscal deficit over the years has resulted in huge public debt . It appears that the country is in a vicious circle of dependency. It may also mean that the country has been living beyond its means for too long. Financing of fiscal deficit is dependent on market borrowings. Perhaps, Sovereign Credit Rating Agencies do not see huge debt as justifiable and has downgraded the earlier Sovereign Rating. This has made market borrowings costlier. A country with a better credit rating is better placed to issue higher debt and with less risk, thus allowing for higher spending if needed. The systemic

[39] Weak implementation of economic reforms, relatively low economic growth over a sustained period, a significant deterioration in the fiscal position of governments (central and state) and the rising stress in India's financial sector.

relationship between fiscal deficit, public expenditure and public debt needs to be understood in this backdrop for a way forward.

3.2 There could be existence of some informational asymmetries between borrowers and lenders, between GoI and SCRA that can be particularly pronounced in the international context and need to be explored.

4. Purpose or Objectives:

4.1 Given the research gaps identified in Review of Literature[40] and Statement of the Problem and Justification and Rationale for the study, it is proposed to look at fiscal deficit and public debt from the twin perspectives of a Sovereign Credit Rating Agency and Government of India to understand the gap whether in communication or data transparency or in conceptual definitions and parameter. Objectives of the study are given as under:

(i) To study relevant macro-economic indicators of India from Credit Rating Perspective

(ii) To understand fiscal deficit and public debt in India from the twin perspectives of SCRA and GoI.

(iii) To examine the trend in Public Expenditure, Fiscal Deficit and Public Debt in India in the last three decades (1990-91-2020-21)

(iv) To suggest measures for better efficacy and transparency.

4.2 While studying the objective no. (i) above following 4 hypotheses would be tested:

(1) Hypothesis Number 1: Per Capita income is a significant variable in determination of Sovereign Credit Rating of India.

- *H_0: Per capita income is not a significant variable in determination of Sovereign Credit Rating of India*

- *H_A: Per Capita Income is a significant variable in determination of Sovereign Credit Rating of India*

[40] In Chapter 2 of this dissertation.

(2) Hypothesis Number 2: Fiscal deficit is a significant variable in determination of Sovereign Credit Rating of India.

- *H_0: Fiscal deficit is not a significant variable in determination of Sovereign Credit Rating of India.*
- *H_A: Fiscal deficit is a significant variable in determination of Sovereign Credit Rating of India.*

(3) Hypothesis Number 3: Capital expenditure is a significant variable in the determination of Sovereign Credit rating of India.

- *H_0: Capital expenditure is not a significant variable in the determination of Sovereign Credit rating of India.*
- *H_A: Capital expenditure is a significant variable in the determination of Sovereign Credit rating of India.*

(4) Hypothesis Number 4: Unemployment is a significant variable in the determination of Sovereign Credit rating of India.

- *H_0: Unemployment is not a significant variable in the determination of Sovereign Credit rating of India.*
- *H_A: Unemployment is a significant variable in the determination of Sovereign Credit rating of India.*

5. Research Strategy and Research Design

The Research Strategy is Quantitative in nature. Three research designs viz. exploratory, descriptive along with comparative research design will be used as part of Quantitative research strategy. To study time series data with respect to fiscal deficit, public debt and public expenditure comparative research design will be employed. For making suggestions at the end of analysis, macro-approach will be employed.

6. Research Questions

Research questions to be answered during this study are given as under:

(i) Is there a visible Link between fiscal deficit and Sovereign ratings?
(ii) How fiscal deficit and public debt have been defined by SCRA and GoI?
(iii) What is the pattern in fiscal deficit and public debt with respect to time in India?

(iv) What is the impact of public expenditure on economic growth, per capita income, and unemployment in India?

(v) What alternate allocation of public expenditure exists for improving the efficacy and the transparency?

7. Scope/Limitations/Delimitations

The scope of the study is limited to only those macro-economic indicators which are factored in by an SCRA while rating India. Trends in fiscal deficit, public expenditure, and public debt since the implementation of the New Economic Policy 1991 (i.e period from 1990-91 to 2020-21) has been covered in the study. Rating Methodology of Moody's Investor Service and Standard & Poor's has been examined.

8. **Research Method**: Comparative, descriptive, analytical, and exploratory research methods based on secondary data have been resorted to for this study. In a nutshell, Quantitative research method has been adopted for the study. The research was conducted through a desk-based analysis.

8.1 Details of the research methods at each stage of the study is given below:

(a) Study of Sovereign Rating Methodologies of Moody's Investor Service, Standard & Poor's and FitchRating to list out and understand the macro-economic indicators factored in the assessment of a Sovereign.

(b) The weightage given to each of these macro-economic indicators by the Rating agencies is also observed.

(c) Secondary data which has been collated from the website of International Monetary Fund (IMF), World Bank, Bank of International Settlements(BIS), Ministry of Finance, Government of India and Reserve Bank of India(RBI) has been seen.

(d) Since Sovereign Rating is basically the Government Bond Rating, a comparative analysis of global data of BIS has been done to understand the level of development of Government Bond Market in India.

(e) A comparative analysis of World Bank data with respect to GDP per capita income and per capita growth rate for peer group countries (in terms of Sovereign Rating) has been done.

(f) India's data as reported in World Bank data with respect to Gini Index, Unemployment rate, Labour Market Efficiency Index, Total Labour force, working age population, labour force participation rate of female has also been seen and India's standing as per the Rating Methodology of Moody's Investor Service has been arrived at.

(g) An examination of fiscal deficit and public debt in India from the twin lenses of Sovereign Credit Rating Agency (SCRA) and Government of India (GoI) has been done. For SCRA a detailed insight on the SCRA's perspective on fiscal strength and fiscal flexibility and public debt and debt sustainability of two most popular SCRAs Moodys Investor Service and Standard and Poor's have been presented. Simultaneously, GoI perspective on fiscal deficit and public debt indicators has been presented as per the Fiscal Responsibility and Budget Management Act (FRBMA), 2003.

(h) Basic regulatory framework of India with respect to monitoring key fiscal and debt parameters has been examined considering the fiscal and debt monitoring framework envisaged by the SCRAs in their Sovereign Rating Methodologies.

(i) FRBMA compliance as examined by CAG.

(j) Trends in Capital and development expenditure in India has been studied and presented in the form of tables and charts generated through MSExcel.

(k) Likewise, trends in key fiscal indicators and public debt indicators of India have been studied and presented through tables and charts generated through MSExcel.

8.2 Findings based on the above comparative analytical exercise have been seen, Keeping in view the insights associated with the findings, a way forward as suggestions have been proposed. What can be taken up for future study has also been indicated in the concluding Chapter.

9. Data Sources for the study include:

(ix) Economic Surveys, GoI
(x) Budget documents, GoI
(xi) RBI handbook of Statistics on Indian Economy
(xii) Ministry of Finance Reports on Debt Management

(xiii) IMF data on Global Debt Database

(xiv) SCRA Rating Methodology and relevant datasets.

(xv) Bank of International Settlements

(xvi) Other online secondary data sources the majority of which are online data sources including Google, and Google Scholar, as well as reputable newspapers. Articles from online media and journals, research papers, and government agency releases.

10. Conclusion: This Chapter lays down the foundation for conducting this study by logically stating the issues and the problems which necessitate conduct of this study. The way study is to be conducted is well linked with the objectives, research questions and hypothesis. While describing the research design, research strategy and research method, the research plan along with data sources for this study is systematically delineated.

CHAPTER FOUR: SOVEREIGN CREDIT RATING METHODOLOGY-UNDERSTANDING KEY MACRO-ECONOMIC INDICATORS FROM THE PERSPECTIVE OF GoI AND SCRA

1. Introduction

1.1 The objective of this chapter is to look at the Rating Methodology of Sovereign Credit Rating Agencies (SCRAs) and list out and understand the macro-economic indicators factored in their assessment of a Sovereign. After having done this, independently assess the position of India vis-à-vis these indicators and other countries. The study is based on the Rating Methodology of Moody's Investor Service (MIS) and Standards and Poor's (S&P). However, before we look at these Sovereign Rating Methodologies (SRMs), one must understand that Sovereign Rating is basically the Government Bond Rating[41] and bond ratings[42] or the Sovereign Issuer Default Ratings (IDRs). *In this narrow sense, it is a misnomer to take it as the overall rating of a Sovereign.* Nonetheless, it is a forward-looking assessment of the capacity and willingness to fully and timely honour debt obligations by the Sovereign with respect to Government Securities issued by the Sovereign to the private-sector creditors.

1.2 Therefore, first, it is important to understand the level of development of Government Bond Market in India vis-à-vis the world, its relevance in the financing of fiscal deficit in the country. *This forms the supply aspect of the analysis*[43]. Second, having known this basic scale of development of Bond Market of India, it would be in the sequence of things to look at the macroeconomic indicators which matter from the Sovereign Rating perspective. *This covers the demand aspect of the analysis*[44]. Third, understand the macro-economic indicators particularly Per capita Income and unemployment from Credit Rating perspective and GoI perspective.

1.3 Accordingly, the chapter is divided into **three sections**:

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[41] Pl. see page 4 of Moody's Rating Methodology.
[42] Pl. see page 1 of FitchRatings Methodology.
[43] Supply aspect here means what is it in the Government Bonds Market of India which is being supplied to the investors both domestic and international.
[44] Demand aspect would mean the Sovereign rating of the bonds based on which the investors would invest in the Government Securities market.

Section 1: Level of development of Government Bond Market in India vis-à-vis the world, its relevance in the financing of fiscal deficit in the country.

Section 2: The macroeconomic indicators which matter from Sovereign Rating perspective. This part of the study is based on the Sovereign Rating Methodologies of MIS and S&P.

Section 3: Understand the macro-economic indicators particularly Per capita Income, and unemployment from Credit Rating perspective and GoI perspective.

Section 4: Conclusion

2. Section 1: Level of development of Government Bond Market[45] in India vis-à-vis the world, its relevance in the financing of fiscal deficit in the country.

2.1 India's debt market is divided into two categories: corporate bonds and Government Securities (GSec), which includes both Central and State government securities. Both are inter-connected to the extent that a good sovereign rating of Government Bond gives indication about the investment climate in the country and equally stimulates the corporate bond market. The existence of a well-functioning government securities market is viewed as a necessary precondition for the growth of the corporate debt market. Furthermore, the government securities market serves as a conduit for the integration of various areas of the domestic financial market and aids in the creation of interconnections between the domestic and international financial markets.

2.2 The GSec Market in India is regulated under the Government Securities Act 2006. As per this Act, "Government security" means a security created and issued by the Government for the purpose of raising a public loan or for any other purpose as may be notified by the Government in the Official Gazette. The government borrows money and floats fixed income instruments to finance its fiscal deficit by issuing GSecs, which are sovereign securities issued by the Reserve Bank of India on behalf of the government. Primarily, the government bond markets assist in the non-inflationary funding of budget deficits, hence improving the effectiveness of monetary policy.

[45] Also known as the Government securities market.

2.3 In India, the development of the government securities market has paralleled that of other countries. The need to meet the government's expanding financial requirements dictated the market's slow development. Recognizing the importance of a well-developed government securities market, the Reserve Bank began a series of actions in the early 1990s, in collaboration with the government, to de-regulate the market of administered price and quantity restrictions. As a result, the government securities market has undergone considerable changes in terms of market-based price discovery, investor diversification, new instrument introduction, primary dealer establishment, and electronic trading and settlement infrastructure. Some of the major factors that have contributed to the rapid development of the G-Sec market in India include the introduction of an electronic screen-based trading system, dematerialized holding, straight through processing, the establishment of the Clearing Corporation of India Ltd. (CCIL) as the Central Counter Party (CCP) for guaranteed settlement, new instruments, and changes in the legal environment. In terms of outstanding issues, market capitalization, and trading value, the GSec Market today represents a significant segment of the debt market. It establishes a standard for the rest of the market. Although there is a market for over the counter (OTC) derivatives in interest rate products, the market for debt derivatives is yet to emerge significantly.

2.4 During the pandemic period due to rising fiscal deficits, there has been an increasing demand on products of Bond markets putting undue pressure on pricing of the bond and at the same time placing upward pressure on interest rates. Every other government in the world is facing the same situation. To assist activity, central banks around the world have eased monetary conditions by cutting short-term policy rates and reserve requirements across the board, as well as providing emergency liquidity support to calm financial markets. Several central banks around the world used unorthodox monetary policy interventions such as long-term asset purchase programmes (for the first time in several EMDEs[46]), relending facilities, asset provisioning criteria relaxation, and loan provision to a diverse spectrum of borrowers. Bond markets have been stabilised,

[46] Emerging Market and Developing Economies.

bond yields have been reduced, and equity prices have been boosted without putting pressure on exchange rates because of the equivalent injections of reserve money into the banking system. However, notwithstanding the changed circumstances, the three credit rating agencies (S&P, MIS, and Fitch) issued a total of 99 sovereign rating downgrades on 48 countries (including India) during January 2020 and March 2021. These downgrades accounted for 35% of these CRAs rated sovereign bond portfolio.

2.5 During this period, liquidity support measures led by the government and the RBI, such as increased limits on WMAs and relaxation of rules governing withdrawals from the Consolidated Sinking Fund (CSF)[47], allowed India's bond markets to absorb the pressures of increased government borrowings added to their buoyancy. The excess systemic liquidity continues to support a softening of the 10-year G-sec yield as well as a narrowing of the difference between G-sec and AAA corporate bond yields.

2.6 It is important to understand the standing of Government Bond Market of India vis-à-vis the global bond market. In this context, Debt securities statistics in the website of Bank of International Settlements has been seen.

Table 1 : Debt securities outstanding for select countries on 30 June 2021 (in billions of US dollars)

S.No	Countries	Domestic General government Debt securities	International General government debt securities
1	France	0	12
2	Germany	0	109
3	United Kingdom	0	22
4	Australia	994	3
5	Canada	1697	169
6	Japan	10114	7
7	United States	0	3
8	South Africa	255	21
9	China	7525	32
10	India	1119	0

[47] The RBI established the Consolidated Sinking Fund in 1999-2000 to cover the redemption of state market loans, amortisation of all loans, including bank loans, and liabilities on account of the National Small Savings Fund, among other things. The fund should be kept separate from the States' Consolidated Fund and the public account. Except for loan redemption, it should not be utilised for anything else. The Fund mandates the state government to contribute 1-3 percent of outstanding market loans to the fund each year. This account has the benefit of lowering the states' default risk and adds to the creditworthiness of the States by ensuring reduced bond interest rates. The Central Accounts Section of the RBI in Nagpur oversees the account.

11	Russia	228	59
Source: Bank of International Settlements (BIS)			

2.7 Outstanding debt securities both Domestic and International for 30 June 2021 for 11 countries (from Developed and EMDEs categories have been tabulated in **Table 1**. Countries covered are France, Germany, United Kingdom, Australia, Canada, Japan, United States, South Africa, China, India and Russia. A look at this makes it clear that India's outstanding international debt securities was maintained at **nil** on June 30, 2021. *This is because GoI has not yet opened for international trading in Government securities*[48]. On the other hand, its outstanding domestic debt securities were worth US 1119 billion dollars. The comparison of outstanding domestic debt securities with developed countries like France, Germany, United Kingdom(UK) and United States(US) is interesting as there outstanding in this respect is **nil**. As per the countries selected for study in this table, Canada has the highest international debt securities outstanding followed by Germany, UK, France, Japan, Australia, and US. So far as the position of outstanding domestic debt securities is concerned, it is observed that in the list of countries mentioned in **table 1**, highest amount is held by Japan followed by China, Canada, India, Australia, South Africa, and Russia.

2.8 Having looked at the historical data[49](1945-2020) on Central and General Government debt in all markets in BIS website **Table 2** has been prepared. This table gives an idea on the year since when the Central and General Government debt securities data for both domestic and foreign currency is being maintained. This also co-relates with the time of development of Government securities market in the selected 11 countries (same countries as covered in **Table 3** above).

Table 2: Central and General Government debt securities year since the data is available with BIS			
S.No	**Countries**	**Domestic General government Debt securities**	**International General government debt securities**
1	France	1989	1989

[48] For years, a strategy has been in the works to include a set of government securities in global bond indices. In the Union Budget 2014-15, then-Finance Minister Arun Jaitley suggested enabling overseas settlement of Indian debt instruments, claiming that it would lower bond yields and enhance liquidity in domestic bond markets. As a preliminary step toward their inclusion in global bond indices, the Budget 2020-21 proposed removing the foreign investment limit on various government securities. On March 30 2021, the RBI announced a completely accessible avenue for non-residents to invest in government securities without any restrictions.

[49] This data covers the period 1945-2020.

2	Germany	1989	1999
3	United Kingdom	1998	-
4	Australia	1969	1972
5	Canada	1975	1975
6	Japan	2012	2012
7	United States	1952	-
8	South Africa	1946	1946
9	China	2012	-
10	India	1994	-
11	Russia	1996	2003
Source: Bank of International Settlements (BIS)			

2.9 **Table 3** depicts the Sovereign Ratings of 11 countries for the year 2021 mentioned in **Table 2** above.

Table 3: Recent Sovereign Ratings for select countries (2021)			
Countries	**S&P**	**Moody's**	**Fitch**
1.France	AA	Aa2	AA ↓
2.Germany	AAA	Aaa	AAA
3. United Kingdom	AA	Aa3	AA-
4. Australia	AAA	Aaa	AAA
5. Canada	AAA	Aaa	AA+
6. Japan	A+	Aa1	A ↓
7. United States	AA+	Aaa	AAA
8. South Africa	BB	Ba2	BB-
9. China	A+	A1	A+
10. India	BBB	Baa3	BBB ↓
11. Russia	BBB-	Baa3	BBB
Source: Moody's, S&P and Fitch			

2.10 A credit rating assesses the likelihood of a business or transaction failing to meet its financial obligations, such as interest payments and principal repayment, on time. These relative hazards are translated into discrete rating grades, which are commonly given alphanumeric names. For example, Fitch and S&P utilise AAA, AA, A, and BBB for investment-grade long-term credit risk, and BB, B, CCC, CC, C, and D for "speculative" long-term credit risk, from the most creditworthy to the least. Fitch and S&P employ pluses and minuses (e.g., AA+ and AA-), while Moody's utilises numbers to further identify and rank ratings within each of the broader classes (Aa1 and Aa3).

For interpretation purpose information in **Table 4** below may be seen.

Table 4: Fitch, Standard & Poor's and Moody's Rating scales description

Interpretation		Fitch & S&P	Moody's
(i)	Highest quality	AAA	Aaa
(ii)	High quality	AA+	Aa1
		AA	Aa2
		AA-	Aa3
(iii)	Strong payment capacity	A+	A!
		A	A2
		A-	A3
(iv)	Adequate payment capacity	BBB+	Baa1
		BBB	Baa2
		BBB-	Baa3
(v)	Likely to fulfil obligations, ongoing uncertainty	BB+	Ba1
		BB	Ba2
		BB-	Ba3
(vi)	High risk obligations	B+	B1
		B	B2
		B-	B3
(vii)	Vulnerable to default	CCC+	Caa1
		CCC	Caa2
		CCC-	Caa3
(viii)	Near or in bankruptcy or default	CC	Ca
		C	C
		D	D

Source: Fitch, Moody's and Standard & Poor's

2.11 Correlating the information in **Table 2 and 3** and interpreting the results based on **Table 4** above following points can be made:

(a) Countries which started (more than 46 years ago) for instance US, Australia and Canada have shown highest Sovereign Rating on their Bonds. Only exception to this has been the case of South Africa which has a moderate Sovereign Credit Rating.

(b) Countries such as Australia, Canada, Germany, and France which opened for international trading in Government securities in foreign currency have also shown Sovereign Rating in the higher range.

For this study, we can humbly start with the notion that India's Government Bond Market is at a moderate stage of development and there is a long way to travel before it achieves required liquidity and depth. Its international presence is missing at this stage. Moreover, Government has been moving ahead with caution so far as foray into international debt securities market is concerned. The Government Bonds which are being rated by Sovereign Rating Agencies belong to this market which needs to grow further to be adjudged among the best in the world.

3. Section 2: The Macroeconomic indicators from Sovereign Rating perspective

3.1 Macroeconomic indicators are economic factors that have a broad impact on an economy. This contains data on unemployment, supply and demand, growth, and inflation, as well as monetary and fiscal policy issues and international trade. Economic growth - real GDP growth, inflation, unemployment – full employment target, current account deficit, government borrowing/national debt, and so on have traditionally been the key indicators of economic success in macroeconomics. Income disparity (Gini coefficient), Labour productivity, Real disposable incomes Investment levels, exchange rate, misery index (inflation + unemployment rate), and poverty levels are all factors to consider. Nowadays, this also incorporates well-being indicators, such as surveys that assess overall living standards. For example, the Human Development Index (HDI)[50] — both of which are indicators of economic development. Some economists have urged that economies need to place a greater emphasis on indicators of happiness and minimise the importance of economic progress in recent years. To put it another way, today's macroeconomic indicators combine both quantitative and qualitative data. The same is reflected in the Sovereign Rating Methodologies of Sovereign Credit Rating Agencies which assess the Sovereigns Default risk based on set of qualitative and quantitative indicators.

[50] HDI is a composite indicator that considers real GDP per capita as well as factors like education, healthcare, and the environment.

3.2 SCRAs use public and non-public financial and accounting data, as well as knowledge about economic and political circumstances, to determine a government's ability and willingness to meet their obligations on time[51]. They also interact with the Sovereign Government and its Monetary Authority. In the case of India, of late these interactions have become intensive. India is rated by 6 SCRAs[52]. The Sovereign Rating services provided by these agencies are free of any charges. GoI has also appointed Standard Chartered Bank as the Sovereign Rating Advisor on pro-bono basis.

3.3 For this study Rating Methodologies (RMs) of two Sovereign Rating Agencies viz. Moody's Investor Service (MIS) and Standard & Poor's (S&P) have been seen.

3.4 A thorough reading of the RMs of both MIS and S&P make it clear that they refer to both national and global data sources such as:

(a) Quantitative Data Sources: MIS relies on international sources such as the International Monetary Fund, the Organization for Economic Cooperation and Development, the European Commission, the World Bank, the Bank for International Settlements, World Economic Forum (WEF) Global Competitiveness Index and World Bank's Worldwide Governance Indicators and World Development Indicators (WDIs) and UNCTAD[53]. They also refer to the data of Sovereign Issuer itself. Most used Global sources of S&P include Eurostat, central banks of monetary unions, and the International Financial Statistics of the IMF and the Human Development Index.

(b) Qualitative data sources include: (1) discussions with government officials; (2) reports from and discussions with other official observers, such as foreign embassies, the IMF, the BIS, the World Bank, and regional development banks; and (3) reports from and discussions with private-sector observers of economic and political trends, such as foreign and local economists, industrialists, trade associations, foreign and local bankers, research organisations, and academics.

[51] Compendium on Debt Sustainability and Development, United Nations New York, and Geneva, 2009.
[52] Moody's Investor Service, Standard & Poor's, R&I Rating and Investment Information Inc., DBRS, Japanese Credit Rating Agency (JCRA) & FitchRatings.
[53]United Nations Conference on Trade and Development.

3.5 During the course of the study it is also observed that required data by an SCRA is not available at one spot. The data in international sources is not updated. This necessitates that the SCRAs interact with the Sovereign in an Annual Review to validate the data collected by them but also to get the most recent data on the indicators. This has been the practice in India and in recent years the interaction process has become more frequent and intense[54].

3.6 For certain indicators such as General Government Debt and Net General Government debt where sometimes figures are not directly available, they resort to estimating it based on indicators on a perimeter as close to it as data availability allows.

3.7 In few situations of federal systems with a very clear and legitimate separation of fiscal responsibilities, the exercise of estimation of GGD is limited to evaluation of the finances of the central/federal government.

3.8 Moody's Rating Methodology (RM) and Macro-economic indicators:

3.8.1 Salient features of Moody's Rating Methodology covering the key macro-economic indicators are depicted in **Table 5** below. Moody's RM is based on four factor analysis viz. Economic Strength, Institutional Strength, Fiscal Strength, and Susceptibility to Event Risk. This table also mentions the weight applied against each indicator and the adjustment. There are in all 11 sub-factors with 22 indicators as per this table.

3.8.2 Out of the 22 sub-factors 16 concerns the key macro-economic indicators viz. (i)Average Real GDP Growth, (ii) Volatility in Real GDP Growth , (iii)Nominal GDP , (iv) Fiscal Policy Effectiveness, (v)Monetary and Macroeconomic Policy Effectiveness, (vi)Government Default History and Track Record of Arrears, (vii)General Government Debt / GDP , (viii)General Government Debt / Revenue, (ix)General Government Interest Payments / Revenue, (x)General Government Interest Payments / GDP , (xi)Debt Trend, (xii)General Government Foreign Currency Debt /General Government Debt, (xiii)Other Non-Financial Public Sector Debt / GDP, (xiv)Public Sector Financial Assets and Sovereign Wealth Funds / General Government Debt, (xv)Total Domestic

[54] As informed by concerned Ministry of Finance Officer.

Bank Assets / GDP and (xvi) External Vulnerability Risk. In effect, 73% of the indicators concern macro-fundamentals.

Table 5: Moody's Sovereign Bond Ratings Sector Scorecard Overview

1.Economic Strength			
Sub-factor			
Subcategory	**Weight(%)**	**Indicators**	**Weightage (in %)**
(i)Growth Dynamics	35	(i)Average Real GDP Growth t-4 to t+5	25
		(ii)Volatility in Real GDP Growth t-9 to $_t$	10
(ii)Scale of Economy	30	(iii) Nominal GDP	30
(iii)National Income	35	(iv) GDP per Capita (PPP, Int. USD) $_t$	35
Adjustment to the factor	Score 0-9 notches	Other	0
2. Institutions and Governance Strength			
(iv) Quality of Institutions	**40**	(v) Quality of Legislative and Executive Institutions	20
		(vi) Strength of Civil Society and the Judiciary	20
(v) Policy Effectiveness	60	(vii) Fiscal Policy Effectiveness	30
		(viii) Monetary and Macroeconomic Policy Effectiveness	30
Adjustment to Factor	Score	(ix) Government Default History and Track Record of Arrears	
	Score	Other	
Fiscal strength			
(vi) Debt Burden	50	(x) General Government Debt / GDP $_t$	25
		(xi) General Government Debt / Revenue t	25
(vii) Debt Affordability	50	(xii) General Government Interest Payments / Revenue $_t$	25
		(xiii) General Government Interest Payments / GDP $_t$	25
Adjustments to Factor Score	Score 0 - 6 notches	(xiv) Debt Trend t-4 to t+1	
	Score	(xv) General Government Foreign Currency Debt /General Government Debt t	
	0 - 6 notches	(xvi)Other Non-Financial Public Sector Debt / GDP t	
	Score 0 - 6 notches	(xvii)Public Sector Financial Assets and Sovereign Wealth Funds / General Government Debt	
	0 - 3 notches	Other	
4. Susceptibility to Event Risk			
(viii)Political Risk	Minimum Function2	(xviii)Domestic Political and Geopolitical Risk	
(ix)Government Liquidity Risk	Minimum Function2	(xix) Ease of Access to Funding	
	0 - 2 scoring categories		Adjustment to Sub-factor Score High Refinancing Risk.
(x) Banking Sector Risk	Minimum Function2	(xx)Risk of Banking Sector Credit Event (BSCE)	
	Minimum Function2	(xxi)Total Domestic Bank Assets / GDP $_t$	
(xi) External Vulnerability Risk	Minimum Function2	(xxii) External Vulnerability Risk	
		0 - 2 scoring categories	Adjustment to Sub-factor Score.
The aggregation of Political Risk, Government Liquidity Risk, Banking Sector Risk and External Vulnerability Risk follows a minimum function, i.e. as soon as one area of risk warrants an assessment of elevated risk, the country's overall Susceptibility to Event Risk is scored at that specific, elevated level.			
Source: Moody's Investors Service			

3.8.3 Rest 6 sub- factors relate to qualitative factors[55] based on global perception of India in terms of Quality of Legislative and Executive Institutions, Strength of Civil Society, and the Judiciary, Domestic Political and Geopolitical Risk, Ease of Access to Funding, etc. In addition, there is an Adjustment to Sub-factor Score for each of the four factors which adds in scope for further qualitative analysis before assigning the final grade to the Sovereign. Qualitative factors as per the RM of Moody's determine to a significant extent the Sovereign Rating.

3.8.4 In November 2019, MIS has revised its RM. Though in essence, the key rating parameters remain the same, some minor changes and inclusions are noted which are described below:

(a) Now, it is explicitly stated in the RM that the Rating also considers other implicit rating factors and issuer level[56] and instruments level ratings.

(b) Demographics, working age population, labour and unemployment are also being considered.

(c) In addition to the already considered indexes and indicators, WEF Financial Market Development Index, UNCTAD's products export diversification index, WDIs for goods exports to high income countries, Observatory of Economic Flexibility's Economic Complexity index and WEF infrastructure, innovation and Higher Education and Training Indexes and WDIs Gini index are being referred to.

(d) The Susceptibility to Event Risk (which is an aggregation of Political Risk, Government Liquidity Risk, Banking Sector Risk and External Vulnerability Risk) follows a minimum function, i.e. as soon as one area of risk warrants an assessment of elevated risk, the country's overall rating is scored at that specific, elevated level.

(e) Rather than being a discrete collection of credit drivers, ESG[57] risks for sovereigns are incorporated into the score card components in various ways.

[55] Moody's in its RM mentions that they typically anchor the qualitative assessment using quantitative measures such as WGI and others.
[56] This could mean level of development of Government Bond Market of India.
[57] Environmental, Social, and Governance(ESG)

3.8.5 However, the decision on the Rating is not simply based on the dataset filled up in the scorecard. There is provision of rating adjustment for each of the 4 factors upwards or downwards (by a range of notches[58] for each factor) on basis of :

(i) As per the benchmarks set by Moody's against each indicator.

(ii)Performance during the year vis-à-vis peer group of countries. This is because Rating is a competitive exercise among the cohort of nations who have been awarded a particular Rating in the previous year.

(iii) There is a factor called 'other' in the RM which is mentioned thrice in the scorecard.

3.9 Standard & Poor's (S&Ps) Rating Methodology (RM) and Macro-economic indicators:

3.9.1 S&P rates the various sovereign nations based on broadly five different aspects viz. Institutional and Governance Effectiveness score, Economic score, External score, Fiscal score, and Monetary score.

3.9.2 **Table 5** represents Rating Methodology parameters and indicators of S&P. There are 13 sub-factors for 6 main factors. Out of 12 sub-factors 9 concerns the macro-economic indicators viz. (i) Per capita GDP, (ii) Per capita GDP growth rate, (iii) Economic diversity and volatility, (iv) Currency status,(v) Country's external liquidity,(vi) Resident's liabilities and incomes,(v) Fiscal performance and flexibility,(vi) Debt burden,(vii) A sovereign's ability to use monetary policy and the exchange rate regime and (viii) Monetary policy's credibility, effectiveness and inflation trends. Compared to Moody's, in S&Ps Rating Methodology, 75% of the indicators concern macro-fundamentals.

[58] This range for notches adjustment is 0-9 for Economic Strength factor, 0-3 for Institutions and Governance, 0-6 for Fiscal Strength and 0-3 for some other factors.

Table 6: S&P Rating Methodology	
Factor	**Sub Factor**
1. Institution and government effectiveness score	(I) Effectiveness, stability, and predictability of policymaking, political institutions, and civil society
	(ii)Transparency and accountability of institutions, data, and processes
	(iii) A sovereign's debt payment culture
2. Economic score	(iv) Per capita GDP
	(v)Per capita GDP growth rate
	(vi) Economic diversity and volatility.
3. External score	(vii)Currency status
	(viii)Country's external liquidity
	(ix)Resident's liabilities and incomes
4. Fiscal score	(x) Fiscal performance and flexibility
	(xi)Debt burden
5. Monetary score	(xii) A sovereign's ability to use monetary policy and the exchange rate regime
	(xiii) Monetary policy's credibility and effectiveness and inflation trends
Source: S&P	

3.9.3 The rating methodology of S&P's gives a score of 1 to 6 on the various indicators and factors it examines while rating the countries with 1 being the strongest and 6 being the weakest. For example, a score of 1 on per capita GDP means the country is extremely well off as far as per capita GDP is concerned. And a country getting a score of 6 means its per capita GDP is extremely poor.

3.9.4 The S&P Rating Methodology (RM) does not indicate the weights of factors and sub-factors. But the aspect of weightage has been written in its RM in the following aspects:

(a) S&P assigns a weight of 60% to credibility and monetary policy effectiveness and 40% to the exchange rate regime in case of the parameter in the RM dealing with these variables.

(b) The average of six years of historical data, S&P's current-year estimate, and three-year forecasts is used to calculate real per capita GDP trend growth. To avoid a bias, the most recent historical year, current-year estimate, and predictions are all given a 100 percent weighting, whereas past years are given a reduced weighting. When an exceptional year deviates from the 10-year average, there is a significant dip or increase.

(c) Regardless of any prospective upward adjustment for a large asset position, a sovereign with an institutional assessment of '6' cannot be rated higher than 'BB+'. The history of sovereign defaults reveals that institutional risks are one of the primary drivers of weak economic policies that lead to default, which is why the institutional assessment is given such weight. Given the increased risks that such a combination involves, a sovereign with an institutional evaluation of '6' and a debt assessment of '5' or '6' cannot be rated higher than 'B+.'

4 Section 3: Understand the macro-economic indicators particularly Per capita Income and unemployment from twin perspectives of SCRA and GoI.

4.1 **Table 7** depicts the position of per capita income of India in terms of Moody's and S&P's Rating Methodology. It is observed that as per the RM of Moody's India's GDP per capita (in PPP US dollars) qualifies for a position in the B3 range in which the countries with growth rate of 0.9-1.1% are to be placed. But India's GDP rate of growth[59] is much higher than this. As per S& Ps Rating Methodology, not only India's GDP per capita (in US dollars) is referred to but also the rate of growth of the same is also seen for score.

[59] India's GDP may grow 9.2% in the current financial year ending March 2022, according to the first advance estimates released by the government.

Table 7: Position of per capita income of India in terms of Moody's and S&P's Rating Methodology.			
S.No	**Agency**	**Per Capita Income**	**GOI Position**
1	**Moody's**	(i)Weight of 35 in the overall economic strength score	(i) As per World Bank data Per capita GP in PPP terms is USD 6501.5 in 2020.
		(ii) Measured in PPP Int USD	(ii) As per the range indicated by Moodys the above amount of per capita income falls in the range of b3 category . This range is equivalent to 0.9-1.1% of Average real GDP Growth as per Moodys range for this category. B3 is the fifth range from below.
		(iii) Indicates the Range as per the quantity	(iii) India's GDP growth rate is Projected 8.5% for 2022 by IMF (7th highest in the world).
		(iv) Now demographics, working age population, employment, higher education and training index also being seen.	
2	**S&P**	(i) Per capita GDP and (ii) per capita GDP growth rate (iii) uses the current-year estimate for the GDP per capita from national statistics, converted to U.S. dollars (iv) (iii)The average of six years of historical data, our current-year estimate, and three-year forecasts is used to calculate real per capita GDP trend growth. To avoid a bias, the most recent historical year, current-year estimate, and predictions are all given a 100 percent weighting, whereas past years are given a reduced weighting. When an exceptional year deviates from the 10-year average, there is a significant dip or increase.	(i) India's per capita NNP is Rs 135000 in 2020 which converts to 1803.16 US dollars As per World Bank data per capita income is 1,927.7 USD dollars (ii) The per capita growth rate for 2020 was in negative -8.2 % . However, average per capita GDP growth rate of last 10 years is 4.19%. Excluding the deviation and negative year of 2020 it is 5.42 %.
Source : Moody's and Standard & Poors Rating Methodology and IMF and World Bank data sources			

4.2 **Table 8** looks at the cohort aspect of the methodology of both MIS and S&P. In this table countries with the Sovereign Rating Baa3, BBB and BBB- along with their GDP per capita income in US dollars and its growth rate has been tabulated sourcing data from World Bank. It is observed that India's GDP per capita is the lowest in this cohort of countries and that these countries had a GDP per capita negative growth rate[60].

[60] This has been the obvious impact of the COVID-19 pandemic on the economies world over.

Table 8 : Per capita income and per capita growth of Select Countries in 2020		
Peer group Countries	**Per capita income(in US dollars**	**Per capita growth rate (%)**
Italy	31,714.20	-8.7
Romania	12,896.10	-3.5
Russia	10,126.70	-2.8
Uruguay	15,438.40	-6.2
Trinidad Tobago	15,425.60	-8.2
Panama	12,509.80	-19.2
Mexico	8,329.30	-9.3
Hungary	15,980.70	-4.5
Indonesia	3,869.60	-3.1
Cyprus	26,623.80	-6.4
Bulgaria	10,079.20	-3.8
India	1,927.70	-8.2
Source: World Bank data sources		

4.3 Significance of Unemployment as a Macro-economic factor in RMs

4.3.1 <u>Moody's RM and Unemployment:</u>

4.3.2 In Moody's RM, labour as a factor of production is covered under adjustments to the Economic Strength factor score. Adjustments to the Economic Strength factor score is a reflection on Moody's perception of the economy's (i) flexibility; (ii) diversity; (iii) productivity; and (iv) labour supply challenges. Factor(iv) Labour supply challenges can be related to unemployment. In essence, Moody's is concerned with the degree of flexibility in labour markets and its medium and long-term impacts on the economy. In this regard, factors which can positively impact Ratings include:

(i) a broad balance of demand and supply[61] that are better able to weather downturns by redeploying labour to the most efficient sectors;

(ii) Legislation or regulatory reforms aimed at increasing the flexibility of employment terms, such as working hours, compensation, and hiring or firing processes.

(iii) Scope of collective or decentralised wage bargaining; and

(iv) A more fungible labour market because of the growth of replaceable talents.

[61] Demand and supply metrics for labour

4.3.3 Moody’s now also considers factors such as slowing or negative growth in the working-age population, positive migration and female labour participation pattern and an ageing workforce. Skill development of young population and support of technological solutions for ageing workforce are equally important. Estimates of a country's working-age population growth over the coming decade compared to the previous ten years, as well as indicators that measure or estimate the degree of population ageing, are employed to analyse labour supply difficulties.

4.3.4 Employment is very often the barometer for income distribution and equity in society. Moody’s has introduced criteria description as depicted in **Table 9** for Rating with respect to unemployment and related factors:

Table 9: Moody’s Criteria description for Employment and related factors

S.No	Rating	Eligibility criteria
1.	**Aaa**	Gini index is typically between 0 and 30. Unemployment is typically low, and distribution of wealth and incomes is relatively uniform with little or no adverse impact on policy outcomes. There are no significant sources of social conflict that pose a material risk to political or economic outcomes.
2.	**Aa**	Gini index is typically between 0 and 30. Unemployment is typically low, and distribution of wealth and incomes is relatively uniform with little or no adverse impact on policy outcomes. There are no significant sources of social conflict that pose a material risk to political or economic outcomes.
3.	**A**	Gini index is typically between 30 and 40. Although the distribution of employment, wealth and incomes is relatively uniform across the economy, differences across regions, socioeconomic or other groups or changes over time may have an adverse impact on policy outcomes. There are some areas of religious, ethnic or social conflict that could materially influence political or economic outcomes
4.	**Baa**	Gini index is typically between 30 and 40. Although the distribution of employment, wealth and incomes is relatively uniform across the economy, differences across regions, socioeconomic or other groups or changes over time may have an adverse impact on policy

		outcomes. There are some areas of religious, ethnic or social conflict that could materially influence political or economic outcomes.
5.	**Ba**	Gini index is typically between 40 and 50. The distribution of employment, wealth and incomes is relatively unequal, and there may be deep religious, ethnic or social divisions in society. These tensions introduce a low but not insignificant probability of social tensions that could include violence and that could have a severe impact on policy outcomes.
6.	**B**	Gini index is typically between 40 and 50. The distribution of employment, wealth and incomes is relatively unequal, and there may be deep religious, ethnic or social divisions in society. These tensions introduce a low but not insignificant probability of social tensions that could include violence and that could have a severe impact on policy outcomes.
7.	**Caa**	Gini index is typically above 50. There is mass unemployment, large disparities of wealth and income, communal tensions in some cases involving internal armed conflict, which severely disrupt or impair economic activity, policymaking and the orderly operation of government institutions
8.	**Ca**	Gini index is typically above 50. There is mass unemployment, large disparities of wealth and income, communal tensions in some cases involving internal armed conflict, which severely disrupt or impair economic activity, policymaking, and the orderly operation of government institutions.
Source: Moody's Sovereign Rating Methodology		

4.3.5 **Table 10** below depicts India's position with respect to Gini Index, unemployment rate, labour market efficiency index and working age population.

Table 10: India's position with respect to Gini Index, unemployment rate, labour market efficiency index and working age population

1.	Gini Index	2011	35.7
2.	Unemployment rate	2020	7.1%
3.	Labour market efficiency index	2017	4.15
4.	Total labour force	2020	47 crore
5.	Working age population	2020	51.1%

5.	Labour force participation rate (female)	2020	26.2%
Source : World Bank data			

Given the above statistics, India seems to fall in the category of '**Baa**' as indicated in **Table 9** above.

4.3.6 **Table 11** presents a comparative picture of India on Labour Market Efficiency index, unemployment rate and Gini index in respect of peer group countries of India (in terms of Sovereign Rating). From this table it is observed that India's unemployment rate in 2020 is comparatively high when compared to peer group countries (in terms of Sovereign Credit Rating).

Table 11: Comparative picture of India on Labour Market Efficiency index, unemployment rate and Gini index in respect of peer group countries of India

Countries	Unemployment rate in 2020 (%) of total labour force	Labour Market Efficency Index in 2017	Gini Index
Italy	9.3	3.67	35.9
Romania	4.8	3.97	35.8
Russia	5.7	4.33	37.5
Uruguay	12.7	3.53	39.7
Trinidad Tobago	6.7	4.01	40.3
Panama	10.2	4.15	49.8
Mexico	4.7	3.77	45.4
Hungary	4.3	4.21	29.6
Indonesia	4.1	3.91	38.2
Cyprus	7.2	4.53	32.7
Bulgaria	5.7	4.25	41.3
India	7.1	4.15	35.7

Source : World Bank data

4.3.7 S&P does not explicitly include 'employment' in its Rating Methodology. FitchRatings consider 'employment' as important while assigning rating with respect to macro-economic stability of a nation but does not include any specific quantitative measure for unemployment levels.

5 Conclusion:

5.1 The secondary data based detailed study conducted in this chapter brings forward the following points:

(a) India’s Government Bond Market is at a moderate stage of development and there is a long way to travel before it achieves required liquidity and depth. Its international presence is missing at this stage.

(b) Rating Methodologies of both MIS and S&P consider both quantitative macro-economic indicators and qualitative indicators for Sovereign Rating Assessment. Institutions and government effectiveness form one of the important factors of assessment by these SCRAs.

(c) 73% of the indicators in the case of MIS and 69% indicators in case of S&P deals with macro-economic indicators. Therefore, working on the economic strength of the country is important.

(d) Moody’s considers labour as a factor of production and its various dimensions in its Rating Methodology.

(e) In Table 7 of this chapter an inherent inconsistency in the Rating Methodology of MIS with respect to scores related to GDP growth rate and per capita income has also been observed.

CHAPTER 5: AN EXAMINATION OF FISCAL DEFICIT AND PUBLIC DEBT IN INDIA FROM THE TWIN LENSES OF SCRA AND GoI

1. Introduction

1.1 In this chapter, the attempt is to understand the importance of fiscal deficit and public debt in the Rating Methodologies (RMs) of two SCRAs viz. Moody's Investor Service (MIS) and Standard & Poor's (S&P). At the same time, the purpose here is to see to what extent Government of India fulfils the criteria set by these SCRAs in their RMs and also to highlight gap if any in terms of data availability or institutional requirement.

1.2 The chapter is divided into **five sections** as under:

(a) **Section 1-** Fiscal deficit and public debt and related aspects as covered in the Rating Methodology of MIS and S&P.

(b) **Section 2**: Basic regulatory framework and bodies instituted by GoI to contain and monitor fiscal and public debt parameters.

(c) **Section 3**: FRBMA compliance as examined by Comptroller and Auditor General of India (CAG)

(d) **Section 4**- Twin perspectives of SCRAs (MIS and S&P) and FRBMA, India on fiscal and debt indicators.

(e) **Section 5**- Conclusion

2. Section 1: Fiscal deficit and public debt and related aspects as covered in the Rating Methodology of MIS and S&P

2.1 Key parameters in <u>Rating Methodology of MIS</u> which relate to Fiscal deficit and public debt are depicted in **Table 12** below**.**

2.2 MIS considers the parameter of Fiscal deficit under two of its factors. <u>First</u>, it is covered under its key factor Economic Strength for policy effectiveness. There are 2 concerned sub-factors viz fiscal policy effectiveness carrying a weight of 30 and Government Default History and Track Record of Arrears. For the second sub- factor though no weight has been assigned but it is important in the sense that it can lead to raise or fall in the rating by 0-3 notches. <u>Second</u>, it is covered under its important key factor Fiscal strength. Interestingly, the sub-factors assessed under this category concern debt burden and debt affordability both together with weightage of

100. In the overall scheme of weightage given to different sub-factors under the Rating Methodology of MIS, one important point to be noted is total weightage of 300% has been shared between 22 sub-factors. Out of this 300% weightage 130% is shared by factors related to fiscal indicators and public debt indicators wherein fiscal policy effectiveness shares 30% weightage. In other words, 43% of the total weightage is on Fiscal strength and public debt related factors.

Table 12: Moody's Sovereign Bond Ratings Sector Scorecard Overview			
1.Economic Strength			
Sub-factor			
Subcategory	**Weight(%)**	**Indicators**	**Weightage (in %)**
(i) Policy Effectiveness		(i) Fiscal Policy Effectiveness	30
Fiscal strength			
(vi) Debt Burden	50	(i) General Government Debt / GDP $_t$	25
		(ii) General Government Debt / Revenue $_t$	25
(vii) Debt Affordability	50	(iii) General Government Interest Payments / Revenue $_t$	25
		(iv) General Government Interest Payments / GDP $_t$	25
Adjustments to Factor Score	Score	(v) Debt Trend t-4 to t+1	
	0 - 6 notches		
	Score	(vi) General Government Foreign Currency Debt /General Government Debt t	
	0 - 6 notches	(vii)Other Non-Financial Public Sector Debt / GDP t	
	Score	(viii)Public Sector Financial Assets and Sovereign Wealth Funds / General Government Debt	
	0 - 6 notches		
	0 - 3 notches	Other	
Source: Moody's Investor Service			

2.3 Likewise key parameters in Rating Methodology of S&P which relate to Fiscal deficit and public debt are depicted in **Table 13** below. From the table it is evident that the approach to assessment of Sovereign based on Fiscal deficit and public debt parameters by S&P is like that of MIS. The assessment for these parameters is done on two major factors viz. First, under Institution and government effectiveness score wherein a sovereign's debt payment culture is assessed; Second, Fiscal score under which two sub-factors Fiscal performance and flexibility and Debt burden are examined. However, no weight has been assigned to any of the factors and sub-factors in S&Ps Rating Methodology. Since the factors covered are similar to that of MIS, it can be safely assumed that the S&P also gives weightage of 40% to fiscal and public debt parameters in its Rating Methodology.

Table 13: S&P Rating Methodology	
Factor	**Sub Factors**
1. Institution and government effectiveness score	(i)Transparency and accountability of institutions, data, and processes
	(ii)A sovereign's debt payment culture
2. Fiscal score	(i) Fiscal performance and flexibility
	(ii) Debt burden
Source : S&P	

2.4 Some of the important findings from **Table 12** and **Table 13** above are given as under:

(a) Fiscal Policy effectiveness score of MIS and Institution and government effectiveness score of S&P imply assessment of institutional regulatory and monitoring framework.

(b) Both MIS and S&P gives around 40% weightage to fiscal strength and public debt related factors

(c) In both MIS and S&P Rating Methodologies, Government Default History and Track Record of Arrears and a Sovereign's debt payment culture are factored in. For S&P debt payment culture is the first potential adjustment to the original institutional assessment. As per RM of MIS, when there is a history of government default or considerable arrears, the Institutions and Governance Strength component score is lowered downward.

(d) According to S&P, because creditors have limited legal recourse, a sovereign's willingness to default is a crucial factor to consider when assessing its creditworthiness. As a result, even when a sovereign has the capacity to pay its debts on time, it can and does default on its obligations. In circumstances where sovereign's debt payment culture is considered a credit risk, the overall institutional evaluation cannot be higher than a '6.'[62] This means that the

[62] The rating methodology of S&P's gives a **score of 1 to 6** on the various indicators and factors it examines while rating the countries with 1 being the strongest and 6 being the weakest.

country's Sovereign rating can be greatly impacted due to its debt payment culture.

(e) Fiscal deficit is not mentioned as an indicator in these Rating Methodologies.

2.5 <u>Institutional Regulatory and Monitoring Framework as envisaged in the Rating Methodologies of MIS and S&P:</u>

2.5.1 Following points in the RMs of MIS and S&P with respect to institutional regulatory framework are considered critical for **getting a higher score** with respect to sub-factor related to fiscal policy effectiveness:

(a) Transparency and integrity of government accounting are crucial drivers of good budget planning at all levels of government.[63] Monthly budget accounts (on a cash basis) and annual or quarterly accrual budget accounts, as well as government balance sheets, containing contingent liabilities and other off-balance sheet items, are often reported by sovereigns with better disclosure quality. Account boundaries are usually well-defined as well.

(b) Existence of fiscal targets or expenditure ceilings, as well as persistent adherence to those aims or ceilings over multiple political cycles, often indicates superior fiscal policymaking and implementation and are evaluated positively.

(c) Governments with balanced or surplus structural budgets often have greater budget planning capabilities with built-in flexibility.

(d) Existence of independent bodies for review of budget- making process and for public debt management is often rated positively.

(e) Regular public reporting of critical financial facts, planning, and policies as part of better debt management strategies is viewed positively.

[63] Budgetary authorities and related stakeholders, as well as external non-partisan agencies, benefit from the availability of complete, reliable, and recent data on government finances.

(f) Debt management policies that are well-structured and strive to ensure consistent access to capital, for example, through frequent issuances across maturities and diversification of funding sources, while lowering service costs and refinancing risk. Well-thought-out Mitigation plans are important.

(g) Any material benefit received, and the policies implemented by policymakers under the auspices of international institutions such as the IMF and the World Bank can have the greatest positive impact on the fiscal policy effectiveness.

(h) A sovereign with a spotless record of honouring debt obligations, a growing economy, with a strong domestic capital market that provides relatively low-cost market-based financing may be able to sustain a higher debt burden and is viewed positively.

2.5.2 Institutional structure which can impact the credit score related to fiscal effectiveness **negatively** are described below:

(a) A low score for fiscal policy effectiveness is usually associated with administrative difficulties in tax collection and lack of efficient tax enforcement leading to instances of tax evasion as these are indicative of weak administrative capacities of fiscal authorities.

(b) Complicated accounting standards with variance over time, resulting in ex-post modifications of fiscal performance and debt levels, a history of frequent and extensive revisions in past budget accounts would normally weigh negatively on the assessment of a sovereign's fiscal effectiveness.

(c) Defaults on debt owing to the private sector are usually the subject of the examination. The adjustment is limited to three notches and can only be made downward. The size of the negative adjustment is usually determined by future projections of redefault risk, the date of the default, and the size of the investor loss. The negative adjustment to this component score is proportional to the size of the losses.

(d) Furthermore, regardless of the recovery rate seen, a higher negative adjustment is often imposed for a government that has defaulted numerous times in the last 20 years. There is no downward adjustment owing to default if no fresh defaults have occurred in the previous 20 years.

(e) If the government has a history of accruing considerable arrears to creditors, such as suppliers or government employees, a negative adjustment to the factor score may be made as well. Arrears that are frequent and significant can indicate bad financial management, a poor payback culture, and, ultimately, a shaky rule of law and contract enforcement.

(f) If the arrears on bilateral official debt, which is debt owing to foreign governments and government-owned entities, have been significant and persistent.

(g) A public debate about the legality of debt incurred by a former administration (so-called odious debt).

(h) There has been no significant policy shift since the last commercial debt default[64].

2.6 <u>Data indicators in RMs of MIS & S&P which can impact credit score relating to Fiscal policy effectiveness:</u>

2.6.1 <u>Fiscal policy effectiveness as measured by MIS</u>: In MIS Rating Methodology this sub-factor is evaluated qualitatively based on a trajectory of public debt over time, fiscal balances, and fiscal performance against budgetary plans, medium-term planning, government account transparency, and debt management. Debt levels which remain steady or decline over time are critical indicator of a government's fiscal success. Debt levels may rise during a

[64] History shows that countries may transition from being serial defaulters, albeit with a long road ahead of them. Defaults damage political institutions because the economic downturn that follows discredits the policies that led to the default and creates public distrust. This increased public scepticism may make reaching an agreement on economic policy more difficult, leading to more defaults. The initial default may be more costly than subsequent defaults, leading to the notion that serial defaulters have less of a good reputation to lose with each subsequent default.

downturn or crisis because of lower revenue and budget expansion to support recovery but government's ability to manage such situations and develop shock absorption capacity can be a positive indicator of its fiscal capacity. At the same time, not only the ability to alter revenue and expenses to mitigate unanticipated events is critical, but also the medium-term fiscal policy planning is equally critical.

2.6.2 Fiscal Policy effectiveness as measured by S&P: S&Ps key measure of a government's fiscal performance is the change in general government debt stock during the year expressed as a percentage of GDP in that year. An initial assessment starts with the measurement of the prospective change in general government debt computed as a percentage of GDP. This initial assessment receives a positive or negative adjustment by up to two categories, based on the factors such as government's fiscal flexibility and vulnerabilities, as well as long-term trends.

2.6.3 In a nutshell, both MIS and S&P consider Government debt level as the key determinant of a Sovereign's fiscal policy effectiveness. Large debt burdens or steady increases in debt levels throughout numerous economic cycles, could translate into lower score for this sub-factor.

2.7 Data indicators in RM of MIS which can impact credit score relating to Fiscal strength:

2.7.1 Fiscal strength: The fiscal strength of a sovereign is a direct measure of the debt burden's sustainability. **Consistent fiscal deficits** frequently lead to increased leverage and poor debt affordability, making the sovereign more exposed to financial shocks and increasing the risk of default. This factor is made up of two quantitative sub-factors, each with two measures. Debt Burden and Affordability of Debt. At the general government level, debt and fiscal metrics are used to analyse the Debt Burden and Debt Affordability sub-factors.

2.7.2 Debt burden: This sub-factor indicates a sovereign's debt level in terms of GDP, i.e., the size of the economy, as well as overall government revenue, the sovereign's ability to repay debt based on its actual revenue base. A high debt-to-GDP ratio limits the sovereign's ability to give fiscal support to the economy, especially in times of economic or financial stress, limiting the country's growth potential. High debt loads are viewed in terms of outcome of:

i. Long-term financial imbalances
ii. Assumption of contingent liabilities (e.g., from the recapitalization of financial institutions or state-owned companies)
iii. Stockflow changes, such as a depreciation of the local currency combined with a stock of foreign-currency-denominated debt.

2.7.3 Debt Affordability: This sub-factor gives information about a country's ability to service its debt.

(a) The general government interest payment to revenue ratio illustrates how much of a government's debt service load is covered by its revenue-generating capacity. The debt burden itself (the larger the stock of debt relative to GDP, the lower the debt affordability); the interest rate paid, which reflects creditors' willingness to finance government deficits with smaller or larger risk premia; and revenues generated by the sovereign through its budget are all factors that influence debt affordability. Due to the high ratio of interest payments to revenue in the general government, a considerable portion of money must be allocated to interest payments, crowding out other sorts of spending. The higher the social costs of debt servicing, the lower the sovereign's debt affordability. Unacceptably high social costs of debt servicing may erode a sovereign's ability, and eventually desire, to service debt over time.

(b) As part of the Rating Methodology, ratio of general government interest payments to GDP further considers the country's overall capacity to meet government debt service obligations.

2.7.4 Perimeter of General Government debt (GGD) as defined under MIS Rating Methodology: The following items are included inside GGD's perimeter:

i. The debt of the central government, as well as regional and municipal governments, is referred to as general government debt.

ii. The social security system is included in the General Government debt when it is separated from the central government.

iii. Considers both the high level of mutual dependency between the central and lower government levels, as well as the overlap in revenue sources and uses.

iv. Includes the central bank's debt only (not its obligations).

2.7.5 Formulae for assessment of Debt Burden and Debt affordability

(a) Debt Burden:

(i) General Government Debt / GDP: The numerator is general government gross debt, and the denominator is GDP in nominal terms.

(ii) General Government Debt / Revenue: The numerator is general government gross debt, and the denominator is general government revenue.

(b) Debt Affordability:

(i) General Government Interest Payments / Revenue: The numerator is general government interest payments, and the denominator is general government revenue.

(ii) General Government Interest Payments / GDP: The numerator is general government interest payments, and the denominator is GDP in nominal terms.

2.8 Data indicators in RM of S&P which can impact credit score relating to Fiscal strength:

2.8.1 Fiscal Assessment: This metric considers fiscal flexibility, long-term fiscal trends and vulnerabilities, debt structure and funding access, and contingent liability risks. The analysis consists of two sub-factors viz. (a) fiscal performance and flexibility and (b)debt burden. The overall rating for this component is based on the average of these two sub-factors.

2.8.2 Fiscal performance and flexibility: Assessment of Sovereign's revenue and expenditure flexibility, vulnerabilities, and long-term trends is primarily qualitative. Each of the factors listed below raises a sovereign's budgetary performance and flexibility by one category:

(i) To offset the impact of economic cycles on its fiscal performance, the general government maintains considerable liquid financial assets[65] (usually more than 25% of GDP) available.

(ii) In comparison to governments in countries with similar levels of development, the government has a stronger ability and willingness to boost revenues[66] in the near term (usually by more than around 3% of GDP) through increases in tax rates, tax coverage, or asset sales.

(iii) Similarly, compared to countries at comparable levels of development, the government has a higher ability and willingness to lower general government spending in the near term, notwithstanding the economic, social, or political consequences. The level and direction of public-sector wages and entitlement expenditures (pensions and health care), the balance of operating and capital expenditures, and the government's track record and policy on executing expenditure cuts when needed can all be used to determine spending flexibility.

2.8.3 Each of the circumstances listed below degrades a sovereign's fiscal performance and flexibility by one category:

(i) A government's revenue base can be erratic, due to a high reliance on real estate turnover taxes or royalties from extractive sectors, for example (generally above 25 percent of revenues).

[65] These assets are typically highly liquid and, if deposited in the central bank, available for withdrawal without disrupting macroeconomic policy, and if deposited in a commercial bank, available for withdrawal without harming the bank's own liquidity positions or otherwise disrupting financial stability.

[66] Revenue flexibility is a qualitative assessment based on the government's policy or track record, as well as potential constitutional, political, and administrative issues, as well as the economic and social effects of such policies.

(ii) The country has a significant shortfall in basic services to the population and infrastructure that is likely to result in spending pressure for a long period of time, as reflected, for instance, by a "medium" or "low" UNDP human development index.

(iii) Due to age-related expenditure, the sovereign faces unmet medium-term pressure. In many countries, demographic shifts and an ageing population will be—and in some cases already are—major issues for public budgets. These countries are dealing with a shrinking working-age population and increased spending on age-related issues like pensions and health care. Age-related budgetary pressures are incorporated as a negative adjustment in the assessment of a government's fiscal flexibility and long-term trends, and/or directly in budgetary predictions.

2.9 Debt Burden: Debt burden evaluation is based on a sovereign's debt proportion to GDP, interest cost of debt relative to general government revenue, debt structure, and funding access. This assessment also considers the risks posed by contingent obligations that could become government debt if they materialise. It does not consider pension and other obligations to the government employees and military personnel[67].

2.9.1 Debt Burden in measured based on two essential factors viz. general government debt level and cost of debt. Further, based on the examination of the government's debt structure, financial access, and contingent obligations, the initial evaluation is then given a positive adjustment of up to one category or a negative adjustment of up to three categories.

2.9.2 The following two measures are used to assess a sovereign's debt level:

(a) General government interest expenditures as a percentage of general government revenues; and

(b) Net general government debt as a percentage of GDP.

[67] It is anticipated that through legal changes in how those state-run institutions operate, central governments will continue to gradually lower future public pension and other age-related payments. It is also expected that, in times of financial crisis, central governments will prioritise debt service over current expenditures like pensions and other transfers.

2.9.3 Calculation of Net General Government debt: Because it deducts only the most liquid financial assets from the general government debt, net general government debt is generally more restricted[68] than national measurements of net general government debt. Only those assets are considered for net general government debt that the government will have timely access to in the case of financial hardship to maintain national creditworthiness and avoid default.

2.9.4 General Government debt and Central Bank: When a central bank issues debt that can be used for reasons other than monetary policy, it is counted as part of the general government debt metric. If central bank debt is large enough to have an analytical impact and rises most years (as a percentage of GDP) and so appears to be more structural than cyclical, it is included in general government debt.

2.9.5 If at least two of the four factors below apply to sovereigns in a net general government debt position, the debt assessment is one category worse than the initial assessment.

(i) Net General Government debt is above 10% of GDP, with significant unhedged exposure to exchange rate swings and refinancing risk, with more than 40% of gross government debt denominated in foreign currency (after swaps) and average debt maturities of fewer than three years.

(ii) Net General Government debt is above 10% of GDP, and non-residents consistently hold more than 60% of government commercial debt.

(iii) Debt service is susceptible to acceleration from puts or rating triggers due to an amortisation profile that varies by more than 5% of GDP from one year to the next.

[68] Following assets are not considered for Net General Debt: (i) central bank international monetary reserves, which are typically held for the country's balance of payment needs rather than for government support; (ii) loans to or investments in majority-government-owned companies; and (iii) assets for which liquidity might be impaired in a sovereign stress scenario.

(iv) The government sector is exposed to a large portion of the resident banking sector's balance sheet (more than 20%) via loans, government securities, or other claims on the government or its closely held agencies, indicating that the national banking sector's capacity to lend to the government is limited, potentially crowding out private sector borrowing.

2.9.6 Contingent liabilities are obligations that, if they materialise, have the potential to become government debt or, more broadly, to affect a government's credit rating. They simply give an indication of the risks that contingent obligations represent to the sovereign, rather than a more comprehensive calculation of fiscal and monetary costs. As a result, when analysing a government's debt load, this estimate of contingent obligations is only employed as a qualifier. Although some of these liabilities are difficult to define and quantify, they can be divided into three categories:

(i) Contingent liabilities of financial institutions (FICL). Financial institutions include public and private depository corporations as well as non-depository financial institutions.

(ii) Nonfinancial public-sector enterprises (NFPEs) contingent liabilities; and

(iii) Guarantees and off-budget contingent liabilities.

It is important to note that the qualitative analysis of various contingent liabilities in this section is complemented by the quantitative analysis in other parts of the sovereign analysis.

2.10 Summary of the RMs of MIS and S&P: The detailed study of Sovereign Rating Methodology of MIS and S&P with respect to fiscal deficit and public debt as important parameter for Sovereign Ratting brings out clearly following points:

(a) Fiscal deficit figure or the public debt figure are not the only important parameters in their assessment so far as fiscal response, fiscal strength and fiscal flexibility is concerned.

(b) Rather they take a comprehensive look on the performance of the economy vis-à-vis these parameters.

(c) Both the agencies consider General Government debt an important parameter in the scope of assessment. They employ much broader definition for General Government debt than what the national governments may be employing.

(d) Government Default History and Track Record of Arrears and Sovereign's debt payment culture are also highlighted by both agencies as important in the overall rating assessment exercise.

(e) Loans taken from international agencies to address macro-economic crisis and adhering to their conditionalities are viewed positively.

(f) Contingent liabilities and guarantees are also considered.

(g) S&P looks at Net General Government Debt figures. It also factors in human development and age related expenditure pressures.

4. Section 3: Basic regulatory framework and bodies instituted by GoI to contain and monitor fiscal and public debt parameters and Budget Management Exercise in India

4.1 In this section, the focus is on the basic regulatory framework and bodies instituted by GoI to contain and monitor fiscal and public debt parameters. The basic thought in doing so is to ensure if this framework is in line with the requirements of the key SCRA's viz. Moody's Investor Service (MIS) and Standard & Poor's (S&P). Further, attempt is made to tabulate all the key indicators related to fiscal strength and public debt as in the Rating Methodologies of MIS and S&P and as in the Fiscal Responsibility and Budget Management Act (FRBMA) of India in one table for a comparative picture.

4.2 Important point to be noted in the Sovereign Rating Methodologies of MIS and S&P is that they both look at the intent of the Sovereign Government. What could be the likely reaction of the Sovereign in situations of financial crisis? This is their basic question. While they both look at the default history of the nation and the culture of debt payment in that nation, existence of regulatory framework and regulatory bodies is an assurance to them that the concerned sovereign has the intent for payment. When a nation close to default seeks loans from international financial institutions to avoid a situation of default, it is viewed positively by these SCRAs as this action of the Sovereign establishes that it intends to pay rather than default. The exercise of India's Sovereign Rating needs to be seen in this background. The starting point is that India does not have a history of default. In 1991, when it was very close to default[69], India said it to the world in clear cut terms that as a sovereign it would always act responsibly and address its financial obligations. The immediate response was to secure an emergency loan[70] of $7 billion from the IMF by pledging 67 tonnes of India's gold reserves as collateral.

4.3 In Chapter 1[71] and Chapter 2[72] of this dissertation, Fiscal Responsibility and Management Act (FRBMA) 2003 and FRBM Rules 2004, Revisions in 2012 and 2018 has been described in brief. FRBMA institutes India's intent for fiscal responsibility and management. The main objectives of the FRBMA are elimination of revenue deficit, bringing down the fiscal deficit, ensuring equitable distribution of debt over the years, ensuring fiscal stability in the long run, introduction of a transparent system of fiscal management within the country and to give necessary flexibility to RBI for managing necessary inflation in India. The Act mandates submission of statements on Medium-Term Fiscal Policy, Fiscal Policy Strategy, Macro-Economic Framework and Medium-Term Expenditure Framework. As per FRBM rules, Medium-Term Fiscal Policy Statement must give information on <u>6 fiscal indicators viz. revenue deficit, fiscal deficit, tax-revenue, primary deficit and non-tax revenue and Union Government's debt. Each of these indicators are to be projected as percentage of GDP in the Statement</u>.

[69] In June 1991, foreign exchange reserves were barely sufficient to carry out essential imports for two weeks; and the economy was weeks away from defaulting on its external debt payment obligations.
[70] Under pressure from the US administration, then-Prime Minister Chandra Shekhar agreed to let US planes returning from the Phillipines to refuel at Bombay's International Airport in exchange for helping to save the Indian economy through the IMF's reconstruction money and the help of western capital.
[71] Chapter 1, Pg 7 of this dissertation
[72] Chapter 2, Pg 16-17 of this dissertation

4.4 Through its Union Budget 2007-08 announcement GoI has committed to establish a full-fledged Debt Management Office (DMO)[73]. The Public Debt Management Cell (PDMC) has been created as an interim arrangement before setting up an independent and statutory debt management agency namely the Public Debt Management Agency (PDMA). The PDMC brings out a quarterly report covering (a) macro-economic developments, (b) debt management covering primary market operations, (c) Cash Management trends in outstanding debt and (d) secondary market.

(a) Plan borrowings of the Government, including market borrowings, other domestic borrowings, SGBs
(b) Manage Central Government's liabilities including NSSF, contingent liabilities.
(c) Monitor cash balances of the Government, improve cash forecasting and promote efficient cash management practices.
(d) Advise other Divisions in DEA on matters related to External Debt involving external borrowings through Multilateral Institutions (MI)[74], Bilateral Co-operation, other possible sources, in terms of cost, tenure, currency, hedging requirements, etc., and monitor developments in foreign exchange markets.
(e) Foster a liquid and efficient market for Government securities
(f) Develop interfaces with various stakeholders/agencies in the regulatory/financial architecture etc. to carry out assigned functions efficiently.
(g) Advice on matters related to investment and capital market operations.
(h) Undertake research work related to new products development, market development, risk management, debt sustainability assessment, other debt management functions, etc.
(i) Develop a database system for collecting and maintaining comprehensive database of Government of India liabilities on a near real time basis and shall be responsible for publication of relevant information.

[73] Para 106 of the Budget speech 2007-08.
[74] World Bank Group (IBRD, IDA, IFC, MIGA, ICSID), Asian Development Bank (ADB), International Monetary Fund (IMF), International Fund for Agricultural Development (IFAD), Global Environment Facility (GEF), African Development Bank Group (AFDB).

(j) Carry out Preparatory work for independent PDMA.

4.5 The Reserve Bank is responsible for managing public debt on behalf of both the federal and state governments. It entails the issuance of fresh rupee loans, the payment of interest and repayment of these loans, as well as other operational matters such as the registration of debt certificates. Several other elements are considered while determining the borrowing programme for the year, including the amount of Central and State loans due to mature during the year, expected available resources, market appetite, and market absorptive ability. The Reserve Bank also serves as the central and state governments' cash management organization. Flows or fluctuations in the Governments' cash balances are monitored and anticipated based on history and experience for cash management and liquidity management purposes.

5. Section 3: FRBMA compliance as examined by Comptroller and Auditor General of India (CAG)

5.1 The performance under FRBMA is amenable to Audit by office of Comptroller and Auditor General (CAG) of India. The FRBMA mandates the central government to take reasonable actions to create more transparency in its fiscal operations, as well as to make required disclosures in the formats specified.

5.2 CAG brings out Annual Reports on compliance of the Fiscal responsibility and Budget Management Act 2003. Some of the Reports of the CAG examined bring out issues in transparency. Some of these points are given below:

(a) The practice of repeatedly deferring deadlines related to deficit targets set under the FRBMA

(b) Failing to pay bills on time resulting in several arrears at different levels

(c) Financing outside of the budget to display lower deficits

(d) Special banking arrangements for covering fertilizer subsidy arrears,

(e) Food Corporation of India issuing short term bonds and unsecured loans.

(f) Borrowing from National Small Savings Fund(NSSF) to meet food subsidy and arrears.

(g) Financing irrigation projects from the Long term Irrigation Fund created by the National Bank for Agriculture and Rural Development (NABARD) and financing railway projects through borrowings from the NABARD.

(h) Life Insurance Corporation of India (LIC) and Power Finance Corporation buying Rural Electrification Corporation (REC) and remitting the money to the government as disinvestment proceeds.

(j) Disclosed misclassification of revenue expenditure,

(j) Adoption of an erroneous process of devolution/apportionment of Integrated Goods and Services Tax (IGST) to states.

(k) Short transfer of cesses to Reserve Funds and non-adjustment of transactions in suspense relating to Defence pensions, which have an impact on deficit calculations.

(l) Funding of revenue and capital expenditure using extra budgetary resources in both the years. Expenditure met from extra budgetary resources are not part of calculations of the fiscal indicators but have fiscal implications.

(m) The projections for receipts and expenditures under several headings, as well as the three fiscal indicators, made in the Medium-term policy statements and budget documents for the years 2017-18 and 2018-19, were compared to the actuals for the two years. The research revealed that all features and components of the projections made each year had been revised. Despite modifications, however, actuals have tended to differ from estimates.

(n) The National Small Savings Fund (NSSF) balances do not openly disclose the fund's considerable accumulated deficit, which the government will have to make good on in the future. There is also insufficient disclosure that considerable amounts from the NSSF were used to fund government revenue expenditures that would have to be covered by budgetary assistance.

(o) Refunds (including interest on refunds of taxes) and but no corresponding disclosure was made in the Union Government Finance accounts.

(p) Examination of disclosure forms mandated under the FRBM Act/ Rules revealed inadequacies in disclosures.

5.3 The Open Budget Survey (OBS) is the world's only independent, comparative, and fact-based research instrument that assesses public access to central government budget information, formal opportunities for public participation in the national budget process, and the role of budget oversight institutions such as the legislature and auditor in the budget process, using internationally accepted criteria. 117 countries participate in this Survey. As per OBS 2019, India holds 49^{th} rank, budget transparency, 11^{th} rank in public participation and 59^{th} budget oversight.

5.4 Points mentioned in para 5.2 and 5.4 account for a downward adjustment to a considerable extent by the SCRAs.

6. **Section 4: Twin perspectives of SCRAs (MIS and S&P) and FRBMA, India on fiscal and debt indicators.**

6.1 **Table 14** depicts the twin perspectives of SCRAs (MIS and S&P) and FRBMA, India on fiscal and debt indicators.

Table 14: Fiscal and Public debt Indicators as in Sovereign Rating Methodology of Moody's and S&P

S.No	Indicators under SCRAs	Indicators under FRBMA, India
1.	GGD/ GDP	Revenue deficit/GDP
2.	GGD / Revenue	Fiscal deficit/GDP
3.	GGIP / Revenue	Tax-revenue/GDP
4.	GGIP / GDP	Primary deficit/GDP
5.	NGGD= GGD - financial assets such as monetary gold and SDRs, currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable. These financial assets correspond to debt instruments.	Non-tax revenue/GDP

6.	General government interest expenditures as a percentage of general government revenues; and	Union Government's debt/GDP
Source: Moodys, S&P and FRBMA, India (i) GDP- Gross Domestic Product in nominal terms (ii) GGD- General Government Debt (iii) GGIP-General Government Interest Payments (iv) NGGD-Net General Government debt		

6.2 From **Table 14,** some points of difference between the two approaches of SCRAs and GoI are clearly discernible. These points are discussed as under:

(a) SCRAs are more concerned with the General Government Debt (GGD). GGD includes debt of the central government, as well as regional and municipal governments, social security system (if different from Central Government) and the central bank's debt only (not its obligations). On the other hand, FRBMA indicator on debt is concerned only with the Union Government's debt.

(b) Net General Government debt is also the concern of S&P. World Bank maintains data of different countries of the world on this indicator. Information for India on this data is not available.

(c) FRBMA monitors the figures on revenue deficit, fiscal deficit, tax-revenue, primary deficit, non-tax revenue and Union Government's debt. Each of these indicators are measured in terms of percentage of GDP.

(d) As public debt is nothing but the accumulation of fiscal deficit over a period, monitoring fiscal deficit as a key indicator for public debt management has been the target under FRBMA. However, it is observed from **Table 14** that the SCRAs take a more comprehensive view on debt management.

(e) Quarterly Public Debt Management Reports released by the PDMC cell of Ministry of Finance, GoI and India's Quarterly External Debt Report released by RBI do not cover indicators emphasized by SCRAs in their assessment.

7. Section 3: Conclusion:

7.1 The study done in this Chapter and the findings enables us to conclude that rather than the fiscal deficit and public debt figures the SCRAs are more concerned with the overall economic situation of the country. Their Rating Methodology considers both historical default status and future projections as well. They involve both quantitative and qualitative perspective. They are concerned about institutional and governance strength for fiscal policy effectiveness and transparency in reporting and accounting matters. A study of the Indian institutional set up and accounting and reporting position of India show that India is a moderate performer and there is scope for improvement.

CHAPTER 6: TRENDS IN FISCAL DEFICIT, PUBLIC EXPENDITURE, PUBLIC DEBT OF INDIA (1990-91 to 2020-21)

1. Introduction:

1.1 The objective of this chapter is to look at GoI data related to key deficit and debt indicators. The study is focussed on combined data related to deficit and debt indicators of both Centre and States as the SCRAs consider the general government (includes both Centre and the States. Further the period of the study has been identified from the period 1990-91 to 2020-21, covering a span of three decades. 1991 is the year when India faced an economic crisis. This was also the period when India adopted myriad Economic reforms and the Structural Adjustment Programme under the aegis of the international institutions such as the IMF and the World Bank. GoI has started reporting its fiscal deficit only after 1991. 2020-21 is the year of the great pandemic crisis the world over. The indicators covered in the study include Capital and Development expenditure in India, Combined deficits of the Central and State Governments, Select debt indicators of Centre and States as percentage of GDP, Gross Tax Revenue, Non-Tax Revenue and Revenue deficit as percentage of GDP.

1.2 Fiscal Policy effectiveness as per the Rating Methodologies of Moody's Investor Service (MIS) and Standard and Poor's (S&P) implies declining deficits, declining expenditures, and increasing revenues. The purpose of studying the trends with respect to capital and development expenditures is to observe if there is a declining[75] or an increasing trend in these expenditures as proportion of total expenditures. Trends of Combined deficits of Central Government and State[76] are observed for visibility of declining trend if any. Likewise, trend of debt indicators is examined to observe if there has been a declining trend in them or not. Trends of Gross Tax Revenue and Non-Tax Revenue are observed for increasing trend and if

[75] Please see S&P data indicators explained at Pg 64, Chapter 5 of the dissertation. Compared to countries at comparable levels of development, the government has a higher ability and willingness to lower general government spending in the near term, notwithstanding the economic, social, or political consequences.

[76] As per our study in Chapter 5 , SCRAs are more concerned with General or Combined Government debt.

it forms more than 3%[77]. Trend in Revenue deficit is observed to see if it is declining.

1.3 The chapter is divided into five sections as under:

(a) **Section 1**: Trends in capital and development expenditure as percentage of total expenditure in India

(b) **Section 2:** Trends in Combined deficits of the Central and State Governments and Interest Payments as percentage of GDP

(c) **Section 3**: Trends in Select debt indicators of Centre and States as percentage of GDP

(d) **Section 4:** Tax Revenue and Non -Tax Revenue and Revenue deficit as percentage of GDP

(d) **Section 5:** Conclusion

2. Section 1: Trends in capital and development expenditure in India

2.1 While examining the macro-economic indicators assessed by SCRAs in Chapter 4, it has been observed that the SCRAs are also concerned about the level of economic development of the Sovereign not only in terms of rate of GDP growth and per capita growth but also in terms of level of development of socio-economic infrastructure, human development index, level of employment, skill development, higher education and expenditure related to skilling population in the working age group. Investment in socio-economic infrastructure imply capital and developmental expenditure. In other words, it is important to also look at the trends in development related capital expenditure in India.

2.2 **Table 15** presents the data of GoI for the period 1991-92 to 2021-22 with respect to Capital expenditure and Total Expenditure and capital expenditure

[77] Please see S&P data indicators explained at Pg 63, Chapter 5 of the dissertation. In comparison to governments in countries with similar levels of development, the government has a stronger ability and willingness to boost revenues in the near term (usually by more than around 3% of GDP) through increases in tax rates, tax coverage, or asset sales.

as percentage of total expenditure. Total Capital Expenditure has been calculated as the sum of Capital Expenditure, Capital Outlay and Capital Defence Expenditure. The Union Government defines Capital expenditure as the money spent on the acquisition of assets like land, buildings, machinery, equipment as well as investment in shares. An outlay is when a company has spent money to acquire some type of tangible assets like purchase of new equipment which would be a capital expenditure. A capital expenditure is a type of capital outlay. It consists of payments a company makes over time typically extending out for longer than one year. In the Defence Budget, Capital Expenditure includes purchasing new weapons, aircraft, warships, and other military hardware.

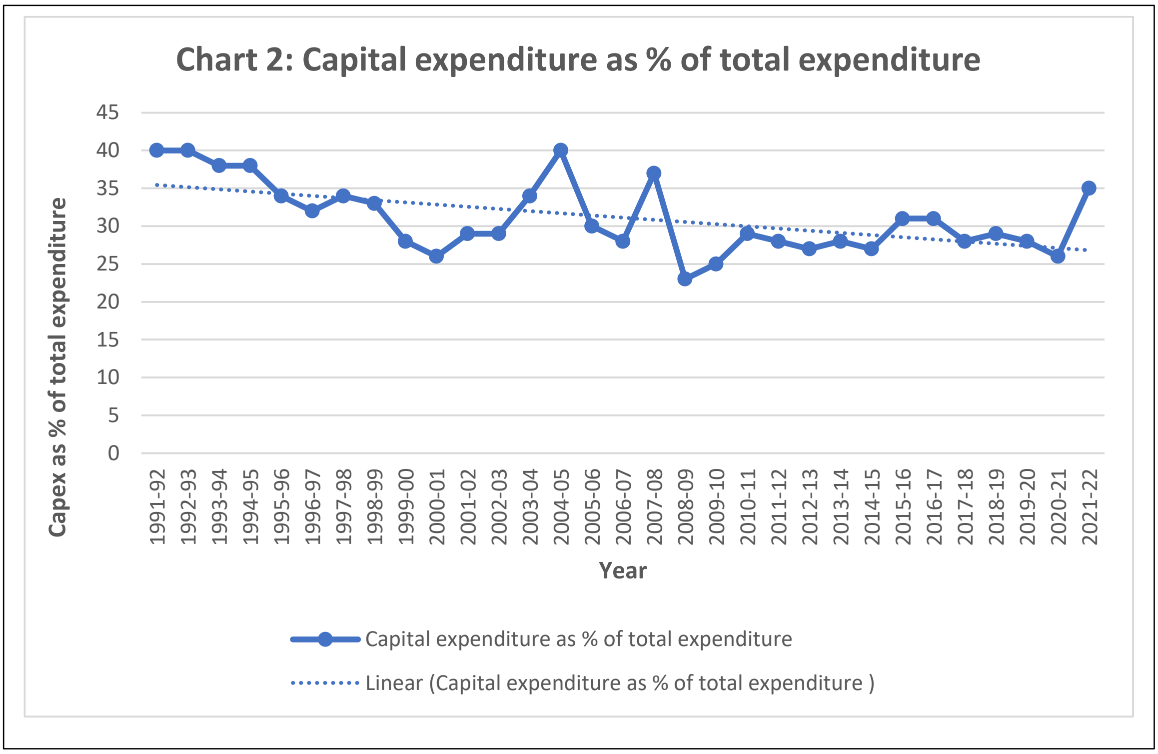
2.3 Points to be noted in the above **Table 15** are that:

(i) In absolute terms, both total expenditure and capital expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total capital expenditure has increased by 96%.

(ii) However, the share of capital expenditure as a percentage of total expenditure has fluctuated between 40% and 23% during the period 1991-92 to 2021-22.

Table 15 : Major heads of Capital expenditure and Total expenditure of the Central Government						
						Rs crores
Year	Capital expenditure (1)	Capital outlay (2)	Capital Defence expenditure (3)	Total expenditure (4)	Total Capital Expenditure (1+2+3)=(5)	Capital expenditure as % of total expenditure (6)
1991-92	29122	11043	4905	111414	45070	40
1992-93	29916	13385	5473	122618	48774	40
1993-94	33684	13089	6867	141853	53640	38
1994-95	38627	14891	6819	160739	60337	38
1995-96	38414	14099	8015	178275	60528	34
1996-97	42074	14196	8508	201007	64778	32
1997-98	51718	17526	9104	232053	78348	34
1998-99	62879	18841	10036	279340	91756	33
1999-00	48975	24037	11855	298053	84867	28
2000-01	47753	24745	12384	325592	84882	26
2001-02	60842	26558	16207	362310	103607	29
2002-03	74535	29101	14953	413248	118589	29
2003-04	109129	34150	16863	471203	160142	34
2004-05	113331	52338	31994	498252	197663	40
2005-06	66362	55025	32338	505738	153725	30
2006-07	68778	60254	33828	583387	162860	28
2007-08	118238	106940	37462	712671	262640	37
2008-09	90158	76051	40918	883956	207127	23
2009-10	112678	97031	51112	1024487	260821	25
2010-11	156605	131619	62056	1197328	350280	29
2011-12	158580	137843	67902	1304365	364325	28
2012-13	166858	146058	70499	1410372	383415	27
2013-14	187675	168478	79125	1559447	435278	28
2014-15	196681	167463	81887	1663673	446031	27
2015-16	253022	226685	79958	1790783	559665	31
2016-17	284609	247800	86371	1975194	618780	31
2017-18	263140	245113	90445	2141973	598697	28
2018-19	307714	279492	95231	2315113	682436	29
2019-20	335726	311312	111092	2686330	758130	28
2020-21	439163	332247	134510	3450305	905920	26
2021-22	554236	513862	135061	3483236	1203159	35
Source : RBI handbook of Statistics on Indian Economy						

2.4 **Chart 2** shows the picture of capital expenditure in India as percentage of total expenditure for the period 1991-92 to 2021-22. A clear decline in capital expenditure is discernible from this Chart. In 1991-92, the share of capital expenditure in total expenditure was 40%. Except for two more years viz. 1992-93 and 2004-05 when the share of capital expenditure in total expenditure was 40% in rest of the years it has mostly remained in the range of 23 to 34 %. In 2021-22, the share of capital expenditure in total expenditure has been 35%. **In the last 30 years, the general tendency has been for decline in capital expenditure.** The reason for declining capital expenditure as part of total expenditure may be attributed to the adoption of the FRBMA in 2004-05. It is also apparent that the injection of liquidity in the economy through fiscal packages during the Global Financial Crisis in 2007-08 raised the share of capital expenditure in total expenditure by 37%. The same phenomenon of injection of liquidity through many and varied comprehensive programmes of GoI under the umbrella of 'Atma Nirbhar Bharat' to address the challenges to the economy due to COVID 19 pandemic has again boosted the share of capital expenditure in total expenditure in 2020-22.



2.5 It is important to look at the components of development expenditure in India. **Table 16 presents** the data of GoI for the period 1991-92 to 2021-22 with respect to Developmental expenditure, Total Expenditure and Total Developmental Expenditure (TDE) as percentage of total expenditure. Total Developmental Expenditure has been calculated as the sum of Developmental Expenditure, Social services and Economic Services Developmental expenditure is defined as the public expenditure that results in the creation of jobs, increased production, price stability, and so on. This includes spending on activities that are directly relevant to the country's social and economic growth. Developmental expenditures include, for example, education, health, housing, agricultural and industrial development, rural development, social welfare, scientific research, and so on. It also comprises railway, postal, and telecommunications plan expenditures, as well as non-departmental commercial undertakings. Public expenditure on education, art, culture, scientific services and research, medical, public health, sanitation and water supply, family welfare, housing, urban development, broadcasting, labour and employment, social security and welfare, information, and publicity are all examples of social and community services. Public expenditure on overseas trade and export promotion, cooperation, investment in general banking and commercial institutions, co-operation, special and backward sectors, and so on are all included in economic services spending.

2.6 Points to be noted in the above **Table 16** are that:

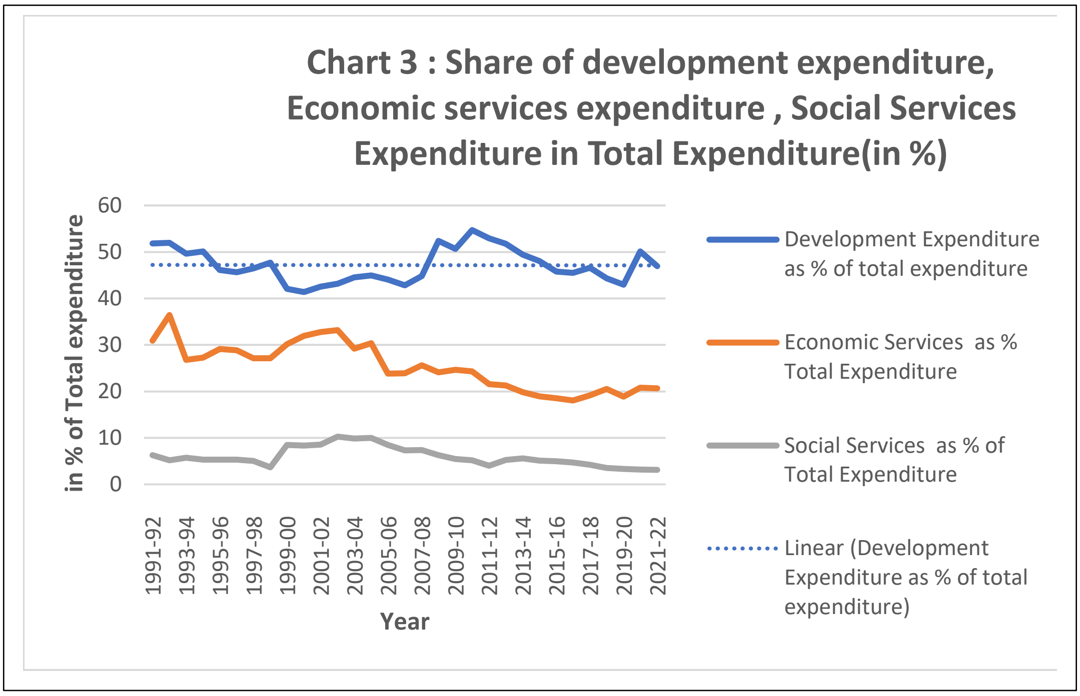
(i) In absolute terms, both total expenditure (development + non-development) and development expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total development expenditure has increased by 96% and 97%.

(ii) The share of development expenditure as a percentage of total expenditure has fluctuated between 55% and 41% during the period 1991-92 to 2021-22.

(iii) The share of TDE as a percentage total expenditure has fluctuated between 68 to 98% during the period 1991-92 to 2021-22.

Table 16: Major heads of Developmental and Non developmental expenditure of the Central Government							
				in Rs crores		in % of Total Expenditure	
Year	Developmental (1)	Economic services(ES) (2)	Social services(SS) (3)	Total Expenditure (TE) (4)	Development Expenditure as % of TE (5)	ES (6)	SS (7)
1990-91	1635631	1077858	218088	3483236	52	31	6
1991-92	1728034	1256874	178278	3450305	52	36	5
1992-93	1153187	719731	153058	2686330	50	27	6
1993-94	1025979	631826	122949	2315113	50	27	5
1994-95	998201	623730	113382	2141973	46	29	5
1995-96	899369	569910	105303	1975194	46	29	5
1996-97	835019	495234	91462	1825191	46	27	5
1997-98	813813	459786	62038	1694972	48	27	4
1998-99	784504	478376	134840	1587574	42	30	8
1999-00	742417	458222	119346	1435273	41	32	8
2000-01	705321	436943	113612	1332396	43	33	9
2001-02	666069	404312	124990	1217540	43	33	10
2002-03	528242	304440	102628	1042343	45	29	10
2003-04	471399	273222	89797	899544	45	30	10
2004-05	325670	172955	61648	726398	44	24	8
2005-06	255718	142772	43762	596996	43	24	7
2006-07	229060	133053	38264	519737	45	26	7
2007-08	214955	115030	29906	477860	52	24	6
2008-09	195428	108071	23859	438726	51	25	5
2009-10	184197	103820	22007	426946	55	24	5
2010-11	159364	80868	15130	374820	53	22	4
2011-12	139386	71731	17679	336856	52	21	5
2012-13	129151	60956	17221	307079	49	20	6
2013-14	137257	54375	14656	287555	48	19	5
2014-15	110994	44246	11845	238814	46	19	5
2015-16	94197	37253	9672	206414	46	18	5
2016-17	84427	35029	7655	183059	47	19	4
2017-18	82803	33897	5873	165205	44	21	4
2018-19	72464	27571	4830	146050	43	19	3
2019-20	65479	26248	4009	126063	50	21	3
2020-21	59313	23681	3569	114483	47	21	3
2021-22	58645	24588	3274	107994		23	3
Source : RBI handbook of Staitistics on Indian Economy							

2.7 **Chart 3** (below) shows the picture of total development expenditure, economic services, and social services in India as percentage of total expenditure for the period 1991-92 to 2021-22. **It is clearly discernible from this chart that expenditure on Economic Services has been much more than the expenditure on social services. The expenditure on social services has been hovering around 10 % to 3% during this period.** At the same time expenditure on economic services fluctuated between 18% to 36%. Development expenditure as percentage of total expenditure has ranged between 41% to 55%. **However, one point which clearly comes out from a look at this chart is that expenditure on all the three components of TDE viz. Social Services, Economic Services and Development Expenditure has declined during this period.** Some spikes related to increase in development expenditure during the period of the Global Financial Crisis and the COVID-19 pandemic are visible in this chart.



3. Section 2: Trends in Combined deficits of the Central and State Governments

3.1 In this section, Combined trends of both Centre and State Governments with respect to fiscal indicators as percentage of GDP for the period 1990-91 to 2020-21 have been observed.

3.2 Fiscal deficit is widely used as a summary indicator of the macro-economic impact of the budget in developed countries and has been adopted by the IMF as the principal policy target in their programmes in India.

3.3 The indicators studied in **Table 17** are Gross fiscal deficit, Gross Primary Deficit, Revenue Deficit, and Interest Payments as percentage of Gross Domestic Product (GDP). All the three indicators are combined indicators which mean they are total of both Centre and States.

3.4 A country's fiscal deficit is measured as a percentage of GDP or simply as the amount of money spent by the government more than its revenue. In any situation, the income figure only includes taxes and other receipts, not money borrowed to make up the difference. In other words, the gross fiscal deficit used is the difference between the government's total expenditure and its total non-debt producing receipts. The fiscal deficit is the amount of money the government would have to borrow to meet its obligations.

3.5 Formula for calculating Fiscal deficit, along with the component details are stated as under:

(a) Fiscal deficit = Government expenditure – Government receipts excluding borrowings

(b) Fiscal Deficit = (Total Expenditure both on Revenue Account and Capital Account) – (Revenue receipts + Non- debt Capital Receipts)

(c) The government's expenditures are split into two categories: capital and revenue. Building national assets such as industries, industrial zones, transportation, and other infrastructure, spending on defence, and disbursing grants and aid to state governments are all examples of capital expenditure. All transfer payments (payments paid to citizens without receiving any service in return, such as subsidies or pensions), factor payments (payments made to citizens for performing their services), and servicing of government loans are included in revenue spending. All spending that does not produce assets or reduce obligations is classified as revenue expenditure.

(d) Here, Revenue receipts include goods and services tax, corporate tax, income tax, customs taxes, and union excise duty, among other things. Interest, dividends and profits, foreign donations, other non-tax revenue, and union territory receipts are all examples of non-debt capital receipts.

(e) Non debt capital receipts (NDCR) of the Union Government include: Recoveries of loans and advances given to state governments, Union territories and foreign governments, Disinvestment proceeds, Money accrued to the Union government from listing of central government companies and issue of bonus shares

3.6 Likewise, Gross Primary Deficit is also measured as percentage of GDP. It is measured by deducting interest payments from Gross Fiscal Deficit. Interest payments is on accumulated public debt generally. Removing these interest payments from the Gross Fiscal deficit of a particular year we arrive at the primary deficit in that year which is the actual performance in that year in terms of budget management exercise. The difference between the fiscal and primary deficits reflects the amount of interest paid on previous borrowings. As a result, a low or zero primary deficit shows that the government has been compelled to borrow due to interest obligations (on previous loans).

3.7 Revenue deficit is again measured as a percentage of GDP. Revenue deficit is defined as the difference between revenue expenditure and revenue receipts. A revenue deficit indicates that the government does not have enough money to run its daily operations. A revenue shortfall occurs when total revenue expenditures exceed entire revenue receipts. To make up for the revenue shortfall, the Centre frequently resort to disinvestments and borrowings, as well as imposes new or higher taxes,

3.8 **Table 17** presents combined key fiscal indicators as percentage of GDP.

Table 17 : Combined deficits of the Central and State Governments					
(As percentage to GDP)					in Rs crores
Year	Gross fiscal deficit	Gross primary deficit	Revenue deficit	Interest Payments	GDP at current Prices
1990-91	9.1	4.9	4.1	3.67	576109.0
1991-92	6.8	2.2	3.3	3.95	662260.0
1992-93	6.8	2.1	3.1	4.01	761196.0
1993-94	8.0	3.1	4.1	4.12	875992.0
1994-95	6.9	1.8	3.6	4.21	1027520.0
1995-96	6.3	1.5	3.1	4.08	1205583.0
1996-97	6.1	1.2	3.4	4.19	1394816.0
1997-98	7.0	2.1	4.0	4.17	1545294.0
1998-99	8.7	3.5	6.1	4.32	1772297.0
1999-00	9.1	3.7	6.0	4.46	1988262.0
2000-01	9.2	3.4	6.4	4.56	2139886.0
2001-02	9.6	3.6	6.8	4.56	2315243.0
2002-03	9.3	3.0	6.4	4.64	2492614.0
2003-04	8.3	2.0	5.6	4.37	2792530.0
2004-05	7.2	1.3	3.5	3.92	3186332.0
2005-06	6.5	1.0	2.7	3.59	3632125.0
2006-07	5.1	-0.3	1.3	3.50	4254629.0
2007-08	4.0	-1.2	0.2	3.43	4898662.0
2008-09	8.3	3.3	4.3	3.41	5514152.0
2009-10	9.3	4.5	5.7	3.29	6366407.0
2011-12	7.8	3.3	4.2	3.13	8736329.0
2012-13	6.9	2.3	3.5	3.15	9944013.0
2013-14	6.7	1.9	3.3	3.33	11233522.0
2014-15	6.7	2.0	3.3	3.23	12467960.0
2015-16	6.9	2.2	2.5	3.21	13771874.0
2016-17	6.9	2.2	2.3	3.12	15391669.0
2017-18	5.8	1.1	2.7	3.10	17090042.0
2018-19	5.8	1.1	2.5	3.08	18886957.0
2019-20	6.9	2.2	3.1	3.01	20351013.0
2020-21	6.3	1.4	2.7	3.51	19745670.0
Source: RBI handbook of Statistics on Indian Economy and Economic Survey 2021-22					

From **Table 17** following points are observed:

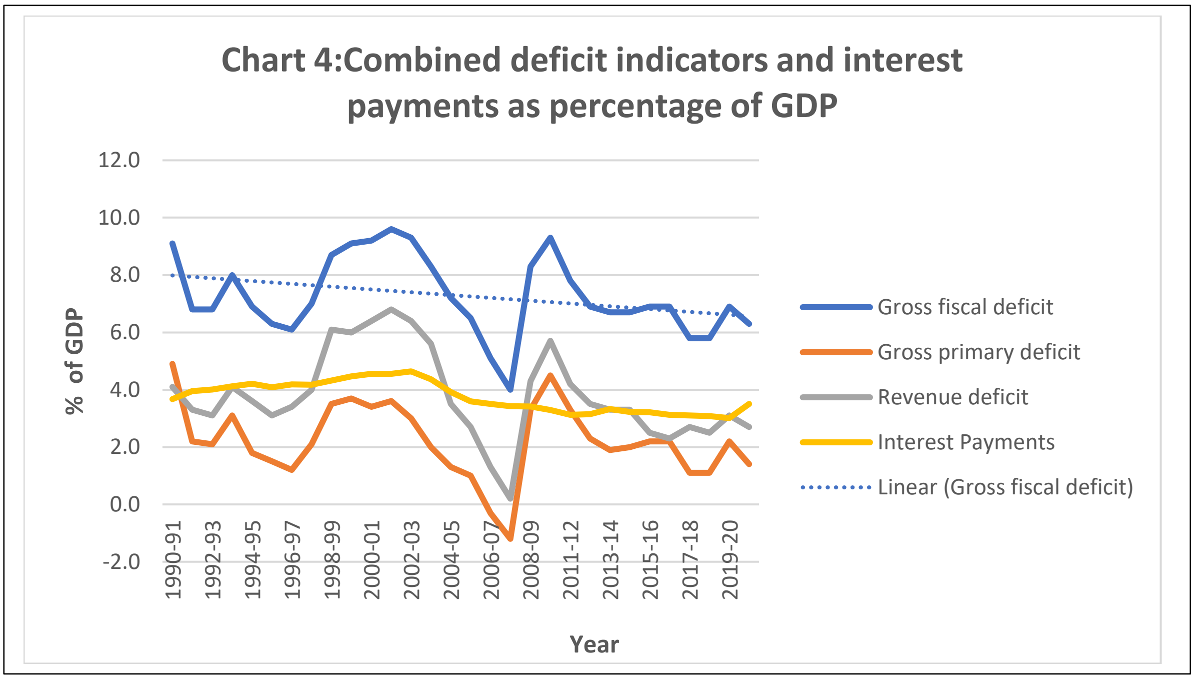
(a) Gross Fiscal Deficit (GFD) as percentage of GDP has ranged between 4 % in 2007-08 and 9.6% in 2001-02.GFD has remained above 9% in 2000-01 and 2009-10.

(b) Gross Primary Deficit (GPD) as percentage of GDP in 2006-07 and 2007-08 was -0.3% and -0.2 % respectively. Average GPD was 2.28% during 1990-91 to 2020-21.

(c) Revenue Deficit (RD) as percentage of GDP was the lowest at 0.2% in 2007-08 and 6.8% in 2001-02.

(d) Interest Payments as percentage of GDP has ranged between 4.64% in 2002-03 to 3.01% in 2019-20. Average amount of interest payments as percentage of GDP has been around 3.87% during the 1990-91 to 2020-21.

3.8 **Chart 4** represents trends in combined Gross Fiscal Deficit (GFD), Gross Primary Deficit (GFD), Revenue Deficit (RD) and Interest Payments as percentage of GDP for the period 1990-91 to 2020-21.



3.9 From **Chart 4**, it is seen that:

(a) GFD reflects the movements in GPD and RD.

(b) The institution of FRBMA in 2003 was a necessity.

(c) Institution of FRBMA has facilitated the reduction in all the three indicators which is evident in the fall of these indicators in 2007-08. Despite the spike following the Global Financial crisis in 2008-09, these indicators have declined to a considerable extent.

(d) The COVID-19 pandemic has led to the second spike in 2019-20 but the same has been effectively contained in 2020-21. **Over a period of 30 years, it is observed that all the three indicators have declined but they do not match the benchmarks set under FRBMA.**

(e) With respect to Interest payments as percentage of GDP, it is observed that there has been a declining trend since 2003-04, but Interest Payments account for considerable part of the Gross Fiscal Deficit.

(f) Gross Primary Deficit as a percentage of GDP was more than the Interest Payments as percentage of GDP for the period 2009-10 to 2011-12 implying deteriorating fiscal condition. Otherwise, Gross Primary deficit has remained below the interest payments as percentage of GDP during the last three decades indicating that that the government has been compelled to borrow due to interest obligations (on previous loans).

4. Section 3: Trends in Select debt indicators of Centre and States as percentage of GDP

4.1 This section covers trends in select debt indicators of Centre and States as a percentage of GDP. These select debt indicators include Domestic liabilities of the Centre, External Liabilities of the Centre, Total liabilities of the Centre, Total Liabilities of the States, combined total domestic liabilities of the Centre and the States and the Combined total liabilities of the Centre and the States including external debt. These debt indicators are measured as percentage of GDP.

4.2 Central Government liabilities (Public Debt) primarily include debt contracted in the Consolidated Fund of India as well as liabilities in the Public Accounts of India[78]. These liabilities include internal debt or domestic debt and external debt.

4.3 Internal debt consists of marketable debt and non-marketable debt. Marketable debt comprises of Government dated securities and Treasury Bills, issued through auctions. Non-marketable debt comprises of intermediate Treasury Bills (14-day ITBs) issued to State Governments/ UT of Puducherry and select Central Banks, special securities issued against small savings, special securities issued to public sector banks/ EXIM[79] Bank, securities issued to international financial institutions, and compensation and other bonds. Other liabilities include liabilities on account of State Provident Funds, Reserve Funds and Deposits (both bearing interest and not-bearing interest), Other Accounts, etc.

4.4 External debt consists of both long term and short-term debt. Long term external debt comprises of external assistance through multilateral institutions and bilateral

[78] These liabilities as reported in the budget documents and finance accounts of the Central Government.
[79] Export Import Bank of India.

agreements, IMF, commercial borrowings, rupee debt and export credit. Short term external debt include trade credits upto 6 months and 1 year, Foreign Institutional Investors(FII) investment, Investment in Treasury bills by foreign central banks and international institutions, external debt liabilities of Central Bank and commercial banks.

4.5 Market borrowings, National Small Savings Fund (NSSF) borrowings, loans from financial institutions, and loans from the Centre are among the liabilities of State governments. State governments also accumulate liabilities in their public accounts by investing in treasury bills, provident funds, reserve funds, and deposits, among other things.

4.6 **Table 18** presents the debt indicators for the period 1990-91 to 2020-21. From this table following points have been observed:

(a) India's domestic debt liabilities as percentage of GDP have remained the same (48.28% in 1990-91 and 48.24% in 2020-21). It rose to as high as 59.64% in 2004-05.

(b) India has managed to keep its external liabilities as percentage of GDP at the minimum from 16.28% in 1991-92 to 2.62% in 2020-21.

(c) Total debt liabilities of the Union Government as percentage of GDP were the highest in 2004-05 at 66.53%. Since then, it has steadily fallen and was 50.87% in 2020-21.

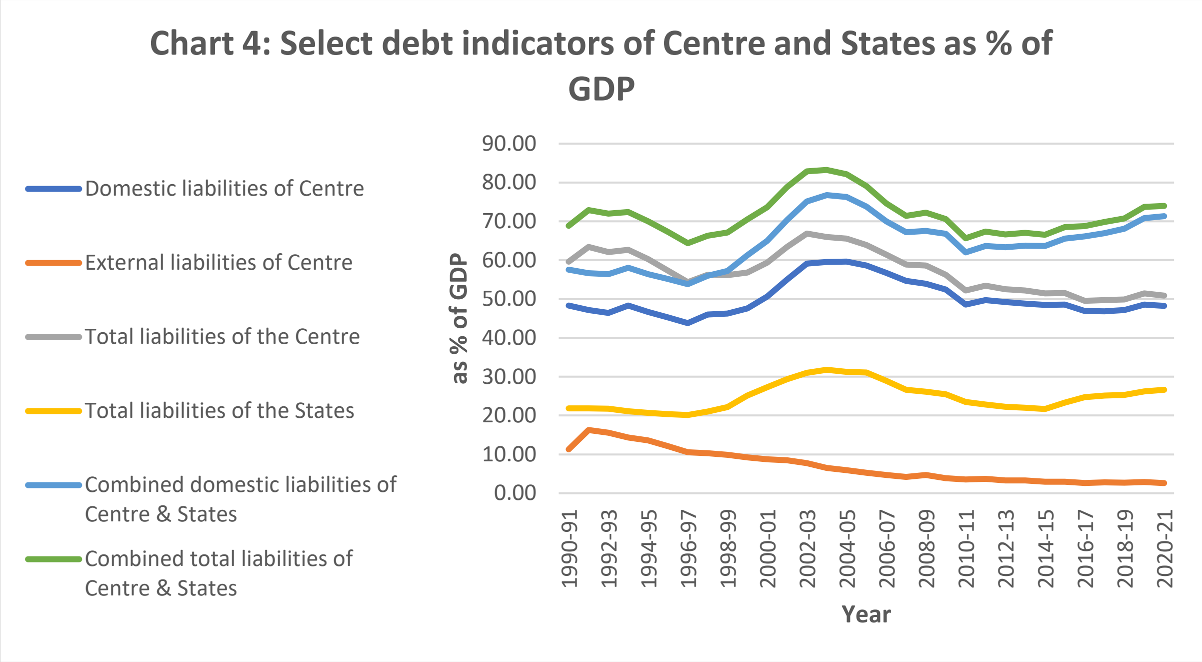
(d) Compared to 1990-91 when it was 21.86%, the State Liabilities as percentage of GDP have increased to 26.63% in 2020-21. These liabilities did decline to as low as 20.14% in 1997-98 and rose as high as 31.79% in 2003-04.

(e) Combined total liabilities of the Centre and the States as percentage of GDP was the highest in 2002-03 at 82.86% and has steadily declined since then till 2017-18 when it was at 69.80%. After that it rose and the impact of the pandemic across the country necessitating fiscal stimulus has raised it to 73.95% in 2020-21.

Table 18 : Select debt indicators of the Central and State Governments (As % of GDP)						
Year (end-March)	Domestic liabilities of Centre (1)	External liabilities of Centre (2)	Total liabilities of the Centre (3)	Total liabilities of the States (4)	Combined domestic liabilities of Centre & States (5)	Combined total liabilities of Centre & States (6)
	48.28	11.31	59.59	21.86	57.54	68.85
1991-92	47.15	16.28	63.42	21.82	56.61	72.89
1992-93	46.43	15.62	62.05	21.74	56.39	72.01
1993-94	48.31	14.34	62.65	21.08	58.05	72.39
1994-95	46.64	13.63	60.27	20.70	56.41	70.04
1995-96	45.24	12.10	57.34	20.34	55.18	67.28
1996-97	43.79	10.54	54.32	20.14	53.83	64.37
1997-98	45.98	10.27	56.24	21.04	56.02	66.29
1998-99	46.28	9.87	56.14	22.16	57.24	67.11
1999-00	47.58	9.23	56.81	25.19	61.24	70.47
2000-01	50.64	8.73	59.36	27.29	64.94	73.67
2001-02	54.96	8.47	63.44	29.32	70.32	78.79
2002-03	59.12	7.73	66.85	31.01	75.13	82.86
2003-04	59.50	6.48	65.98	31.79	76.75	83.23
2004-05	59.64	5.90	65.53	31.28	76.24	82.13
2005-06	58.64	5.25	63.90	31.08	73.82	79.07
2006-07	56.72	4.68	61.40	28.91	69.98	74.66
2007-08	54.65	4.21	58.86	26.63	67.23	71.44
2008-09	53.93	4.69	58.62	26.11	67.52	72.21
2009-10	52.42	3.85	56.27	25.45	66.76	70.60
2010-11	48.58	3.58	52.16	23.50	62.02	65.60
2011-12	49.76	3.70	53.46	22.82	63.66	67.36
2012-13	49.21	3.34	52.55	22.23	63.31	66.65
2013-14	48.83	3.33	52.16	22.00	63.73	67.06
2014-15	48.48	2.94	51.42	21.69	63.64	66.58
2015-16	48.59	2.95	51.54	23.37	65.58	68.53
2016-17	46.89	2.65	49.54	24.75	66.12	68.77
2017-18	46.87	2.83	49.69	25.12	66.97	69.80
2018-19	47.14	2.71	49.85	25.34	68.07	70.78
2019-20	48.57	2.88	51.45	26.25	70.84	73.72
2020-21	48.24	2.62	50.87	26.63	71.33	73.95

Source : RBI Handbook of Statistics on Indian Economy

3.7 The above debt trends are also reflected in **Chart 4** below.



4.7 From the above chart following trends are observed:

(a) External liabilities of the Centre as percentage of GDP have declined to a considerable extent in 2020-21 when compared to the position in 1991-92.

(b) Combined debt liabilities of both Centre and the States as percentage of GDP increased during the period prior to the FRBMA starting from 2001-02 to 2004-05.

(c) Subsequent to implementation of the FRBMA in 2004-05 a declining trend is seen in all debt indicators till the year 2010-11.

(d) The total liabilities and domestic liabilities and external liabilities of the Centre as percentage of GDP have continued to decline steadily except for a moderate increase in 2018-19 and 2019-20.

(e) However, an increase in total liabilities of the States is observed in 2014-15 and the same is also getting reflected in the trends for combined domestic liabilities of the Centre and States and combined total liabilities of the Centre and the States.

5. Section 4: Tax Revenue, Non -Tax Revenue and Revenue deficit as percentage of GDP

5.1 **Table 19** below presents key indicators with respect to revenue deficit, tax revenue and non-tax revenue as percentage of GDP for the period 1991-92 to 2021-22.

Table 19 : Select fiscal indicators of the Central Government (As percentage to GDP)			
Year	Revenue Deficit	Gross Tax Revenue	Non-Tax Revenue
1991-92	2.41	10.00	2.37
1992-93	2.40	9.64	2.59
1993-94	3.67	8.50	2.47
1994-95	2.97	8.83	2.26
1995-96	2.42	9.07	2.30
1996-97	2.30	9.07	2.30
1997-98	2.95	8.85	2.43
1998-99	3.71	7.97	2.49
1999-00	3.34	8.49	2.63
2000-01	3.91	8.65	2.57
2001-02	4.25	7.91	2.88
2002-03	4.25	8.46	2.85
2003-04	3.46	8.89	2.70
2004-05	2.42	9.36	2.50
2005-06	2.50	9.95	2.08
2006-07	1.87	11.03	1.94
2007-08	1.05	11.89	2.05
2008-09	4.50	10.75	1.72
2009-10	5.23	9.64	1.79
2010-11	3.24	10.19	2.81
2011-12	4.51	10.18	1.39
2012-13	3.66	10.42	1.38
2013-14	3.18	10.14	1.77
2014-15	2.93	9.98	1.59
2015-16	2.49	10.57	1.82
2016-17	2.06	11.15	1.77
2017-18	2.60	11.23	1.13
2018-19	2.41	11.02	1.25
2019-20	3.28	9.88	1.61
2020-21	7.37	9.62	1.07
2021-22	5.12	9.95	1.09
Source: RBI handbook of Statistics on Indian Economy			

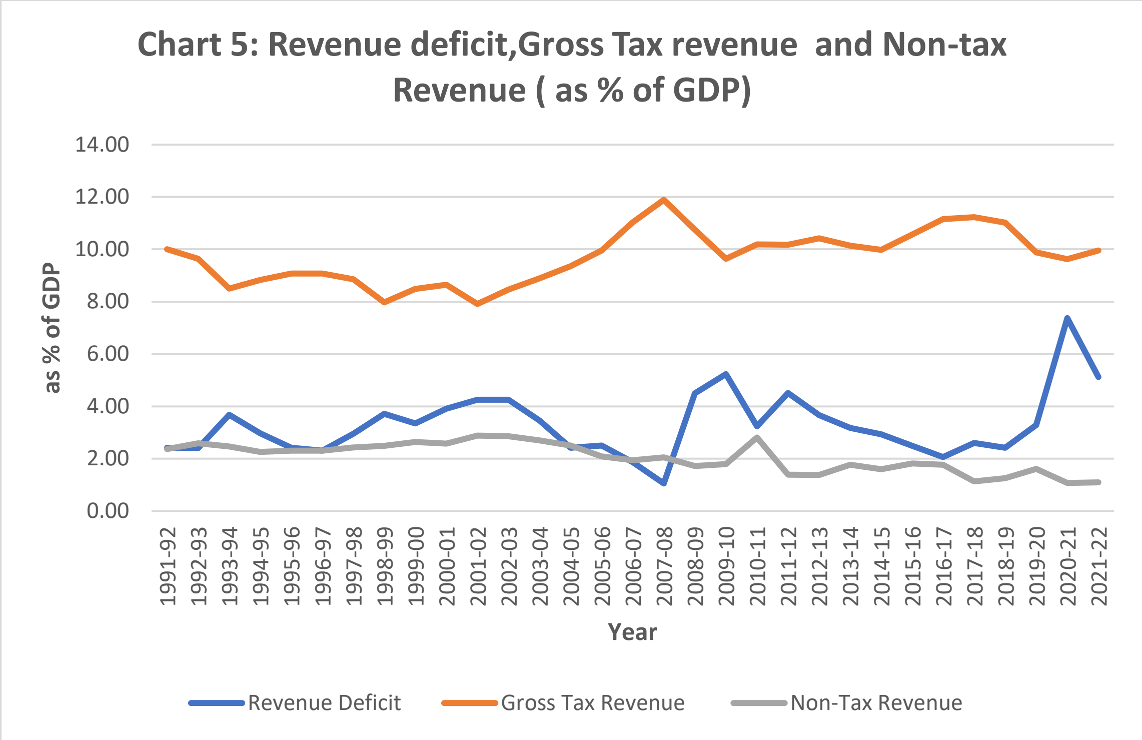
From the above table following points are seen:

(a) Revenue deficit as percentage of GDP fluctuated between 1.05% in 2007-08 to 7.37% in 2020-21.

(b) Gross Tax revenue as percentage of GDP ranged between 11.89% in 2007-08 to 7.9% in 2001-02.

(c) Non-Tax Revenue which was at 2.88% in 2001-02 declined to 1.07% in 2020-21.

3.9 Trends in Revenue deficit, Gross Tax Revenue and Non-Tax revenue as percentage of GDP is depicted in **Chart 5**.



From the above chart, it is observed that:

(a) Revenue deficit as percentage of GDP have been fluctuating between the highest spike in 2020-21 and the lowest dip in 2007-08.

(b) The non-tax revenue as percentage of GDP peaked in 2010-11 but have declined since then.

(c) Gross Tax revenue as percentage of GDP peaked in 2007-08 and shown an increasing trend for the period 2015-16 to 2018-19.

6. Conclusion: Through observation of trends of data related to capital and developmental expenditure, deficit indicators, debt indicators, interest payments and revenue indicators as a percentage of GDP for a time span of three decades (1990-91 to 2020-21), some positive points observed in the light of the considerations of Rating Methodologies of SCRAs are given below:

(a) There has been a general tendency for decline in public expenditure both for capital expenditure and developmental expenditure when taken as a percentage of Total expenditure. Capital expenditure declined from 40% of total expenditure in 1990-91 to 35% in 2021-22, while the development expenditure as percentage of total expenditure declined from 52% in 1990-91 to 47% in 2021-22.

(b) Expenditure on social services as a percentage of GDP has been much less when compared to expenditure on Economic Services as a percentage of Total Expenditure.

(c) Over a period of 30 years, it is observed that all the three key deficit indicators viz. Gross Fiscal Deficit, Gross Primary Deficit and Revenue Deficit as percentage of GDP have declined but they do not match the benchmarks set under FRBMA.

(d) Interest Payments as a percentage of GDP have remained higher than the Gross Primary deficit as a percentage of GDP except for a few years (2009-10 to 2010-12). This means that the government has been compelled to borrow due to interest obligations (on previous loans).

(e) The Gross Tax revenue as percentage of GDP has always remained above 3% during the three-decade period of 1990-91 to 2020-21.

(f) External liabilities of the Centre as percentage of GDP have declined to a considerable extent in 2020-21 when compared to the position in 1991-92.

(g) The total liabilities and domestic liabilities and external liabilities of the Centre as percentage of GDP have continued to decline steadily except for a moderate increase in 2018-19 and 2019-20.

CHAPTER 7: FINDINGS AND RECOMMENDATIONS

1. **Introduction:** In this chapter we take a consolidated view on the findings of our study on "Significance of Fiscal Deficit and Public Debt in Indian Economy-Twin Perspectives of Sovereign Credit Rating Agency and Government of India" vis-à-vis the objectives, research questions and hypothesis set at the outset of the study. The objectives, research questions and hypothesis were arrived at based on a detailed review of literature. In addition, keeping in view the findings which may require some future measures, some recommendations will be made.

1.1 Accordingly, the findings will be looked at from four angles in following sections:

(a) **Section 1**: Findings related to the objectives of the study.

(b)**Section 2**: Findings related to the hypothesis in the study.

(c) **Section 3**: Findings related to the research questions in the study.

(d) **Section 4**: Findings related to Government Bonds Market of India.

(e) **Section 5:** This Chapter also proposes some suggestions based on the findings. Accordingly, **Section 5** covers Recommendations.

(e) **Section 6**: Conclusion

2. Section 1: Findings related to the objectives of the study:

2.1 Four Objectives were identified for this study. Findings across each of these objectives are given below:

2.2 <u>Objective Number 1: To study relevant macro-economic indicators of India from Credit Rating Perspective</u>

2.2.1 Relevant macro-economic indicators from Credit Rating perspective have been examined (in Chapter 4) keeping in view the Sovereign Rating Methodologies of two Sovereign Credit Rating Agencies viz. Moody's Investor Service (MIS) and Standard and Poor's (S&P).

2.2.2 ***Findings****:*

(a) In case of MIS, out of the 22 sub-factors 16 concerns the key macro-economic indicators viz. (i)Average Real GDP Growth, (ii) Volatility in Real GDP Growth , (iii)Nominal GDP , (iv) Fiscal Policy Effectiveness, (v)Monetary and Macroeconomic

Policy Effectiveness, (vi)Government Default History and Track Record of Arrears, (vii)General Government Debt / GDP , (viii)General Government Debt / Revenue, (ix)General Government Interest Payments / Revenue, (x)General Government Interest Payments / GDP , (xi)Debt Trend, (xii)General Government Foreign Currency Debt /General Government Debt, (xiii)Other Non-Financial Public Sector Debt / GDP, (xiv)Public Sector Financial Assets and Sovereign Wealth Funds / General Government Debt, (xv)Total Domestic Bank Assets / GDP and (xvi) External Vulnerability Risk. **In effect, 73% of the indicators concern macro-economic indicators. In total weightage of 300% given to Factors and Sub-factors in score card , 200% is directly due to macro-economic indicators.**

(b) Similarly in case of S&P, it is observed that out of 12 sub-factors 9 concerns the macro-economic indicators viz. (i) Per capita GDP, (ii) Per capita GDP growth rate,(iii) Economic diversity and volatility, (iv) Currency status,(v) Country's external liquidity,(vi) Resident's liabilities and incomes,(v) Fiscal performance and flexibility,(vi) Fiscal performance and flexibility,(vii) Debt burden,(viii) A sovereign's ability to use monetary policy and the exchange rate regime and (ix) Monetary policy's credibility and effectiveness and inflation trends. **In other words, in S&Ps Rating Methodology, 75% of the indicators concern macro-fundamentals.**

2.3 Objective Number 2: To understand fiscal deficit and public debt in India from the twin perspectives of SCRA and GoI.

2.3.1 The importance of fiscal deficit and public debt in the Rating Methodologies (RMs) of two SCRAs viz. Moody's Investor Service (MIS) and Standard & Poor's (S&P) and the extent to which Government of India fulfils the criteria set therein and the gaps between the two approaches have been examined in Chapter 5.

2.3.4 Findings: Here the findings are put in two categories, first the general findings with respect to the Rating Methodologies of SCRA and second the specific findings with respect to India vis-à-vis the Rating Methodologies.

2.3.5 General Findings

(a) In their overall assessment of fiscal policy effectiveness and fiscal strength, government strength and government effectiveness play an important role. The intention of the Government to pay is the starting point for S&P. Both the SCRAs give so much importance to the intention of the Government to pay its debt that even if the Government were to resort to international financial aid to tide over the crisis and shows efforts in changing its policies in line with the conditionalities placed by the international agencies for aid, the act of the government is viewed positively. When there is a history of government default or considerable arrears, the Institutions and Governance Strength component score is lowered downward.

(b) In circumstances where sovereign's debt payment culture is considered a credit risk, the overall institutional evaluation cannot be higher than a '6.'[80] This means that the country's Sovereign rating can be greatly impacted due to its debt payment culture.

(c) Both MIS and S&P assigns around 40% weightage to fiscal strength and public debt related factors.

(d) Fiscal deficit is not mentioned as an indicator in these Rating Methodologies.

(e) Fiscal deficit figure or the public debt figure are not the only important parameters in their assessment so far as fiscal response, fiscal strength and fiscal flexibility is concerned. Rather they take a comprehensive look on the performance of the economy vis-à-vis these parameters.

(f) Both the agencies consider General Government debt an important parameter in the scope of assessment. They employ much broader definition for General Government debt than what the national governments may be employing.

(g) Contingent liabilities and guarantees are also considered.

(h) S&P looks at Net General Government Debt figures. It also factors in human development and age- related expenditure pressures.

2.3.6 Specific findings with respect to India

(a) The study conducted with specific reference to India in Chapter 5 establish that India does have the basic institutional regulatory structure in line with the requirements of the SCRAs to a considerable extent. But India needs to work on the following points:

[80] The rating methodology of S&P's gives a **score of 1 to 6** on the various indicators and factors it examines while rating the countries with 1 being the strongest and 6 being the weakest.

(i) Existence of independent bodies for review of budget- making process and for public debt management.

(ii) Streamline the tax administration structure to avoid tax evasion and ensure tax enforcement.

(iii) Strengthen its financial management system and simplify account reporting systems in line with the international standards.

(iv) Strengthen the contract enforcement mechanism.

(b) Some points of difference between the two approaches of SCRAs and GoI with respect to assessment of fiscal strength, debt burden and affordability are as under:

(i) SCRAs are more concerned with the General Government Debt (GGD). GGD includes debt of the central government, as well as regional and municipal governments, social security system (if different from Central Government) and the central bank's debt only (not its obligations). On the other hand, FRBMA indicator on debt is concerned only with the Union Government’s debt.

(ii) Net General Government debt is also the concern of S&P. World Bank maintains data of different countries of the world on this indicator. Information for India on this data is not available.

(iii) FRBMA monitors the figures on revenue deficit, fiscal deficit, tax-revenue, primary deficit, non-tax revenue and Union Government’s debt. Each of these indicators are measured in terms of percentage of GDP.

(iv) As public debt is nothing but the accumulation of fiscal deficit over a period, monitoring fiscal deficit as a key indicator for public debt management has been the target under FRBMA. However, the SCRAs take a more comprehensive view on debt management.

(v) Quarterly Public Debt Management Reports released by the PDMC cell of Ministry of Finance, GoI and India’s Quarterly External Debt Report released by RBI do not cover indicators emphasized by SCRAs in their assessment.

2.4 (iii) Objective Number 3: To examine the trend in Public Expenditure, Fiscal Deficit and Public Debt in India in the last three decades (1990-91 to 2020-21.

2.4.1 Findings: Here the findings are based on study of trends in (i) Capital and development expenditure (ii) Combined deficits of Central and State Governments and Interest Payments as percentage of GDP (iii) Select debt indicators of Centre and States as percentage of GDP (iv) Tax Revenue, Non -Tax Revenue and Revenue deficit as percentage of GDP. Three decades starting from 1990-91 to 2020-21 has been covered for study of the trends.

2.4.2 Capital and development expenditure

(a) There has been a general tendency for decline in public expenditure both for capital expenditure and developmental expenditure when taken as a percentage of Total expenditure. Capital expenditure declined from 40% of total expenditure in 1990-91 to 35% in 2021-22, while the development expenditure as percentage of total expenditure declined from 52% in 1990-91 to 47% in 2021-22.

(b) In absolute terms, both total expenditure and capital expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total capital expenditure has increased by 96%. This figure can be taken as a signal of gradual development of the economy.

(c) In absolute terms, both total expenditure (development + non-development) and development expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total development expenditure has increased by 96% and 97%. The total development expenditure declined from 52% in 1990-91 to 47% in 2020-21.

(d) Expenditure on Economic Services has been much more than the expenditure on social services.

(e) The expenditure on social services which was 6% of total expenditure in 1990-91 is halved to 3% in 2020-21.

(f) **Expenditure on social services as a percentage of GDP has been much less when compared to expenditure on Economic Services as a percentage of Total Expenditure.**

(g) Expenditure on all the three components of Total development expenditure viz. Social Services, Economic Services and Development Expenditure has declined during this period.

2.4.3 Combined deficits of Central and State Governments and Interest Payments as percentage of GDP

(a) Over a period of 30 years, it is observed that all the three key deficit indicators viz. Gross Fiscal Deficit, Gross Primary Deficit and Revenue Deficit as percentage of GDP have declined but they do not match the benchmarks set under FRBMA.

(b) Interest Payments as a percentage of GDP have remained higher than the Gross Primary deficit as a percentage of GDP except for a few years (2009-10 to 2010-12). Average amount of interest payments as percentage of GDP has been around 3.87% during the 1990-91 to 2020-21. This means that the government has been compelled to borrow due to interest obligations (on previous loans).

(c) With respect to Interest payments as percentage of GDP, it is observed that there has been a declining trend since 2003-04, but Interest Payments account for considerable part of the Gross Fiscal Deficit.

(d) Gross Primary Deficit as a percentage of GDP was more than the Interest Payments as percentage of GDP for the period 2009-10 to 2011-12 implying deteriorating fiscal condition. Otherwise, Gross Primary deficit has remained below the interest payments as percentage of GDP during the last three decades indicating that that the government has been compelled to borrow due to interest obligations (on previous loans).

2.4.5 Select debt indicators of Centre and States as percentage of GDP

(a) External liabilities of the Centre as percentage of GDP have declined to a considerable extent in 2020-21(2.62% of GDP) when compared to the position in 1991-92(16.28% of GDP).

(b) The total liabilities, domestic liabilities and external liabilities of the Centre as percentage of GDP have continued to decline steadily except for a moderate increase in 2018-19 and 2019-20.

(c) India’s domestic debt liabilities as percentage of GDP have remained the same (48.28% in 1990-91 and 48.24% in 2020-21). It rose to as high as 59.64% in 2004-05.

(d) Total debt liabilities of the Union Government as percentage of GDP were the highest in 2004-05 at 66.53%. Since then, it has steadily fallen and was 50.87% in 2020-21.

(e) State Liabilities as percentage of GDP have increased to 26.63% in 2020-21 when compared to 21.86% in 1990-91.

(f) Combined total liabilities of the Centre and the States as percentage of GDP was the highest in 2002-03 at 82.86% and has steadily declined since then till 2017-18 when it was at 69.80%. After that it rose. Necessary fiscal stimulus owing to the impact of the pandemic resulted in its increase to 73.95% in 2020-21.

(g) Combined debt liabilities of both Centre and the States as percentage of GDP increased during the period prior to the FRBMA starting from 2001-02 to 2004-05. After implementation of the FRBMA in 2004-05 a declining trend is seen in all debt indicators till the year 2010-11. The total liabilities and domestic liabilities and external liabilities of the Centre as percentage of GDP have continued to decline steadily except for a moderate increase in 2018-19 and 2019-20.

2.4.6 Tax Revenue and Non -Tax Revenue and Revenue deficit as percentage of GDP

(a) The Gross Tax revenue as percentage of GDP has always remained above 3% during the three-decade period of 1990-91 to 2020-21.

(b) The combined Tax Revenue and Non-Tax Revenue during 1991-92 to 2021-22 has been above 11% except for a dip in 2020-21.

2.5 Objective Number 4: To suggest measures for better efficacy and transparency

Findings

2.5.1 A thorough reading of the RMs of both MIS and S&P make it clear that they refer to both national and global data sources, both qualitative and quantitative data sources.

2.5.2 Quantitative Data Sources: MIS relies on international sources such as the International Monetary Fund, the Organization for Economic Cooperation and

Development, the European Commission, the World Bank, the Bank for International Settlements(BIS), World Economic Forum (WEF) Global Competitiveness Index and World Bank's Worldwide Governance Indicators and World Development Indicators (WDIs) and UNCTAD[81]. They also refer to the data of Sovereign Issuer itself. Most used Global sources of S&P include Eurostat, central banks of monetary unions, and the International Financial Statistics of the IMF and the Human Development Index.

2.5.3 Qualitative data sources include: (1) discussions with government officials; (2) reports from and discussions with other official observers, such as foreign embassies, the IMF, the BIS, the World Bank, and regional development banks; and (3) reports from and discussions with private-sector observers of economic and political trends, such as foreign and local economists, industrialists, trade associations, foreign and local bankers, research organisations, and academics.

2.5.4 Required data by an SCRA is not available at one spot. The data in international sources is not updated. This necessitates that the SCRAs interact with the Sovereign in an Annual Review to validate the data collected by them but also to get the most recent data on the indicators. This has been the practice in India and in recent years the interaction process has become more frequent and intense[82].

3. Section 2: Findings related to the hypothesis set for the study

3.1 Since the study is basically a comparative analysis of position of India vis-à-vis the Sovereign Rating Methodologies (SRMs), the findings on the hypothesis set in this dissertation is based on thorough reading of the Moody's Investor Service (MIS) and Standard and Poors(S&P) and the position of India with respect to the macro-economic indicators(as in global data sources) for examination in each of the hypothesis. Findings against each of the hypothesis are given below.

3.2 Hypothesis Number 1: Per Capita income is a significant variable in determination of Sovereign Credit Rating of India.

Finding: From the data-based analysis vis-à-vis the rating methodologies of MIS and S&P conducted and presented in chapter 4, it is learnt that:

[81] United Nations Conference on Trade and Development.
[82] As informed by concerned Ministry of Finance Officer.

(a) India is not faring well in terms of per capita income when compared with its cohort group of countries.

(b) India’s GDP per capita is the lowest in this cohort of countries and that these countries had a GDP per capita negative growth rate. The large populace of India is becoming a limiting factor despite India posting high rates of growth.

(c) India’s GDP per capita (in PPP US dollars) qualifies for a position in the B3 range in which the countries with growth rate of 0.9-1.1% are to be placed. But India’s GDP rate of growth[83] is much higher than this.

(d) India’s position with respect to Gini Index shows that India qualifies to remain in ‘**baa**’ category.

Therefore, it can be concluded that per capita income is a significant variable putting downward pressure on India’s Sovereign Rating.

3.3 Hypothesis Number 2: Unemployment is a significant variable in the determination of Sovereign Credit rating of India.

> Finding: A study of the Rating Methodology of MIS in Chapter 4, Table **9** and the corresponding relevant figures of India in **Table 10** (with respect to Gini Index, Unemployment rate, Labour market efficiency index, total labour force, working age population and female labour force participation rate) and comparative picture with respect to peer group countries in **Table 11** indicate that India qualifies to fall in the category of **Baa**. Since the comparative scale for rating with respect to unemployment has been provided in detail in the Rating Methodology of Moody’s, based on the same we arrive at the conclusion that unemployment is another important factor in the determination of Sovereign Rating of India which is critically compressing its position to **Baa level**.

3.4 Hypothesis Number 3: Capital expenditure is a significant variable in the determination of Sovereign Credit rating of India.

Findings: Both MIS and S&P do not use the term capital expenditure in their Rating Methodology. Their chief concern is pressures on expenditure that may arise due to

[83] India's GDP may grow 9.2% in the current financial year ending March 2022, according to the first advance estimates released by the government.

increase in ageing profile of the population or due to poor Human development index of the population. Therefore, we can conclude that capital expenditure per se is not a significant variable in the determination of Sovereign Credit Rating of India.

3.5 Hypothesis: Fiscal deficit is a significant variable in determination of Sovereign Credit Rating of India

Finding: From the study in chapter 5, it is established that fiscal deficit though not mentioned as a factor or sub-factor in Rating Methodology of either MIS or S&P, it indirectly forms a very important factor in the assessment of a Sovereign as nearly 40% of the weightage is assigned to factors and sub-factors related to fiscal strength and public debt sustainability and public debt burden. SCRAs strongly believe that **Consistent fiscal deficits** frequently lead to increased leverage and poor debt affordability, making the sovereign more exposed to financial shocks and increasing the risk of default. Consistent fiscal deficits and high debt burden creates downward pressure on India's Sovereign Rating.

4. Section 3: Findings related to the research questions in the study

4.1 Research questions which were to be answered during this study are given as under:

4.2 Is there a visible Link between fiscal deficit and Sovereign ratings?

This question has been adequately answered while writing this dissertation. Not only are consistent fiscal deficits seen as the precursor to rising debt burden in the Sovereign Rating Methodologies, but they are also seen as a negative factor in the overall rating of the Sovereign. Both MIS and S&P give around 40% weightage to fiscal policy effectiveness, governance strength and fiscal strength.

4.3 Is there a visible Link between fiscal deficit and Sovereign ratings?

This question is adequately answered in Chapter 5 of this dissertation on 'An examination of Fiscal Deficit and Public Debt in India from the twin lenses of SCRA and GoI. High debt levels and high debt burden in the form of interest payments have inverse relationship with Sovereign Ratings as per the Sovereign Rating Methodologies of MIS and S&P.

4.4 How fiscal deficit and public debt have been defined by SCRA and GoI?

The reply to this question has also been answered in Chapter 5.

4.5 What is the pattern in fiscal deficit and public debt with respect to time in India?

This trends in select fiscal deficit and public debt indicators have been presented and discussed in Chapter 6.

4.6 What is the impact of public expenditure on economic growth, per capita income, and unemployment in India?

The trends in public expenditure have been discussed in Chapter 6. As per these trends, it is observed that:

(a) In absolute terms, both total expenditure (development + non-development) and development expenditure has steadily increased over the years. In the duration of 30 years from 1991-92 to 2021-22 absolute total expenditure and total development expenditure has increased by 96% and 97%. The total development expenditure declined from 52% in 1990-91 to 47% in 2020-21.

(b) Expenditure on Economic Services has been much more than the expenditure on social services.

(c) The expenditure on social services which was 6% of total expenditure in 1990-91 is halved to 3% in 2020-21.

(d) Expenditure on social services as a percentage of GDP has been much less when compared to expenditure on Economic Services as a percentage of Total Expenditure.

(e) Expenditure on all the three components of Total development expenditure viz. Social Services, Economic Services and Development Expenditure has declined during this period.

Since the expenditure on social services is considerably less the impact in terms of increase in per capita income for the poor and the needy may not be having the desired impact in terms of declining unemployment and raising per capita income.

Nearly 47% of the total expenditure for 2020-21 has been on developmental expenditure. 53% expenditure is on non-developmental activities.

4.7 What alternate allocation of public expenditure exists for improving the efficacy and the transparency?

Given the findings related to expenditure profile with respect to capital expenditure, developmental expenditure and non-developmental expenditure, social services, economic services, there is need to calibrate the same for more efficacy in terms of achieving the goals set for inclusive growth. Digitization of expenditure and linking it with Direct Beneficiary transfer through innovative methods can further solve the problem.

5. Section 4: Findings related to Government Bonds Market of India

5.1 Sovereign Rating is basically the Government Bond Rating[84] and bond ratings[85] or the Sovereign Issuer Default Ratings (IDRs). *In this narrow sense, it is a misnomer to take it as the overall rating of a Sovereign.* Nonetheless, it is a forward-looking assessment of the capacity and willingness to fully and timely honour debt obligations by the Sovereign with respect to Government Securities issued by the Sovereign to the private-sector creditors.

5.2 *Findings:*

(a) Countries which started (more than 46 years ago) for instance US, Australia and Canada have shown highest Sovereign Rating on their Bonds. Only exception to this has been the case of South Africa which has a moderate Sovereign Credit Rating.

(b) Countries such as Australia, Canada, Germany, and France which opened for international trading in Government securities in foreign currency have also shown Sovereign Rating in the higher range.

(c) At present, India's Government Bond Market is at a moderate stage of development and there is a long way to travel before it achieves required liquidity and depth. Its international presence is missing at this stage. Moreover, Government has been moving ahead with caution so far as foray into international debt securities market is concerned. The Government Bonds which are being rated by Sovereign Rating Agencies belong to this market which needs to grow further to be adjudged among the best in the world.

[84] Pl. see page 4 of Moody's Rating Methodology.
[85] Pl. see page 1 of FitchRatings Methodology.

6. Section 5: Recommendations

6.1 Based on the above findings, some important points for corrective exercise have been identified with focus on improving the Sovereign Rating of India. Accordingly, recommendation related to these points are given as under:

6.2 Strengthening macro-economic fundamentals: Since nearly 70% of the Sovereign Rating Exercise is guided by the macro-economic indicators, it is crucial for India to keep working on further strengthening its macro-economic fundamentals.

6.3 Prioritizing and Linking Government policy actions with the weightage of factors and sub-factors under Sovereign Rating Methodologies: Since weightage is also assigned to each of the factors and sub-factors related to macro-indicators in the Sovereign Rating Methodologies, it is important to link the policy actions and the targets for development with factors and sub-factors and prioritize action as per the weightage and priority in terms of Sovereign Rating Methodology.

6.4 Showcase India's efforts in Atma Nirbhar Bharat Abhiyaan (ANBA) : As a country, India should be able to showcase its efforts in Atma Nirbhar Bharart Abhiyaan (ANBA), because the philosophy behind ANBA is one step ahead of Sovereign's debt payment culture. It emphasises the fact that India no longer wants to remain dependent on debt, rather has a strategy to build its own assets and finances for development of the nation, that economic development of the country and its people is the top priority of the leadership of the nation.

6.5 Developing data on indicators examined by SCRAs**:** Since both MIS and S&P assigns around 40% weightage to fiscal strength and public debt related factors, reporting on the related indicators as required as per the rating methodologies of these SCRAs may be worked upon. This would imply that India will need to churn out readily available data on indicators like (i) General Government debt as ratio of GDP and Revenue, (ii) General Government Interest Payment ratio of Revenue and GDP, (iii) Net General Government Debt, (iv) General government interest expenditures as a percentage of general government revenues and (v) Contingent liabilities and guarantees.

6.6 Establishing Independent body for debt management and fiscal management : Though the work on evolution of independent body for Independent Debt Management office is underway, the task needs to be executed at the earliest. Likewise, an independent fiscal institution (in the form of a fiscal council) staffed by non-elected specialists/experts with the objective to provide nonpartisan advise for sustainable public finances need to be established. Besides, such an independent body also need to address issues of comprehensiveness, transparency, and accountability in the Budgets.

6.7 Focus on human development and inclusive growth: Given the fact that the SCRAs also consider the qualitative factors as well as quantitative factors of human and social development, it is important that the GoI has a clear-cut prioritized policy focus for development of its social milieu not only in terms of basic human development indicators but also in terms of Gini index, Labour Market efficiency index, Training, and Skill Development. Human Development Index indicators include life expectancy at birth, expected years of schooling, mean years of schooling and gross national income per capita. There is need to emphasize increase in targeted public expenditure for inclusive growth.

6.8 Establish the democratic connect for realised and responsible frugal governance: Running deficits and having considerable debt liabilities/burden from the past implies that indeed debt liabilities are a burden on the future generation. Citizens of India need to feel responsible for these burdens. It is essential to establish the democratic connect for realised and responsible frugal governance. Instead of creating new institutions with additional cost burden of governance, it is desirable that best is made of existing administrative structure in terms of best co-ordination efforts and eliminate Corrupt officers and Ministers from the system. Free doles and subsidies need to be better targeted and restricted.

6.9 Taxing big agriculturists/ farmers: In the backdrop of existing politico-economic dimensions and an aware citizenry, Taxation of hitherto untouched sectors such as agriculture needs to be explored. Option of adding big Agriculturists/ Farmers to income tax can be explored.

6.10 Updating data annually with international bodies: Since the SCRAs refer to the international data sources for their annual review exercise, it is essential that the GoI provides updated data annually to these international organizations.

6.11 Calibrating and digitizing expenditure for inclusive growth: Given the findings related to expenditure profile with respect to developmental expenditure and non-developmental expenditure, social services, economic services, there is need to calibrate the same for more efficacy in terms of achieving the goals set for inclusive growth. There is need to reduce non-developmental expenditure. Digitization of expenditure and linking it with Direct Beneficiary transfer through innovative methods can further ensure transparency.

6.12 Developing India's Government Bond Market: There is need to further develop India's Government Bond Market. Government is currently working on registration of government bonds in Global Bond Index. This action needs to be expedited.

7. **Conclusion**: Findings in the backdrop of the objectives, research questions and hypothesis of this dissertation has been presented in this chapter. Based on these findings, recommendations include: strengthening macro-economic fundamentals, prioritizing and l inking Government policy actions with the weightage of factors and sub-factors under Sovereign Rating Methodologies, showcasing India's efforts in Atma Nirbhar Bharat Abhiyaan (ANBA), developing data on indicators examined by SCRAs ,establishing independent body for debt management and fiscal management, focus on human development and inclusive growth, establish the democratic connect for realised and responsible frugal governance, updating data annually with international bodies, calibrating and digitizing expenditure for inclusive growth and developing India's Government Bond Market.

CHAPTER 8: CONCLUSION AND FUTURE STUDY

1. **Introduction**: In this chapter, an overview of the study done with respect to the objectives set for the study and the key findings of the study from a critical viewpoint is highlighted. At the same time the limitations of the study and issues that can be taken up for future study has also been brought up.

2. **Overview**

2.1 While it is important to understand the linkage between Sovereign Credit Rating and financing of fiscal deficit, it is equally important to understand the macro-economic factors which are factored in by the SCRAs while assigning a Rating to the Sovereigns. It is learnt from the study of Sovereign Rating Methodologies (SRMs) that nearly 70% of the sub-factors factored in these Methodologies relate to the macro-fundamentals of an economy. The key to upgrade in one's Sovereign Rating is to keep working on to strengthen and sustain the macro-fundamentals of the economy.

2.2 Per capita income and per capita growth rate also forms an important sub-factor of SRMs. India's standing with respect to these two indicators is the lowest when compared to its peers (countries with similar Sovereign Rating).

2.3 In the overall weightages given to sub-factors in SRMs , 40% of the weightage is assigned to sub-factors such as fiscal policy effectiveness, government strength, institutional strength, debt management, debt levels, debt burden and debt sustainability. This is a clear indication that a country cannot raise its Sovereign Rating if it does not work on these aspects.

2.4 For an SCRA, Sovereign implies the whole of the government sector – the Centre, States, Municipal and Panchayats. They look at the whole picture recognizing the fact that the Central Government plays an important role in bailing out and supporting sub-national governments in crisis situations. This whole of India approach with respect to the data required by the Sovereign Rating Agencies needs to be cultivated in India.

2.5 When we look at the thirty-year time span of 1990-91 to 2020-21 with respect to India, there has been a decline not only in capital expenditure but also in developmental expenditure. Expenditure on social services has also considerably declined during this period. The bottom-line is that the GoI has been effective in controlling its public expenditure. This is in line with the expectation of a SCRA which favours the Sovereign with Rating Upgrade if the government manages to reduce expenditure.

2.6 Primary deficit as a percentage of GDP has declined considerably in the last 30 years. On the other hand, interest payments as a percentage of GDP during the same period has remained higher than the primary deficit as a percentage of GDP. This indicates the cost of debt servicing and the fact that in the contemporary times deficits are well under control, we as a nation are now paying for our past debts.

2.7 When we focus on the Government debt market, we find that it is not fully developed in the case of India. At best it appears to be moderately developed in India when compared to other select countries of the world. Without the international leg wherein the Government Bonds can be traded in the international market, India needs to cover a long way before its bond market can be rated at par with the government bond market of developed countries.

3. **Limitations of the study**:

3.1 <u>Sovereign Rating Methodologies of only two most popular Sovereign Rating Agencies studied</u>: However, due to the time limitation for the preparation of the dissertation, study has been restricted to the study of Sovereign Rating Methodologies of only two Sovereign Credit Rating Agencies viz. Moody's Investor Service and Standard and Poor's. There are other four Sovereign Credit Rating Agencies which provide Sovereign Ratings of India viz. FitchRatings, Japanese Credit Rating Agency, Ratings and Investment Information Inc and DBRS Financial Services company.

3.2 <u>Confidential interactive process between GoI and SCRA kept out of the purview of the study</u>: During the study, concerned officers in Ministry of Finance, Government of India dealing with the annual Sovereign Rating Exercise of India were spoken to. Some basic inputs such as the most recent version of the Sovereign Rating Methodologies of the six Sovereign Rating Agencies were received. Some insights into the intensity of the interactions were also shared by the concerned officer. But some of the interactions are classified as confidential by GoI. In this respect, Moody's Investor Service was also consulted. They have also classified all current and previous interactions with the Sovereign Government as confidential.

3.3 Relationship between capital expenditure and GDP growth: While studying the trends of capital expenditure, it has been observed that there is some linkage between increased capital expenditure and increase in GDP growth. However, due to limitation of time in this study the relationship could not be further investigated. Moreover, studying this aspect would amount to digression from the main purpose of the study.

3.4 While doing the review of literature many points came up as research gaps. Some of the research gaps were picked up as objectives for study of this dissertation. One of these research gaps which can be further examined is whether countries that borrow adopt policies to address the short-term concerns of Credit Rating Agencies even when they conflict with long term development requirements.

4. **Future study**: Given the above limitations of the study, following points may be covered in a future study:

(a) Sovereign Rating Methodologies of other four Sovereign Credit Rating Agencies which provide Sovereign Ratings of India viz. FitchRatings, Japanese Credit Rating Agency, Ratings and Investment Information Inc and DBRS Financial Services company may be studied.

(b) Linkage between increased capital expenditure and increase in GDP growth in India during the period 1990-91 to 2020-21 may be studied.

(c) Countries that borrow adopt policies that address the short-term concerns of Credit Rating Agencies even when they conflict with long term development requirements. This hypothesis may be tested in the case of India in the form of a research study.

5. Conclusion: In essence, there appears to be a vicious circle so far as financing of fiscal deficit through government bond market route in India is concerned. If the cycle of consistent fiscal deficits and the resultant public debt burden can be stalled, then there is likely to be an upgradation of Sovereign Bond Rating and the easy financing through cheaper market borrowing and vice versa.

The way forward would include: Strengthening macro-economic fundamentals, Prioritizing and Linking Government policy actions with the weightage of factors and sub-factors under Sovereign Rating Methodologies, showcasing India's efforts in Atma Nirbhar Bharat Abhiyaan (ANBA), developing data on indicators examined by SCRAs ,establishing independent body for debt management and fiscal management, focus on human development and inclusive growth, establish the democratic connect for realised and responsible frugal governance, updating data annually with international bodies, calibrating and digitizing expenditure for inclusive growth and developing India's Government Bond Market.

Annexure 1

International Monetary Fund and India

1. On December 27, 1945, India, as a founding member of the International Monetary Fund, signed the IMF Agreement. India had the seventh largest subscriber quota till 1970. India served on the board as a permanent executive director until 1970. India no longer serves as the IMF's permanent executive director due to increased subscription limits for Japan, Canada, and Italy.
2. India's position in the IMF Subscription quota: A member country's voting power is proportional to its IMF quota. The quota, in turn, is determined by parameters like GNP, international trade, and so on. India was rated 12th on November 11, 1992. India fell to 13th place in terms of subscription quota after the quota was revised in November 1992.
3. India’s borrowing from IMF:The IMF has been extremely beneficial to India. India has availed a variety of financial services from IMF. It has made timely payments on the loan it got. Between 1947 and 1955, India borrowed almost $200 million in US Dollar. India borrowed 1764 million dollars from the IMF between 1957 and 1975. India borrowed from the IMF Trust Fund to cover deficits in its balance of payments between July 1, 1978 and February 21, 1981. The total amount of SDR was $529.01 million.
4. In 1979, India received a 5.6 billion dollar loan. India had drawn 3.9 billion dollars in April 1984. There have been times where the IMF has imposed conditionalities on India. As a result, India was forced to comply with IMF directives in terms of import, monetary, and other policies. Indian economists have criticised the IMF for interfering in India's domestic affairs.
5. In 1990-91, the Reserve Tranche Drawings were Rs. 1168 crore. In the same year, India drew SDR 3334 crore. Out of this, Rs. 1450 crore was the First credit Tranche and Rs. 1884 crore compensatory and contingency financing facility. In October 1991, India made a standby arrangement with IMF for a total loan of 1656 million. In 1991-92, two installments worth SDR 270 million were drawn as the Upper credit Tranche. In 1993-94, the net amount drawn by India from the IMF was 191 million dollars.

6. India’s payback to IMF: With its balance of payments improving, India chose to abandon suggestions for a medium-term Extended Fund Facility. India's IMF borrowings began to decline after 1993-94. India, on the other hand, paid the IMF $1143 million in 1994-95, $1817 million in 1995-96, $975 million in 1996-97, and $618 million in 1997-98.
7. India is a member of the IBRD or the World Bank as a result of its membership in the Fund. India receives long term help from the World Bank for different developmental projects. The concessional aid received by it from the International Development Association (IDA) for decades deserves a special remark.
8. India received IMF advisory support: In addition to monetary aid, India received IMF advisory assistance under the fund supervision conditionality. On India's balance of payments and currency rate issues, Indian officials sought advice from IMF experts.
9. IMF Short-term training courses for Indian personnel: Short-term training courses on monetary, fiscal, banking, exchange, and BOP policies were held by the IMF for Indian personnel. These courses were conducted by the Central Banking Service Department and the IMF Institute and Fiscal Affairs Department.

Thus, India obtained substantial benefits from IMF.

Annexure 2

Brief on Government Securities in India

1. Government securities are investment products issued by the Indian government, both federal and state, in the form of bonds, treasury bills, and notes. They are typically issued with the aim of refunding maturing securities and raising new financial resources, as well as for advance refunding of securities that have not yet matured. They are Risk-free gilt-edged instruments, on the other hand, bear very little risk.
2. There are several types of government securities offered by the Reserve Bank of India given as under:

   (a) Treasury Bills: Treasury bills, also called T-bills, are short term government securities with a maturity period of less than one year issued by the Central government of India. They are issued in three different time frames viz. (i) 91 days,(ii)182 days and (iii) 364 days

   Several financial instruments pay interest to us on our investment; treasury bills do not pay interest because they are also called zero-coupon securities. These securities do not pay any interest; instead, they are issued at a discount rate and redeemed at face value on the date of the maturity. For example a 91 day T-bill with a face value of Rs. 200 may be issued at Rs.196, with a discount of RS. 4 and redeemed at face value of Rs. 200.

   However, RBI performs weekly auctions to issue treasury bills.

   (b) Cash Management Bills (CMBs) :Cash management bills are new securities introduced in the Indian financial market. The government of India and the Reserve Bank of India introduced this security in the year 2010. Cash management bills are similar to treasury bills because they are short term securities issued when required.

   However, one primary difference between both of these is its maturity period. CMBs are issued for less than 91 days of a maturity period which makes these securities an ultra-short investment option. Generally, the government of India use these securities to fulfil temporary cash flow requirements.

(c) Dated Government Securities: Dated Government securities are a unique type of securities because they either have fixed or a floating rate of interest also called the coupon rate. They are issued at face value at the time of issuance and remains constant till redemption. Unlike treasury and cash management bills, government securities are recognized as long-term market instruments because they provide a wide range of tenure starting from 5 years up to 40 years. The investors investing in dated government securities are called primary dealers. There are nine different types of dated government securities issued by the Government of India viz. (i) Capital Indexed Bonds;(ii) Special Securities;(iii) 75% Savings (Taxable) Bonds, 2018;(iv) Bonds with Call/Put Options;(v) Floating Rate Bonds; (vi) Fixed Rate Bonds; (vii) Special Securities;(viii) Inflation Indexed Bonds and (ix) STRIPS

(d) State Development Loans: State development loans are dated government securities issued by the State government to meet their budget requirements. The issue is auctioned once every two weeks with the help of the Negotiated Dealing System. SDL support the same repayment method and features a variety of investment tenures. But when it comes to rates, SDL is a little higher compared to dated government securities.

The major difference between dated government securities and state development loans is that G-Securities are issued by the central government while SDL is issued by the state government of India.

(e) Treasury Inflation-Protected Securities (TIPS): TIPS are available based on 5-, 10- or 30-year term periods. These securities deliver interest payments to all users every six months. TIPS are similar to conventional treasury bonds, but it comes with one major difference. The same principle is issued during the entire term of the bond in a standard treasury bond.However, the par value of TIPS will increase gradually to match up with the Consumer

Price Index (CPI) to keep the bond's principle on track with inflation.If inflation increases during the year, there will be an increase in the security value during that year. It means you will have a bond that maintains its value throughout life instead of a bond that's worthless after maturity.

(f) Zero-Coupon Bonds: Zero-coupon bonds are generally issued at a discount to face value and redeemed at par. These bonds were issued on January 191994. The securities do not carry any coupon or interest rate as the tenure is fixed for the security. In the end, the security is redeemed at face value on its maturity date.

(g) Capital Indexed Bonds: In these securities, the interest comes in a fixed percentage over the wholesale price index, which offers investors an effective hedge against inflation. The capital indexed bonds were floated on a tap basis on December 29 1997.

(h) Floating Rate Bonds: Floating rate bonds does not come with a fixed coupon rate. They were first issued in September 1995 as floating rate bonds are issued by the government.

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[86] Table A1 in Executive Summary

[87] Table A2 in Executive Summary