

STATE FINANCES

A STUDY OF BUDGETS OF 2020-21



RESERVE BANK OF INDIA

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2020-21



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October 2020

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FOREWORD

The Reserve Bank of India (RBI) brings out an annual publication entitled “State Finances: A Study of Budgets” which analyses the fiscal position of state governments on the basis of primary state level data. This year the majority of states had presented their budgets during February-March 2020, but the outbreak of COVID-19 delayed the presentation of budgets by a few states to the post lockdown period. This Report analyses the underlying dynamics of the combined budget estimates (BE) of all states/union territories for 2020-21 against the backdrop of actual and revised (or provisional accounts) outcomes for 2018-19 and 2019-20, respectively.

The salient features that emerge from this analysis are:

- States have budgeted their consolidated gross fiscal deficit (GFD) at 2.8 per cent of GDP in 2020-21; however, the COVID-19 pandemic may alter budget estimates significantly, eroding the gains of consolidation secured in the preceding three years - the average GFD for states that presented their budgets before the outbreak of COVID-19 is 2.4 per cent of GSDP, while the average for budgets presented post-lockdown is 4.6 per cent.
- The associated increase in indebtedness, coupled with persisting losses of power distribution companies (DISCOMs) and rising guarantees, slants risks to state finances to the downside, going forward.
- Sustaining the recovery from the pandemic will reshape state finances, entailing boosting investment in health care systems and other social safety nets in line with the states' demographic and co-morbidity profiles; building digital infrastructure to improve provision of public services more efficiently in a post-pandemic new normal and upgrading the urban infrastructure with increased engagement of local governments so as to improve the resilience of our COVID-scarred cities, which were severely hit during the pandemic.
- The quality of spending and the credibility of state budgets will assume critical importance. The next few years are going to be challenging for the states. They have played an important role in the frontline of the defence against the pandemic. Going forward, they need to remain empowered to provide growth impulses to the Indian economy and build resilience against future pandemics as well. It is in this context that this Report's spatial lens provides content and value to the theme “COVID-19 and its Spatial Dimensions in India”.

The Report has been prepared under the overall guidance of Dr. Mridul Saggar, Executive Director, and supervision of Dr. Deba Prasad Rath, Officer-in-Charge. The Report has been prepared in the Division of State Finances (DSF) of the Department of Economic and

Policy Research (DEPR) by a team led by Smt. Sangita Misra, Director, and comprising Shri Bichitrananda Seth, Assistant Adviser, Shri Rahul Agarwal, Shri Sudhanshu Goyal and Shri Rachit Solanki, Managers. Officers from the Division of Central Finances (DCF) Dr. Samir Ranjan Behera, Director, Smt. Kaushiki Singh, Assistant Adviser and Shri Saksham Sood and Shri Anshuman Kamila, Managers, made useful contributions to the Report. Data compilation support provided by Shri Nirmal Kumar, Ms. Archana Verma and Shri G. Hamand is gratefully acknowledged.

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This Report is available on the Reserve Bank's website (www.rbi.org.in). Feedback/comments are solicited to help improve the analytical and informational content of the Report. They may be sent to the Director, Division of State Finances, Department of Economic and Policy Research, Amar Building (6th Floor), Reserve Bank of India, Shahid Bhagat Singh Road, Mumbai- 400 001 or through email (deprfad@rbi.org.in).

Michael Debabrata Patra
Deputy Governor
October 27, 2020

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List of Abbreviations

ACS	Average Cost of Supply	DALYs	Disability Adjusted Life Years
ARR	Average Revenue Realised	DBT	Direct Benefit Transfer
ASEAN	Association of Southeast Asian Nations	DGCI&S	Directorate General of Commercial Intelligence and Statistics
ATB	Auction Treasury Bill	DGHS	Directorate General of Health Services
BE	Budget Estimate	DIPP	Department of Industrial Policy & Promotion
BPS	Basis Points	DISCOM	Distribution Company
BRICS	Brazil, Russia, India, China, and South Africa	EC	Emigration Clearance
CAG	Comptroller and Auditor General	ECS	Electronic Clearing System
CBR	Crude Birth Rate	EME	Emerging Market Economy
C-D Ratio	Credit Deposit Ratio	e-NAM	National Agriculture Market
CDC	Centers for Disease Control and Prevention	ESIC	Employees' State Insurance Corporation
CDR	Crude Death Rate	EU	European Union
CFR	Case Fatality Rate	FA	Factories Act
CGA	Controller General of Accounts	FC-XIV	Fourteenth Finance Commission
CLRAR	Contract Labour Regulation and Abolition Rules	FC-XV	Fifteenth Finance Commission
CMIE	Centre for Monitoring Indian Economy	FDI	Foreign Direct Investment
CMNND	Communicable-Maternal-Neonatal-Nutritional Diseases	FICCI	Federation of Indian Chambers of Commerce and Industry
CORUS	COVID Relief and Upliftment Scheme	FRBM	Fiscal Responsibility and Budget Management
COVID-19	Coronavirus Disease of 2019	FRL	Fiscal Rule Legislation
CRISIL	Credit Rating Information Services of India Limited	G20	Group of Twenty
CSF	Consolidated Sinking Fund	G2P	Government-to-Person
CSS	Centrally Sponsored Scheme	GBD	Global Burden of Disease
DA	Dearness Allowance	GDP	Gross Domestic Product
		GFC	Global Financial Crisis

GFD	Gross Fiscal Deficit	LTPT	Low Tension Power Tariff
GMM	Generalized Method of Moments	Mbps	Megabits Per Second
GoI	Government of India	MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
GoTN	Government of Tamil Nadu	MIS	Management Information System
GRF	Guarantee Redemption Fund	MoH&FW	Ministry of Health and Family Welfare
GRIDCO	Grid Corporation of Odisha	MOSPI	Ministry of Statistics and Programme Implementation
GSDP	Gross State Domestic Product	MoU	Memorandum of Understanding
G-Sec	Government Security	MPIE	Madhya Pradesh Industrial Employment
GST	Goods and Services Tax	MPIRA	Madhya Pradesh Industrial Relations Act
GVA	Gross Value Added	MPSKNA	Madhya Pradesh Shram Kalyan Nidhi Adhiniyam
GVC	Global Value Chain	MSME	Micro, Small, and Medium Enterprise
HUF	Hindu Undivided Family	MT	Metric Ton
HWC	Health and Welfare Centre	NABARD	National Bank for Agriculture and Rural Development
ICMR	Indian Council of Medical Research	NACH	National Automated Clearing House
ICU	Intensive Care Unit	NBFC	Non-Banking Financial Company
IDA	Industrial Disputes Act	NCD	Non-Communicable Diseases
IFSC	Indian Financial System Code	NCDC	National Co-operative Development Corporation
IGST	Integrated Goods and Service Tax	NCT	National Capital Territory
IHME	Institute for Health Metrics and Evaluation	NEEDS	New Entrepreneurship-cum- Enterprise Development Scheme
ILO	International Labor Organisation	NEFT	National Electronic Fund Transfer
IMD	International Institute for Management Development	NETC	National Electronic Toll Collection
IMF	International Monetary Fund	NGO	Non-Governmental Organisation
IMPS	Immediate Payment Service	NHM	National Health Mission
ITB	Intermediate Treasury Bill		
L&A	Loans and Advances		
LHS	Left Hand Side		
LIC	Life Insurance Corporation of India		
LSG	Local Self Government		

NITI	National Institution for Transforming India	PoS	Point of Sale
NPA	Non-Performing Asset	PPA	Power Purchase Agreements
NPCI	National Payments Corporation of India	PPE	Personal Protective Equipment
NRHM	National Rural Health Mission	PPI	Pre-paid Payment Instrument
NSDP	Net State Domestic Product	PPP	Public Private Partnership
NSO	National Statistical Office	PSU	Public Sector Undertaking
NSS	National Sample Survey	Q-Cert	Quality Certification
NSSF	National Small Savings Fund	RA	Recruiting Agent
NSSO	National Sample Survey Office	RBI	Reserve Bank of India
NUHM	National Urban Health Mission	RD	Revenue Deficit
OBC	Other Backward Class	RE	Revised Estimate
OD	Overdraft	RGI	Registrar General of India
OECD	Organisation for Economic Cooperation and Development	RHS	Right Hand Side
OLS	Ordinary Least Squares	RMNCH+A	Reproductive-Maternal-Neonatal-Child and Adolescent Health
OSH	Occupational Safety & Health	ROA	Return on Assets
OTR	Own Tax Revenue	ROE	Return on Equity
PA	Provisional Estimates	RSBY	Rashtriya Swasthya Bima Yojna
PAT	Profit After Tax	RTGS	Real Time Gross Settlement
PC	Principal Component	SAARC	South Asian Association for Regional Cooperation
PCA	Principal Component Analysis	SARTTAC	South Asia Regional Training and Technical Assistance Center
PD	Primary Deficit	SBI	State Bank of India
PE	Project Exporters	SC	Scheduled Caste
PFC	Power Finance Corporation	SDF	Special Drawing Facility
PFM	Public Financial Management	SDG	Sustainable Development Goal
PHFI	Public Health Foundation of India	SDL	State Development Loan
PLFS	Periodic Labor Force Survey	SDRMF	State Disaster Response & Mitigation Fund
PM-JAY	Pradhan Mantri Jan Arogya Yojana		

SGST	State Goods and Services Tax	UPI	Unified Payments Interface
SHA	System of Health Accounts	USA	United States of America
SLR	Statutory Liquidity Ratio	USSD	Unstructured Supplementary Service Data
SPSE	State Public Sector Enterprise	UT	Union Territory
ST	Scheduled Tribe	UYEGP	Unemployed Youth Employment Generation Programme
STP	Straight Through Processing	VAT	Value Added Tax
TIIC	Tamil Nadu Industrial Investment Corporation	VBM	Vande Bharat Mission
UAE	United Arab Emirates	WAS	Weighted Average Spread
UCLG	United Cities and Local Governments	WAY	Weighted Average Yield
UDAY	<i>Ujwal</i> DISCOM Assurance Yojana	WHO	World Health Organisation
UHC	Universal Health Coverage	WMA	Ways and Means Advance
UIDAI	Unique Identification Authority of India	WPI	Wholesale Price Index
UK	United Kingdom	YLD	Years Lived with Disability
ULB	Urban Local Body	YLL	Years of Life Lost
UN	United Nations	Y-o-Y	Year-on-Year

1.1 At the time when this Report is being released, three quarters of 2020 have gone by and yet the COVID-19 continues to scar economies across the globe. Output retrenchments have been unprecedented as have been policy responses. Fiscal stimuli have, however, become circumscribed by the growth contractions themselves as they, in turn, have translated into sharp falls in government revenues. Meanwhile, income and health support measures have distended expenditures, substantially out of alignment with budgetary targets. Even as fiscal space gets exhausted the second wave of infection has either arrived or may be imminent in several economies, forcing lockdowns again. Overall, uncertainty remains high, and even as the quest for vaccine intensifies with no immediate relief in sight yet, the prospects for the green shoots that appeared in the third quarter of 2020 is fraught with downside risks.

1.2 The Indian economy has been hit hard, with the second largest caseload in the world and the COVID-19 curve yet to flatten on a sustained basis. With about a quarter of GDP already lost in Q1: 2020-21 (April-March) and the contraction estimated at close to 10 per cent in Q2, public finances have been subjected to severe strains. States have been at the forefront in the fight against the pandemic and the public health crisis it has spawned, besides the biggest migration in the world. The debilitating combination of compression in tax receipts and ramped-up expenditures has generated unprecedented pressures on fiscal positions at sub-national levels. These spatial and structural dimensions of the pandemic and the differential nature of

responses of sub-national policy authorities are the defining features of the evolution of state finances in India in 2020-21, and the theme of this year's Report: "COVID -19 and its Spatial Dimensions in India".

1.3 First, some states have been impacted quicker and harder than others, depending upon indigenous demographics and epidemiological features as well as availability and accessibility of health care resources. Supply chain disruptions have also been different depending on nature of businesses and other activities that various states specialise.

1.4 Second, with health care, social services and other critical aspects of containment being the responsibilities of state governments, testing, monitoring, and enforcing confinement and ensuring the continuity of provision of essential services has turned out to be a function of the digitisation base of states.

1.5 Third, a wave of de-coupling was unleashed by the pandemic across regions, states and cities with highly asymmetric effects spatially. As against the conventional push/pull factors which work towards influencing the migrants' movement, a different kind of push/pull worked during the pandemic, associated with high levels of informal unemployment. Indian states had to contend with reverse migration from abroad as well as across states, with large-scale implications for underlying activity, conditional upon the extent of dependence of states on migrants for factor income, employment and performance of micro, small and medium enterprises (MSMEs). This had implications for state finances as well.

1.6 Fourth, the pandemic produced varied direct effects on fiscal conditions across states. On the one hand, fiscal pressures were intensified by the operation of ‘scissor effects’- expenditures surging and revenues collapsing. On the other hand, fiscal sustainability risks were heightened by off-budget loans and guarantees. The overall impact on state finances would be conditional upon the exposure to COVID-19, the availability of initial fiscal space and access to rainy day funds, or other reserve funds, if any. State governments’ responses by delaying or cutting down expenditures, even wages and salaries, also need to be taken into account in the assessment of the pandemic’s direct effects on state finances.

1.7 In line with the usual practice, Chapter II undertakes an in-depth analysis of the fiscal position of states as reflected in their budgets for 2020-21, profiled against actual outcomes for 2018-19 and revised estimates/provisional accounts for 2019-20. With COVID-19 changing the fiscal landscape for states post their budgets, a quick analysis of its likely impact on state finances for 2020-21 is also added.

1.8 Chapter III dwells on the regional dimensions of the pandemic with regard to two structural health parameters – demography and epidemiology; and healthcare infrastructure and implications for the fisc, particularly in the context

of regional dimensions of migration, employment and role of MSMEs. This chapter also examines the digitisation architecture and the opportunities going forward for investing in digitisation. The role of empowered third tier local governments in influencing the effectiveness of policy responses is also featured in this chapter. The implications of the pandemic for states’ output during 2020-21 is also presented, drawing on relevant state-level data, relating to important structural parameters to emphasise successes and good practices/ strategies worthy of mutual emulation and learning in the spirit of cooperative federalism.

1.9 Chapter IV concludes with setting out the way forward in rebuilding the socio-economic ethos and a robust public health and pandemic response infrastructure, boosting investment in digital infrastructure, enhancing/upgrading the urban infrastructure so as to improve the resilience of our cities to future pandemics, strengthening and empowering local governance institutions for effective interventions at the grass-root level, aligning fiscal incentives with reforms in labour laws for skilling and gainful employment of migrant workers, public-private partnership strategies in all these vistas.

1.10 Data on fiscal indicators for all states and union territories with legislatures, including on various budgetary components, are presented in appendices and statements to the Report¹.

¹ An additional Statement 36 providing information on subsidies given by states, which is not readily available from state budgets, has been added with the support of state governments.

II

Fiscal Position of State Governments¹

1. Introduction

2.1 This chapter analyses the consolidated finances of states reflected in their budgets for 2020-21, with the *caveat* that most states released their budgets in February-March 2020, *i.e.*, prior to the outbreak of COVID-19 in India¹. Hence, budget estimates (BE) are likely to get substantially revised. Nonetheless, the analysis assumes significance as an early warning sensor, as the states are in the vanguard of the fight against the pandemic. As is widely anticipated, the COVID-19-related lockdown and containment measures may impact states' revenue coincident with higher expenditure to manage the health crisis and heal and restore economic activity to pre-COVID-19 levels.

2.2 The rest of this chapter is divided into seven sections. Against the backdrop of an overview of key fiscal parameters in Section 2, the chapter examines actual budgetary outcomes for 2018-19, revised estimates (RE) for 2019-20 and BE

for 2020-21 in Sections 3, 4 and 5, respectively. Section 5 also throws light on specific COVID-19 effects on expected fiscal outcomes during 2020-21 that have macro-economic and financial implications. Section 6 deals with the financing pattern of states' combined gross fiscal deficit and Section 7 addresses outstanding liabilities of states, including contingent liabilities. Section 8 sets out concluding observations.

2. Key Fiscal Indicators

2.3 States have budgeted their consolidated gross fiscal deficit (GFD) at 2.8 per cent of GDP in 2020-21. Although the RE for 2019-20 placed the GFD at 3.2 per cent of GDP (Table II.1), provisional accounts released by the Office of the Comptroller and Auditor General (CAG) of India indicate that the budgeted level was achieved through large cutbacks on both revenue and capital expenditure to compensate for cyclical shortfalls in tax collections (Box II.1).

Table II.1: Major Deficit Indicators - All States and Union Territories with Legislature

(₹ lakh crore)

Item	2006-11 (Average)	2011-16 (Average)	2016-17	2017-18	2018-19	2019-20 (BE)	2019-20 (RE)	2020-21 (BE)
1	2	3	4	5	6	7	8	9
Gross Fiscal Deficit (Per cent of GDP)	1.30 (2.2)	2.74 (2.4)	5.36 (3.5)	4.10 (2.4)	4.63 (2.4)	5.54 (2.6)	6.52 (3.2)	6.26 (2.8)
Revenue Deficit (Per cent of GDP)	-0.17 (-0.4)	-0.02 (-0.0)	0.36 (0.2)	0.19 (0.1)	0.18 (0.1)	-0.08 (-0.0)	1.37 (0.7)	0.00 (0.0)
Primary Deficit (Per cent of GDP)	0.20 (0.3)	0.98 (0.8)	2.81 (1.8)	1.17 (0.7)	1.44 (0.8)	1.99 (0.9)	3.04 (1.5)	2.38 (1.1)

BE: Budget Estimates. RE: Revised Estimates.

Notes: 1. Data include 31 states and union territories with legislature.

2. Negative (-) sign indicates surplus.

3. GDP at current market prices is based on the National Statistical Office (NSO)'s National Accounts 2011-12 series.

Source: Budget documents of state governments.

¹ Various fiscal indicators are expressed as proportion to GDP at current market prices unless stated otherwise.

Box II.1: Is there a Systematic Bias in Revised Estimates?

The aggregation of monthly provisional accounts (PA) estimates of states' receipts and expenditure by the Comptroller and Auditor General of India (CAG) for individual states is a timely indicator for assessing the true fiscal position of states, *albeit* at the cost of loss of some granularity. For every fiscal year, budget estimates (BE) give a projection before the start of the year, while revised estimates (RE) are available towards the end of the fiscal year. PA are available with a lag of about another two months, and accounts arrive with an additional lag of about nine to ten months. RE reveal a systematic upward bias, *albeit* with outliers across states (Chart 1a and 1b). The Reserve Bank of India started consolidating monthly PA data across states for 2018-19 and released them along with RE in the State Finances: A Study of Budgets of 2019-20.

2019-20 PA indicate that the GFD-GDP ratio was 2.6 per cent, exactly as budgeted, as against RE of 3.2 per cent (Table 1).

In a panel framework for 24 states for the period 2014-15 to 2019-20 using three gap variables – Gap1 (difference between actual and BE), Gap2 (difference between actual and RE) and Gap3 (difference between actual and PA), a test is conducted to check if the means of these gap variables are statistically different from zero. A simple fixed effects model without any explanatory variables is estimated using equation (1) to examine if the intercept

Table 1: Fiscal Position of States

(₹ lakh crore)

	2017-18	2018-19	2019-20 BE	2019-20 RE	2019-20 PA	2020-21 BE
I. Revenue Receipts	23.21 (13.6)	26.21 (13.8)	31.54 (14.9)	29.40 (14.5)	27.63 (13.6)	33.27 (14.8)
II. Capital Receipts	0.40 (0.2)	0.41 (0.2)	0.62 (0.3)	0.60 (0.3)	0.45 (0.2)	0.16 (0.1)
III. Revenue Expenditure	23.40 (13.7)	26.38 (13.9)	31.46 (14.9)	31.76 (15.1)	28.36 (13.9)	33.27 (14.8)
IV. Capital Expenditure	4.31 (2.5)	4.87 (2.6)	6.22 (2.9)	5.78 (2.8)	4.97 (2.4)	6.46 (2.9)
a. Capital Outlay	3.94 (2.3)	4.40 (2.3)	5.81 (2.8)	5.31 (2.6)	4.55 (2.2)	5.98 (2.7)
b. Loans and Advances by States	0.38 (0.2)	0.47 (0.3)	0.41 (0.1)	0.47 (0.2)	0.42 (0.2)	0.48 (0.2)
V. Fiscal Deficit/Surplus	4.10 (2.4)	4.63 (2.4)	5.54 (2.6)	6.52 (3.2)	5.25 (2.6)	6.26 (2.8)
VI. Revenue Deficit/Surplus	0.19 (0.1)	0.18 (0.1)	-0.08 (-0.0)	1.37 (0.7)	0.72 (0.4)	0.00 (0.0)

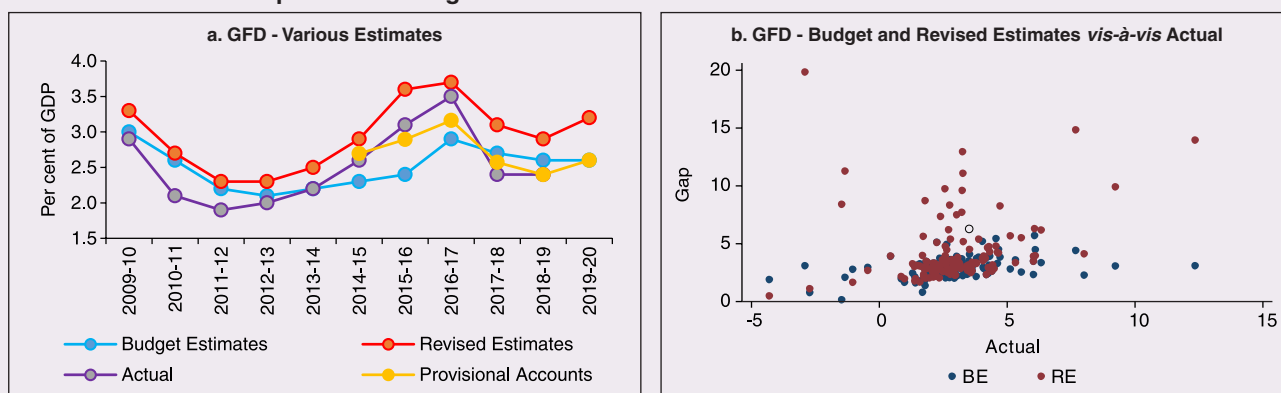
Note: (1) Figures in parentheses are per cent of GDP.

(2) Data for 2019-20 Provisional Accounts (PA) are accounts figures of 24 states available with CAG and for the remaining 7 states/UTs 2019-20 Budget Estimates (BE) figures are used to arrive at all states and UTs.

Sources: Budget documents of state governments and CAG.

term is statistically close to zero, and standard t-tests reported below (Table 2).

Chart 1: Comparison of Budget and Revised Estimates and Actual and Provisional Accounts



Source: Budget documents of state governments.

(Contd...)

Table 2: Panel Fixed Effect Model of Gap Variables

Dependent Variable#	Intercept	Std. Error	t-statistics	p-value	Remark
Gap1	0.059	0.158	0.37	0.710	Mean is same
Gap2	-1.193	0.305	-3.91	0.000**	Mean is different
Gap3	-0.016	0.103	-0.16	0.877	Mean is same

Gap between actual and other estimates - BE, RE and PA.

** Significance at 5 per cent level of significance.

Source: RBI staff estimates.

$$\text{Gap}_{it} = \mu_{it} + \varepsilon_{it} \dots\dots\dots (1)$$

where i=1, 2.....N, indicate number of states; t=1, 2.....T, indicate number of years.

The results show that the average gap of BE and PA from actuals is not statistically different from zero, with the means across states being almost equal, while the deviation of RE from actual is statistically significant. The negative and statistically significant sign for Gap2 indicates an upward bias in RE. These results have two important policy implications. First, PA consolidated across states can be safely used as a benchmark for making comparative assessments of fiscal performance across time for policy purposes instead of the RE. Second, considering that the 2020-21 BE is projected with 2019-20 RE as the base, the large shortfall in receipts in 2019-20 PA *vis-à-vis* the RE clearly distorts the fiscal arithmetic for 2020-21 BE, even without the impact of the pandemic.

2.4 In the event, these movements in states' finances have possibly negated the fiscal impulse from central finances in that year to counter the cyclical slowdown. Cuts in spending also explain the improvement in 2018-19 (Table II.1 and Chart II.1).

2.5 In 2020-21, about half of the states have budgeted the GFD-GSDP ratio at or above the 3 per cent threshold although, as stated earlier, most of these budgets were presented prior to the

onset of COVID-19 (Chart II.2). The direction of possible revision is evident from the fact that the average for states presenting their budget before the outbreak of the pandemic is 2.4 per cent, while the average for the balance number of states that made post-outbreak budget presentation is 4.6 per cent of GSDP.

2.6 Thus, states are grappling with the pandemic with constrained fiscal space. In terms of primary balances, states are clearly in an

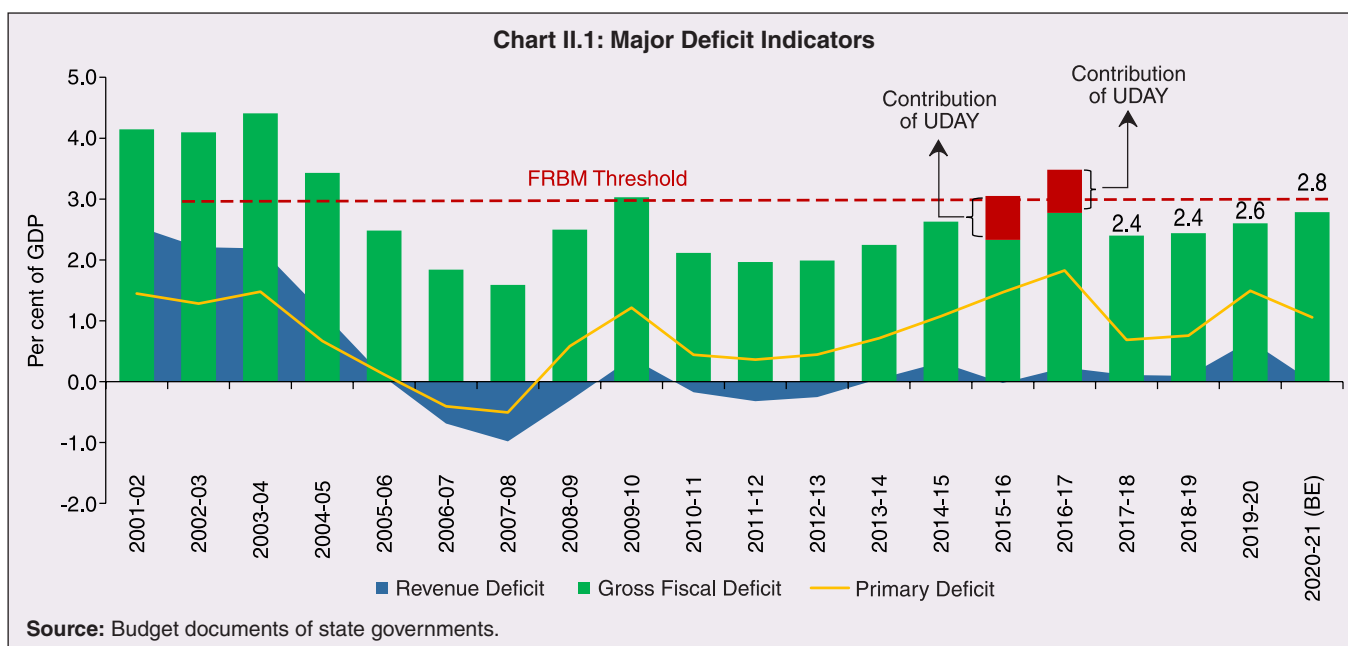
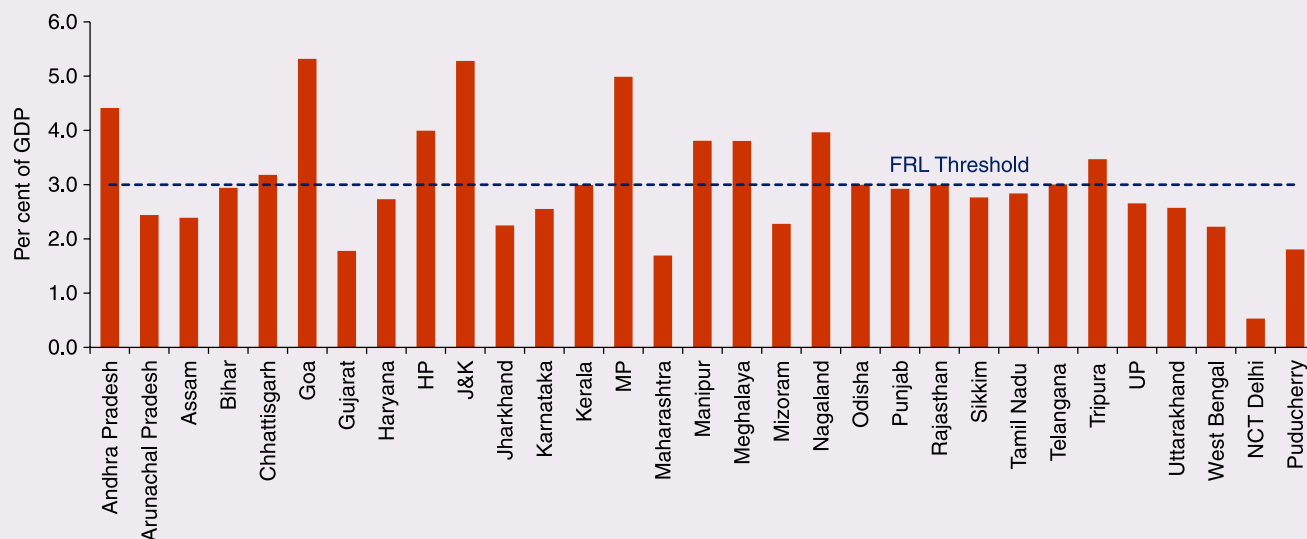


Chart II.2: State-wise GFD in 2020-21 BE



Source: Budget documents of state governments.

unfavourable position, with most states incurring primary deficits in 2019-20, as against primary surpluses at the onset of the global financial crisis (Chart II.3).

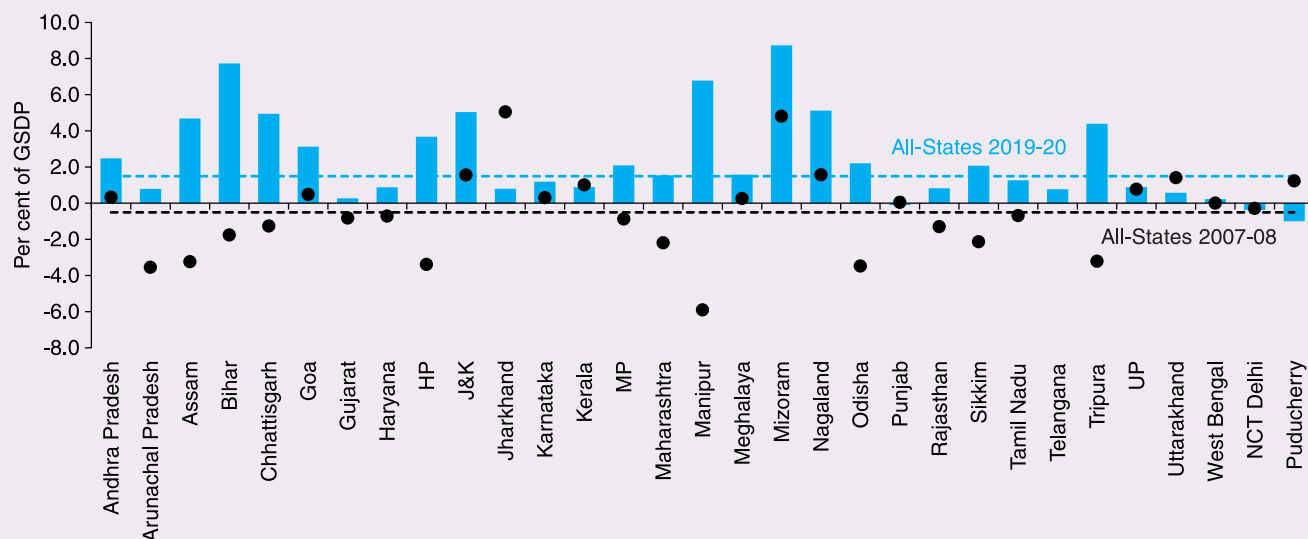
3. 2018-19: Accounts

2.7 For the second consecutive year, states maintained their GFD at 2.4 per cent of GDP in

2018-19 (Chart II.4). This rectitude was brought about by higher revenue receipts on account of tax devolution, even though revenue expenditure and capital expenditure increased (Table II.2).

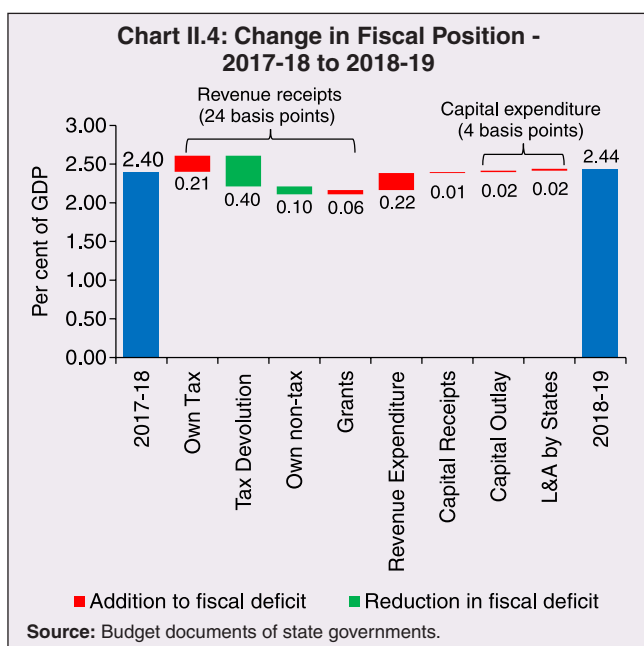
2.8 The tax revenue to GDP ratio increased marginally with the higher devolution, partly offset by lower own tax revenue (Table II.2), although

Chart II.3: Primary Deficit - 2019-20 RE versus 2007-08



Source: Budget documents of state governments.

Fiscal Position of State Governments



the latter was made good through the GST compensation cess, booked as grant-in-aid from the centre in accounting terms. Lower own tax revenue was reflected in a sharp decline in sales tax/value added tax (VAT), even as states' goods and services tax (SGST) collections increased.

2.9 Non-tax revenue, comprising own non-tax revenue and grants from the centre improved in 2018-19 *vis-à-vis* 2017-18, driven by higher collections from general services and petroleum (Table II.2).

2.10 The rise in revenue expenditure in 2018-19 *vis-à-vis* the preceding year was largely on the non-developmental front (Table II.3). Appropriation

Table II.2: Aggregate Receipts of State Governments and UTs

(₹ lakh crore)

Item	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)
1	2	3	4	5	6
Aggregate Receipts (1+2)	26.46 (17.3)	27.76 (16.2)	31.27 (16.5)	35.90 (17.6)	39.53 (17.6)
1. Revenue Receipts (a+b)	20.81 (13.6)	23.21 (13.6)	26.20 (13.8)	29.40 (14.5)	33.27 (14.8)
a. States' Own Revenue (i+ii)	11.17 (7.3)	13.10 (7.7)	14.34 (7.6)	15.79 (7.8)	17.66 (7.9)
i. States' Own Tax	9.46 (6.1)	11.30 (6.6)	12.15 (6.4)	13.40 (6.6)	14.98 (6.7)
ii. States' Own Non-Tax	1.71 (1.1)	1.80 (1.1)	2.19 (1.2)	2.39 (1.2)	2.68 (1.2)
b. Central Transfers (i+ii)	9.69 (6.3)	10.11 (5.9)	11.87 (6.3)	13.60 (6.7)	15.60 (6.9)
i. Shareable Taxes	6.08 (3.9)	6.05 (3.5)	7.47 (3.9)	7.03 (3.5)	8.17 (3.6)
ii. Grants-in Aid	3.61 (2.3)	4.06 (2.4)	4.40 (2.3)	6.57 (3.2)	7.43 (3.3)
2. Net Capital Receipts (a+b)	5.61 (3.3)	4.54 (2.7)	5.06 (2.7)	6.50 (3.2)	6.26 (2.8)
a. Non-Debt Capital Receipts (i+ii)	0.16 (0.1)	0.40 (0.2)	0.42 (0.2)	0.62 (0.3)	0.20 (0.1)
i. Recovery of Loans and Advances	0.16 (0.1)	0.40 (0.2)	0.41 (0.2)	0.60 (0.3)	0.16 (0.1)
ii. Miscellaneous Capital Receipts	0.00 (0.0)	0.00 (0.0)	0.01 (0.0)	0.02 (0.0)	0.04 (0.0)
b. Debt Receipts (i+ii)	5.45 (3.6)	4.15 (2.4)	4.64 (2.4)	5.88 (2.9)	6.06 (2.7)
i. Market Borrowings	3.52 (2.3)	3.45 (2.0)	3.73 (2.0)	4.88 (2.4)	5.61 (2.5)
ii. Other Debt Receipts	1.93 (1.3)	0.70 (0.4)	0.91 (0.5)	1.00 (0.5)	0.45 (0.2)

RE: Revised Estimates. BE: Budget Estimates.

Notes: 1. Figures in parentheses are per cent of GDP.

2. Debt receipts are on net basis.

Source: Budget documents of state governments.

Table II.3: Revenue Expenditure Pattern of State Governments and UTs

(₹ lakh crore)

Item	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)
1	2	3	4	5	6
Revenue Expenditure (1+2)	21.22 (13.8)	23.40 (13.7)	26.38 (13.9)	30.76 (15.1)	33.27 (14.8)
1. Development Expenditure (i+ii)	13.66 (8.9)	14.66 (8.6)	16.36 (8.6)	19.46 (9.6)	20.68 (9.2)
(i) Social Services	8.54 (5.5)	9.13 (5.3)	10.32 (5.4)	12.24 (6.0)	13.35 (5.9)
(ii) Economic Services	5.12 (3.3)	5.53 (3.2)	6.04 (3.2)	7.23 (3.6)	7.32 (3.3)
2. Non-development Expenditure	6.99 (4.5)	8.06 (4.7)	9.22 (4.9)	10.36 (5.1)	11.64 (5.2)
of which:					
Appropriation for Reduction or Avoidance of Debt	0.16 (0.1)	0.18 (0.1)	0.34 (0.2)	0.21 (0.1)	0.39 (0.2)
Interest Payments	2.55 (1.7)	2.93 (1.7)	3.19 (1.7)	3.49 (1.7)	3.89 (1.7)
Pension	2.27 (1.5)	2.75 (1.6)	3.15 (1.7)	3.55 (1.7)	3.86 (1.7)
Administrative Services	1.47 (1.0)	1.62 (0.9)	1.84 (1.0)	2.20 (1.1)	2.56 (1.1)

RE: Revised Estimates. BE: Budget Estimates.

Note: Figures in parentheses are per cent of GDP.

Source: Budget documents of state governments.

for reduction or avoidance of debt increased along with other committed expenditures like pensions and administrative and miscellaneous general services.

2.11 Under developmental expenditure, there were reallocations under social and economic services (Chart II.5).

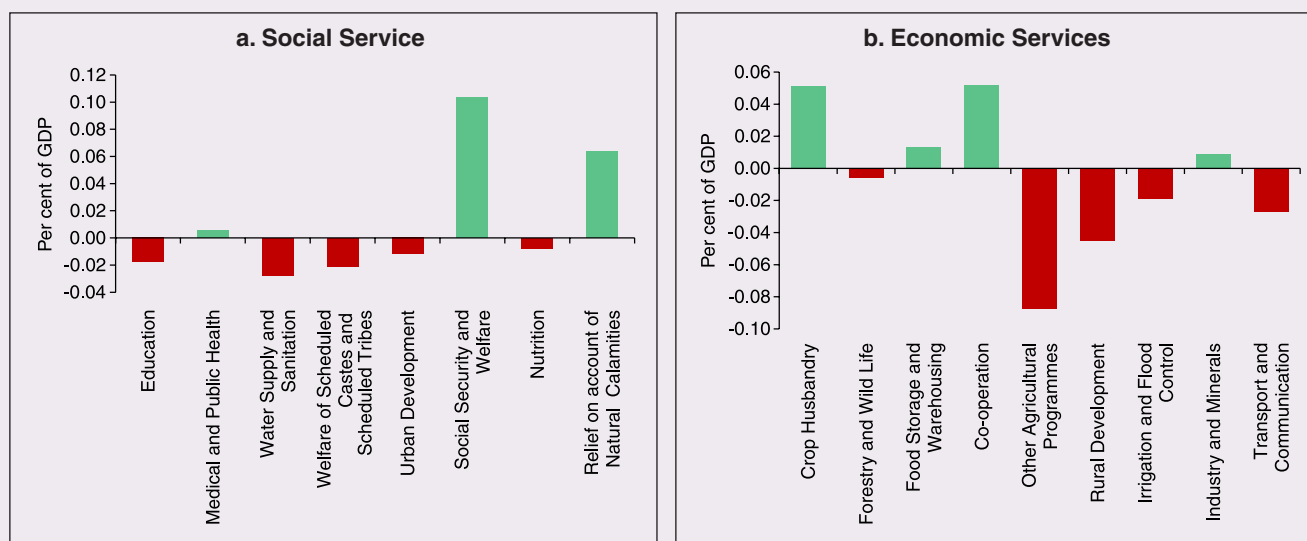
Chart II.5: Revenue Expenditure Components - 2018-19 vis-à-vis 2017-18

Source: Budget documents of state governments.

Table II.4: Expenditure Pattern of State Governments and UTs

(₹ lakh crore)

Item	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)
1	2	3	4	5	6
Aggregate Expenditure (1+2 = 3+4+5)	26.38 (17.1)	27.72 (16.2)	31.25 (16.5)	36.54 (18.0)	39.73 (17.7)
1. Revenue Expenditure	21.22 (13.8)	23.40 (13.7)	26.38 (13.9)	30.76 (15.1)	33.27 (14.8)
of which:					
Interest payments	2.55 (1.7)	2.93 (1.7)	3.19 (1.7)	3.49 (1.7)	3.89 (1.7)
2. Capital Expenditure	5.17 (3.4)	4.31 (2.5)	4.87 (2.6)	5.78 (2.8)	6.46 (2.9)
of which:					
Capital outlay	3.96 (2.6)	3.94 (2.3)	4.40 (2.3)	5.31 (2.6)	5.98 (2.7)
3. Development Expenditure	18.62 (12.1)	18.77 (11.0)	21.01 (11.1)	24.88 (12.2)	26.69 (11.9)
4. Non-Development Expenditure	7.20 (4.7)	8.26 (4.8)	9.44 (5.0)	10.71 (5.3)	12.09 (5.4)
5. Others*	0.56 (0.4)	0.68 (0.4)	0.80 (0.4)	0.94 (0.5)	0.95 (0.4)

RE: Revised Estimates. BE: Budget Estimates.

*: Includes grants-in-aid and contributions (compensation and assignments to local bodies).

Notes: 1. Figures in parentheses are percent of GDP.

2. Capital Expenditure includes capital outlay and loans and advances by state governments.

Source: Budget documents of state governments.

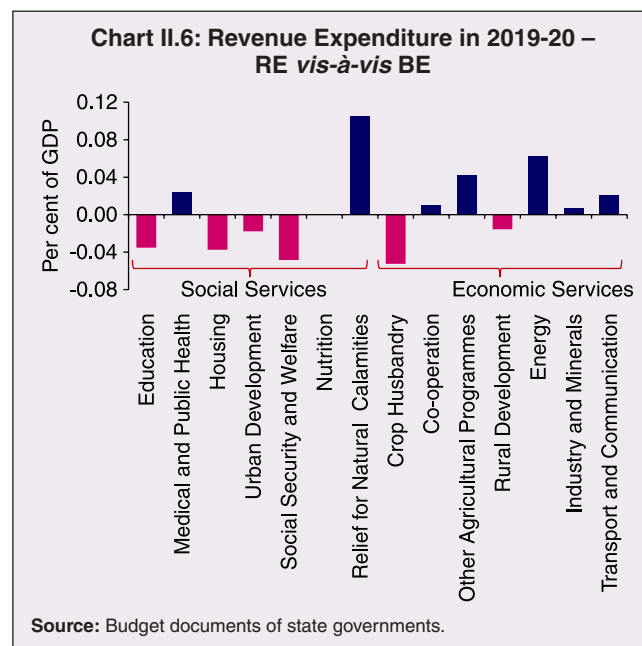
2.12 Capital expenditure undertaken by states, which accounts for more than 60 per cent of general government capital expenditure is generally treated as a residual and is prone to adjustment, conditional upon revenue generation. In 2017-18 and 2018-19 as well, capital spending was reduced from budgeted levels (Table II.4).

4. 2019-20: Revised Estimates and Provisional Accounts

2.13 Drawing inference from Box II.1, the RE for 2019-20 is discussed only for expenditure composition, as the same is not available for the PA.

2.14 Despite lower revenue collection (as reflected in RE as well as in PA), states maintained revenue spending closer to 2018-19 levels, *albeit* lower than budgeted levels, with a re-allocation

towards development expenditure (Chart II.6). As per PA, however, there is a perceptible decline



in revenue spending, although break-up is not available (Table 1 of Box II.1).

2.15 Committed expenditure also rose, particularly pension payments (Chart II.7). Notably, allocation of spending towards farm loan waivers went up in 2019-20 (Table II.5).

2.16 The reduction in capital spending *vis-a-vis* BE observed in 2017-18 and 2018-19 recurred in 2019-20 on account of lower revenue accretion and was mainly concentrated in the rural development and irrigation sectors.

2.17 During 2019-20 as per PA, all states cut capex not only against budgeted levels, but also *vis-à-vis* the previous year, with all states remaining in the negative quadrant (Chart II.8).

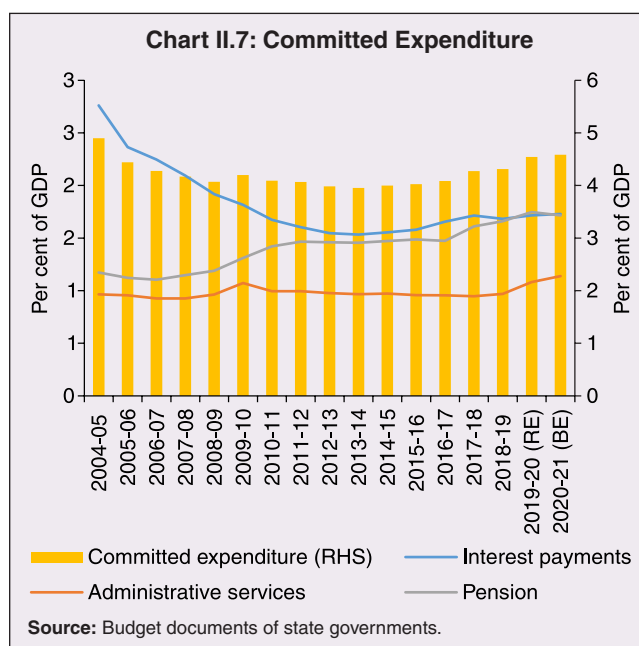


Table II.5: Fiscal Impact of States' Farm Loan Waiver Programmes

(₹ crore)

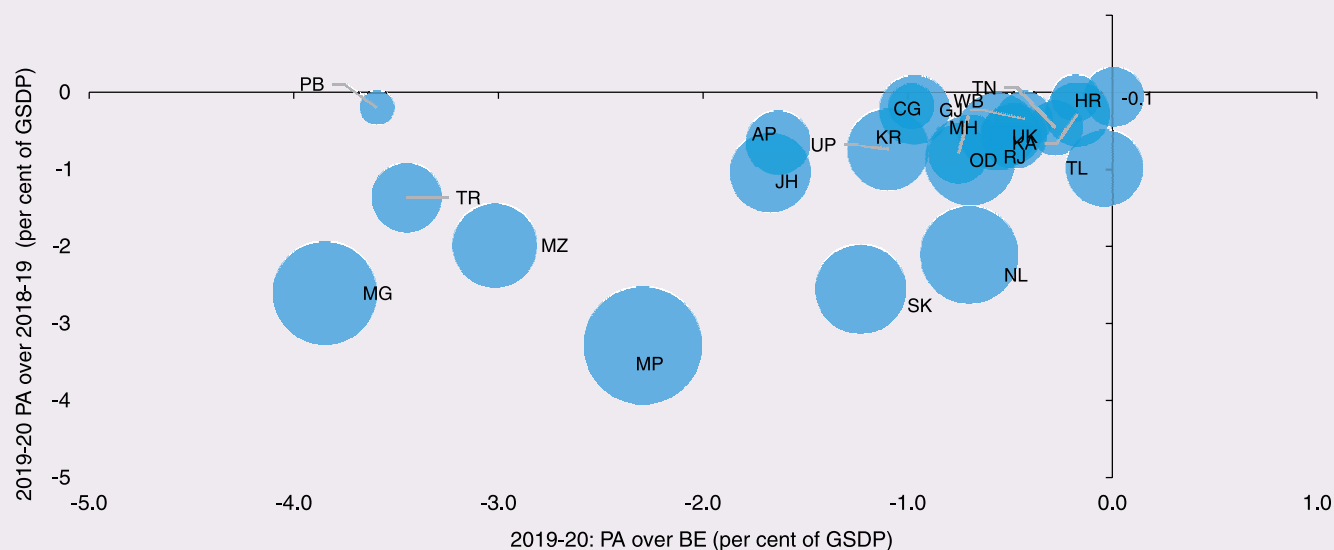
State	Announcement Year	Amount Announced	Budgeted Amount						
			2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)
1	2	3	4	5	6	7	8	9	10
Andhra Pradesh	2014-15	24,000	4,000	742	3,512	3,602	875	-	-
			(0.8)	(0.1)	(0.5)	(0.5)	(0.1)	-	-
Telangana	2014-15	17,000	4,250	4,250	2,957	4,016	20	6,000	6,225
			(0.8)	(0.7)	(0.4)	(0.5)	(0.0)	(0.6)	(0.6)
Tamil Nadu	2016-17	5,280	-	-	1,682	1,870	884	807	735
			-	-	(0.1)	(0.1)	(0.1)	(0.0)	(0.0)
Maharashtra	2017-18	34,020	-	-	-	15,020	3,517	-	-
			-	-	-	(0.6)	(0.1)	-	-
Maharashtra	2019-20	15,000	-	-	-	-	-	16,931	-
			-	-	-	-	-	(0.6)	-
Maharashtra	2020-21	7,000	-	-	-	-	-	-	7,001
			-	-	-	-	-	-	(0.2)
Uttar Pradesh	2017-18	36,360	-	-	-	21,102	3,732	540	317
			-	-	-	(1.4)	(0.2)	(0.0)	(0.0)
Punjab	2017-18	10,000	-	-	-	348	4,238	2,000	2,000
			-	-	-	(0.1)	(0.8)	(0.3)	(0.3)
Karnataka	2018-19	44,000	-	-	-	3,917	12,640	5,176	441
			-	-	-	(0.3)	(0.8)	(0.3)	(0.0)
Rajasthan	2018-19	18,000	-	-	-	-	3,000	4,271	4,173
			-	-	-	-	(0.3)	(0.4)	(0.4)
Madhya Pradesh	2018-19	36,500	-	-	-	-	-	-	-
Chhattisgarh	2018-19	6,100	-	-	-	-	3,250	4,984	-
			-	-	-	-	(1.1)	(1.5)	-
Jharkhand	2020-21	2,000	-	-	-	-	-	-	2,000
			-	-	-	-	-	-	(0.5)
Total		2,31,260	8,250	4,992	8,151	49,875	32,156	40,708	22,893
Per cent of states' total expenditure			0.4	0.2	0.3	1.8	1.0	1.1	0.6
Per cent of GDP			0.1	0.0	0.1	0.3	0.2	0.2	0.1

RE: Revised Estimates. BE: Budget Estimates. '-': Not available/Not applicable.

Note: Figures in parentheses indicate loan waiver as a percentage of GSDP for the corresponding year.

Source: Budget documents of state governments.

Chart II.8: Capex Cut in 2019-20: Statewise Pattern



Note: Size of bubble represents capex size relative to GSDP.

AP: Andhra Pradesh, CG: Chattisgarh, HR: Haryana, KA: Karnataka, KR: Kerala, MH: Maharashtra, MG: Meghalaya, MP: Madhya Pradesh, MZ: Mizoram, NL: Nagaland, OD: Odisha, PB: Punjab, RJ: Rajasthan, SK: Sikkim, TN: Tamil Nadu, TL: Telangana, TR: Tripura, UP: Uttar Pradesh, UK: Uttarakhand and WB: West Bengal.

Sources: Budget documents of state governments and CAG.

2.18 Although states have been conservative in adhering to FRL targets even at the cost of cutting capital spending, several factors impinging

on states' spending decisions pose challenging trade-offs (Box II.2).

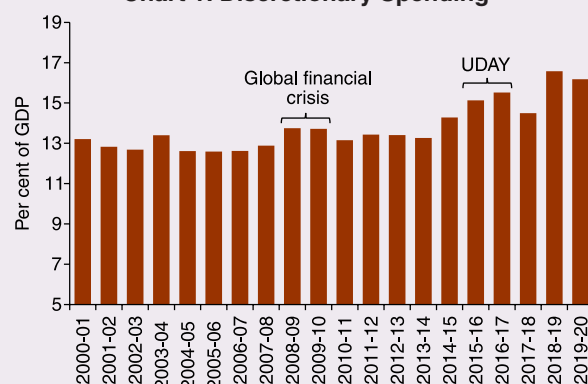
Box II.2:

Determinants of States' Discretionary Spending

States' total primary spending (total spending less interest payments) is considered as an indicator of discretionary spending², driven by policy considerations rather than macroeconomic conditions. States' discretionary spending remained at around 13 per cent of GDP in the pre-global financial crisis period (Chart 1). Since 2015, however, discretionary spending has risen in response to exogenous fiscal shocks in the form of UDAY, farm loan waivers and income support schemes (RBI, 2019a).

In a panel framework for 14 non-special category³ Indian states covering the time period 1980-81 to 2012-13, capital outlay is observed to be procyclical and primary revenue expenditure is acyclical (not linked to the business cycle) (RBI, 2014). For the current analysis, discretionary spending measured by primary expenditure is modelled as follows

Chart 1: Discretionary Spending



Source: Budget documents of state governments.

(Contd...)

² Since interest payment is mandatory, it is subtracted from the total expenditure to arrive at discretionary spending.

³ Special category states are those states that have a low resource base and cannot mobilise resources for development. Some of the features required for special status are: (i) hilly and difficult terrain; (ii) low population density or sizeable share of tribal population; (iii) strategic location along borders with neighbouring countries; (iv) economic and infrastructural backwardness; and (v) non-viable nature of state finances.

(Arena and Revilla, 2009; Sturzenegger and Werneck (2006):

$$\text{Primary expenditure}_{it} = \alpha_i + \beta_1 \text{Primary expenditure}_{it-1} + \beta_2 \text{GSDP Growth}_{it} + \beta_3 \text{Debt}_{it-1} + \beta_4 \text{FRL dum}_{it} + \beta_5 \text{calamities dum}_{it} + \beta_6 \text{Election dum}_{it} + \varepsilon_t \dots\dots\dots (1)$$

where $i=1, 2, \dots, N$, indicate number of states; $t=1, 2, \dots, T$, indicate number of years; α represents state fixed effects which control for heterogeneity across states; primary expenditure is the governments' discretionary spending; GSDP growth captures the state of the economy; debt or outstanding liabilities of state governments reflects sustainability of government finances; election is represented by a dummy variable taking the value 1 in the election year (to capture spending in an election year), and 0 otherwise; calamities is a dummy variable taking the value 1 if a state is affected by natural calamities such as drought, floods and cyclones, and 0 otherwise; and ε is an error term. The variables primary expenditure and debt are expressed as ratios of GSDP. The variables relating to the output gap and debt are used as two interactive dummies to examine asymmetric reactions of discretionary spending to impulse therefrom. The variable GSDP growth is interacted with positive and negative output gaps separately. The debt variable is also separated via two interactive dummies – high debt (above 25 per cent of GSDP) and low debt (less than or equal to 25 per cent of GSDP)⁴. A dummy for FRL implementation is also incorporated, i.e., 1 for the year states have been under this rule and 0 otherwise.

Base results indicate that debt plays an important role in states' spending decisions. Spending sensitivity to debt seems asymmetric, negative and significant at higher levels of debt (greater than 25 per cent). States' discretionary spending is also inclined towards pro-cyclicality. Natural calamities are statistically significant and surprisingly,

Table 1: Two-Step System Generalized Method of Moments (GMM) Results
Dependent Variable: Primary Expenditure

	Base Equation			Asymmetry 1 (Debt)		Asymmetry 2 (State of the Economy)	
	1	2	3	4	5	6	7
Primary Exp (-1)	.373** (.170)	.379** (.143)	.049 (.321)	.067 (.359)	.240 (.310)	.269 (.315)	.333 (.231)
GSDP Growth	.233* (.129)	.165 (.104)	.182 (.111)	.173 (.106)	.107 (.120)		
Debt (-1)	-.105*** (.034)	-.073* (.035)	-.134*** (.044)			-.117* (.060)	-.140** (.051)
FRL Dum		.764 (.717)	1.315 (1.001)	1.177 (.868)	1.078 (.847)	1.519 (1.428)	1.522* (.770)
Calamities Dum			-6.179** (2.883)	-6.734** (2.788)	-6.376* (3.189)	-6.195 (5.165)	-4.572 (3.899)
Election Dum			-.408 (.868)	-.311 (.780)	-.441 (.876)	-.960 (.897)	-.570 (.624)
Debt>25%				-.086* (.042)			
Debt<=25%					.167 (.156)		
GSDP*Output Gap ^{pos}						-.114 (.139)	
GSDP*Output Gap ^{neg}							.207* (.113)
Constant	14.003*** (3.989)	12.964*** (3.647)	21.426** (7.823)	18.987** (8.35)	12.495** (4.953)	17.017** (6.938)	15.617** (5.644)
Observations	396	396	396	396	396	396	396
Group/Instruments	22/18	22/18	22/18	22/18	22/18	22/18	22/18
F-Statistics	0.004	0.003	0.004	0.009	0.028	0.027	0.006
AR (2)	0.174	0.133	0.662	0.550	0.340	0.804	0.341
Hansen	0.229	0.274	0.367	0.443	0.429	0.212	0.612

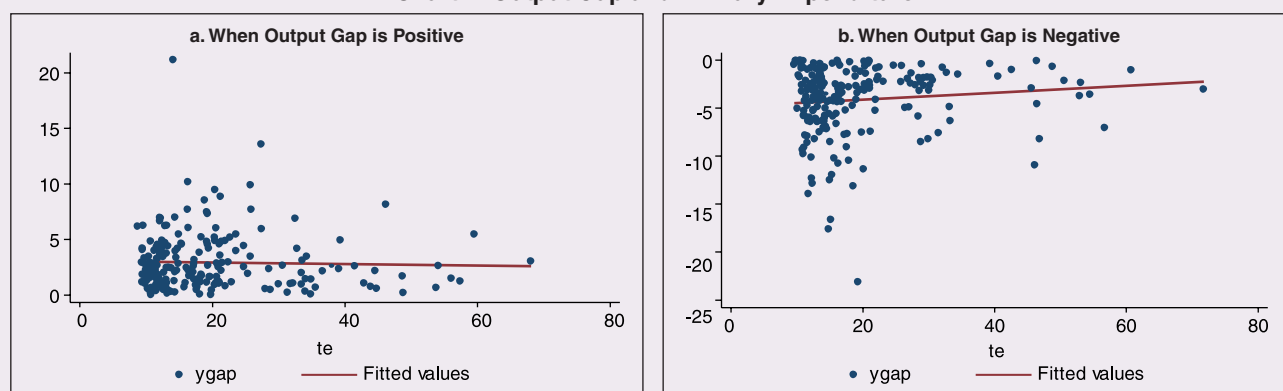
Note: ***, ** and * are statistical significance at the 1, 5 and 10 per cent levels, respectively; t statistics in parentheses are based on White heteroscedasticity-consistent standard errors; p-values reported for AR (2) and Hansen statistics.

Source: RBI staff estimates.

(Contd...)

⁴ Only one interaction dummy in a single model is used to avoid perfect multicollinearity in the interaction terms of GSDP growth and debt.

Chart 2: Output Gap and Primary Expenditure



Note: Primary expenditure is on X-axis and output gap is on Y-axis.

Sources: Budget documents of state governments; MOSPI; and RBI staff estimates.

influence discretionary spending adversely⁵. The other two dummies are not statistically significant.

Finally, there is an asymmetric response of states' spending to GSDP growth (Table 1; Chart 2). When actual output is above potential, states' decisions on spending have acyclical characteristics. On the other hand, when output is below potential, states' spending tends to get pro-cyclical, primarily by cutting spending on the capex front to accommodate for cyclical revenue shortfall.

To sum up, the prominent factors influencing states' discretionary spending decisions are debt and GSDP growth.

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5. 2020-21: Budget Estimates and Actual so far

2.19 For 2020-21, states have budgeted the combined GFD at 2.8 per cent of GDP; more than half of them have budgeted for revenue surpluses (Table II.6). As explained earlier, COVID-19 is likely to undermine fiscal targets and associated receipts for 2020-21 (BE). The crisis literature focuses on the operation of the scissor effects

- loss of revenues due to demand slowdown, coupled with higher expenditure associated with the pandemic (Blochliger *et al.*, 2010; OECD, 2020b). The duration of stress on state finances will likely be contingent upon factors like tenure of lockdown and risks of renewed waves of infections, all of which make traditional backward-looking tax buoyancy forecasting models unreliable.

⁵ This may be because of the indirect impact operating through reduced GSDP growth in such a year, resulting in lower revenues and in turn lower overall spending, possibly, outweighing the spending on natural calamities.

Table II.6: Deficit Indicators of State Governments - State-wise

(Per cent)

State	2017-18			2018-19			2019-20 (RE)			2020-21 (BE)		
	RD/ GSDP	GFD/ GSDP	PD/ GSDP	RD/ GSDP	GFD/ GSDP	PD/ GSDP	RD/ GSDP	GFD/ GSDP	PD/ GSDP	RD/ GSDP	GFD/ GSDP	PD/ GSDP
1	2	3	4	5	6	7	8	9	10	11	12	13
1 Andhra Pradesh	2.0	4.1	2.3	1.6	4.1	2.3	2.7	4.2	2.5	1.7	4.4	2.6
2 Arunachal Pradesh	-12.8	1.4	-0.7	-15.3	8.0	5.9	-12.8	3.1	0.8	-21.3	2.4	0.1
3 Assam	0.5	3.3	2.1	-2.1	1.5	0.3	-0.2	6.1	4.7	-2.3	2.4	0.9
4 Bihar	-3.2	3.1	1.1	-1.3	2.6	0.7	3.0	9.5	7.7	-2.8	2.9	1.1
5 Chhattisgarh	-1.2	2.5	1.4	-0.2	2.7	1.5	2.9	6.4	4.9	-0.7	3.2	1.6
6 Goa	-0.7	2.3	0.5	-0.5	2.5	0.6	-0.3	5.0	3.1	-0.4	5.3	3.3
7 Gujarat	-0.4	1.6	0.2	-0.2	1.8	0.4	-0.1	1.6	0.3	0.0	1.8	0.5
8 Haryana	1.6	2.9	1.1	1.5	3.0	1.1	1.8	2.8	0.9	1.6	2.7	0.8
9 Himachal Pradesh	-0.2	2.8	0.1	-1.0	2.3	-0.3	2.4	6.4	3.7	0.4	4.0	1.3
10 Jharkhand	-0.7	4.4	2.7	-2.0	2.1	0.5	-2.0	2.4	0.8	-0.5	2.2	0.7
11 Karnataka	-0.3	2.3	1.3	0.0	2.5	1.5	0.0	2.3	1.2	0.0	2.6	1.3
12 Kerala	2.4	3.8	1.7	2.2	3.4	1.3	2.0	3.0	0.9	1.6	3.0	1.0
13 Madhya Pradesh	-0.6	3.1	1.6	-1.1	2.7	1.1	0.3	3.6	2.1	1.8	5.0	3.3
14 Maharashtra	-0.1	1.0	-0.4	-0.5	0.9	-0.4	1.1	2.7	1.5	0.3	1.7	0.6
15 Manipur	-4.2	1.3	-0.9	-2.9	3.3	1.2	-0.9	8.5	6.8	-5.6	3.8	2.2
16 Meghalaya	-2.9	0.5	-1.5	1.6	6.1	4.1	-2.0	3.6	1.6	-2.3	3.8	1.7
17 Mizoram	-9.1	1.7	-0.1	-7.9	1.8	-0.1	2.8	10.4	8.7	-3.3	2.3	0.7
18 Nagaland	-3.4	1.8	-0.9	-1.9	4.0	1.1	1.9	8.0	5.1	-3.0	4.0	1.1
19 Odisha	-3.0	2.1	1.0	-2.9	2.1	0.9	-1.2	3.4	2.2	-1.6	3.0	1.8
20 Punjab	2.0	2.7	-0.6	2.5	3.1	0.0	2.2	3.0	-0.1	1.2	2.9	0.0
21 Rajasthan	2.2	3.0	0.7	3.1	3.7	1.4	2.7	3.2	0.8	1.1	3.0	0.7
22 Sikkim	-4.1	1.8	0.4	-2.4	2.2	0.7	-0.2	3.7	2.1	-1.7	2.8	1.3
23 Tamil Nadu	1.5	2.7	0.9	1.4	2.9	1.1	1.4	3.0	1.3	1.0	2.8	1.1
24 Telangana	-0.5	3.5	2.1	-0.5	3.1	1.7	0.0	2.3	0.8	-0.4	3.0	1.7
25 Tripura	0.7	4.7	2.7	-0.3	2.7	0.6	3.8	6.5	4.4	0.4	3.5	1.4
26 Uttar Pradesh	-0.9	1.9	-0.1	-1.7	2.1	0.2	-1.5	2.8	0.9	-1.4	2.7	0.8
27 Uttarakhand	0.9	3.6	1.8	0.4	3.0	1.2	0.0	2.5	0.6	0.0	2.6	0.6
28 West Bengal	1.0	3.0	0.1	1.0	3.1	0.4	0.5	2.7	0.2	0.0	2.2	-0.1
29 Jammu and Kashmir	-5.5	2.0	-1.4	3.1	8.5	5.1	-4.4	7.1	5.0	-12.8	5.3	1.7
30 NCT Delhi	-0.7	0.0	-0.4	-0.8	-0.3	-0.7	-1.1	-0.1	-0.4	-0.8	0.5	0.2
31 Puducherry	-0.6	0.6	-1.5	0.0	0.8	-1.1	-0.3	0.8	-1.0	1.0	1.8	0.2
All States and UTs	0.1	2.4	0.7	0.1	2.4	0.8	0.7	3.2	1.5	0.0	2.8	1.1

RE: Revised Estimates. BE: Budget Estimates. RD: Revenue Deficit. GFD: Gross Fiscal Deficit. PD: Primary Deficit.
GSDP: Gross State Domestic Product.

Note: Negative (-) sign in deficit indicators indicates surplus.

Source: Budget documents of state governments.

Crisis hampers compliance culture as countries defer filing/payment dates to enhance cash flows in the hands of taxpayers or to encourage social distancing (IMF, 2020 a and d⁶). Under such circumstances, uncertainty around central forecasts has to be captured either through fan charts (as in case of UK) or by building up forward-looking scenarios.

Receipts

2.20 In anticipation of a recovery of economic activity in 2020-21, states budgeted for higher tax revenue collection, with broad-based increases in all tax components. Developments in the first half of the year have completely belied these expectations. It is increasingly certain that the slump in economic activity due to COVID-19 led lockdown will adversely impact states' revenue collections. The implied tax buoyancy for 2020-21 (based on 2019-20 PA) is higher than budgeted on the basis of 2019-20 RE and much higher than previous year's average (Table II.7).

2.21 The major head under states' own tax revenue, viz., taxes on commodities and services would be impacted the most. SGST plummeted by 47.2 per cent during Q1:2020-21 - sharper than the overall GST decline - with variations contingent upon state-specific spatial features.

During Q2, however, the decline moderated to 6.4 per cent.

2.22 Stamp duties, which are a major source of revenue under states' direct taxes, are also likely to witness a shortfall, consequent upon contraction in construction activity, reverse migration of labourers and social distancing norms. Furthermore, revenue specific measures, viz., extension of deadlines for payment of taxes to provide relief to businesses and citizens may further exacerbate the already worsening revenue situation of states. Monthly analysis of the data for April - June 2020 gives a glimpse of the deterioration, with revenue collections having seen the steepest year on year (y-o-y) fall across the majority of states, though with unlocking in phases, July 2020 data available for few states shows marginal improvement (Chart II.9).

2.23 Nonetheless, in order to garner some additional revenues during these unprecedented times, 22 states/UTs have hiked their duties on petrol and diesel, while 25 states/UTs have hiked duties on alcohol. The consequent rise in petrol /diesel prices is in the range of 60 paise to ₹8, while for alcohol, it is in the range of 10-120 per cent, on an average basis (Chart II.10a and b). This is expected to provide a revenue gain in the

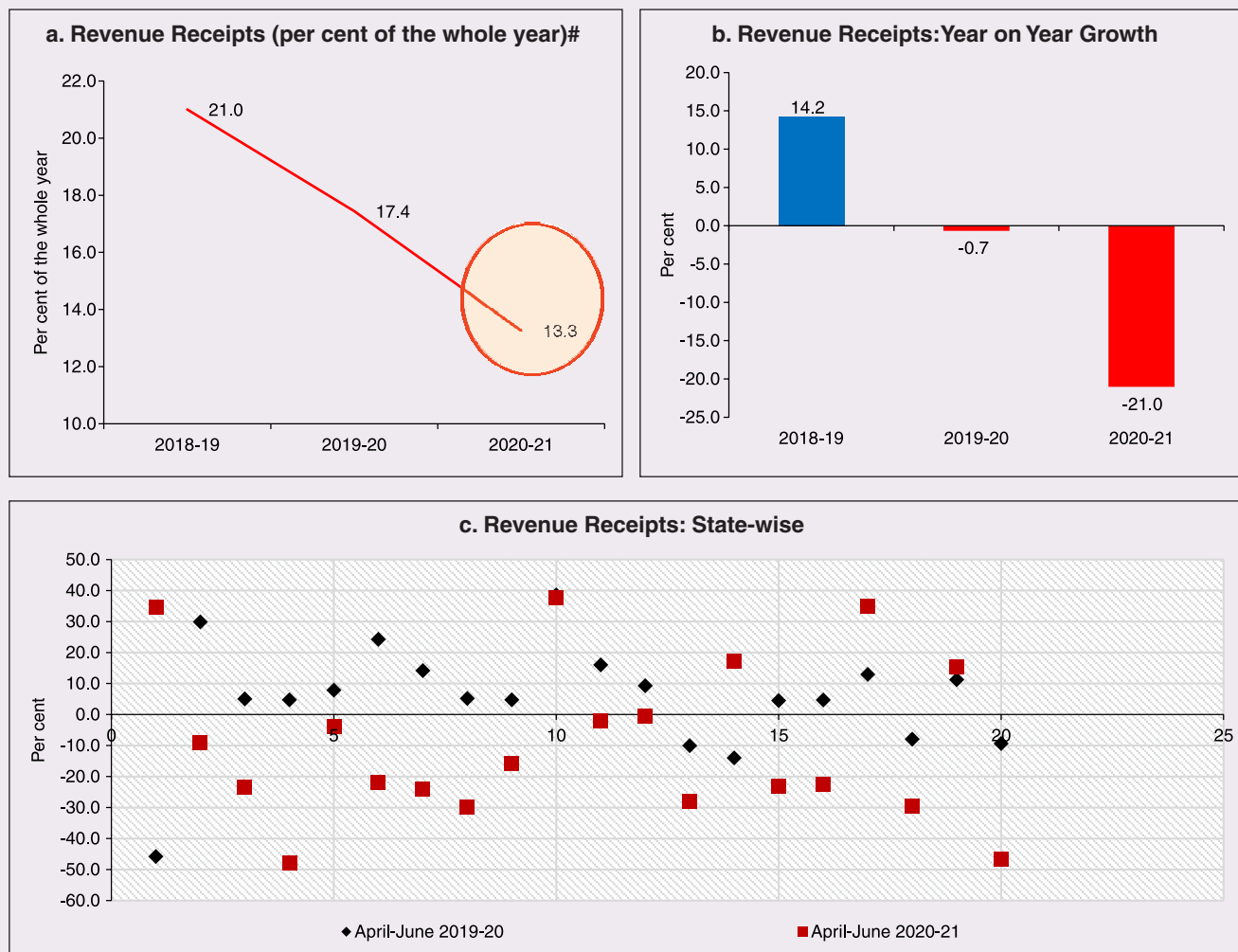
Table II.7: Tax Buoyancy of States' Own Tax Revenue

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 BE
1	2	3	4	5	6	7	8	9
Based on 2019-20 RE							1.49	1.18
As per Actual/ PA	0.68	0.83	0.85	0.65	1.75	0.69	0.92	1.61

Sources: Budget documents of state governments; CAG; and RBI staff estimates.

⁶ Other common tax policy measures include waiver of certain kinds of taxes/fees, coupled with acceleration of tax refunds.

Chart II.9: States' Revenue Receipts: (April-June)



#: Pertains to 20 states accounting for about 80 per cent of total revenue receipts.

Source: CAG.

range of 0.03 to 0.35 per cent of GSDP. Petroleum and alcohol, on an average, account for 25-35 per cent of the own tax revenue of states (RBI, 2019a) (Chart II.10c).

2.24 Another major source of revenue for states is tax transfers from the centre from the divisible

pool. Of the total revenue receipts of states, central tax transfers comprise 25 to 29 per cent, while own tax revenues have a share of 45 to 50 per cent. Given that a large shortfall in the divisible pool is highly likely in 2020-21, central tax transfers to states could fall by a significant margin. Automatic

Chart II.10: Petrol and Diesel Revenue: Trends



Source: RBI staff estimates based on data from state governments.

stabilisers inherent in states' own tax revenue and central tax transfers, *albeit* low, could be important

in low growth phases, when both components are taken together (Box II.3).

Box II.3: Automatic Stabilisers in States' Own Tax Revenue and Transfers

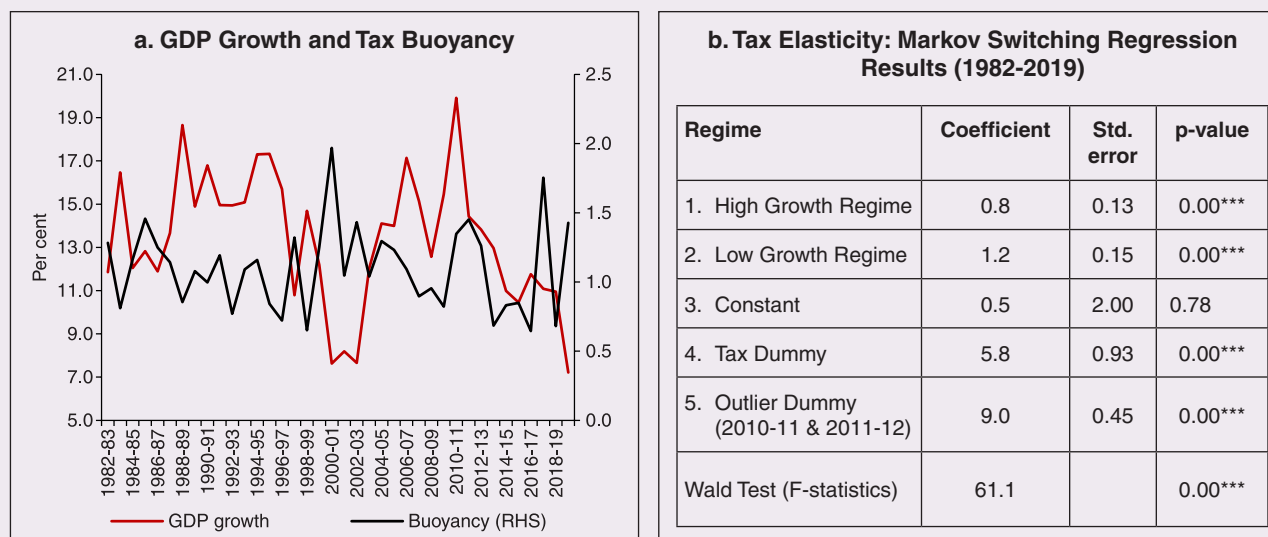
Automatic stabilisers for own tax revenue and central tax transfers are calculated on the basis of tax elasticities and output gap estimates (following Fedelino *et al.*, 2009). The elasticity of central tax transfers with respect to GDP captures the dynamics of tax performance of the Union Government of India and is generally higher than the states' own tax elasticity in view of the progressive nature of the taxes in the centre's kitty⁷.

Regressing states' own tax revenue growth on GDP growth in a co-integrated framework with suitable dummies for policy changes yields a long run elasticity of about 1.0. In view of statistical evidence of regime shifts revealed by the Wald test, short run tax elasticities are estimated by applying Markov switching regressions (Hamilton, 1989), assuming variance to be common for both the regimes.

(Contd...)

⁷ For central revenues, while the long run estimate is placed at 1.2-1.5, the impact of large GDP growth changes takes the elasticity to almost 2.0 (Chinoy, 2020; Ghosh and Misra, 2016).

Chart 1: States' Own Tax Revenue: High Growth and Low Growth Phases



Notes: 1. The correlation between two series in left chart is -0.35, significant at 5 per cent level.

2. ***: Significant at 1 per cent level.

3. The null of Wald test is coefficients of both regimes are same.

Source: RBI staff estimates.

The implementation of VAT and GST are captured through dummies. The results indicate two distinct elasticities for the high and low growth regimes, with higher growth associated with lower tax elasticity and *vice versa* (Chart 1). With the pandemic expected to produce negative nominal GDP growth, not part of estimation series, tax elasticity could be even higher⁸.

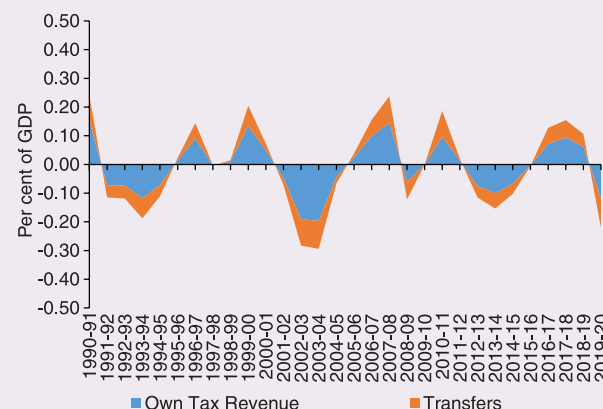
The overall automatic stabiliser for states, combining both own tax revenue and the central tax revenues component, *albeit* low in the range of 10-30 bps of GDP, is observed to be significant during low growth years (Chart 2).

References

Fedelino, A., Anna I., and Mark H. 2009. Cyclically Adjusted Balances and Automatic Stabilizers: Some Computation and Interpretation Issues. IMF Technical Notes and Manuals.

Hamilton, J. D. (1989). "A new approach to the economic analysis of nonstationary time series and the business cycle" *Econometrica*. 57: 357-384.

Chart 2: Automatic Stabiliser for Own Tax Revenues and Transfers



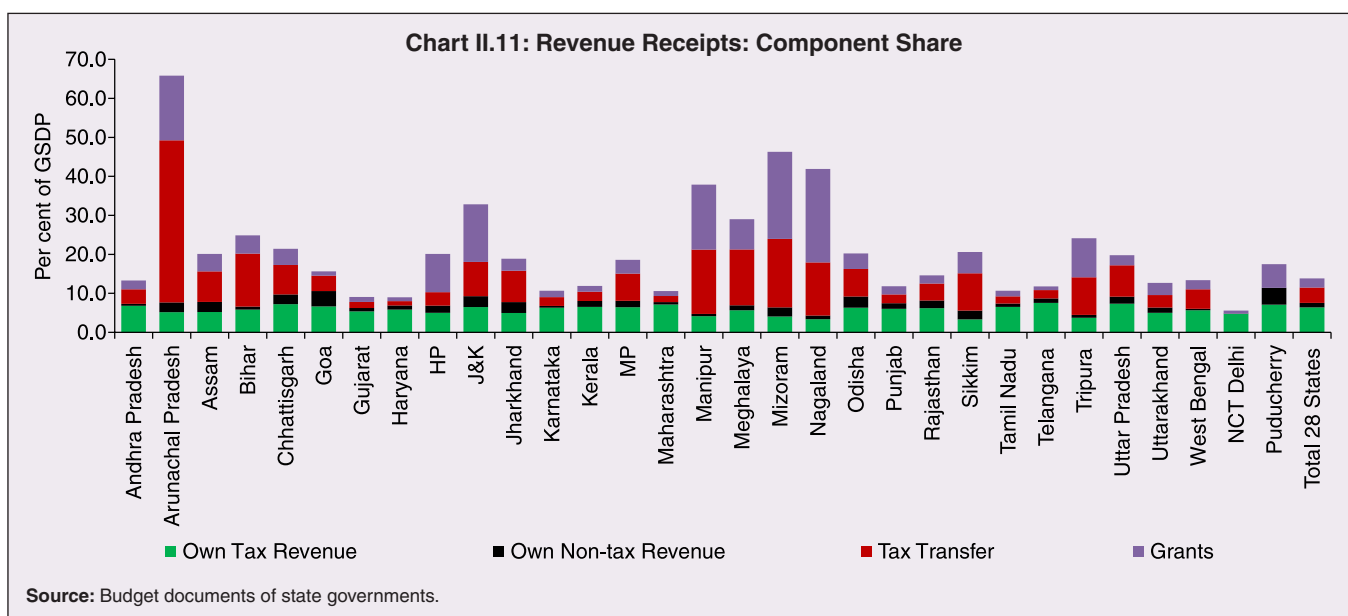
Source: RBI staff estimates.

2.25 Revenue receipts are likely to be cushioned by revenue deficit grants, which compensate for deficits that prevail even after devolution, and the GST compensation cess, which states

are stipulated to receive if their revenues fall below a threshold in any particular year (GST Compensation Cess Act, 2017). The share of grants is particularly high for special category

⁸ Use of simple tax buoyancy or macro elasticities based on traditional approaches under unprecedented periods of pandemic with negative nominal GDP growth will likely lead to an underestimation of the revenue decline (IMF, 2020d).

Fiscal Position of State Governments



states, mainly due to higher revenue deficit grants (Chart II.11). It may be noted that with an increase in revenue deficit grants by ₹44,340 crores in the additional supplementary demand for grants announced by the centre in September 2020 on top of the budgeted ₹30,000 crore on February 1, 2020, it has released the full quantity of revenue deficit grants as recommended by the Fifteenth Finance Commission (FC-XV). Accordingly, the revenue deficit grants in 2020-21 are more than double the average of the previous few years.

2.26 As regards GST compensation cess, states have received the full GST compensation in the first three years of GST implementation. Unlike 2017-18 and 2018-19, for 2019-20, amount transferred to states was higher than collections during the year (Table II.8). Nevertheless, the high uncertainty associated with the quantum of GST cess collections by the centre, coupled with ambiguity around the timing and amount of

compensation transfer⁹, has raised concerns. In 2020-21, while ₹ 65,000 cess collections are expected, the Centre has decided to borrow an additional ₹1.1 lakh crore in tranches in H2:2020-21 to provide compensation to states for shortfall in their revenue in 2020-21 arising on account of GST implementation. The amount so borrowed will be passed on to states as a loan, *in lieu* of GST compensation cess release, and will reflect as capital receipts of state governments, going into the financing of respective fiscal deficits¹⁰.

Table II.8: GST Compensation Cess

(₹ crore)

	2017-18	2018-19	2019-20
1	2	3	4
Compensation Cess Collected	62,612	95,081	95,444
Compensation Cess Transferred to States	48,785	81,141	1,65,302

Sources: Press Information Bureau; Lok Sabha Unstarred Question and Dept. of Revenue, Ministry of Finance.

⁹ Compensation for the months of August – September 2019 was released with a lag in the month of December 2019; in February 2020 for the months of October – November 2019 and in June 2020 for the months of December – February 2020 and in July 2020 for the month of March 2020.

¹⁰ The differential reporting and accounting practices with regard to GST compensation cess – under states' own tax revenue in 2018-19; under grants from centre in 2019-20; and partly grants and party loans from centre in 2020-21 prevents meaningful comparison across years.

Expenditure

2.27 States have budgeted for reduction in revenue expenses in 2020-21 *vis-à-vis* 2019-20 RE, and a higher capital expenditure in 2020-21 *vis-à-vis* 2019-20 RE, mostly in social services

under capital outlay. While higher spending is budgeted in education, water supply and sanitation, rural and urban development, spending on energy and transport is expected to be curtailed (Table II.9).

Table II.9: Variation in Major Components

(₹ lakh crore)

Item	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)	Percent Variation	
						2019-20 RE over 2018-19	2020-21 BE over 2019-20
1	2	3	4	5	6	7	8
I. Revenue Receipts (i+ii)	20.86	23.21	26.20	29.40	33.27	12.2	13.2
(i) Tax Revenue (a+b)	15.54	17.36	19.62	20.43	23.16	4.2	13.3
(a) Own Tax Revenue	9.46	11.30	12.15	13.40	14.98	10.3	11.8
of which: Sales Tax	6.10	4.02	2.89	3.11	3.42	7.7	10.1
(b) Share in Central Taxes	6.08	6.05	7.47	7.03	8.17	-5.8	16.2
(ii) Non-Tax Revenue (a+b)	5.32	5.86	6.59	8.96	10.12	36.1	12.9
(a) States' Own Non-Tax Revenue	1.71	1.80	2.19	2.39	2.68	9.3	12.1
(b) Grants from Centre	3.61	4.06	4.40	6.57	7.43	49.4	13.1
II. Revenue Expenditure	21.22	23.40	26.38	30.76	33.27	16.6	8.2
of which:							
(i) Development Expenditure	13.66	14.66	16.36	19.46	20.68	19.0	6.2
of which: Education, Sports, Art and Culture	3.95	4.25	4.68	5.40	5.89	15.4	9.0
Transport and Communication	0.48	0.51	0.51	0.57	0.64	11.8	12.3
Power	1.33	1.16	1.29	1.55	1.33	20.1	-14.5
Relief on account of Natural Calamities	0.28	0.16	0.30	0.49	0.35	63.3	-28.6
Rural Development	1.26	1.32	1.38	1.73	1.89	25.8	9.4
(ii) Non-Development Expenditure	6.99	8.06	9.22	10.36	11.64	12.3	12.4
of which: Administrative Services	1.47	1.62	1.84	2.20	2.56	19.5	16.4
Pension	2.27	2.75	3.15	3.55	3.86	12.7	8.6
Interest Payments	2.55	2.93	3.19	3.49	3.89	9.3	11.4
III. Net Capital Receipts #	5.61	4.55	5.06	6.50	6.26	28.6	-3.9
of which: Non-Debt Capital Receipts	0.16	0.40	0.42	0.62	0.20	47.6	-67.7
IV. Capital Expenditure \$	5.17	4.31	4.87	5.78	6.46	18.6	11.8
of which: Capital Outlay	3.96	3.94	4.40	5.31	5.98	20.6	12.7
of which: Capital Outlay on Irrigation and Flood Control	0.83	0.83	0.93	0.92	1.05	-1.1	14.1
Capital Outlay on Energy	0.53	0.46	0.43	0.54	0.31	25.5	-42.0
Capital Outlay on Transport	0.96	0.93	1.14	1.33	1.33	16.7	0.0
Memo Item:							
Revenue Deficit	0.36	0.19	0.18	1.37	0.00	661.1	-100.0
Gross Fiscal Deficit	5.36	4.10	4.63	6.52	6.26	40.8	-4.0
Primary Deficit	2.81	1.17	1.44	3.04	2.38	111.1	-21.7

RE: Revised Estimates. BE: Budget Estimates.

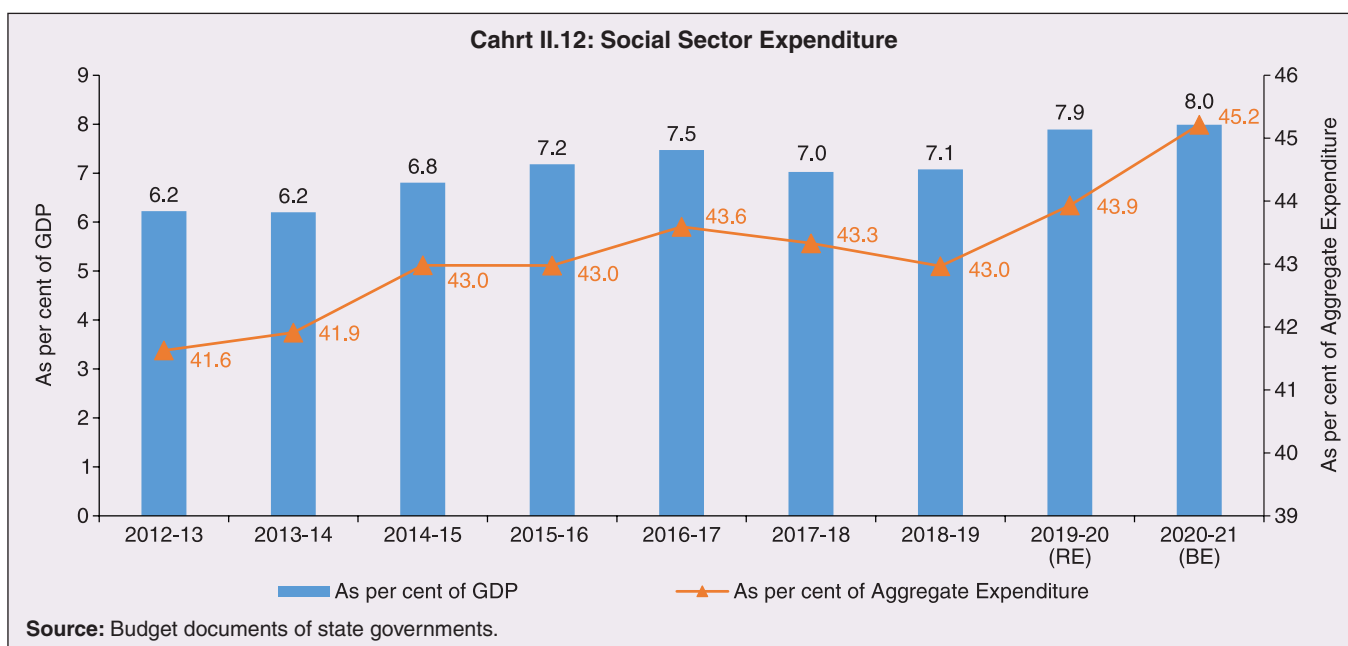
: It includes following items on net basis - Internal Debt, Loans and Advances from the Centre, Inter-State Settlement, Contingency Fund, Small Savings, Provident Funds *etc.*, Reserve Funds, Deposits and Advances, Suspense and Miscellaneous and Appropriation to Contingency Fund and Remittances.

\$: Capital Expenditure includes Capital Outlay and Loans and Advances by State Governments.

Notes: 1. Negative (-) sign in deficit indicators indicates surplus.

2. Also see Notes to Appendices.

Source: Budget documents of state governments.



2.28 Social sector expenditure has been increasing since 2018-19 and is budgeted to reach 8.0 per cent of GDP in 2020-21 (Chart II.12).

2.29 In social sector spending, the share of urban development and welfare of SCs, STs

and OBCs has seen a clear rise, while all other expenditures are either declining or are stagnant (Table II.10).

2.30 The pandemic has necessitated fiscal policy actions to boost aggregate demand.

**Table II.10: Composition of Expenditure on Social Services
(Revenue and Capital Accounts)**

(Per cent of expenditure on social services)

Item	2015-16	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)
1	2	3	4	5	6	7
Expenditure on Social Services (a to l)	100.0	100.0	100.0	100.0	100.0	100.0
(a) Education, Sports, Art and Culture	44.0	43.0	42.9	41.8	40.8	40.3
(b) Medical and Public Health	11.6	11.8	12.3	12.3	12.1	12.1
(c) Family Welfare	2.0	1.9	2.0	2.1	2.0	2.0
(d) Water Supply and Sanitation	6.1	6.5	7.0	6.6	6.5	6.5
(e) Housing	2.9	3.2	3.8	3.5	3.2	4.0
(f) Urban Development	6.5	8.0	7.6	7.6	8.4	9.7
(g) Welfare of SCs, STs and OBCs	7.0	6.9	7.4	6.9	8.0	8.4
(h) Labour and Labour Welfare	0.9	0.8	0.9	1.0	1.0	1.0
(i) Social Security and Welfare	11.4	10.9	10.4	11.9	10.9	9.9
(j) Nutrition	2.6	2.4	2.3	2.1	2.2	2.2
(k) Expenditure on Natural Calamities	3.9	2.9	1.6	2.6	3.6	2.3
(l) Others	1.1	1.6	1.8	1.6	1.3	1.5

RE: Revised Estimates.

BE: Budget Estimates.

Source : Budget documents of state governments.

Alongside the centre, state governments have been proactive in undertaking policy measures to contain the impact of the pandemic (Table II.11). The financial supports are in the form of insurance cover for doctors and nurses; purchase of medical equipment and tools; hospital arrangements with a sufficient number of beds for COVID-19 patients; providing food free of cost; cash for those who are not availing of any government schemes; cash for registered construction workers; remitting a fixed sum for those trapped abroad in other states; and advance salary and pension payments. Quantifying the various kinds of policy measures,

the fiscal stimulus works to about 0.3 per cent of GDP¹¹.

2.31 Monthly data on revenue expenditure during April-June 2020 show no significant increase when compared with corresponding months of previous few years (Chart II.13). Although states generally receive and spend about one fifth of their budgeted allocations during Q1 each year, they have maintained their spending at previous years' levels in 2020-21, despite receiving only one-eighth of their budgeted revenues.

Table II.11: State-wise Policy Measures to Contain the Adverse Impacts of Pandemic

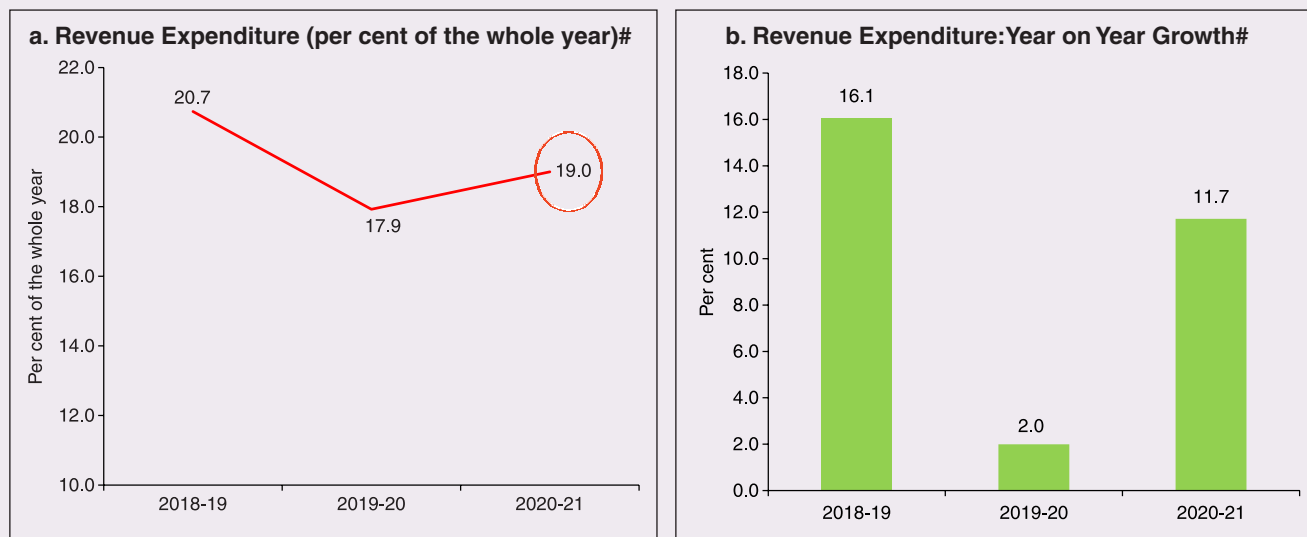
Measure	State Specific Effort
Health Expenditure	<ul style="list-style-type: none"> Fund for scaling up health infrastructure (screening facilities, lab equipments, ventilators) by Andhra Pradesh, Jharkhand, UP, Uttarakhand, J&K, MP (telemedicine facility also) and Chattisgarh Assam announced to bear the treatment cost of COVID-19 patients Odisha earmarked a separate amount to augment its Public Health Response Fund Rajasthan, Tamil Nadu, West Bengal and Sikkim have provided additional funding to their health departments UP created a Corona Care Fund for setting up testing facilities and provision made for providing medical facilities. West Bengal enhanced insurance coverage for medical staff. Tamil Nadu has set up a corpus fund under a new health insurance scheme for the treatment of government employees and pensioners infected by COVID-19. Tripura flagged off emergency life support ambulances. Tamil Nadu has also purchased additional ambulances. Gujarat distributed free N-95 masks to doctors. Tamil Nadu introduced a scheme for distributing free face masks to all family card holders in districts other than Chennai through fair price shops. Karnataka has announced various incentives for ASHA workers and other frontline workers of COVID-19.
Social Assistance to Vulnerable Sections	Assam, Bihar, Kerala, Andhra Pradesh, Odisha, Punjab, Sikkim, Tamil Nadu, Telangana, UP, Himachal Pradesh, West Bengal, Rajasthan, Jammu and Kashmir, Gujarat, Karnataka and Delhi
Free Ration	Bihar, Jharkhand, Kerala, Odisha, Punjab, Sikkim, Tamil Nadu, Telangana, UP, Manipur, Rajasthan, Jammu and Kashmir, Delhi, West Bengal, Gujarat, Andhra Pradesh, MP, Karnataka and Chhattisgarh
Assistance to Construction Workers, Migrant Labourers and Daily Wage Workers	Bihar, Punjab, Odisha, Sikkim, Tamil Nadu, Telangana, Uttarakhand, UP, West Bengal, Himachal Pradesh, Mizoram, Delhi, Andhra Pradesh, Karnataka and Jammu and Kashmir

Note: The list may not be exhaustive as it is based on information received from states.

Source: State governments.

¹¹ While this estimate is based on information provided by most states, this could be an underestimate as many states have not explicitly quantified their stimulus/support measures.

Chart II.13: Revenue Expenditure (April-June)



#: Pertains to 20 states.

Source: CAG.

2.32 This can be also attributed to re-prioritization of expenditure by curtailment of some revenue expenditure allocations by various state governments viz., DA freeze; deferment of part or full salaries and wages and deduction from salary

(Table II.12). On the whole, states' fiscal response to COVID-19 should reflect in a larger increase in revenue expenditure in 2020-21 than budgeted. These spendings coupled with revenue receipts shortfall are likely to convert revenue surpluses as budgeted in 2020-21 into large deficits.

Table II.12: Expenditure Rationalisation by States During COVID-19

No.	Type of Revenue Expenditure	State
1	2	3
1.	Deferment of part or full of salary, wages and bills	Andhra Pradesh, Assam, Mizoram, Odisha, and Telangana
2.	Deduction of salary	Maharashtra
3.	Freezing of DA	Karnataka
4.	Suspension of encashment facility of earned leave	Karnataka, Kerala and Tamil Nadu
5.	Rationalisation of travel and vehicle expenses, establishment and other expenses	Assam and Odisha

Note: The list may not be exhaustive as it is based on information received from states.

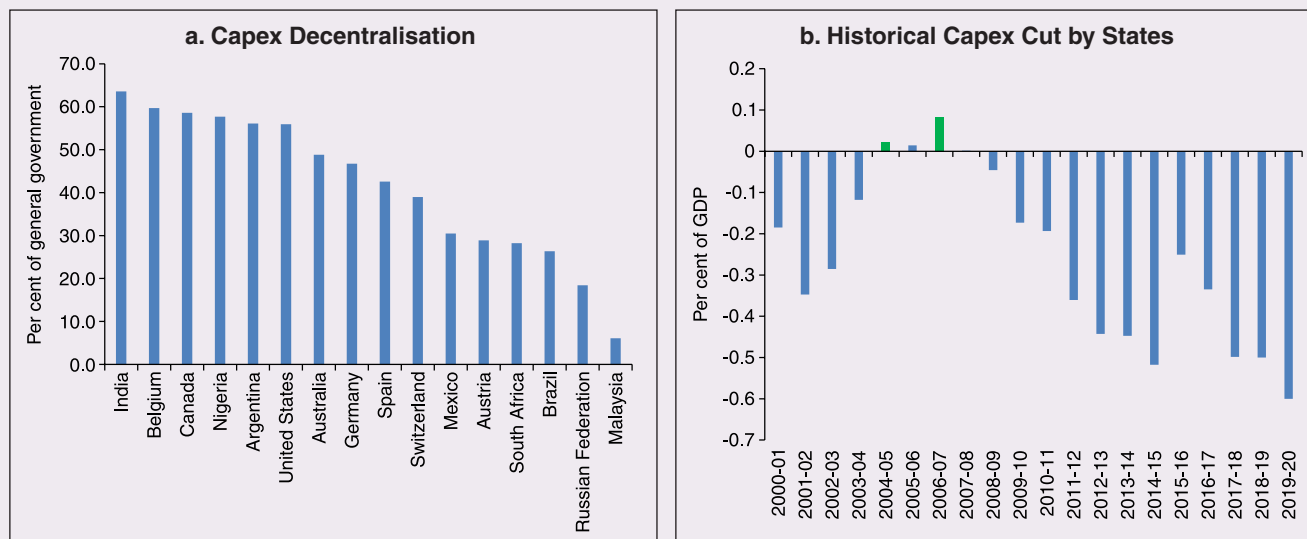
Source: State governments.

2.33 Globally, India has the highest decentralisation of capital expenditure¹² (Chart II.14a).

2.34 Capital spending in India is not completely executed, however, and often falls short of the budgeted targets, as explained earlier. Moreover, inefficiency leads to a substantial waste of funds spent on public infrastructure across many Emerging market economies (IMF, 2020a). States have a tendency to cut back their capital expenditure by almost 0.5 per cent of GDP, on an average (Chart II.14b), to meet FRL- prescribed fiscal deficit targets. A similar tendency relative to

¹² Capex decentralisation is computed by taking the ratio of states' capex to general government capex for countries with federal structures.

Chart II.14: Capex Trends



Sources: OECD-UCLG and budget documents of state governments.

BE can be expected in 2020-21, particularly since states have not been able to start much capex in H1 because of lockdown (in Q1) and monsoons (in Q2). As in revenue expenditure, one may see major re-adjustments and re-prioritisation as well. While the obvious focus in H1:2020-21 seems to be on capex in health and education sectors in response to the pandemic, other critical sectors like roads and construction may draw attention in H2. To drive capex, centre also recently announced a special interest free 50-year loan to states for capital expenditure of ₹12,000 crore to be spent till March 2021, *albeit* it represents a small fraction of budgeted capex of ₹ 6.5 lakh crores.

6. Market Borrowings¹³ and Projected GFD

2.35 On average, market borrowings financed slightly more than half of the consolidated fiscal

deficit of states till 2016-17. Since 2017-18, however, the share of market borrowings has increased rapidly and is budgeted to reach close to 90 per cent in 2020-21 BE (Table II.13). As per 2018-19 actual, states with GFD equal to or less than 3 per cent of GSDP financed it mostly through market borrowings. States with GFD-GDP ratios of more than 3 per cent have relied on other sources, *viz.*, withdrawal from public accounts like provident funds, deposit and advances, and cash withdrawals, being constrained by the provisions of Article 293 of the constitution¹⁴.

2.36 In a longer-term perspective, borrowing by states/UTs - gross and net - are fast catching up with those of the centre, with the drying up of all other sources of financing. The share of states' market borrowing in general government

¹³ The Reserve Bank manages the domestic debt of the state governments *vide* statute under section 21A of the Reserve Bank of India Act, 1934. The bilateral agreements of the 28 state governments and that of the two union territories fall under this Act.

¹⁴ Under this article, a state can borrow within the territory of India upon the security of the Consolidated Fund of the state within such limits, as fixed by central government as long as there is still outstanding any part of a loan which has been made to the state by the Government of India or by its predecessor Government, or in respect of which a guarantee has been given by the Government of India or by its predecessor Government.

Table II.13: Financing Pattern of Gross Fiscal Deficit

Item	2016-17	2017-18	2018-19	2019-20 (RE)	2020-21 (BE)	2018-19# (Per cent of GSDP/GDP)		
						GFD≤3.0 per cent	GFD>3.0 per cent	All States/ UTs
1	2	3	4	5	6	7	8	9
Financing (1 to 8)	100.0	100.0	100.0	100.0	100.0	2.1	3.6	2.4
1. Market Borrowings	65.7	84.0	80.6	74.9	89.5	1.8	2.7	2.0
2. Loans from centre	1.0	1.1	1.9	1.7	2.8	0.0	0.1	0.0
3. Special Securities issued to NSSF/Small Savings	-6.0	-7.9	-7.3	-4.9	-5.2	-0.2	-0.2	-0.2
4. Loans from LIC, NABARD, NCDC, SBI and Other Banks	8.1	3.1	3.9	2.9	4.0	0.1	0.0	0.1
5. Provident Fund	7.4	8.2	10.3	5.2	5.5	0.2	0.5	0.3
6. Reserve Funds	3.9	0.9	3.8	4.5	2.4	0.1	0.1	0.1
7. Deposits and Advances	7.9	15.6	11.1	1.8	3.0	0.2	0.4	0.3
8. Others	11.9	-5.1	-4.3	13.9	-2.0	-0.1	0.0	-0.1

RE: Revised estimates. BE: Budget estimates.

NSSF: National Small Savings Fund; LIC: Life Insurance Corporation of India; NCDC: National Co-Operative Development Corporation; SBI: State Bank of India; NABARD: National Bank for Agriculture and Rural Development

#: Excludes Delhi and Puducherry.

Notes: 1. See Notes to Appendix Table 9.

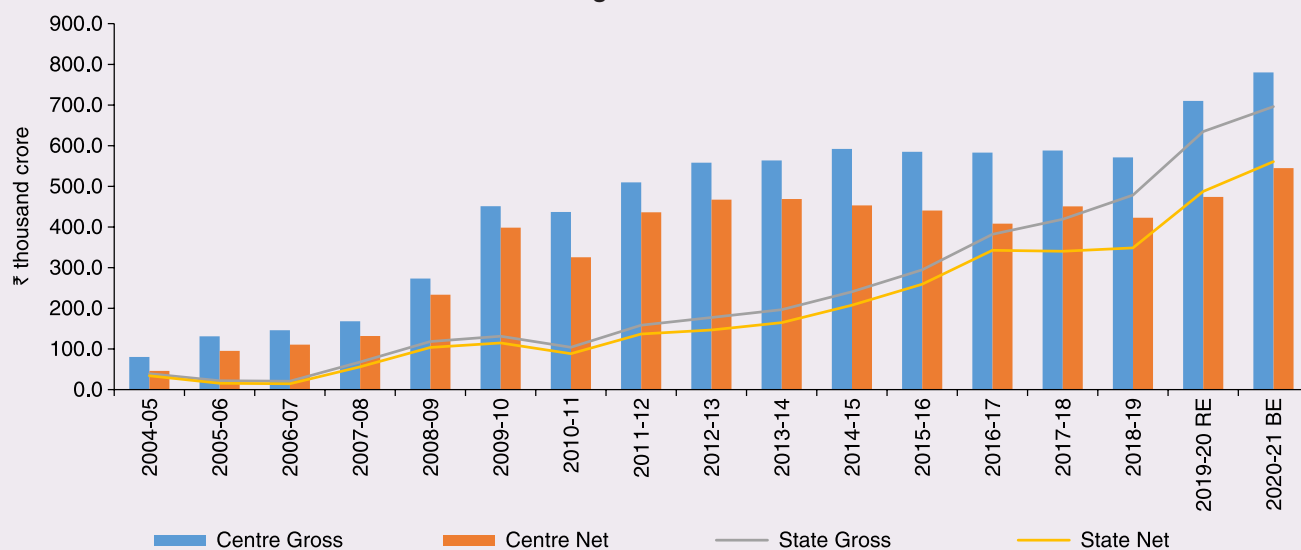
2. 'Others' includes Compensation and Other Bonds, Loans from Other Institutions, Appropriation to Contingency Fund, Inter-State Settlement, Contingency Fund, Suspense and Miscellaneous, Remittance and Overall Surplus/Deficit.

Source: Budget documents of state governments.

borrowings has more than doubled in the last five years, also necessitated by rising redemptions (Chart II.15).

2.37 While net borrowings of the states/UTs increased by about 40 per cent during 2019-20, gross market borrowings at ₹6.3 lakh

Chart II.15: Market Borrowings of Centre and States - Gross and Net



Note: The centre's and states' borrowings for 2020-21 in this Chart are based on BE. This does not incorporate the increase in borrowings in response to the COVID-19 pandemic.

Source: Reserve Bank of India.

Table II.14: Market Borrowings of State Governments

(₹ crore)

Item	2017-18	2018-19	2019-20	2020-21*
1	2	3	4	5
Maturities during the year	78,819	1,29,680	1,47,067	54,607
Gross sanction under Article 293(3)	4,82,475	5,5,0071	7,12,744	5,77,255
Gross amount raised during the year	4,19,100	4,78,323	6,34,521	3,53,596
Net amount raised during the year	3,40,281	3,48,643	4,87,454	2,98,989
Amount raised during the year to total Sanctions (per cent)	87	87	89	61
Weighted Average Yield of SDLs	7.67	8.32	7.24	6.43
Weighted Average Spread over corresponding G-Sec (bps)	59	65	55	53
Average Inter- State Spread (bps)	6	6	6	9

*: As on September 30, 2020.

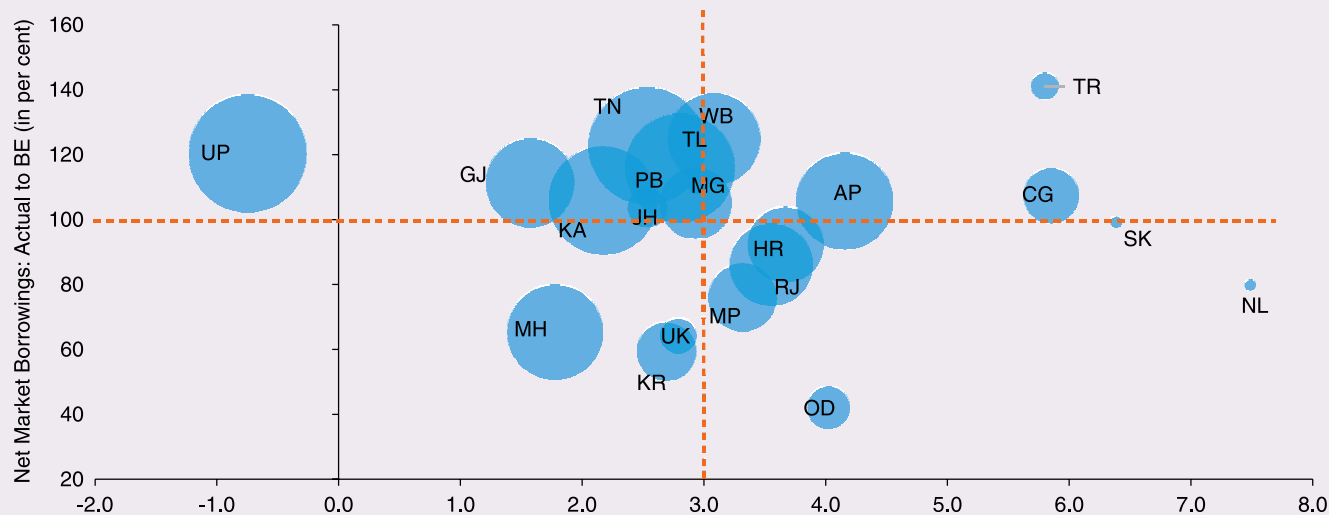
Source: Reserve Bank of India.

crore increased by 32.7 per cent, one of the highest in the recent past (Table II.14). While states like Odisha and Haryana have been pragmatic in trying to meet their higher fiscal deficits by using their own rainy funds without recourse to higher permissible market borrowings, there are states like Gujarat and Punjab which have over-borrowed

despite consolidation, with Uttar Pradesh being an extreme case - it has borrowed above 20 per cent of the budgeted amount, despite registering a fiscal surplus as against a budgeted deficit in 2019-20 (Chart II.16).

2.38 For 2020-21, states had budgeted a gross borrowing of ₹7 lakh crore. Under the *Aatma*

Chart II.16: GFD-GSDP Ratio and Market Borrowing Gap (Actual to BE): 2019-20



AP: Andhra Pradesh, CG: Chhattisgarh, HR: Haryana, KA: Karnataka, KR: Kerala, MH: Maharashtra, MG: Meghalaya, MP: Madhya Pradesh, NL: Nagaland, OD: Odisha, PB: Punjab, RJ: Rajasthan, SK: Sikkim, TN: Tamil Nadu, TL: Telangana, TR: Tripura, UP: Uttar Pradesh, UK: Uttarakhand, WB: West Bengal.

Note: Size of bubble represents size of net market borrowings.

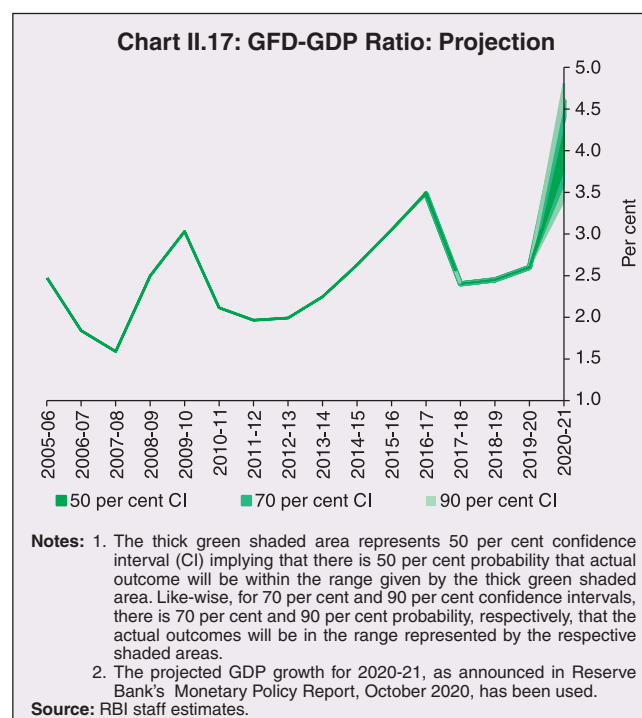
Sources: CAG and budget documents of state governments.

Nirbhar Package in May 2020, states are allowed to increase their borrowing limits from 3 per cent to 5 per cent for 2020-21. This is expected to provide extra resources of ₹4.28 lakh crore.

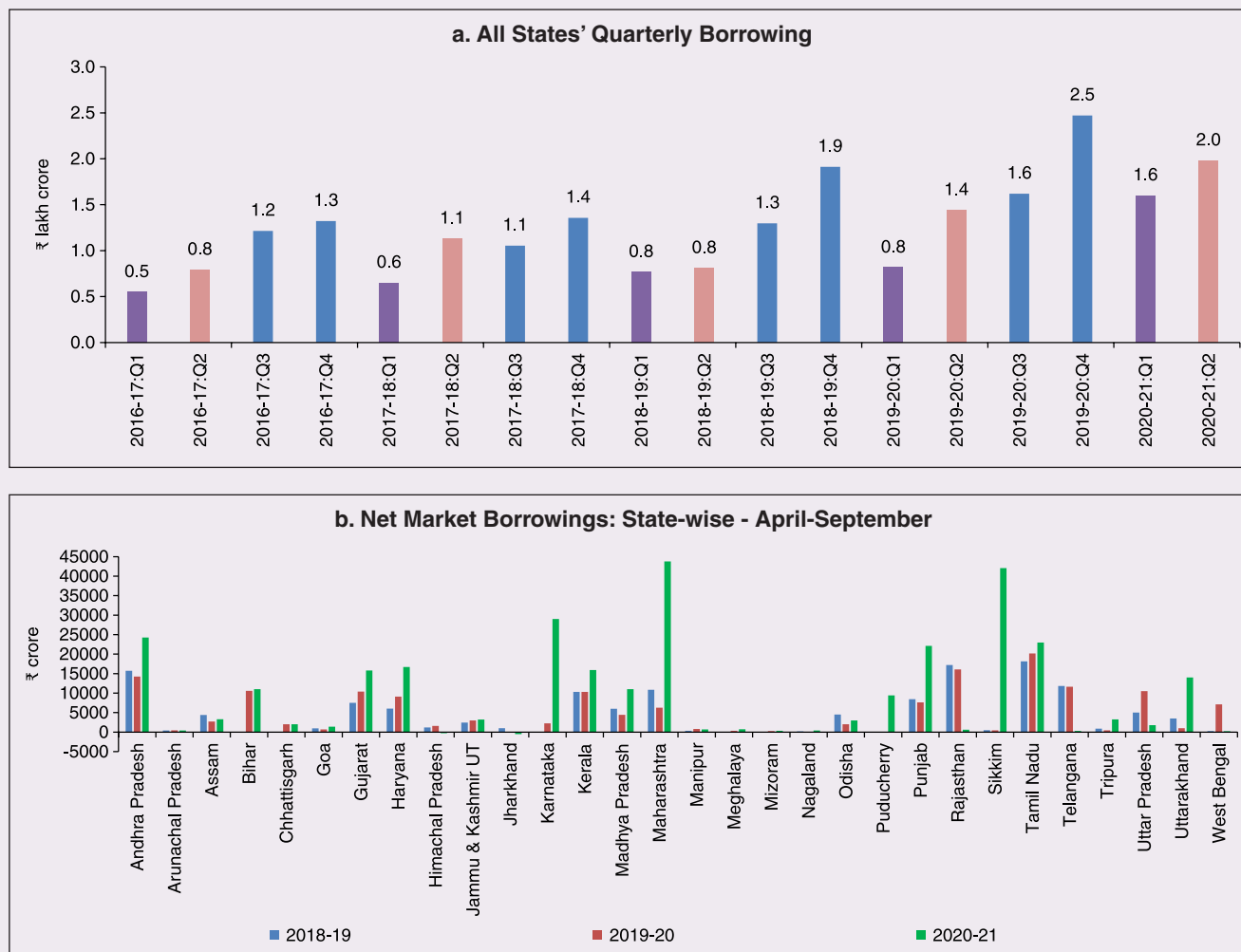
2.39 While the increase from 3 to 3.5 per cent of GDP is unconditional, which states can access after suitable revision of their FRLs (many states have promulgated ordinance to this effect)¹⁵, the balance increase in market borrowing was initially made conditional. As per the specific scheme notified by the Department of Expenditure, an additional 1 per cent of GDP will be provided in four tranches of 0.25 per cent, with each tranche linked to clearly specified, measurable and feasible reform actions in four areas: universalisation of 'One Nation One Ration card'; ease of doing business; power distribution; and urban local body revenue reforms. While some states have already met two of the reform measures (one-nation-one-ration card and the ease of doing business), some others may pursue them during the second half. An additional 0.5 per cent was to be allowed if milestones are achieved in at least three out of four reform areas (Gol, 2020a). Subsequent to the October GSTC Council meeting, states which benefit from the special window could get this additional 0.5 per cent borrowing unconditional. This is, however, expected to have a limited impact on the fiscal deficit of state governments that are likely to borrow a considerably lesser amount from the additional borrowing facility of 2 per cent of GSDP under the *Aatma Nirbhar* Package. On the whole, given states past track record of not being able to access market borrowings despite higher limits, and considering the meticulous process that states need to adhere to in order to get the clearance certificate from respective Ministries/Departments with regard to achievement of the

specified reform measures for the conditional part of the borrowing within the current fiscal year, they may be able to utilise only half of the additional borrowing given to them - conditional and unconditional on an average. With borrowings financing about 90 per cent of states' fiscal deficit, on an average, borrowing limits under Article 293 (3) act as soft constraint. Thus, from the financing side, states' combined GFD-GDP ratio is likely to remain around 4 per cent with a bias tilted to the upside, higher than the budgeted 2.8 per cent of GDP (Chart II.17), *albeit* with state-wise variations.

2.40 Accordingly, in H1:2020-21, more than 60 per cent increase in borrowings on a year on year basis has already occurred, with about 7-8 states accounting for the bulk of the increase (Chart II.18 a and b). This additional borrowing, coupled with withdrawal of cash balances, are likely to be used for financing the slippage from revenue shortfall and rise in revenue expenditure.



¹⁵ With additional borrowings for states for 2020-21 being decided based on FC-XV Interim Report's GDP growth for 2020-21, the full unconditional borrowing limit already given to states effectively amounts to be a little higher around 3.8 per cent.

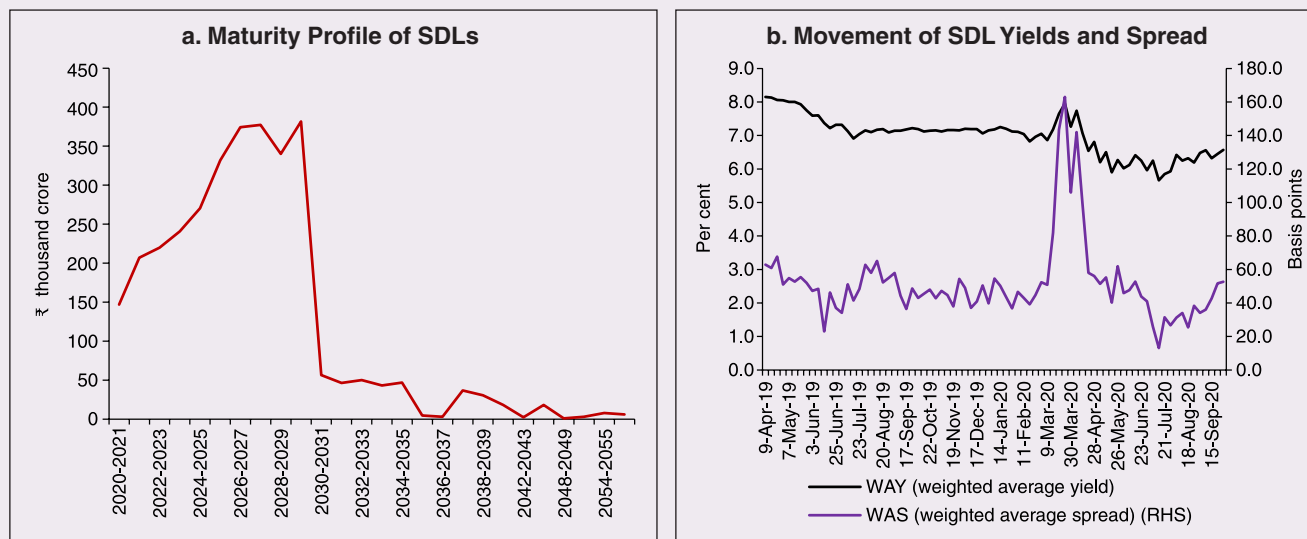
Chart II.18: Market Borrowings of States: April-September


Source: Reserve Bank of India.

2.41 The maturity profile of states' debt indicates that state development loans (SDLs) redemptions are likely to more than double from 2026 onwards (Chart II.19). The weighted average (cut-off) yield (WAY) of SDLs had been rising since 2016-17 till 2018-19, although it moderated in 2019-20 to 7.24 per cent, about 108 bps lower than in 2018-19 (Chart II.19). After significant moderation in Q1:2020-21, SDL yields and spreads have been picking up in Q2. The average inter-state spread on SDLs of 10-year maturity (fresh issuance) was higher at 9 bps in H1:2020-21 (4 bps in H1:2019-20). The Reserve Bank in its Monetary

Policy Statement, October 2020 has allowed open market operations (OMO) in SDLs, which may improve secondary market liquidity and lower their spreads over corresponding G-secs. The first ever such OMO of ₹10,000 crore, conducted on October 22, 2020, will purchase SDLs of Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh and Maharashtra through a multi-security auction using multiple price method with no security-wise notified amount.

Chart II.19: SDLs - Maturity and Yield Spread



Source: Reserve Bank of India.

2.42 Re-issuances to enhance liquidity saw a fillip in 2019-20, with their share in overall issuances rising from 10 per cent in 2017-18 to close to 20 per cent in 2019-20¹⁶. During the year, 17 states and the UT of Puducherry issued securities of non-standard maturities, ranging between 2 and 40 years, moving away from the usual practice of issuance of 10 year paper, to elongate maturities and contain roll-over risks. At end-March 2020, 66.8 per cent of the outstanding SDLs was in the residual maturity bucket of five years and above (Table II.15).

Cash Management of State Governments

2.43 States have been accumulating sizeable cash surpluses in recent years in the form of Intermediate Treasury Bills (ITBs) and Auction Treasury Bills (ATBs), involving a negative carry of interest rates and warranting improvement in cash management practices going forward

(Table II.16). There is, however, evidence of utilisation of cash balances on the part of many states in H1:2020-21, notably for ITBs.

Financial Accommodation by States

2.44 The ways and means advances (WMA) limits of states was reviewed by an Advisory Committee in 2016 and it recommended the limit of ₹32,225 crore for all states/UTs together. Currently, a new committee, viz., the Advisory Committee to Review the Ways and Means limits for State Governments and Union Territories (UTs) (Chairman: Shri Sudhir Shrivastava) is reviewing the WMA limits. With the onset of the COVID-19 pandemic and the strained finances of states, the Reserve Bank decided on April 1, 2020 to increase states' WMA limit by 30 per cent from the existing limit for all states/UTs and this was increased further by 60 per cent over and above the level as on March 31, 2020, extended for a

¹⁶ States such as Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu and Telangana undertook re-issuances during 2019-20, which helped in creating liquidity for their securities in the secondary market.

Table II.15: Maturity Profile of Outstanding State Government Securities
(As at end-March 2020)

State	Per cent of Total Amount Outstanding				
	0-1 years	1-3 years	3-5 years	5-7 years	Above 7 years
1	2	3	4	5	6
1. Andhra Pradesh	5.2	11.1	14.2	17.2	52.3
2. Arunachal Pradesh	0.0	4.7	12.5	13.6	69.2
3. Assam	1.9	7.2	12.4	15.0	63.5
4. Bihar	2.4	12.3	13.7	27.0	44.6
5. Chhattisgarh	4.9	14.4	22.2	21.3	37.3
6. Goa	2.3	10.8	13.8	21.3	51.9
7. Gujarat	5.5	15.5	15.9	22.3	40.8
8. Haryana	2.8	15.1	21.0	22.8	38.4
9. Himachal Pradesh	7.2	13.5	15.6	21.9	41.8
10. Jharkhand	1.0	12.3	18.6	24.0	43.9
11. Karnataka	3.5	10.0	16.7	24.1	45.7
12. Kerala	3.9	14.4	18.3	22.7	40.8
13. Madhya Pradesh	5.5	12.5	16.1	26.3	39.6
14. Maharashtra	6.6	17.5	16.9	22.5	36.6
15. Manipur	4.3	7.1	13.6	20.6	54.4
16. Meghalaya	2.7	9.9	12.7	23.8	50.9
17. Mizoram	9.1	16.5	16.7	12.6	45.1
18. Nagaland	4.7	15.2	14.9	26.5	38.8
19. Odisha	7.2	33.2	20.7	11.6	27.2
20. Punjab	6.6	17.5	14.1	15.1	46.7
21. Rajasthan	6.0	13.2	19.1	20.4	41.3
22. Sikkim	0.0	2.7	11.1	27.0	59.1
23. Tamil Nadu	3.5	10.7	17.3	23.9	44.6
24. Telangana	2.9	9.1	13.4	18.5	56.1
25. Tripura	3.1	10.4	7.7	17.2	61.6
26. Uttar Pradesh	4.8	10.1	10.1	23.6	51.4
27. Uttarakhand	2.7	8.6	13.4	25.7	49.5
28. West Bengal	3.3	14.7	14.8	20.1	47.1
29. Jammu and Kashmir	8.0	13.8	10.2	13.9	54.1
30. Puducherry	10.0	17.2	16.2	17.1	39.5
All States and UTs	4.5	13.0	15.7	21.7	45.1

Source: Reserve Bank records.

further period of 6 months till March 31, 2021. Furthermore, the number of days for overdraft

Table II.16: Investment of Surplus Cash Balances of State Governments
(Outstanding as on March 31)

(₹ crore)

Item	2017-18	2018-19	2019-20	2020-21 H1#
1	2	3	4	5
14-Day (ITBs)	1,50,871	1,22,084	1,54,757	1,06,912
ATBs	62,108	73,927	33,504	76,220
Total	2,12,979	1,96,011	1,88,261	1,83,132

#: As at end-September 2020.

Source: Reserve Bank of India.

(OD) has been increased, effective April 7, 2020, till September 30, 2020 and further extended till March 31, 2021. 16 states availed the Special Drawing Facility (SDF) in 2019-20, while 13 states resorted to WMA and ten states availed OD. During 2020-21 so far, utilisation of WMA has shown significant rise. 14 states and one UT have resorted to WMA during H1:2020-21. Enhanced WMA limit is availed by eight states and one UT during the same period. Moreover, five states and one UT were in OD during H1:2020-21.

State Reserve Funds

2.45 Maintaining reserve funds is a best practice in debt management strategy. State governments maintain the Consolidated Sinking Fund (CSF) and the Guarantee Redemption Funds (GRF) with the Reserve Bank as buffer for repayment of their future liabilities. States also avail the SDF at a discounted rate from the Reserve Bank against incremental funds invested in CSF and GRF. As at end-March 2020, 23 states and one UT were members of the CSF scheme, while 18 states were members of the GRF scheme (Table II.17). Since then, one more state has joined the CSF.

Table II.17: Investment in CSF/GRF by States

(₹ crore)

State	CSF	GRF	CSF as per cent of Outstanding Liabilities
1	2	3	6
Andhra Pradesh	8,059	791	2.6
Arunachal Pradesh	1,344	2	11.4
Assam	4,301	53	5.7
Bihar	7,683	-	4.0
Chhattisgarh	4,300	-	5.0
Goa	578	291	2.6
Gujarat	13,277	465	4.1
Haryana	2,022	1,166	1.0
Jharkhand	0	-	0.0
Karnataka	4,110	-	1.3
Kerala	2,090	-	0.8
Madhya Pradesh	-	891	0.0
Maharashtra	39,948	415	8.3
Manipur	367	97	3.1
Meghalaya	644	35	5.4
Mizoram	536	38	6.4
Nagaland	1,595	32	13.5
Odisha	13,004	1,412	11.0
Puducherry	285	-	3.2
Punjab	234	0	0.1
Tamil Nadu	6,437	-	1.4
Telangana	5,500	1,198	2.5
Tripura	319	5	1.8
Uttarakhand	3,069	77	4.6
West Bengal	10,730	519	2.4
Total	1,30,431	7,486	3.3

‘-’: Indicates no fund is maintained.

Source: Reserve Bank of India.

7. Outstanding Liabilities/Contingent Liabilities

2.46 Outstanding debt continued to grow in double digits, *albeit* lower than in the years of *Ujwal* DISCOM Assurance Yojana (UDAY) implementation (Table II.18). State-wise data reveal that the debt-GSDP ratio is expected to increase for 13 states. For 19 states, this ratio is expected to exceed 25 per cent in 2020-21 (Statement 20) which may force curtailment of capital expenditure.

2.47 The ratio of interest payment to revenue receipts, an indicator of debt sustainability,

Table II.18: Outstanding Liabilities of State Governments and UTs

Year	Amount	Annual Growth	Debt /GDP
(End-March)	(₹ lakh crore)	(Per cent)	
1	2	3	4
2013	22.45	10.6	22.6
2014	25.10	11.8	22.3
2015	27.43	9.3	22.0
2016	32.59	18.8	23.7
2017	38.59	18.4	25.1
2018	42.92	11.2	25.1
2019	47.87	11.5	25.2
2020 (RE)	53.43	11.6	26.3
2021 (BE)	59.89	12.1	26.6

RE: Revised Estimates.

BE: Budget Estimates.

Sources: 1. Budget documents of state governments.

2. Combined Finance and Revenue Accounts of the Union and the State Governments in India, Comptroller and Auditor General of India.

3. Ministry of Finance, Government of India.

4. Reserve Bank records.

5. Finance Accounts of the Union Government, Government of India.

has been declining in recent years, although it remains higher than the threshold prescribed by the fourteenth Finance Commission (FC-XIV) (Chart II.20).

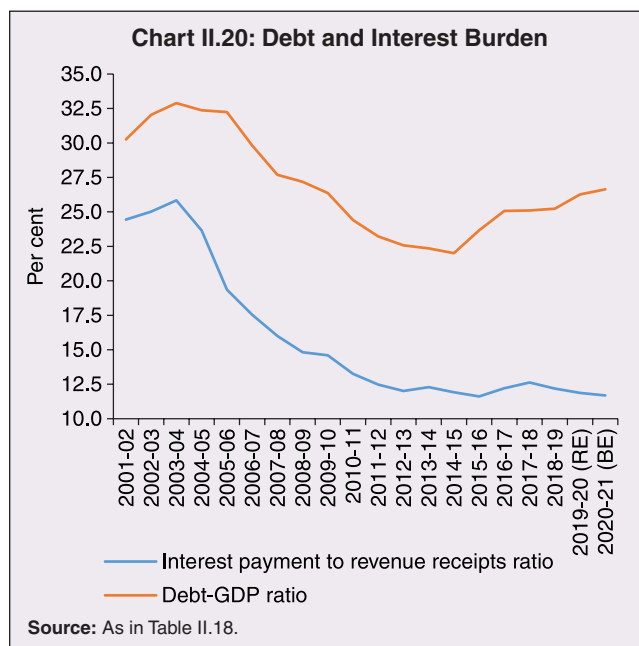


Table II.19: Composition of Outstanding Liabilities of State Governments and UTs
(As at end-March)

(Per cent)

Item	2016	2017	2018	2019	2020 RE	2021 BE
1	2	3	4	5	6	7
Total Liabilities (1 to 4)	100.0	100.0	100.0	100.0	100.0	100.0
1. Internal Debt	72.1	73.3	72.7	72.2	73.4	74.9
<i>of which:</i>						
(i) Market Loans	46.6	48.2	51.4	53.5	57.2	60.4
(ii) Special Securities Issued to NSSF	17.5	14.0	11.1	9.2	7.7	6.3
(iii) Loans from Banks and Financial Institutions	4.3	5.2	4.9	4.8	4.6	4.5
2. Loans and Advances from the Centre	4.7	4.1	3.8	3.6	3.4	3.3
3. Public Account (i to iii)	23.1	22.5	23.5	24.1	23.0	21.7
(i) State Provident Funds, etc.	10.8	10.5	10.3	10.2	9.7	9.3
(ii) Reserve Funds	4.3	3.2	4.1	4.2	4.3	4.1
(iii) Deposits & Advances	8.0	8.8	9.1	9.7	8.9	8.3
4. Contingency Fund	0.1	0.1	0.1	0.1	0.1	0.1

RE: Revised Estimate.

BE: Budget Estimate.

Source: Same as that for Table II.18.

Composition of Debt

2.48 Outstanding debt, largely dominated by market borrowings, is expected to reach 75 per cent of GDP at end-March 2021 (Table II.19). There is a compositional shift towards market borrowings after the recommendation of the FC-XIV, to exclude states from National Small Savings Funds (NSSF) financing facility. Accordingly, the share of NSSF, bank and financial institutions and loans from the central government has been declining.

Contingent Liabilities of States

2.49 Along with higher borrowings and the attendant servicing costs, debt sustainability of states is vulnerable to risks arising out of potential realisation of contingent liabilities in the form of guarantees, which have increased post COVID-19 (RBI, 2019a). As part of first tranche

of the centre's *Aatma Nirbhar* Bharat Package announced in May 2020, emergency liquidity infusion of ₹90,000 crore for cash-stressed power distribution companies (DISCOMs) was announced against state government guarantees, thus, adding to their contingent liabilities for 2020-21 by about 0.42 per cent of GDP (Table II.20)¹⁷. It may be noted that historically, any large accretion to states' outstanding guarantees has, in general, been followed by an increase in debt. State guarantees, which increased prior to 2014, fell sharply thereafter, primarily driven by subsuming of power sector guarantees into state government liabilities under the UDAY programme. However, since 2017-18, net accretion to guarantees has seen a significant jump. This could be an early sign of future fiscal risks. Although a cap/limit amounting to about 2 per cent of GSDP is considered optimal as per State Acts, there is no strict adherence to it.

¹⁷ For state-wise break up, refer to Statement 28 of the Report.

Table II.20: Guarantees issued by State Governments

Year	Guarantees Outstanding		Accretion during the Year	
	₹ lakh crore	In per cent of GDP	₹ lakh crore	In per cent of GDP
1	2	3	4	5
2013-14	3.79	3.4	0.80	0.4
2014-15	4.28	3.4	0.49	0.1
2015-16 (UDAY year)	3.64	2.6	-0.64	-0.8
2016-17(UDAY year)	3.12	2.0	-0.52	-0.6
2017-18	4.30	2.5	1.18	0.5
2018-19	5.38	2.8	1.08	0.3
2019-20 Provisional *	6.00	3.0	0.62	0.2
2020-21 (as per fiscal package)**			0.90+	0.42+

Note: * Based on actual reported for 20 states and last year's value for balance states.

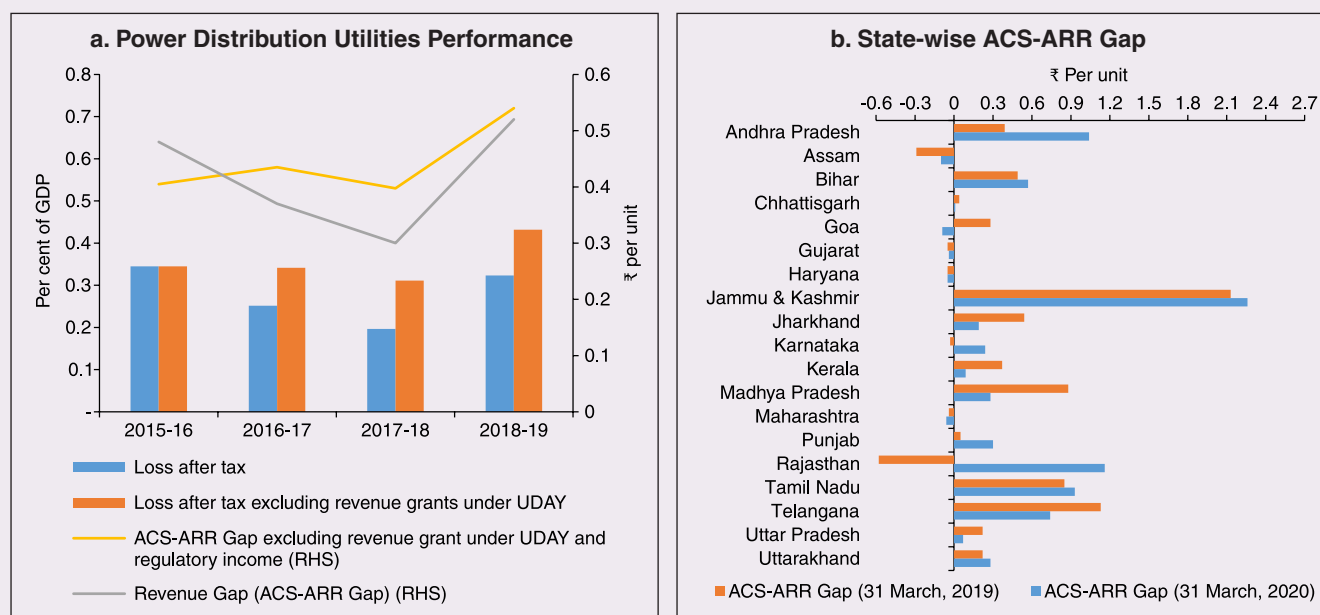
** States' own guarantees given to SPSEs available only for few states as given in Statement 28.

Source: State governments.

2.50 Even post-UDAY, state owned enterprises in power distribution (DISCOMs) continue to impart significant downside risk (leading to higher states'

liabilities) with no visible signs of turnaround. States' outstanding liabilities increased by 1.5 per cent of GDP due to UDAY in 2015-16 and 2016-17; however, despite this steep fiscal cost, DISCOM losses since then have reached pre-UDAY level of 0.3 per cent of GDP in 2018-19. In fact, adjusted for revenue grants made under UDAY - which are transitory and in the nature of accounting transfers - DISCOM losses are significantly higher in 2018-19 *vis-a-vis* 2015-16 (Chart II.21a). Estimates of the revenue gap per unit of power sold - average cost of supply *minus* average realisable revenues (ACS-ARR gap) for 2019-20 reveal that most states have seen a further worsening in their financial performance. Only five states - Assam, Goa, Gujarat, Haryana and Maharashtra - have eliminated revenue gaps in 2019-20, thus meeting the UDAY target. Jammu and Kashmir, Rajasthan, Andhra Pradesh and Telangana have the highest revenue gaps, which have widened further in 2019-20 (Chart II.21b).

Chart II.21: Power Distribution Utilities Financial Performance



Note: In chart (b) Data for Delhi, Odisha, West Bengal and Himachal Pradesh were not available on the date of compilation (August 14, 2020).

Sources: Power Finance Corporation (PFC) report on the performance of state power utilities (2017-18 and 2018-19 issues); UDAY website.

2.51 The financial position of DISCOMs is expected to weaken further in 2020-21 as COVID-19 related lockdown has severely impacted power demand, particularly in the lucrative industrial and commercial segments, while their cost structure is rigid due to minimum commitments for power offtake in long-term Power Purchase Agreements (PPAs). Structural issues remain to be addressed. While Union Government announced a liquidity support of ₹90,000 crore for DISCOMs which may help tide over immediate liquidity concerns, another round of bailouts of loss-making DISCOMs seems imminent in the aftermath of the crisis, imparting downside risks to state finances.

2.52 Going forward, managing fiscal risk through well laid down strategies is going to be critical, especially with emergence of new shocks and risks viz., the global financial crisis, natural calamities and now the pandemic. The fiscal

risks could be (i) general, *i.e.*, cyclical slowdown, macroeconomic shocks, commodity price shocks, interest rate shocks, and (ii) specific *i.e.*, emanating from government guarantees and contingent liabilities and state-owned enterprises. In fact these specific fiscal risks have been observed to have disrupted efficient fiscal management leading to large debt spikes over the last decade (Jaramillio *et al*, 2017; IMF, 2017; Hemming, 2006). Similarly, severe problems in state-owned enterprises may underwrite economic slowdown and recessions, thus, necessitating large bailouts from the government - recent examples being Brazil and South Africa (IMF, 2020b). Given the lack of transparency with regard to states in reporting of some of these risks, efforts by Odisha in acknowledging, assessing and preparing in advance for such unforeseen risks could be worthy of emulation (Box II.4).

Box II.4: Assessing Fiscal Risks – Odisha’s Experience

The Government of Odisha identified “Fiscal Risk Management” as one of the key reforms priority under technical assistance from the IMF’ South Asia Regional Training and Technical Assistance Center (SARTTAC) in 2019. A dedicated Fiscal Risk and Debt Management Cell in the Finance Department and a high-level Fiscal Risk Committee has been put in place. The state has adopted a three-stage approach to fiscal risk management: (1) identification and measurement of fiscal risks; (2) fiscal risk reporting; and (3) mitigation and management of fiscal risk.

Under (1), all possible sources of fiscal risk were identified and the impact of each fiscal risk worked out as ratio of GSDP and classified as high, medium and low on the basis of the level and possibility of occurrence (Chart 1a)¹⁸. Some of the identified sources of fiscal risk include (a) macroeconomic

performance, international commodities prices, and exchange rate risk, particularly for foreign currency loans; (b) natural disaster to which Odisha is prone; (c) composite debt risk measured through a debt index consisting of debt to GSDP ratio, per capita debt and cost of debt using the relative distance methodology; (d) overall fiscal risk measured through a fiscal performance index employing a multiple indicator approach; and (e) contingent liabilities risk from Guarantees, Public Private Partnerships (PPPs)¹⁹, and public sector undertakings (PSUs). The state government also uses the IMF’s State-Owned Enterprise Health Check Tool to assess the financial health of the State PSUs. Such assessment of GRIDCO, a state-owned enterprise in power sector shows it a high risk company (Chart 1b).

(Contd...)

¹⁸ For instance, if a particular risk factor (say reduction in central transfer) has potential to have a fiscal impact more than 0.5 per cent of GSDP and the possibility of occurrence is more than 50 per cent, that factor is regarded as high-risk.

¹⁹ In case of PPP projects sponsored by state government, fiscal risk arises where the project does not yield desired outcome due to unrealistic demand projection or shortcomings in project planning and management.

Chart 1: Fiscal Risk Identification and Measurement

a. Fiscal Risk identification framework				
Fiscal impact	High (>0.5 per cent of GSDP)	<ul style="list-style-type: none">Growth slowdownCentral transfers	<ul style="list-style-type: none">Non-performing assets of public financial institutionsInvestment scams of small-scale investorsGST revenuesMining-related revenues	<ul style="list-style-type: none">Energy sectorNatural disasters
	Medium (0.1 per cent - 0.5 per cent of GSDP)		<ul style="list-style-type: none">Public sector undertakingsSocial security programsFood Supply Department	
	Low (<0.1 per cent of GSDP)	<ul style="list-style-type: none">PPPsTax refunds under litigationPension schemesInflation surprises	<ul style="list-style-type: none">Foreign-currency debtLine departments	
		Low (<10 per cent)	Medium (10 per cent - 50 per cent)	High (>50 per cent)
	Likelihood of realisation			

b. Financial Health Check of State Power Distribution Company -GRIDCO		
Risk Matrix	Value	Risk Level
Liquidity Indicators		
Current ratio	1	High Risk
Quick ratio	1	High Risk
Creditor turnover days	215	Very High Risk
Debtor turnover days	226	Very High Risk
Solvency Indicators		
Debt to equity	-1	Very Low Risk
Debt to assets	1	Moderate Risk
Interest coverage	1	Very High Risk
Profitability Indicators		
Net profit margin (per cent)	-4 per cent	
ROA (per cent)	4 per cent	Low Risk
ROE (per cent)	7 per cent	High Risk
Financial Performance		
Operating costs to revenue	0	
Cost recovery	76	Very Low Risk
Operative profit margin (per cent)	3 per cent	
Government relationship		
Grants to revenue ratio (per cent)	0 per cent	Very Low Risk
Taxes payable to current liabilities	0	Very Low Risk

Source: State government.

Fiscal risk reporting, critical for transparency and public disclosure, is envisaged through a two-stage approach. First, a Fiscal Risk Register as part of the Mid-year Fiscal

Strategy Report identifying the sources of fiscal risks, risk exposure and likelihood and severity of risk materialization is put in place (Chart 2). Second, a Fiscal Risk Statement

Chart 2: Abstract of Fiscal Risk Register

Category	Type of Risk	Fiscal Impact	Comments On Fiscal Impact	Likelihood	Comments on Likelihood
Macro-economic Risk	Growth Slowdown	High	Revenues of the state are significantly linked to GSDP growth. A decline in the latter will adversely affect the deficit.	High	The COVID-19 crisis.
Macro-economic Risk	Central Transfers	High	Central transfers account for a significant share of the state's revenues.	High	COVID-19 crisis to impact the transfer from central government.
Specific Risks	PPPs	Low	The fiscal impact will be low considering the project cost of total PPPs projects with respect to the state budget.	Low	
Specific Risks	PSUs	Medium	The bailout package to restore the financial health of the loss-making PSUs, if the government considers, may have a sizable impact on the state economy.	Medium	The balance sheets of most PSUs show incurring losses.
Specific Risks	Natural Disaster	High	Odisha is highly prone to various natural disasters like cyclone	High	
Institutional Risk	Food Supply Department	Medium	Subsidiaries of this department have high obligation to banking authorities.	Medium	Because of the liquidity problem of subsidiaries
Institutional Risk	Energy sector	High	Energy Department owes the obligation of its subsidiaries.	High	High aggregate technical and commercial loss as well as collection inefficiencies at DISCOM level.

(Contd...)

to be released along with Annual Budget documents would incorporate all possible fiscal risks for the state in quantified terms. This statement would be a part of the disclosure that the government intends to bring out, starting from the financial year 2021-22.

Mitigation and Management of Fiscal Risk is the third aspect as part of which a high level Fiscal Risk Committee headed by the Secretary, Finance was set up by the state government. It has already put in place mechanisms for management and mitigation of some of the major fiscal risks such as creation of State Disaster Response & Mitigation Fund (SDRMF), an administrative ceiling on government guarantees and constitution of a Guarantee Redemption

Fund (GRF) for the fiscal risks arising from government guarantees and institution of a Consolidated Sinking Fund (CSF) to mitigate fiscal risks arising from amortization and foreign currency fluctuations.

Over the years, the Government of Odisha has built up a sizeable CSF (about 15 per cent of state government liabilities) and GRF (about 25 per cent of total guarantee exposure). As a part of fiscal risk management measure for COVID-19 crisis, the state would utilise a portion of the CSF for amortisation of the entire open market borrowing during 2020-21. Going forward, the state intends to broad-base coverage of these funds and use them to address likely fiscal stresses in future.

8. Conclusion

2.53 There are some specific features of states' budget outcomes which are noteworthy. First, fiscal rectitude is reflected in large-scale pro-cyclical spending, making them vulnerable to downturns. Second, increased financing of fiscal deficits with market borrowings has pushed up debt levels, which may lead to tightening of debt servicing constraints.

2.54 Going forward, with states in the frontline in the battle against COVID, the fiscal arithmetic for 2020-21 is likely to suffer. While the focus during the first few months of 2020-21 has been on managing the health crisis, it is the regional and spatial dimensions of structural features like demography, health care systems, migrant workers, digitisation and strength of the third tier which are likely to play an important role going forward in determining the fuller macroeconomic impact of the pandemic on state finances.

1. Introduction

3.1 State budgets were mostly presented during February-March 2020, *i.e.*, ahead of the pandemic which has taken a more grievous toll in some of the states relative to even some of the most affected nations in the world¹. A heartening feature is that the case fatality rate² in all the states, except two, has been below the global average. While a large part of the policy response has been from the centre, mainly through its *Aatma Nirbhar Bharat Abhiyan* package, states have also ramped up health care, social services and containment measures. The spatial and structural dimensions of the pandemic are still unfolding.

3.2 No state or union territory in India has been spared by the pandemic, with the sole exception of Lakshadweep. The spread of infections has, however, been disproportionate and varied; policy responses and outcomes have also been diverse. A meta-analysis of spatial studies shows that the duration of the lockdown became a function of the availability of healthcare resources and accessibility to them across regions. Likewise, regions with well-developed digitised infrastructure and population could ensure faster and more effective relief operations. Another dimension of the health crisis is that lockdowns driven by fast spreading contagion posed a formidable challenge for spatial mobility of workers – inter- and intra-state, and abroad – with implications for regions dependent on migrant workers for labour or remittances.

3.3 These spatial and structural dimensions also have implications for the fisc on demographic and epidemiological considerations. High decentralisation in expenditure has been an enabling factor in the policy response of states – about 65 per cent of the total government expenditure is at the state level, and more so in the case of public health expenditure under which states spend above 85 per cent of the general government expenditure.

3.4 The rest of the Chapter is organised into 8 sections. Some stylised facts on the regional dimensions of the COVID-19 outbreak in India are documented in Section 2 against the backdrop of a quick tour of the history of pandemics in India. Structural health factors – demographics and epidemiology; and healthcare systems – are discussed in Section 3 and Section 4, respectively. The regional dimensions of migration, employment and micro, small and medium enterprises (MSMEs) are examined in Section 5. Digitisation has proved to be an important platform that provided offsets to demand and intermediate business transactions, as discussed in Section 6. The role of third tier local governments in influencing the effectiveness of the policy response is assessed in Section 7. Section 8 deals with the implications of the pandemic for states' output during 2020-21. Concluding observations are set out in Section 9.

2. COVID-19 in the States

3.5 History is replete with visitations of pandemics in India. The 'Black Death' plague of

¹ There are 12 nations with confirmed COVID-19 cases exceeding six lakh, while there are four Indian states with confirmed cases above that number as on October 12, 2020.

² The number of confirmed deaths from disease as a ratio of diagnosed cases.

Table III.1: Notable Epidemics in India

Event	Year	Affected Areas	Cases	Deaths
<i>Epidemics with pan-India/Severe Impact</i>				
Bubonic plague	1896-1918	Provinces of Bombay, United Provinces, Punjab, North West Frontier Province, Hyderabad, Mysore, Madras, Agra and Oudh	-	10 million
Spanish Flu	1918-20	Nearly all India	125 million	12–18 million
Asian influenza	1957-58	Nearly all India	4.4 million	1,098
Small Pox	1974	Bihar, Odisha and West Bengal	61,482	31,262
Swine Flu	2009	Nearly all India	1,62,420	11,073
COVID-19 (up to October 12, 2020)	2020	Nearly all India	7.2 million	1,09,000
<i>Epidemics with Regional/Restricted Impact</i>				
Plague	1994	Maharashtra, Gujarat, Karnataka, Uttar Pradesh and Madhya Pradesh	693	56
Cholera	2001	Odisha	34,111	33
Plague	2002	Himachal Pradesh	16	4
Dengue	2003	Delhi	2185	4
Meningococcal disease	2005		405	48
Japanese Encephalitis	2005	Uttar Pradesh and Bihar	1235	296
Chikungunya	2006	Eight states - 151 districts	1.4 million	-
Dengue	2015		1,00,000	220
<i>Zika</i>	2017-18	Gujarat and Tamil Nadu	161	
<i>Nipah</i>	2018	Kerala - two districts, <i>i.e.</i> , Kozhikode and Malappuram	19	17

Sources: WHO; DGHS; Menon (1959); Arnold (2019); RGI (1921), Kurup (1977); CDC; and MOHFW.

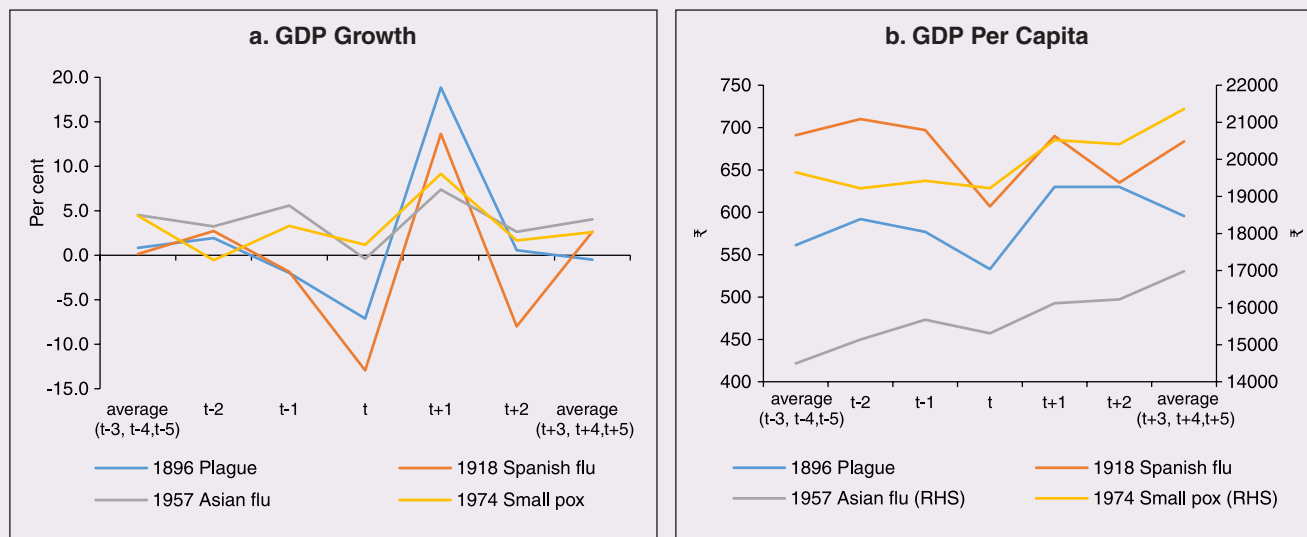
1346-1353 took the worst death toll ever worldwide, and also passed through India. The worst fatality record in India was associated with the Spanish flu pandemic during 1918-20. Operating in waves, the human cost of the pandemic was about 12 to 18 million people (4 to 7 per cent of the population)³, leading to a decline in population across provinces such as Ajmer-Merwara, United Provinces, Central Provinces, Bombay, Bihar and Orissa as per the 1921 decadal census, a first in modern India's history (Table III.1). Like the COVID-19 pandemic, the 1918 flu was also superimposed on a pre-existing slowdown in the Indian economy. The country was also severely affected by several bubonic plague pandemics during 1855-1960, the spread of small pox in

1974, and localised but intense spread of bubonic and pneumonic plague in 1994. Most earlier outbreaks of epidemics across states *viz.*, small pox, *zika*, chikungunya and dengue were not very contagious, had relatively lower death rates, and were contained with the discovery of vaccines. The *Nipah* outbreak in South India (2018) had a high fatality rate but stands out as the one to be detected and contained in a short span of time, primarily attributed to successful contact tracing operations and containment measures (Rahim *et al.*, 2020).

3.6 An event study analysis using four pandemic outbreaks in India *viz.* the 1896 plague, the 1918 Spanish flu, the 1957 Asian flu and the

³ See Arnold (2019) for a historic record of the Spanish flu.

Chart III.1: Pandemics in India - Impact on GDP



Source: RBI staff estimates.

1974 small pox, shows that all episodes were associated with a contraction/deceleration in GDP, with the 1918 flu registering the sharpest downturn of about 13 per cent. Interestingly, the recovery pattern is quite similar - a sharp rebound in the immediate subsequent year because of favourable base effects, followed by contraction again, with the GDP growth rate finally subsiding back to pre-pandemic years in about 3-4 years (Chart III.1). These severe disease outbreaks have also depressed per capita economic output in the economy, *albeit* with varied magnitudes. The recovery, however, is observed to be swift and complete within two years of the outbreak, except in the case of the 1918 flu when GDP per capita was restored to pre-outbreak levels only in 1922⁴.

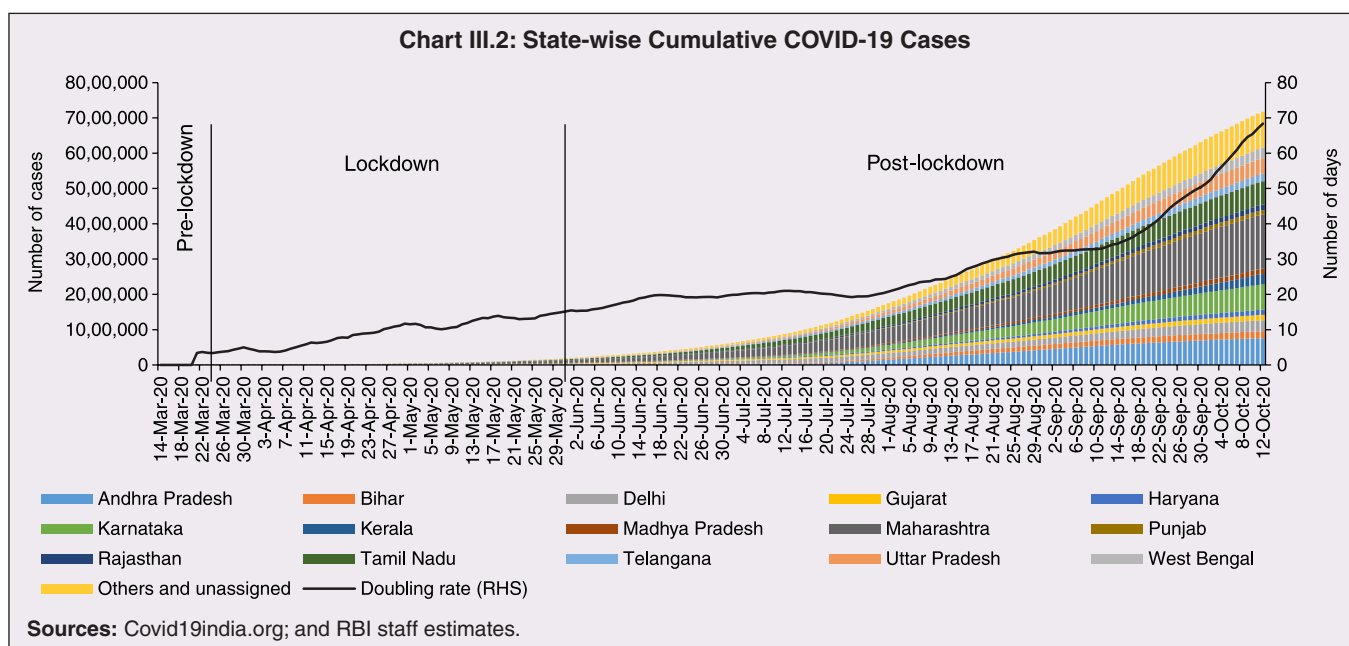
3.7 Policy responses post these pandemics have essentially focused on the provision of

medical and public health services as well as offsetting the pernicious impact of pandemics on the economy, where required. Public health and infrastructure played a pivotal role in policy responses. State interventions in the form of subsidised medical treatment and drug price controls as part of the pandemic response have been documented. Economic resuscitations post pandemics have, in general, relied upon large scale fiscal stimuli, *viz.*, temporary tax reliefs and subsidies for affected industries, loan guarantees, reduction in administrative fees, lower taxes for tourism-related sectors and measures to revive small and medium-sized businesses (Brito, 2020).

3.8 The first COVID-19 infection was confirmed in Kerala on January 30, 2020. By March 24, on the eve of the first nationwide lockdown, it had spread to 15 states and union territories⁵ (UTs) with 567

⁴ It may be noted that apart from these pandemic years, India has also seen contraction in GDP during two more episodes in the past decade - 1965-66 and 1979-80 associated with war and oil/balance of payment crisis.

⁵ For state-wise numbers on COVID-19 (confirmed infections, recoveries and deaths), this report relies on datasets obtained from the crowdsourced website: <https://www.covid19india.org/>.



infections. As of October 12, 2020, all states and UTs (except Lakshadweep) were affected, with 71.2 lakh confirmed infections of which Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu accounted for 51.2 per cent, followed by Uttar Pradesh, West Bengal, Delhi, and Kerala (18.7 per cent). The silver lining has been that the rate of spread of the contagion, measured by the doubling rate⁶, increased from 5.0 days on March 31, 2020 to 68.4 days on October 12, 2020 (Chart III.2).

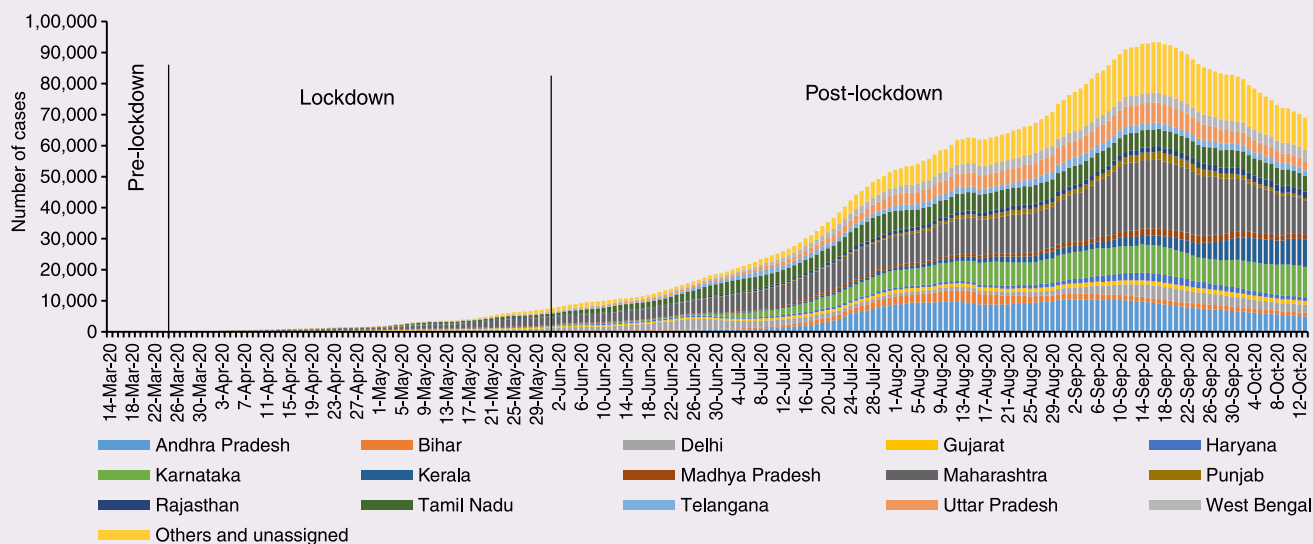
3.9 From the peak of 97.9 thousand cases on September 16, 2020, signs have begun to emerge that the COVID-19 curve has started to flatten, with a decline in the number of new cases in the four successive weeks up to October

12, 2020, though the total number of new cases still remains at a high level. In terms of spatial distribution, Maharashtra has accounted for the highest share in new cases throughout the pandemic. In the recent period, however, new cases are on the rise in Kerala, Delhi, Madhya Pradesh, West Bengal, Rajasthan, Odisha and Chhattisgarh (Chart III.3). This could potentially be a second wave of the pandemic spreading deeper into lower tier cities/towns. At the same time, the decline in new cases in Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu suggests that these states are past the peak of the first wave of infections.

3.10 The cumulative case fatality rate (CFR)⁷ for closed cases (deceased and recovered) was

⁶ Doubling rate is defined as the number of days in which total cumulative confirmed infections double. It is typically estimated by using an exponential growth model in which the assumed back interval for calculating the doubling rate for a specific date is not uniform. In India, the Ministry of Health, Government of India uses seven days which has been considered in this report.

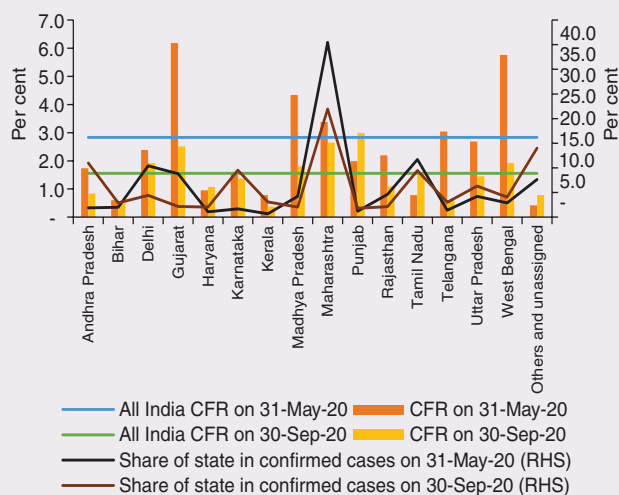
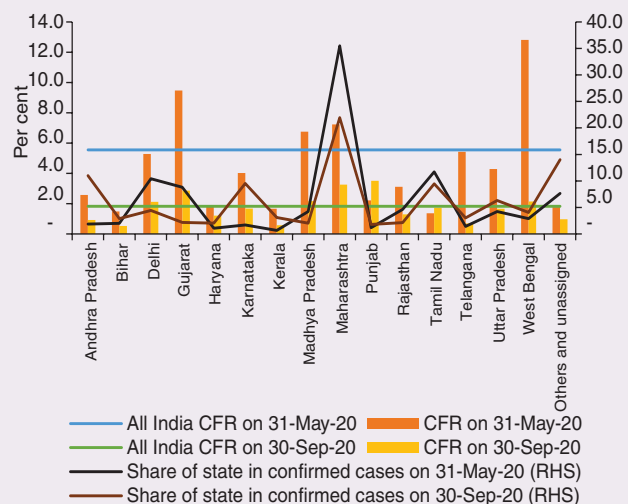
⁷ Traditionally, the mortality from a disease is measured as a ratio of total number of deaths and total number of cases (case fatality rate). However, in case of a new disease like COVID-19, whose epidemiology is still at an exponential growth stage, calculation of case fatality rate based on closed cases (deceased *plus* recovered) could be a more appropriate measure of mortality from the disease.

Chart III.3: State-wise New COVID-19 Cases (Seven day moving average)


Sources: Covid19india.org; and RBI staff estimates.

at a lower level across all states on September 30, 2020 than on May 31, 2020. Also, most states have registered a decline in the CFR measured for all cases (Chart III.4 a and b). This divergence

is explained by an improvement in the ratio of recovered cases to total cases. This points to improvements in clinical management and better therapeutic practices (Box III.1).

Chart III.4: Case Fatality Rate from COVID-19
a. Case Fatality Rate - Total Cases (Closed + Active)

b. Case Fatality Rate - Closed Cases


Sources: Covid19india.org; and RBI staff estimates.

Box III.1: Dharavi, Mumbai – A Successful Case of Public-Private Partnership

Dharavi is an example of successful clinical management. According to the 2011 census, 42 per cent of Mumbai's population resides in slums. Dharavi is the biggest slum in Asia spread over 2.4 sq km, with 850,000 residents and a population density of 2.27 lakh per sq km, making it one of the most cramped areas of Mumbai, the world's fifth most densely populated city⁸. Due to its geography, poor sewage facilities and improper drainage systems, with around 80 per cent of the population depending on community toilets, maintaining physical distancing and sanitation in Dharavi is a challenge.

The confirmation of the first positive case of COVID-19 in Dharavi on April 1, 2020 spread waves of fear and uncertainty in the whole city. Today, however, this slum has turned out to be an example of the success of public-private partnership in the fight against COVID-19 – the average growth rate in positive cases is only 0.24 per cent (Table 1).

Public-private partnership and community participation played a crucial role in combating COVID-19 in Dharavi. The Government tied up with local private doctors, hospitals, NGOs, private volunteers and elected representatives and other civil society organisations, while following a rapid action plan of accessible testing, proactive screening, early detection, contact tracing, timely isolation and putting suspected and high-risk contacts in institutional quarantine facilities in large numbers. Tracing suspected cases, ensuring proper medication, monitoring by medical staff and facilitating 24x7 instant and timely medical facilities at quarantine centres became possible with the active involvement of private medical practitioners, volunteers and civil society organisations.

Table 1: COVID-19 in Dharavi

Month	Average Growth Rate (in per cent)	Doubling Period (days)	New Cases*
April	12	18	491
May	4.3	43	1261
June	0.83	108	480
July	0.39	300	358
August (as on August 19, 2020)	0.24	406	116

*: The numbers are approximation as the data is being revised by the authority.

Source: MoHFW, GoI.

The Dharavi model is about community support too. Community participation, community kitchens and collective solidarity were the key features that helped to contain the spread of the virus. Enforcing a strict lockdown and blocking the movement of residents except for essential services controlled the contagion. The government also made sure that daily wage workers get groceries and other provisions free of cost. "Test, trace, contain and repeat" have been the key to this strategy. Dharavi has flattened the curve and is worthy of emulation worldwide (WHO)⁹.

References:

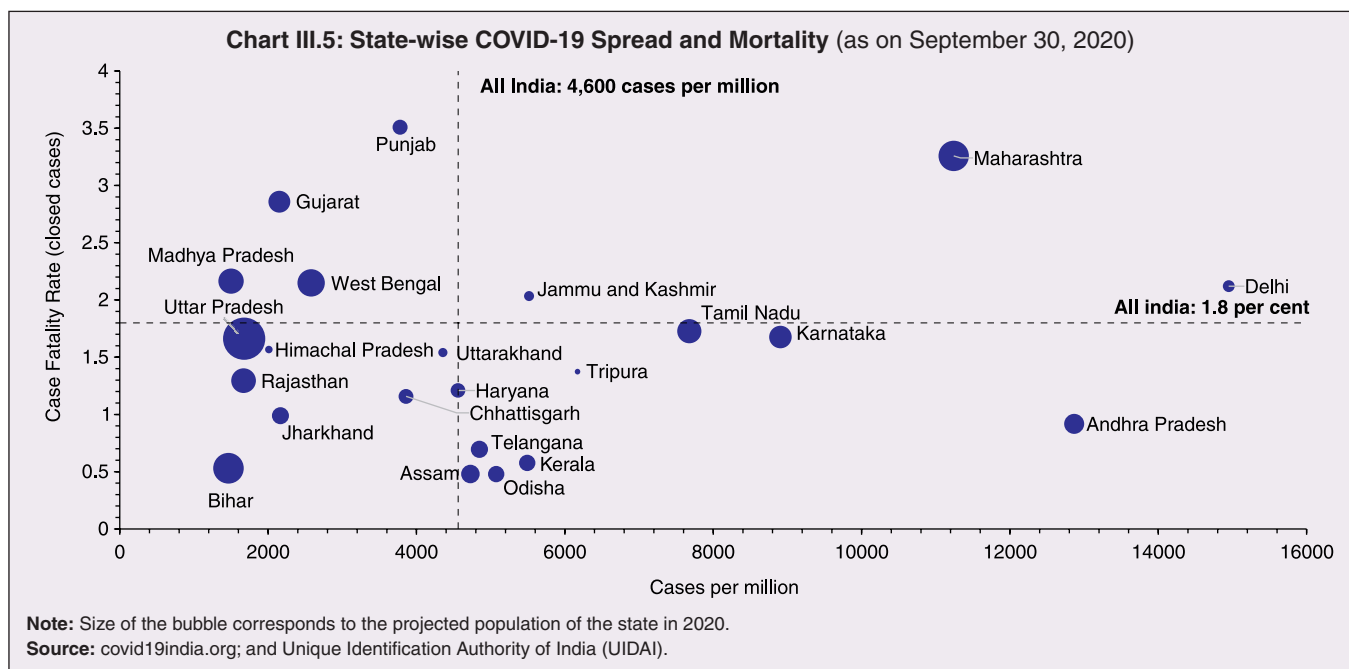
1. Ministry of Health and Family Welfare (MoHFW), GoI <https://www.mohfw.gov.in/>
2. Municipal Corporation of Greater Mumbai <http://www.mcgm.gov.in/>
3. United Nations - World Population Prospects 2019 <https://population.un.org/wpp/>
4. World Health Organisation <https://www.who.int/>

3.11 Nevertheless, the impact of COVID-19 has been asymmetric across states, both in terms of spread and mortality (Chart III.5),

suggesting scope for improvement in the quality and availability of healthcare resources.

⁸ Mumbai with a population density of 20,634 people per square km, as against the all-India average of 411.48 persons per square km (UN, 2019a).

⁹ Dr. Tedros Adhanom, WHO chief, has acknowledged Dharavi's success in controlling the virus spread and stated that 'Dharavi should be seen as an example across the world'.



3. Demographics and Epidemiology

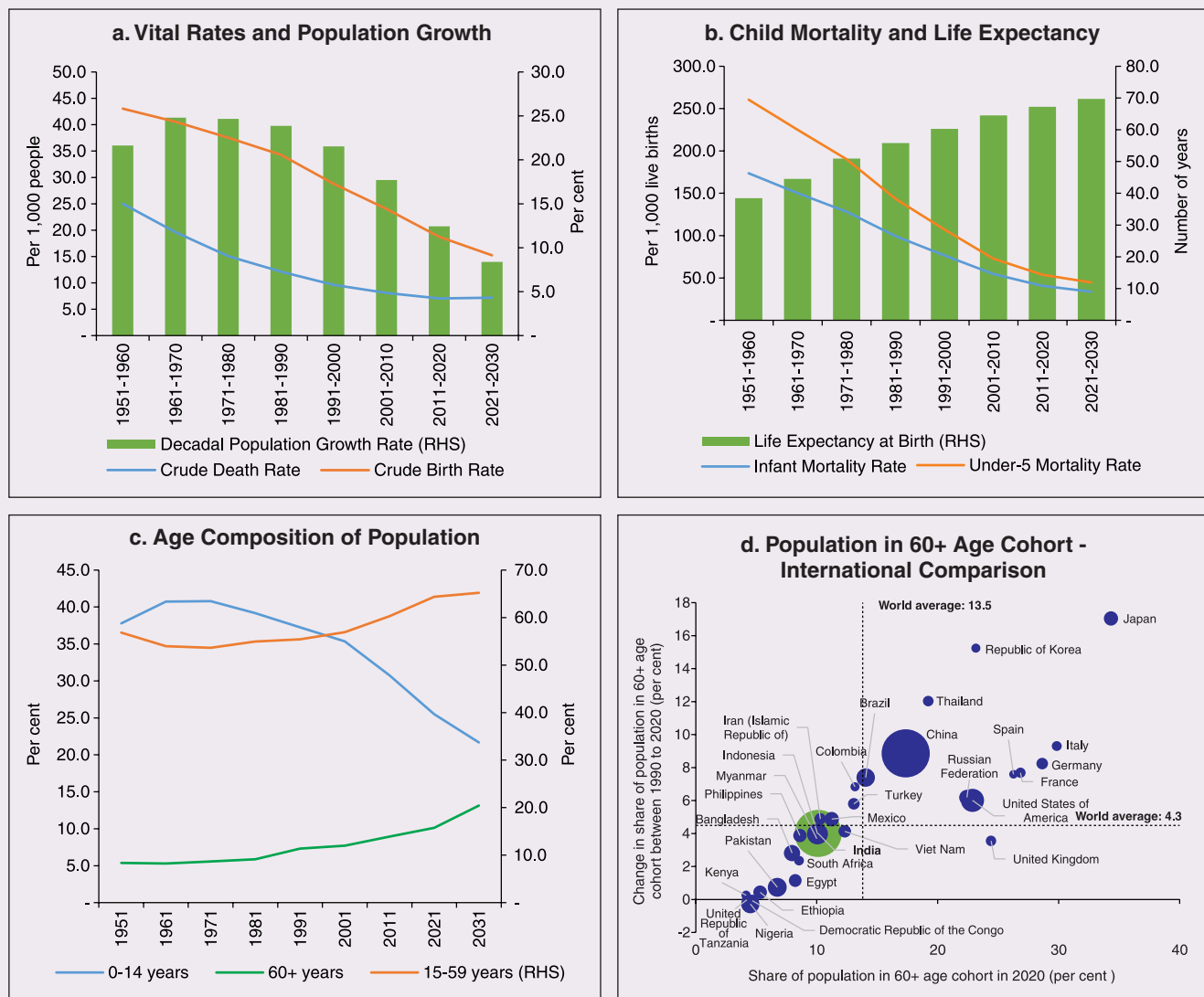
3.12 Demography played a key role in defining vulnerability to COVID-19 and hence in the healthcare needs of the population. Though a communicable disease, COVID-19 has shown properties similar to non-communicable diseases, with a higher mortality risk among older people and those with chronic degenerative conditions such as hypertension, diabetes, cardiovascular disease, chronic respiratory disease and cancer (United States Centre for Disease Control, 2020).

3.13 The demographic profile of a country/state is inherently linked to the sustainability of its fiscal policy and the profile of public expenditure – the young and old age cohorts are net beneficiaries of public expenditure on education, health and pensions, while people in the working age cohorts are net donors to the exchequer with lower benefits (National Transfer Accounts, 2004; Lee *et al.*, 2016; Mohan, 2004; Gol, 2019a).

3.14 India is in the late expanding stage of demographic transition since the 1990s, characterized by a sharp decline in the crude birth rate (CBR), while the decline in the crude death rate (CDR) has tapered off (Annex III.1 and Chart III.6 a). Alongside, child mortality declined sharply between 1950 and 2000 and at a slower rate since then. While the increase in life expectancy has moderated (Chart III.6 b), it has not yet translated into a rapidly ageing population (Chart III.6 c). India fares better than the world average in both the share and the growth of population in the 60+ age cohort, signifying lower vulnerability to COVID-19 (Chart III.6 d).

3.15 Demographic transition at the state level shows significant heterogeneity, and barring a few exceptions, a strong correlation with GSDP per capita of the state. Among the richer states, Gujarat and Haryana have lagged in the transition process across the vital rates and have populations considerably younger for

Chart III.6: India's Demographic Transition



Sources: UN Population Prospects 2019; Office of the Registrar General and Census Commissioner; and Report of the Technical Group on Population Projections (Gol, 2019e).

their income levels. Delhi is the other exception among the leading states, where the population skews younger despite its vital rates, due to the influx of younger internal migrants. Kerala, Tamil Nadu and Himachal Pradesh have a significantly higher proportion of population in the 60+ age cohort compared to the national average. This could potentially impact their ability to keep

their economies open, as recurrent outbreaks will require them to impose strict isolation policies to protect their vulnerable population. In contrast, the low income states of Bihar, Uttar Pradesh and Jharkhand have a very low share of their population in the 60+ age cohort, making them less vulnerable to pandemics (Table III.2).

Table III.2: Demographic Transition across States

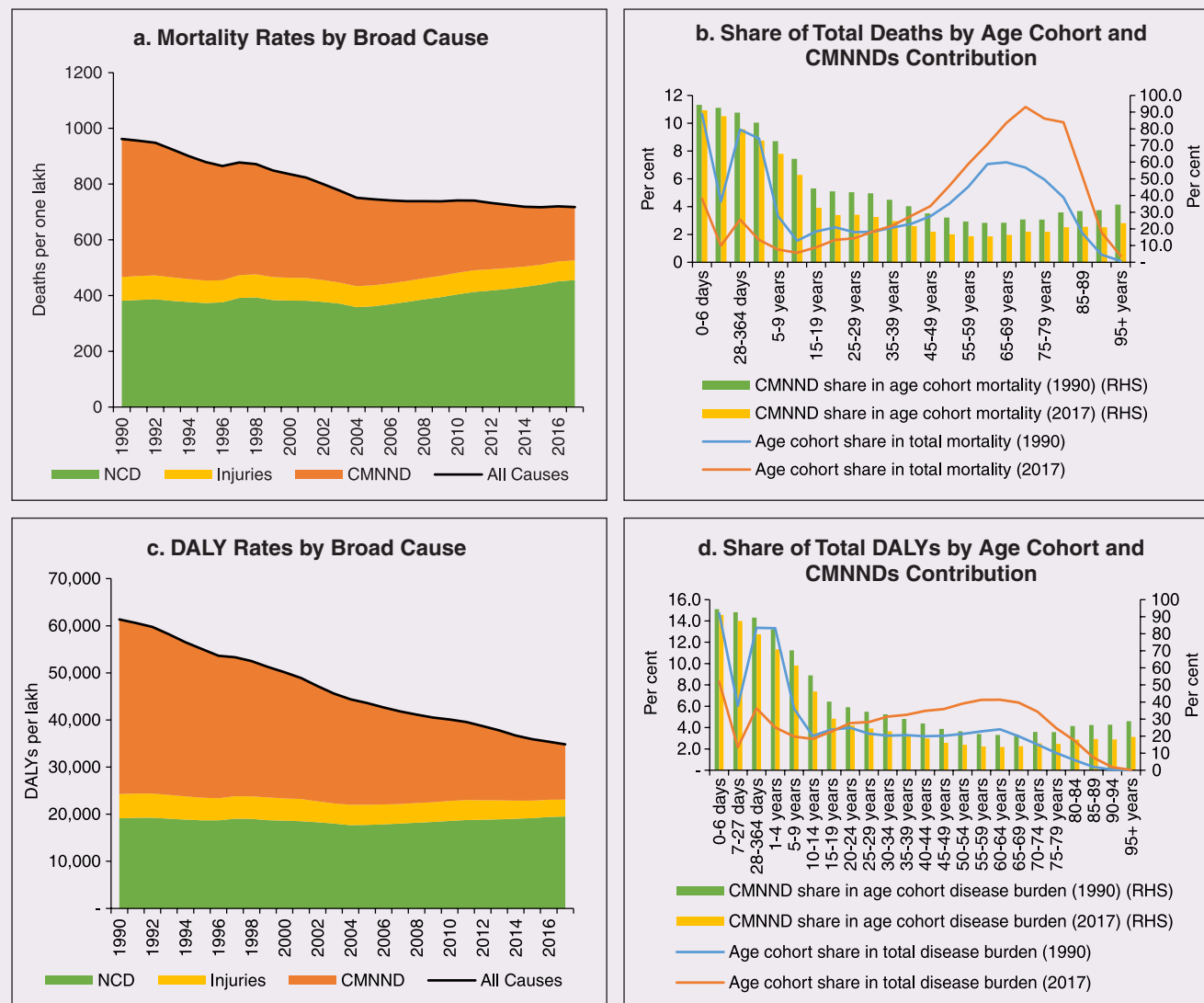
State	GSDP per Capita (2018-19)	2011-15 Vital Rates						Population in 60+ Age Cohort		
		Crude Birth Rate	Crude Death Rate	Infant Mortality Rate	Under-5 Mortality	Life Expectancy	Total Fertility Rate	2011	2021	2031
Unit	₹	Per 1000 Population	Per 1000 Population	Per 1000 Live Births	Per 1,000 Live Births	Years	Average Number of Children per Woman	Per cent	Per cent	Per cent
Delhi	3,94,216	15.4	4.6	27.0	29.0	73.8	1.8	6.9	9.3	12.5
Haryana	2,60,286	19.2	6.9	42.0	52.0	69.2	2.3	8.6	9.8	12.3
Karnataka	2,32,874	16.6	7.6	35.0	44.0	69.0	1.9	9.6	11.5	15.0
Kerala	2,25,484	14.5	7.0	11.0	12.0	75.3	1.8	12.7	16.5	20.9
Telangana	2,25,047	15.7	7.3	39.0	43.0	69.1	1.7	9.2	11.0	14.5
Gujarat	2,24,896	19.1	6.7	40.0	56.0	69.1	2.3	8.0	10.2	13.6
Uttarakhand	2,20,257	17.0	6.1	34.0	38.0	71.8	2.0	8.9	10.6	13.2
Maharashtra	2,16,169	15.2	6.6	25.0	27.0	72.0	1.8	9.9	11.7	15.0
Tamil Nadu	2,15,049	14.5	7.6	22.0	26.0	71.1	1.7	10.6	13.6	18.2
Himachal Pradesh	2,11,325	14.8	6.9	37.6	41.0	72.1	1.7	10.4	13.1	17.1
Punjab	1,72,149	14.7	6.8	29.0	35.0	72.1	1.7	10.5	12.6	16.2
Andhra Pradesh	1,68,083	15.2	7.8	39.0	43.0	69.1	1.7	10.1	12.4	16.4
N E states (excluding Assam)	1,27,334	15.6	5.0	31.8	40.1	72.2	1.8	6.1	8.8	12.7
Rajasthan	1,23,343	24.3	7.8	53.0	73.0	68.0	3.0	7.1	8.6	11.2
West Bengal	1,19,637	15.2	6.7	30.0	35.0	70.6	1.7	8.6	11.3	15.7
Jammu and Kashmir	1,09,769	15.1	4.7	35.0	41.0	73.6	1.9	7.0	9.5	13.2
Odisha	1,09,416	18.1	8.0	53.0	69.0	66.9	2.1	9.3	11.8	15.8
Chhattisgarh	1,08,058	22.5	8.1	47.0	63.0	65.2	2.6	7.6	8.8	11.7
Madhya Pradesh	99,025	24.9	8.2	58.0	85.0	64.8	3.0	7.5	8.5	11.1
Assam	94,385	20.3	7.5	51.4	73.9	64.8	2.3	6.4	8.2	11.6
Jharkhand	82,430	22.1	5.8	34.0	49.0	68.7	2.8	6.5	8.4	10.8
Uttar Pradesh	74,402	25.8	8.2	57.0	84.0	64.5	3.3	7.4	8.1	10.3
Bihar	47,541	27.5	5.9	42.3	57.3	68.4	3.8	6.3	7.7	9.5
All India		19.6	6.9	42.9	56.7	68.4	2.3	8.9	10.1	13.1

Sources: Report of the Technical Group on Population Projections (Gol, 2019e); and Ministry of Statistics and Programme Implementation (MoSPI).

3.16 Epidemiological transition in India has moved in tandem with demographic transition, with a shift in the mortality and disease burden from communicable, maternal, neonatal, and nutritional diseases (CMNNDs) to non-communicable

diseases (NCDs). The decline in the mortality rate by 25.4 per cent between 1990 and 2017 was driven by the decrease in CMNNDs (- 61.3 per cent), partially offset by an increase in NCDs (19.4 per cent). The share of CMNNDs in overall

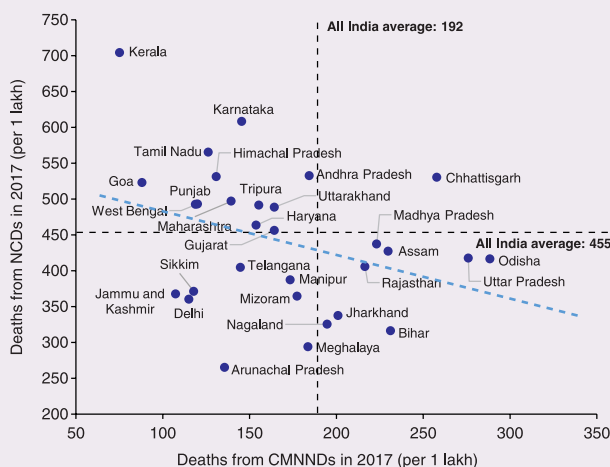
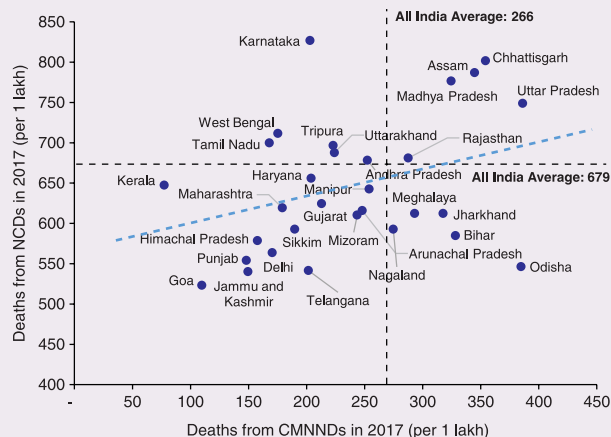
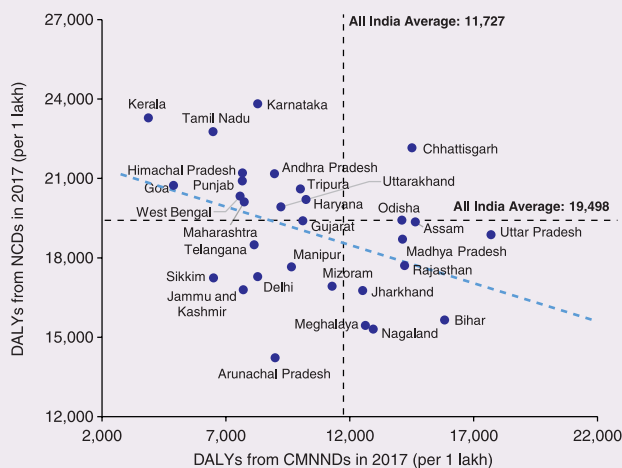
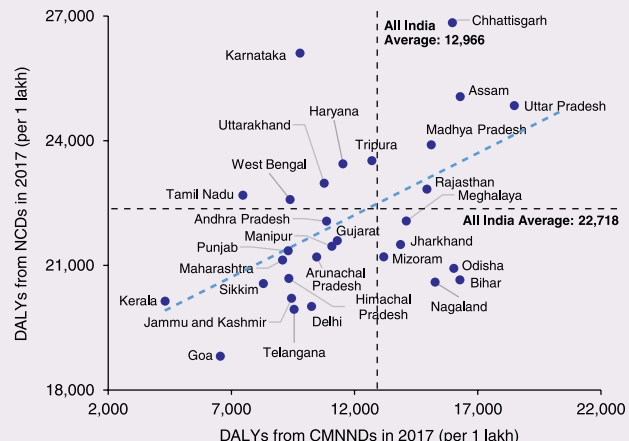
Chart III.7: India's Epidemiological Transition - Stylised Evidence



Sources: GBD India Compare Data Visualisation (2017); "India: Health of the Nation's States" (ICMR; PHFI; IHME, 2019),

mortality has almost halved, with an across-the-board decline for all age cohorts (Chart III.7 a and b). The decline in disease burden is even sharper, as measured through the Disability Adjusted Life Years (DALYs) metric, primarily because the increase in DALYs from NCDs is only marginal (Chart III.7 c and d), which augurs favourably for vulnerability of the population to COVID-19.

3.17 State-level mortality and disease burden show a significant compositional variation between CMNNDs and NCDs, with an overall negative correlation across states (Chart III.8 a and c). Corrected for age disparities, however, there is a positive correlation between mortality and disease burden from NCDs and CMNNDs. Kerala, Goa, Jammu and Kashmir and Punjab stand out as

Chart III.8: Epidemiological Transition across States
a. Crude Mortality Rate across States by Broad Cause

b. Age-standardised Mortality Rate across States by Broad Cause

c. Crude DALY Rate across States by Broad Cause

d. Age-standardised DALY Rate across States by Broad Cause


Sources: GBD India Compare Data Visualisation (2017); "India: Health of the Nation's States" (ICMR; PHFI; IHME, 2019).

states with the lowest age-standardised mortality and morbidity, while Chhattisgarh, Assam, Madhya Pradesh and Uttar Pradesh are characterised by the dual burden of disease with high mortality and morbidity from both CMNNDs and NCDs (Chart III.8 b and d).

3.18 Thus, both from a demographic and epidemiological perspective, India fares better

than the global average in terms of vulnerability to COVID-19. However, significant differences exist between states, with high income states more advanced in the ageing process and with a higher disease burden from non-communicable diseases than their poorer counterparts. A similar pattern is seen in the incidence of co-morbidity conditions that have been linked to higher mortality risk from COVID-19 infections (Table III.3).

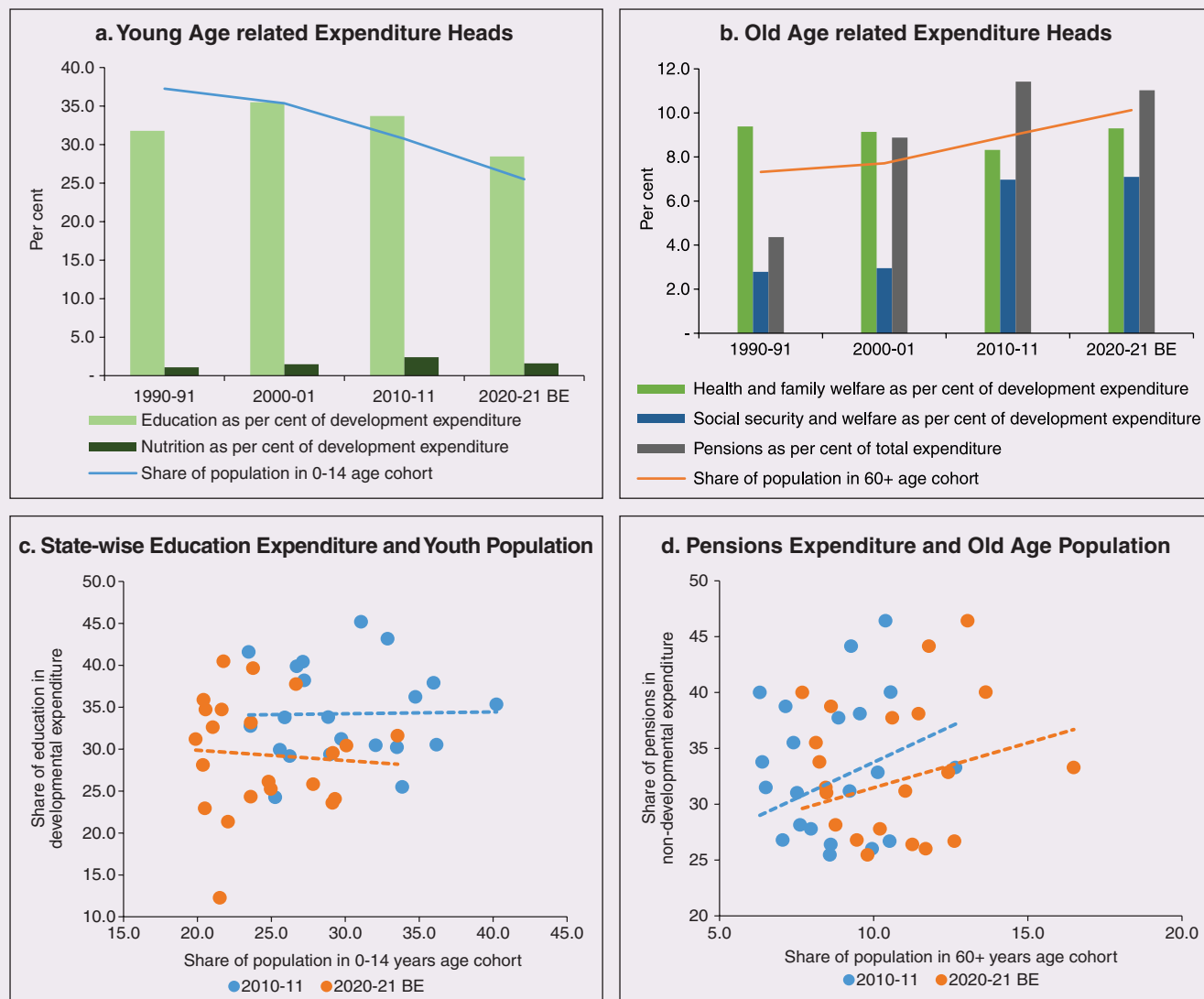
Table III.3: Age and Co-morbidity Condition

State	GSDP per Capita (2018-19)	Share of Population in 60+ Age Cohort (2021)	Prevalence of COVID-19 Risk Conditions (2017)				COVID-19 Impact (as on September 30, 2020)		
			Diabetes Mellitus	Chronic Respiratory Diseases	Cardio Vascular Diseases	Cancer	Cases	Deaths	Case Fatality Rate
Unit	₹	Per cent	Per 1 Lakh Population				Per 1 Million Population		
Delhi	3,94,216	9.3	4,995	5,598	4,596	377	14,949	287	2.1
Haryana	2,60,286	9.8	4,922	6,314	4,216	270	4,559	49	1.2
Karnataka	2,32,874	11.5	6,137	5,797	4,606	410	8,907	122	1.7
Kerala	2,25,484	16.5	6,894	6,642	6,955	606	5,493	21	0.6
Telangana	2,25,047	11.0	5,400	5,081	4,392	236	4,849	29	0.7
Gujarat	2,24,896	10.2	4,695	5,610	4,348	268	2,151	54	2.9
Uttarakhand	2,20,257	10.6	5,204	6,581	4,336	250	4,355	54	1.5
Maharashtra	2,16,169	11.7	5,287	5,711	5,117	312	11,242	298	3.3
Tamil Nadu	2,15,049	13.6	8,429	4,775	5,225	356	7,677	122	1.7
Himachal Pradesh	2,11,325	13.1	5,105	7,043	5,237	323	2,010	24	1.6
Punjab	1,72,149	12.6	6,537	5,107	5,338	293	3,778	113	3.5
Andhra Pradesh	1,68,083	12.4	5,638	6,149	5,048	266	12,865	108	0.9
N E states (excluding Assam)	1,27,334	8.8	3,915	4,706	3,569	233	3,861	28	0.7
Rajasthan	1,23,343	8.6	3,727	6,498	3,691	204	1,670	18	1.3
West Bengal	1,19,637	11.3	4,673	6,202	5,367	269	2,581	50	2.1
Jammu and Kashmir	1,09,769	9.5	4,082	5,515	4,087	169	5,517	87	2.0
Odisha	1,09,416	11.8	5,004	5,296	4,594	221	4,727	19	0.5
Chhattisgarh	1,08,058	8.8	5,198	5,003	3,995	279	3,859	33	1.2
Madhya Pradesh	99,025	8.5	4,276	5,333	3,720	246	1,500	27	2.2
Assam	94,385	8.2	4,254	5,033	3,695	206	5,075	20	0.5
Jharkhand	82,430	8.4	4,280	4,512	3,439	201	2,167	18	1.0
Uttar Pradesh	74,402	8.1	4,186	6,057	3,367	214	1,678	24	1.7
Bihar	47,541	7.7	3,327	4,899	3,258	155	1,466	7	0.5

Sources: Ministry of Statistics and Programme Implementation (MoSPI); Report of the Technical Group on Population Projections (Gol, 2019e); Covid19india.org; GBD India Compare Data Visualization (2017); "India: Health of the Nation's States" (ICMR; PHFI; IHME, 2017)

3.19 For all the states taken together, the share of developmental expenditure on education has declined between 2000-01 and 2020-21, in line with the decline in the share of the young in the population (Chart III.9 a). Conversely, the share of social security and welfare in developmental expenditure has increased faster than the share of the elderly in the population, while that on health and family welfare has stagnated, with

implications on their preparedness to deal with COVID-19 outbreak (Chart III.9 b). State-wise analysis shows no correlation between education expenditure and the share of the young in the population, probably reflecting the growing role of private education. On the other hand, pension expenditure positively correlates with the share of elderly in populations across states (Chart III.9 c and d).

Chart III.9: Demography and State Expenditure: Stylised Evidence


Sources: e-States; and Report of the technical committee on population projection (Gol, 2019e), Census.

3.20 States need to prepare for demographic changes as their populations age. Historical data shows an increase in social security and welfare expenditure and a decrease in education expenditure shares. Over the last decade, however, backed by pension reforms *viz.*, states joining the national pension system (NPS) that moved them from defined benefits to defined contributions, the increase in share of pensions in total expenditure has been arrested. The share of expenditure on

health and family welfare has stagnated, even though the share of the old age population has increased. All these have implications on health system preparedness and interventions in response to pandemics.

4. Healthcare and Fiscal Implications for States

3.21 COVID-19 has set off considerable debate on the importance of health while framing long-term policies for public transport, urban

development, workforce mobility and migration – areas in which it has traditionally been at the periphery. Much will depend on the shape of the post-COVID-19 “new normal”. Illustratively, the usage of the blunt instrument of lockdown, which has a significant impact on economic activity, is essentially governed by considerations on the adequacy/inadequacy of healthcare resources to manage the peak case load. Going forward, investing in healthcare is both prudent and urgent.

3.22 In the Indian federal structure, although the centre and states’ share differentiated responsibilities in management of the healthcare system, the states’ role is larger. The seventh schedule of the Indian constitution puts public health and sanitation; hospitals and dispensaries under entry 6 of the states list. Furthermore, law and order (entry 1 and entry 2 of the states list) and local government (entry 5 of the states list) also puts the onus of containment on the states¹⁰. The centre has specific responsibilities in the management of disease outbreaks under the Epidemic Diseases Act, 1897 and the Disaster Management Act, 2005, which can and were invoked in the current crisis. Also, successive central governments have undertaken various Centrally Sponsored Schemes (CSS) in public health and sanitation (subjects in the states list), which are routed through the treasuries of state governments and are contributory in nature¹¹. From the perspective of management of the COVID-19 health crisis, while significant aspects

of healthcare, particularly in health research (including testing and development of therapeutics and vaccines) and international collaboration, are in the primary domain of the central government, state governments will have to take on the mantle of leadership in healthcare delivery. This pandemic presents an opportunity for states to bring about structural changes to improve the quality, accessibility, and affordability of healthcare.

3.23 As per the National Health Accounts Estimates of 2016-17¹² (GoI, 2019d), a major part of the current expenditure on healthcare is incurred on delivery of inpatient and outpatient care (52.4 per cent). Pharmaceuticals and other medical goods (principally prescribed medicines) is the other large expenditure category. This expenditure is largely cornered by private sector healthcare providers and is financed predominantly by households from their own pockets (63.2 per cent); the government’s contribution is significant and mostly non-insurance based (Chart III.10 a).

3.24 On an international comparison, India’s current health expenditure, both in terms of its level and financing structure, is broadly similar to that of South Asian Association for Regional Cooperation (SAARC) and Association of Southeast Asian Nations (ASEAN) countries, except in the case of Sri Lanka, Thailand and Viet Nam where the share of government in financing is higher. Among the BRICS countries, healthcare expenditure of Brazil and South Africa is at a significantly higher level than India, financed through government

¹⁰ Some aspects of healthcare are in the concurrent list in which the centre and states share responsibilities, viz., Population Control and Family Planning (Entry 20 A), Legal, Medical and Other Professions (Entry 26) and Lunacy and mental deficiency, including places for the reception and treatment of lunatics and mental deficiencies (Entry 16).

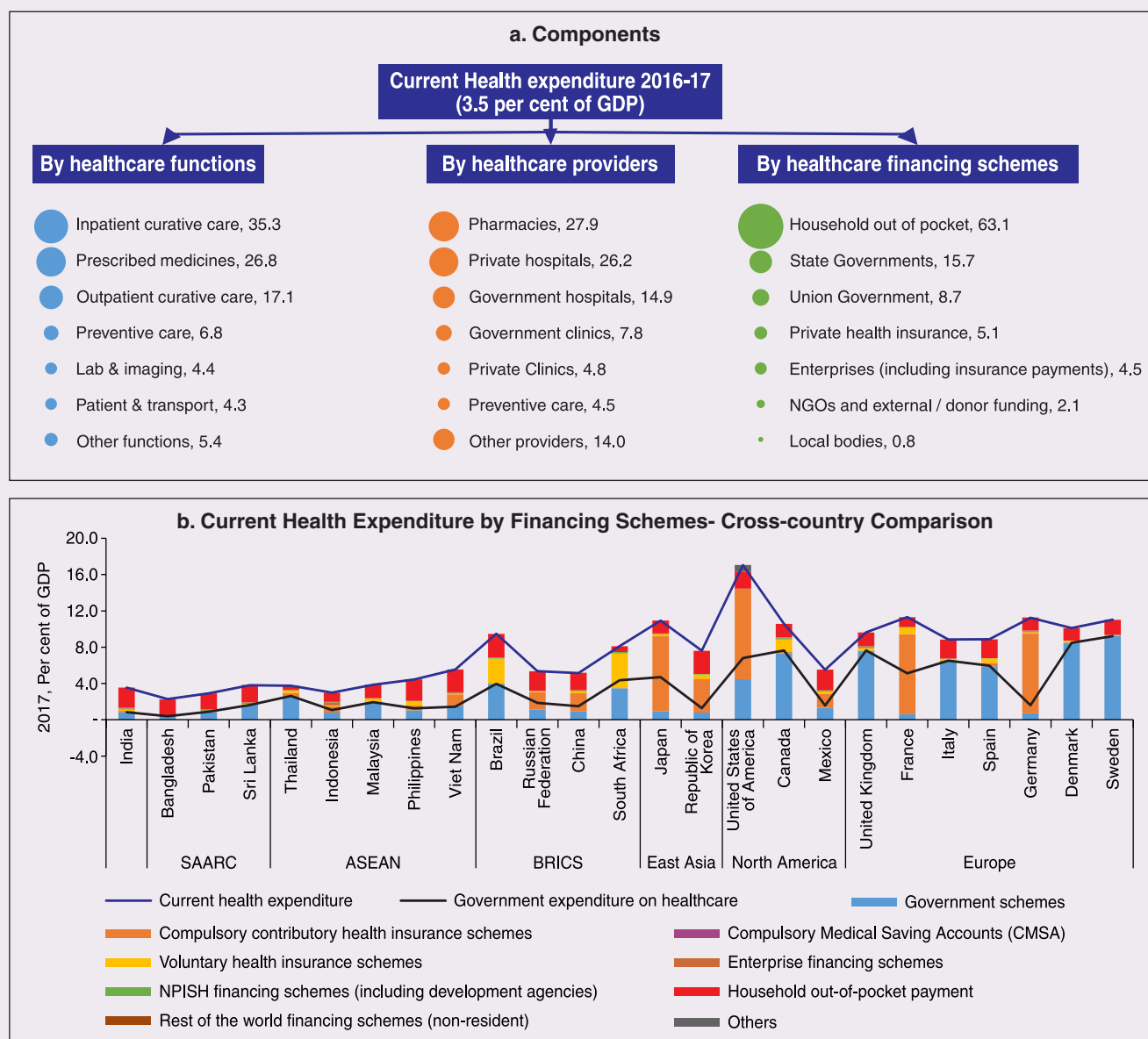
¹¹ The exclusive domain of the centre also includes institutions of national importance (e.g., Indian Council of Medical Research) and institutions for professional and technical training and research (e.g., All India Institute of Medical Sciences).

¹² National health accounts describe the health expenditures and the sectoral flow of funds (government and private), derived within the framework of National Health Accounts Guidelines for India, 2016. These adhere to the System of Health Accounts 2011 (SHA 2011), a global standard developed in a collaborative effort by health accounts experts from the Organisation of Economic Co-operation and Development (OECD), World Health Organisation (WHO) and European Union (EU).

expenditure and private insurance. Healthcare expenditure in China and Russia is moderately higher than in India; significantly, a higher share of government expenditure in these countries is through the insurance route (compulsory contributory health insurance schemes). Among the developed regions of the world – east Asia; north America; and western Europe – current healthcare expenditure is at a significantly higher

level, with a higher share of government financing (except in Germany and the Republic of Korea). The share of out-of-pocket expenditure by households on healthcare is low in these countries, while the financing is largely based on a mix of government schemes and compulsory contributory health insurance schemes, with no clear winner between the two on a cross-country comparison (Chart III.10 b).

Chart III.10: India's Healthcare Expenditure



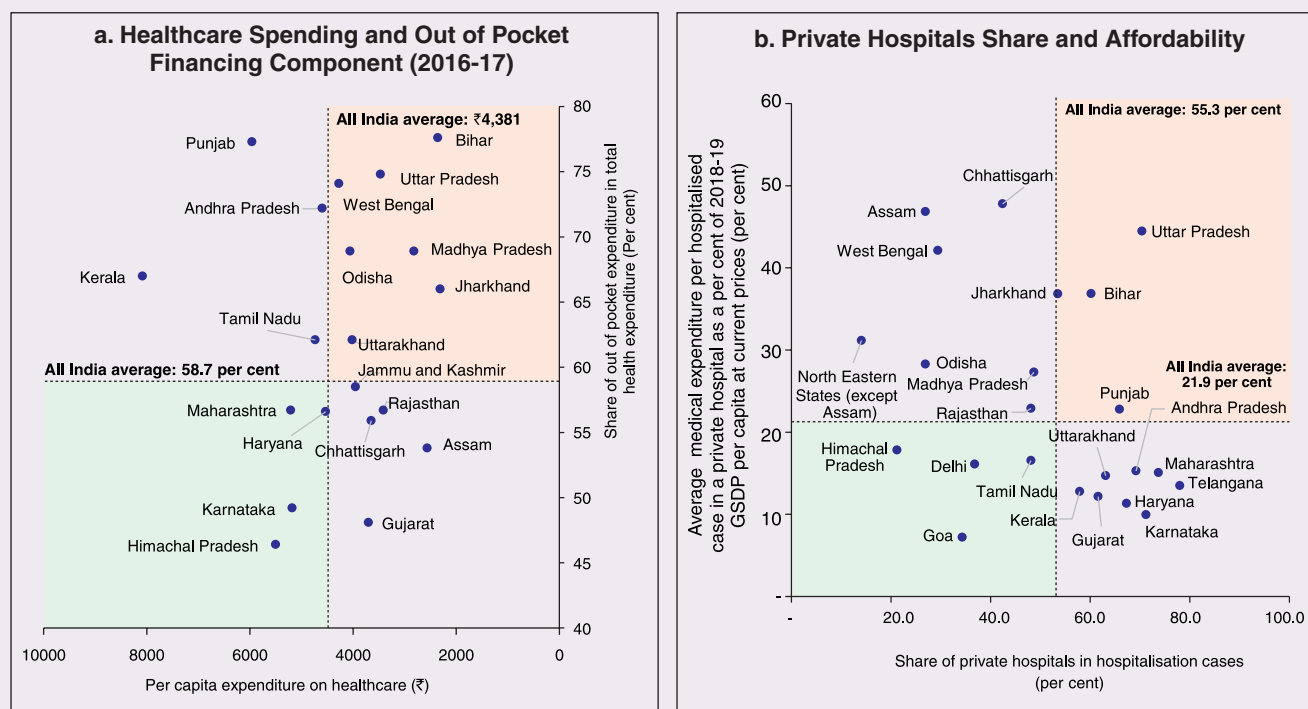
Sources: National Health Accounts Estimates of India, 2016-17 (GoI, 2019d); and WHO Global Health Expenditure Database, 2019.

3.25 Turning to per capita healthcare expenditure (Chart III.11a¹³), states in the top right corner of the matrix (shaded red) perform poorly on healthcare spending which is funded by a high out of pocket component share, suggesting that they have the lowest government spending on healthcare on a per capita basis. Conversely, states in the bottom left corner (shaded green) are the best performing on both these metrics, highlighting the key role played by government finance in healthcare of these states. Kerala is the exception, with significantly higher healthcare spending per capita than all other states, driven by higher than average government spending as well as out of pocket spending, which has borne dividend in the handling of the *Nipah*

outbreak as well as in keeping mortality from COVID-19 relatively low despite unfavourable demographics. In terms of the share of private hospitals in hospitalised cases and its affordability (Chart III.11b), states in the top right corner of the matrix (shaded red) have a higher reliance on private hospitals and at the same time, the cost of hospitalisation in these facilities (relative to their GSDP per capita) is higher than the all India average. At the other end of the spectrum are states in the bottom left corner (shaded green) where the reliance on private hospitals is low and they are relatively more affordable.

3.26 Thus, significant inter-state disparities exist in access to and affordability of healthcare.

Chart III.11: Healthcare in States: Expenditure and Private Hospitals' Share and Affordability



Sources: National Health Accounts Estimates of India, 2016-17 (Gol, 2019d); and NSS 75th Round, (Gol, 2019b).

¹³ This analysis is based on NSS latest survey. Since the 1990s there have been four health surveys of NSO (erstwhile NSSO): those of the 52nd round (July 1995-June 1996), the 60th round (January 2004-June 2004), the 71st round (January 2014-June 2014), and the latest being the 75th round (July 2017-June 2018). The 71st and 75th round surveys were more comprehensive - done over a one year period and covering a larger sample size.

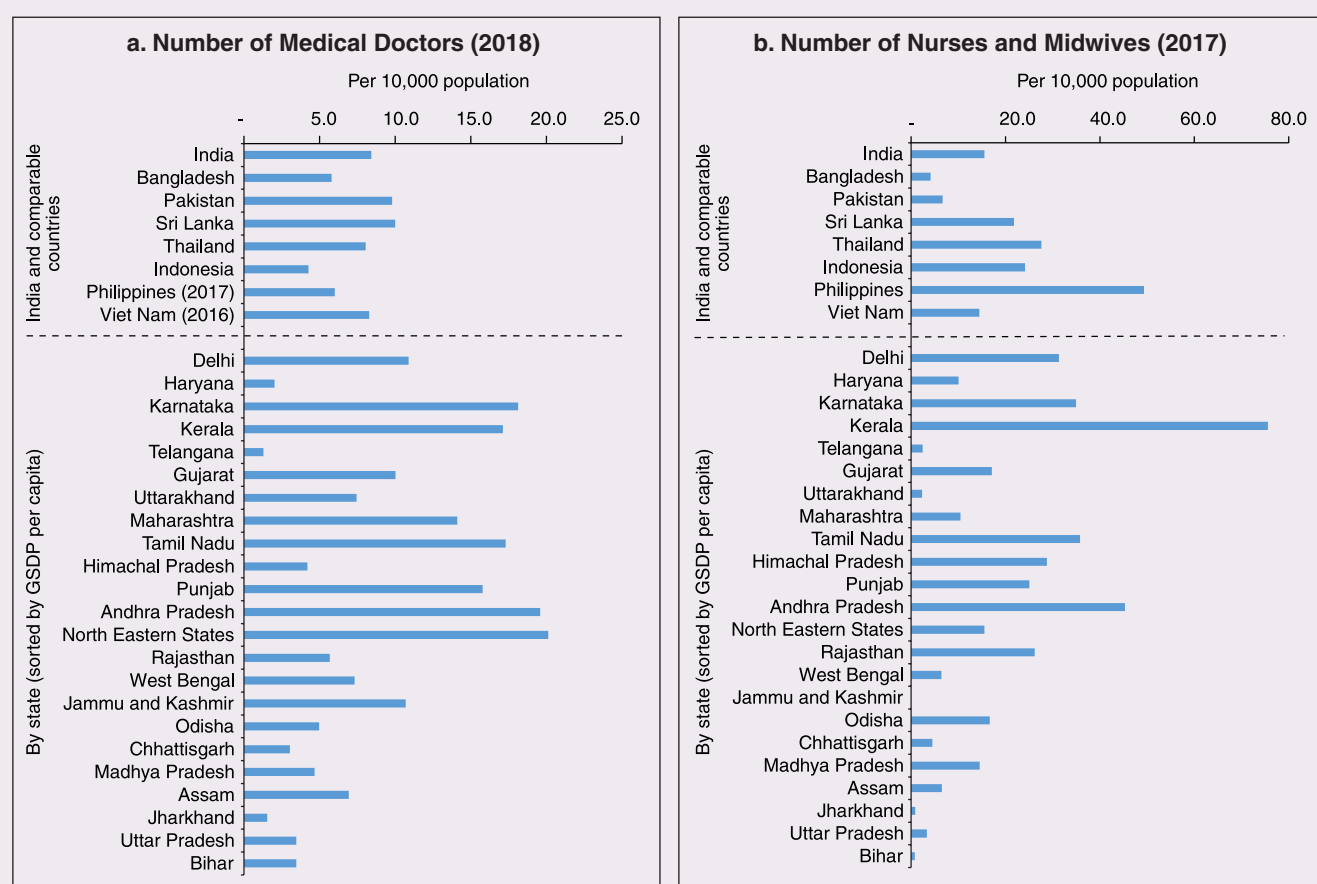
Himachal Pradesh acquits itself well in providing government healthcare as well as in keeping private healthcare affordable, while Uttar Pradesh, Bihar and Jharkhand will need some catching up. Individuals' spending on healthcare is low in these states, financed largely from out of pocket, with high reliance on private facilities for hospitalisation that is prohibitively expensive and crowds out medical access to the poor. This requires urgent attention from state governments to prepare their states to meet the healthcare challenge from COVID-19 and future pandemics.

3.27 In terms of healthcare human resources, the availability of which is crucial to deal with

the health fallout from COVID-19, the number of doctors per unit of population in India is broadly comparable with countries in Asia with similar demographic characteristics. However, there are significant state-level differences: Southern states (except Telangana) have significantly better coverage of medical doctors while the coverage in low-income states of Uttar Pradesh, Bihar and Jharkhand is among the lowest in the country. These states also have abysmally low number of registered nurses and midwives *vis-à-vis* their population size (Chart III.12).

3.28 As regards hospital infrastructure in terms of number of beds available – (a critical variable in

Chart III.12: Healthcare Human Resources



Notes: Data for North Eastern States excludes Assam which is reported separately. For medical doctors, data for Manipur and Meghalaya was not available and for nurses and midwives, data for Nagaland was not available. These have been excluded in calculating the average for north eastern states. For nurses and midwives, data for Jammu and Kashmir was not available.

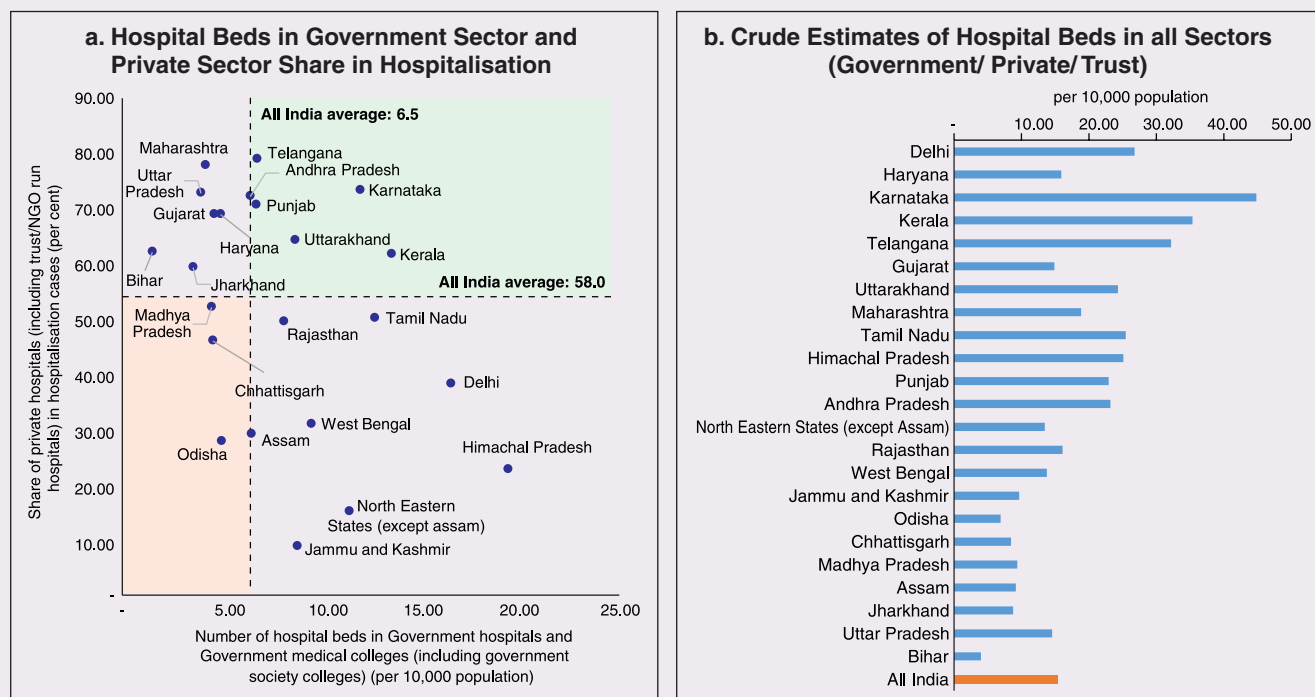
Sources: National Health Profile 2019 (GoI, 2019c); and WHO Global Health Observatory data repository, 2019.

time of COVID-19) – on a standardised measure of government hospital beds availability¹⁴ per 10,000 population, Himachal Pradesh and Delhi are best placed states while Bihar and Jharkhand lag. The pivotal role played by the private sector in hospital care is a guiding proxy variable. States that have a high share of private sector hospitalised cases as well as high availability of government beds (shaded green) appear to be best placed in terms of overall hospital infrastructure, while states that are on the lower end of both these measures (shaded red) are likely to be deficient (Chart III.13a). A crude estimate of overall availability of hospital beds across states, calculated on the assumption that the ratio of government sector (hospitals and medical colleges) hospital beds to overall hospital beds approximates the share of government in hospitalised cases in 2017 (from

the NSS 75th Round) (Chart III.13 b), shows that Karnataka, Kerala and Telangana have the highest estimated number of beds per 10,000 population while Bihar, Odisha, Jharkhand, Chhattisgarh, Assam and Madhya Pradesh have the lowest number of beds.

3.29 The government has a key role to play in the provision and/or financing of healthcare in India. Despite hospitalisation being prohibitively more expensive in a private than a public hospital, the former commands a predominant share, reflecting a conscious choice made by individuals, based on quality and accessibility considerations (real or perceived). At the same time, high out of pocket expenses with limited coverage of contributory and employer-based insurance raises concerns about affordability and equity in healthcare access,

Chart III.13: Hospital Infrastructure



Sources: National Health Profile 2019 (GoI, 2019c); NSS 75th Round; and RBI staff estimates.

¹⁴ Hospital beds data available only for government hospitals and medical colleges.

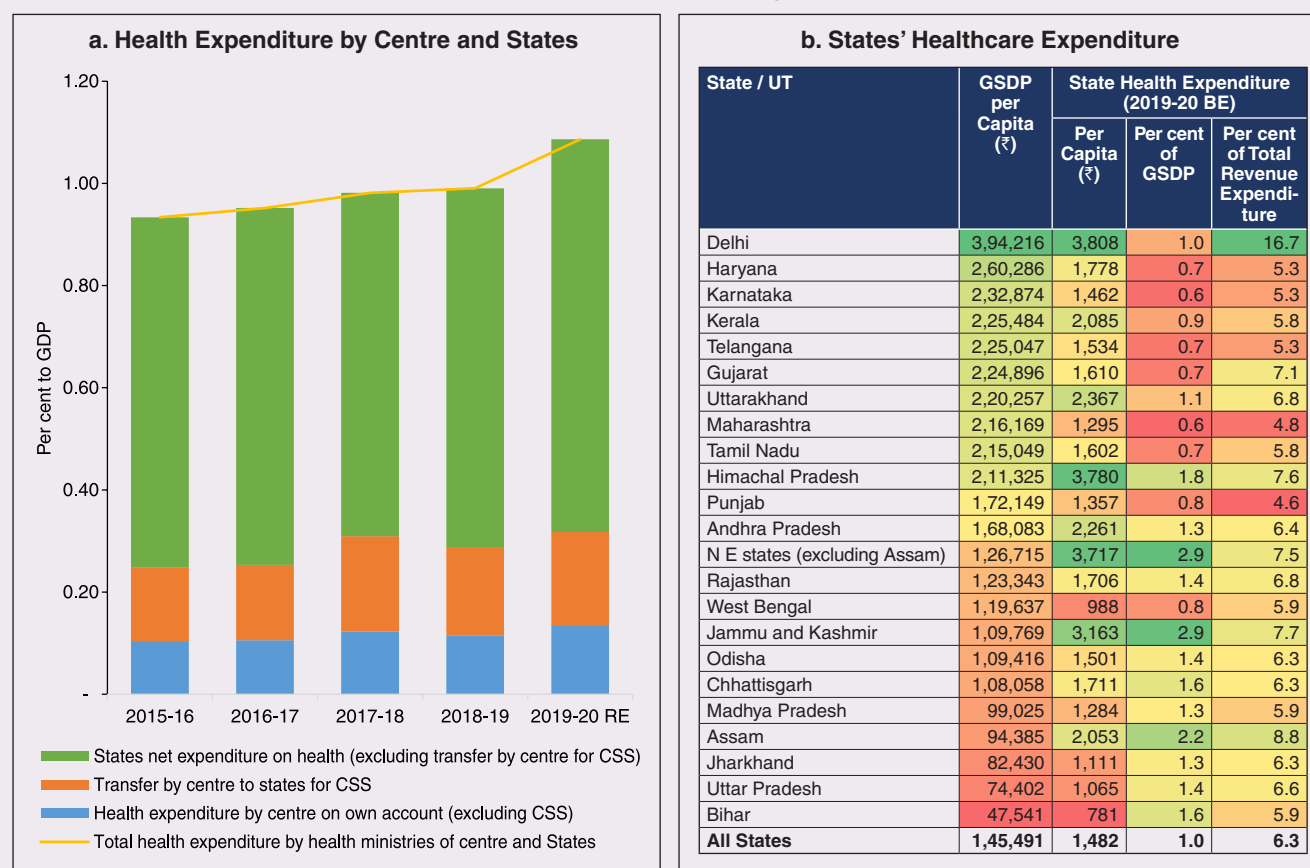
especially in the context of COVID-19 and the vulnerability of low-income segments of society.

3.30 States have the overwhelming share (87.5 per cent in 2019-20) in government spending on healthcare, which is partially financed through transfers by the centre for CSS. Total healthcare spending by health ministries of the centre and states was 1.1 per cent of GDP in 2019-20 RE, up from 0.9 per cent of GDP in 2015-16 (Chart III.14 a). There is significant heterogeneity on state healthcare spending per capita across states owing to their varying revenue raising

capacity (Chart III.14 b). Though funding from CSS health schemes – National Health Mission (NHM); *Rashtriya Swasthya Bima Yojna (RSBY)*; and *Pradhan Mantri Jan Arogya Yojana (PMJAY)* – has played a role in correcting the imbalances in healthcare spending across states, it has not been enough to compensate for the inherent fiscal disabilities of poorer states¹⁵.

3.31 Universal access to healthcare has gained prominence in the policy agenda, both at the global and national levels. Universal Health Coverage (UHC) is a part of the sustainable development

Chart III.14: Government Spending on Healthcare



Sources: Union budget documents; State budgets; and MOSPI.

¹⁵ Historically, the Central Sector Schemes that are fully funded by the centre included the NHM and the RSBY. The NHM, launched in 2013, with its two Sub-Missions - the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM) – has been specially focused on both CDs and NCDs. The RSBY provide health insurance to workers in the unorganised sector. These schemes were subsequently restructured as CSS in 2015-16, with joint funding from the centre and states.

goals (SDGs) adopted by the United Nations (UN) in 2015, and further reinforced in the political declaration of the high level meeting on UHC at the UN General Assembly meeting in October 2019. Nationally, the progress towards UHC has gained significant traction with the adoption of National Health Policy in 2017 (GoI, 2017) and the launch of PMJAY in 2018. The former has set ambitious targets to increase government health expenditure to 2.5 per cent of GDP by 2025 and states' health sector spending to 8 per cent of their budget by 2020. In the 2020-21 BE, however, only Assam and Delhi meet this target. PMJAY, also known as the *Ayushman Bharat* programme, was launched as the largest health assurance scheme in the world to cover 10.74 crores poor and vulnerable families (approximately 50 crore beneficiaries) that form the bottom 40 per cent of the Indian population. Also, the scheme has an infrastructure component – augmentation of which is necessary for COVID-19 health requirements going forward – and provides for viability gap funding under the PPP route for empanelled private hospitals, in addition to providing funding for establishing health and welfare centres (HWCs).

3.32 Notwithstanding the considerable progress made in recent years, the agenda for UHC remains unfinished in India and requires a step up in spending by the government, as COVID-19 demonstrated. Though a state subject, resources to augment health spending by states need to come from a mix of their own revenues and transfers from the centre for a balanced fiscal outcome. Transfers also have the additional advantage of mitigating the fiscal disability of poorer states, thus ensuring

a minimum acceptable level of healthcare across the country.

5. Reverse Migration, Employment and MSMEs

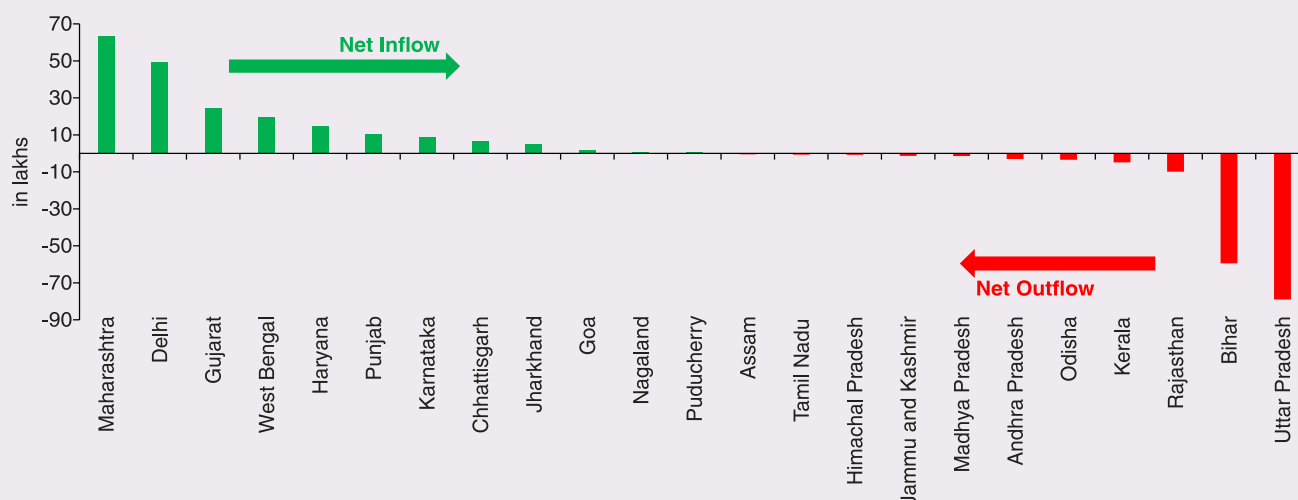
3.33 COVID-19 led to large migrations during 2020, establishing a link with epidemiology. The nation-wide lockdown imposed job losses, prompting migrant labourers to return from cities to native places. The resulting transmission of the virus to rural areas added to transitory rural unemployment, besides causing labour shortages in urban areas (Singh *et al.*, 2020).

3.34 A sizeable fraction of India's workforce currently consists of inter-state migrants, mainly labourers. Inter-state, intra-state, inter-district and intra-district migrants (including migrant labourers) increased from 309.3 million in 2001 to 449.9 million in 2011, of which inter-state migrants (including migrant labourers) increased from 41.1 million in 2001 to 54.2 million in 2011 (Census, 2011). Since 2011, the inter-state migration has been reported to have grown annually by around 9 million up to 2016 (GoI, 2018), though reliable point estimates are unavailable in the absence of a robust data collection system. Over the decades, Uttar Pradesh (UP) and Bihar have been the major out-migration states, followed closely by Rajasthan and Odisha. The major in-migration states are Maharashtra, Delhi, Gujarat and West Bengal¹⁶ (Chart III.15). COVID-19 switched the sources and destinations of migrant labourers (Chart III.15).

3.35 In the reverse migration experienced during the pandemic, push factors, viz., high costs of living in urban areas; no earnings; loss of employment;

¹⁶ As per GoI (2018), the states that emerged as net inflow states by 2017-18 apart from those mentioned in this chart are Tamil Nadu, Andhra Pradesh and Assam, while those that emerged as net outflow states are Jharkhand, Haryana and Chandigarh. The trend for all other states is mostly in line with 2011 Census.

Chart III.15: Flow of Migrant Population (inclusive of migrant labourers) in 2011



Source: Census of the Population of India 2011.

uncertainty about the lifting of the lockdown; limited access to social and unemployment benefits, coupled with pull factors, *viz.*, *rabi* crop harvesting; seeking other employment opportunities such as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA); joining their family members in the native place; and the notion of feeling more safe and secure were the major drivers, in sharp contrast to the conventional push/pull factors (Todaro, 1969; Lee, 1966).

3.36 Several other Asian, European and Latin American countries also faced similar problems, but the size of the migrant workforce and nature of agglomeration was significantly lower than in India. The number of inter-state migrants in India moving back is estimated to be about 40 million¹⁷. The dire consequences for employment

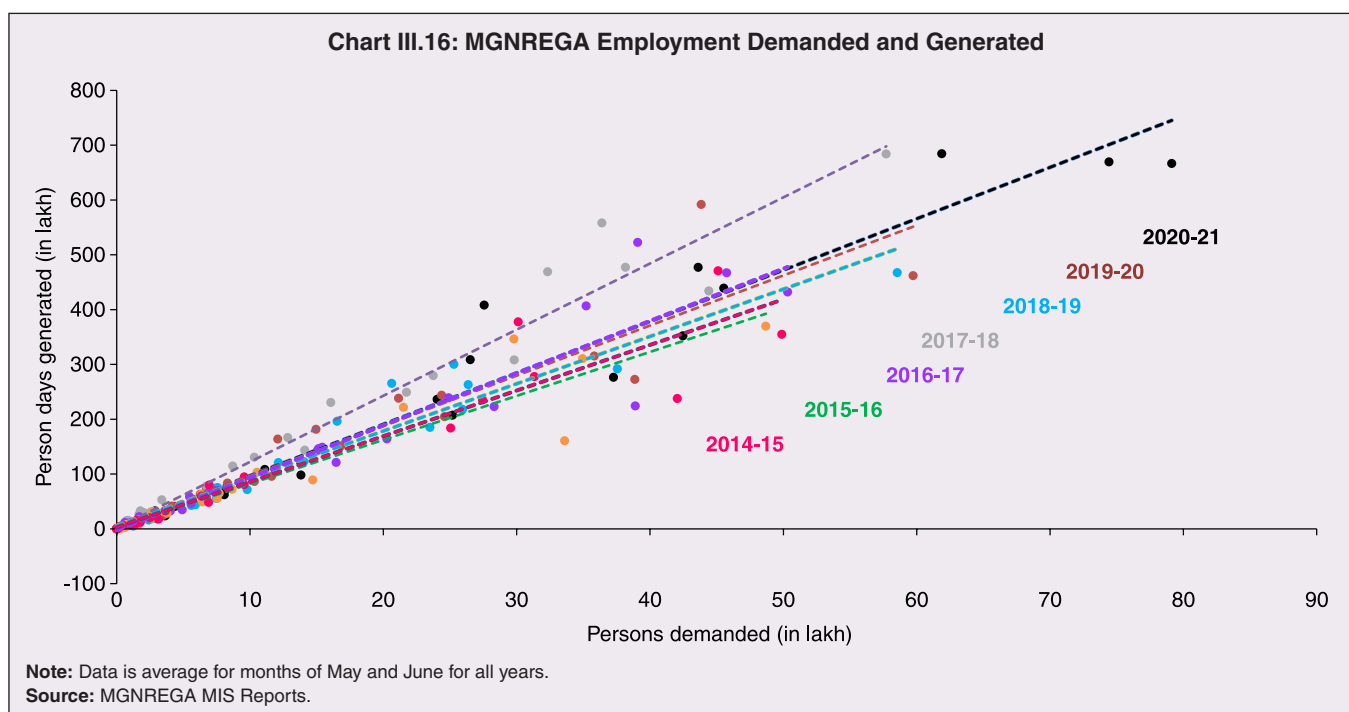
is reflected through the work demanded and generated under MGNREGA across states, which has been the highest in the past few years, especially in the months of May and June, 2020 (Chart III.16)¹⁸.

3.37 Almost 2.7 billion workers worldwide, accounting for four-fifths of the global workforce, had to face the brunt of lockdown measures enforced to contain the pandemic (ILO, 2020). Consequent upon reverse migration, a significant decline in employment was witnessed in India, particularly in sectors where a higher fraction of the workforce was not able to work remotely as in construction – (73 per cent of total rural female workers and 67 per cent of total urban female workers are migrant workers¹⁹) – and manufacturing sectors (59 per cent of total rural female workers and 51 per cent

¹⁷ World Bank (2020).

¹⁸ Data on demand for work and work generated is available 2014-15 and 2013-14, respectively.

¹⁹ Source: NSS 2007-08, Ministry of Housing and Urban Poverty Alleviation, 2017.



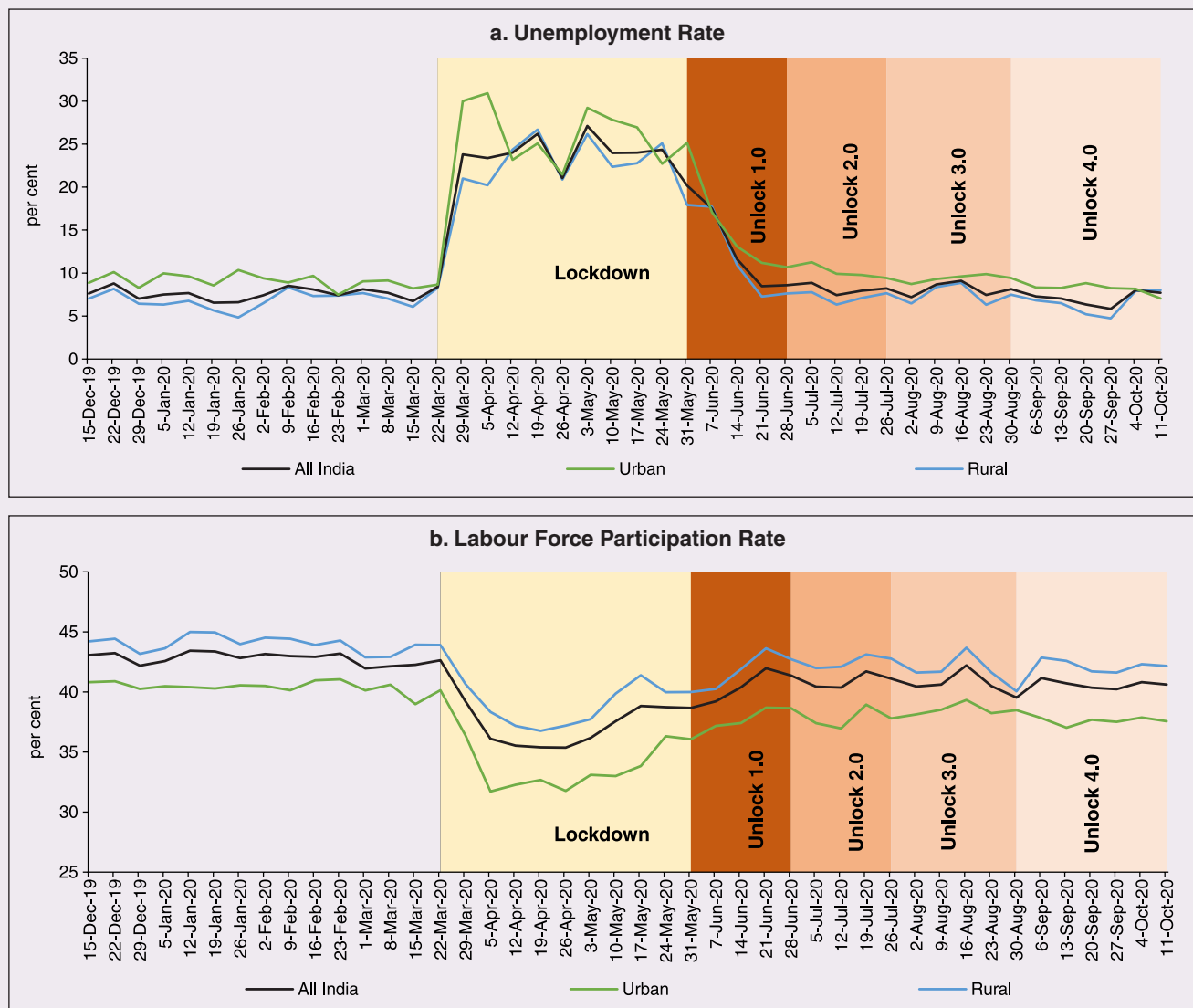
of total urban female workers) (Estupinan *et al.*, 2020; Papanikolaou and Schmidt, 2020). Analysis of the daily data on unemployment reflects the sharp increase in unemployment during the lockdown (Chart III.17 a and b).

3.38 Regional differences were persistent prior to 2000s, with few signs of convergence in employment rates or participation rates across regions as per the NSS 55th round (World Bank, 2010). However, between 2009-10 and 2018-19, state-wise analysis shows that there were distinct signs of convergence across states and UTs in terms of unemployment rates (Annex Table III.2). Reverse migration might distort this convergence process. A major proportion of migrants moved back to their native states during April-June 2020

(Chart III.18). Consequently, the employment demand in these states might increase which, in turn, might render awry the regional convergence noticed during 2009-10 to 2018-19. This could lead to permanent loss of migration for future work with depressed wage growth and demand (RBI, 2020)²⁰.

3.39 Against the backdrop of the pandemic, informal employment has drawn attention across the world, given that this segment consisting of about 2 billion workers, mostly in emerging and developing economies, seems to be impacted most by the economic fallout of the crisis (ILO, 2020). In countries with a larger share of informal labour force, the stringent lockdown measures have impacted employment to a greater extent

²⁰ A survey of 2,917 returning migrants of six states, carried out by Inferential Survey Statistics and Research Foundation (ISSRF) in July-August, 2020 also indicates about one-third of migrants do not want to return to cities for work.

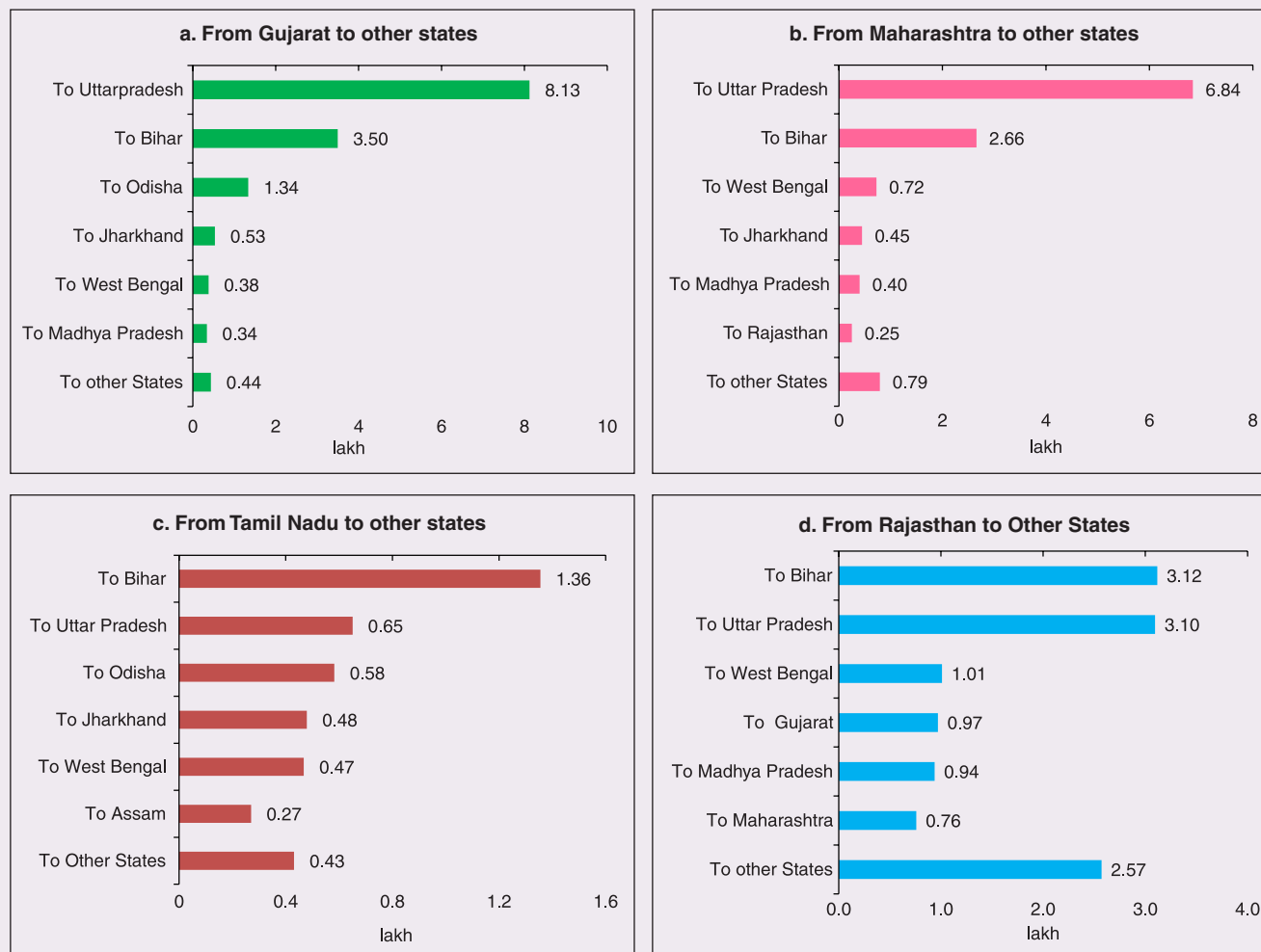
Chart III.17: Impact of COVID-19 on Unemployment and Labour Force Participation


Source: Centre for Monitoring Indian Economy (CMIE)²¹.

than others (Chart III.19). In India, where almost 90 per cent of people work in the informal economy, about 40 crore workers in the informal

economy are at risk of falling deeper into scarcity of finances during the crisis (ILO, 2020). In fact, the incidence of informality seems to have been

²¹ The unemployment rate is computed as the number of persons not employed but willing to work and actively looking for a job as a per cent of the total labour force, where the total labour force is the sum of all those who are employed and those who are not employed but are willing and looking for a job.

Chart III.18: Major Reverse Migration Corridors of Select States


*: Includes *Shramik* train travellers only.

Source: Respective state governments.

stuck for decades in India, with the demand for labour and quality of labour being two major factors responsible for this persistence (Mehrotra, 2019).

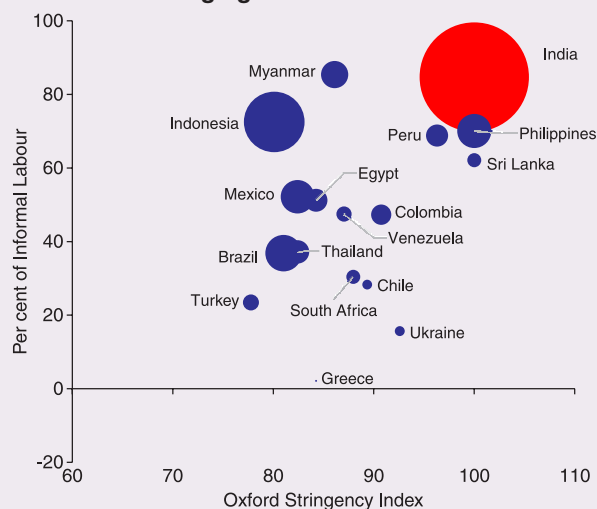
5.1 Micro Small and Medium Enterprises (MSMEs)

3.40 India's 63.4 million MSMEs contribute significantly to the country's economy. The sector accounts for 45 per cent of manufacturing output, more than 40 per cent of exports and employs about 120 million people. MSMEs have taken a

bigger hit than other sectors, particularly because of the spatial distribution of the pandemic that is skewed towards states with a higher share of MSMEs, more so micro and small enterprises (Chart III.20).

3.41 The lockdown was a triple whammy for the MSME sector in India – supply disruption; domestic demand shock; and external demand decline (Sahoo and Ashwani, 2020). MSMEs also employ a large share of informal labourers. Consequently,

Chart III.19: Informal Employment and COVID-19 Lockdown Stringency – Cross-Country Comparison of Emerging Market Economies



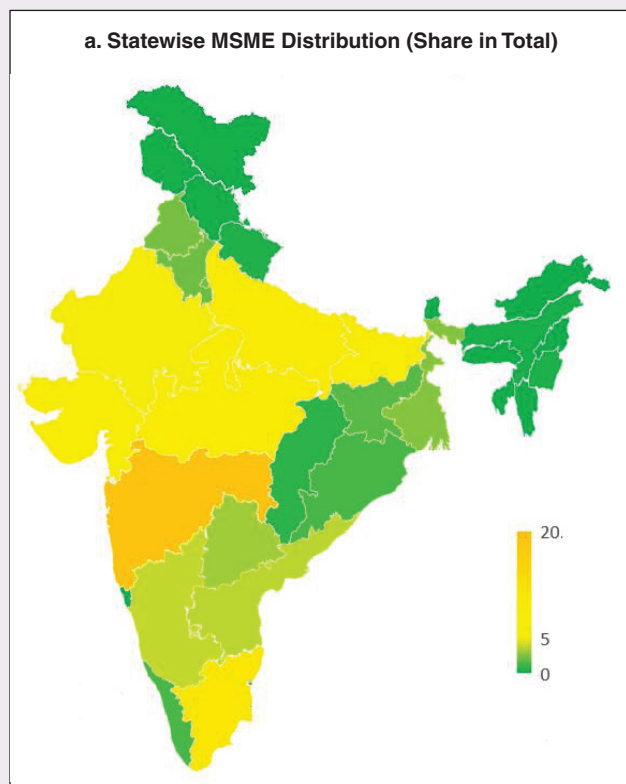
Note: Size of the bubble is the relative size of total informal employment in each country, which is calculated by multiplying the percentage of informal employment by total employment (ILO, 2020).

Sources: International Labour Organisation for India; World Bank database; and Oxford Stringency Index.

the lockdown and reverse migration impacted MSME productivity, with severe implications for the states with MSME concentration (Chart III.21 a and b). State-wise data reveal that the top 11 states accounting for around 82 per cent of employment in 2019-20 also have a high incidence of COVID-19 cases and are witnessing the brunt of reverse migration (Dev and Sengupta, 2020; CRISIL, 2020). The case of Tamil Nadu is a stark example in this regard (Box III.2).

3.42 The Government of India has announced special measures for MSMEs under *Aatma Nirbhar Bharat Abhiyan* to enhance their capability to withstand the economic fallout of COVID-19. To begin with, a new definition of MSMEs has been announced wherein the investment limit has been revised upwards, an additional criterion of

Chart III.20: MSMEs and COVID-19: Concentration Pattern



Sources: Udyog Aadhar Portal, Ministry of Micro, Small and Medium Enterprises; Ministry of Health and Family Welfare; and RBI staff estimates.

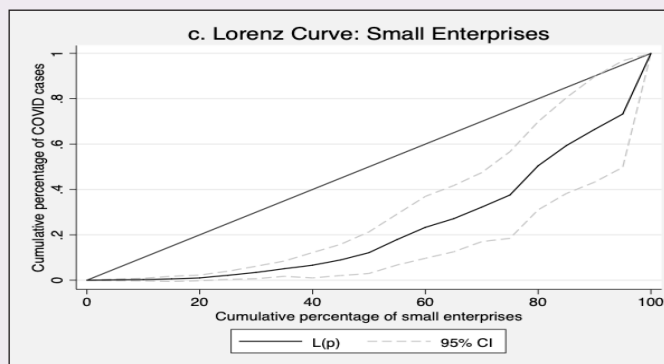
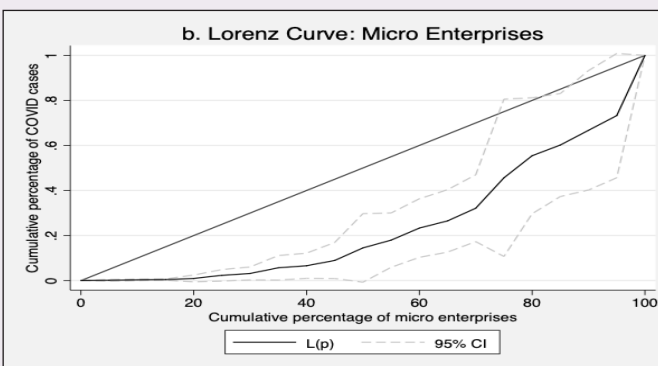
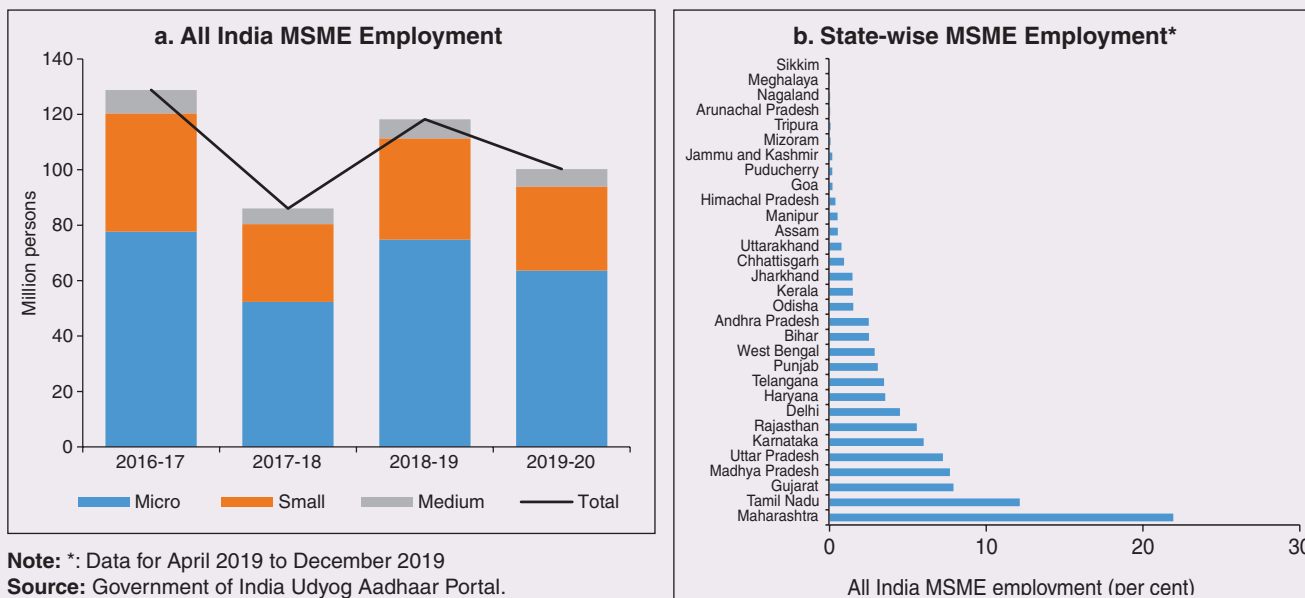


Chart 21: MSME Employment



turnover is introduced and the distinction between manufacturing and service sector enterprises has been eliminated. An emergency credit line to businesses/MSMEs from banks and NBFCs up to 20 per cent of their outstanding credit as

of February 29, 2020 has been proposed. The government will also facilitate the provision of ₹20,000 crore as subordinated debt to those MSMEs that are classified as stressed or with non-performing assets (NPA). A Fund of Funds,

Box III.2: Impact of COVID-19 on the Micro, Small and Medium Enterprises in Tamil Nadu

Tamil Nadu is a key hub for micro, small and medium enterprises (MSME) sector in India. It ranks second in terms of number of registered MSMEs (10.9 per cent of the total) and employment (13.0 per cent of the total), and third in terms of investment (10.5 per cent of the total) among all states. As on June 15, 2020²², there were 10.86 lakh registered MSMEs in the state, with a cumulative investment of ₹1.47 lakh crore and providing employment to 73.06 lakh people.

MSMEs in the state feature prominently in the manufacture of textiles, garments, engineering products, auto ancillaries, leather products and plastics. The MSME sector receives significant backing from the Tamil Nadu government through two flagship schemes *i.e.*, the New Entrepreneurship-cum-Enterprise Development Scheme (NEEDS) to promote first generation entrepreneurs and the Unemployed Youth Employment Generation Programme (UYEGP) (Table 1).

Table 1: Subsidies Provided by Government of Tamil Nadu to the MSME Sector

							(₹ crore)
Year	Capital Subsidy	Low Tension Power Tariff (LTPT) Subsidy	Generator Subsidy	Unemployed Youth / Employment Generation Programme	New Entrepreneur-cum-Enterprise Development Scheme (NEEDS)*	Others**	Total
1	2	3	4	5	6	7	8
2016-17	80.0	6.6	8.0	33.8	76.3	0.4	205.1
2017-18	160.0	6.0	2.0	30.0	58.6	1.5	258.1
2018-19	360.0	7.0	2.0	27.6	65.8	1.3	463.7
2019-20	209.9	9.8	1.0	26.1	78.4	1.6	326.8

*: Includes both capital subsidy and interest subvention.

**:: Includes interest subsidy for technology upgradation/ modernisation, credit guarantee fund trust scheme, incentives to MSME unit to promote energy efficiency and reimbursement for acquiring quality certification (Q-Cert).

Source: Micro, Small and Medium Enterprises Department, Government of Tamil Nadu (GoTN).

(Contd...)

²² As per data from Ministry of Micro, Small and Medium Industries, Government of India on the basis of Udyog Aadhaar registration as on June 15, 2020.

The Tamil Nadu government announced a COVID Relief and Upliftment Scheme (CORUS) on March 31, 2020 to provide collateral-free immediate loans to MSMEs for meeting their capital expenditure and working capital needs. The state public sector enterprise, Tamil Nadu Industrial Investment Corporation (TIIC), which operates this scheme for existing customers, has sanctioned ₹125 crore up to June 2020 benefitting 1,064 MSMEs in the state (GoTN, 2020a). The government has also announced a special incentive package to promote manufacture of medical equipments/ drugs required to tackle the COVID-19 pandemic in April 2020, provided that the manufacturers commence their production before July 31, 2020. Such MSMEs will also get priority under the NEEDS scheme.²³ Five new MSMEs have applied for the incentives under this package till June 2020.

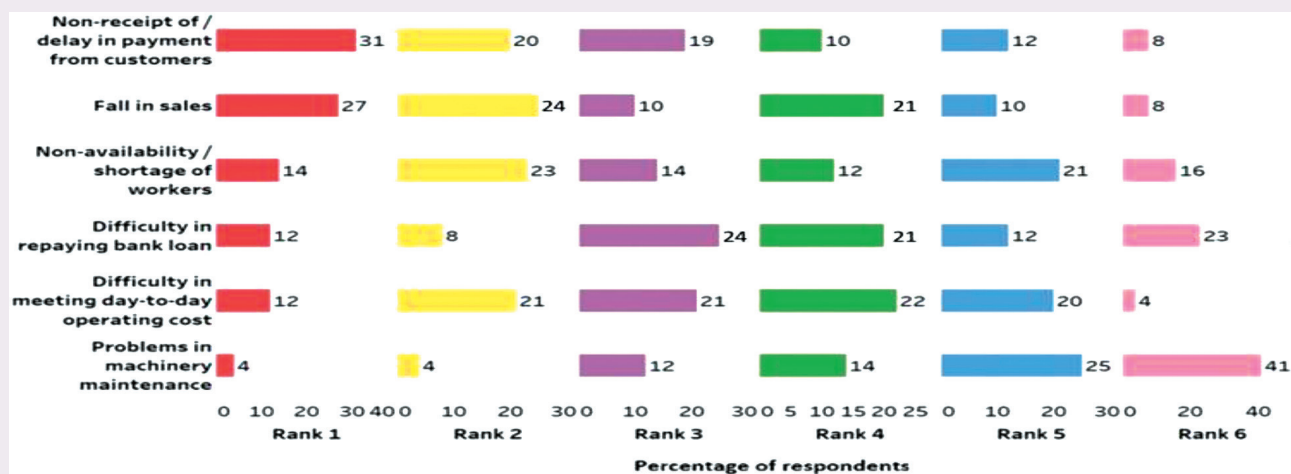
With a view to ascertaining the impact of the ongoing COVID-19 pandemic on the MSME sector in Tamil Nadu, a questionnaire-based survey was undertaken during May 21-29, 2020²⁴, of 56 MSME firms and 10 associations in 15 districts. The MSMEs were selected to include a wide range of manufacturing products. 16 were micro units (9 as per the old definition), 32 were in the small category and 8 in the medium category. Nine firms in the sample have diversified into manufacture of COVID-related products such as face masks, face shields, PPE kits, sanitiser, peddle operated

sanitiser/soap dispensers and Intensive Care Units (ICU) beds.

Out of the 10 associations surveyed, 7 stated that production had not revived in their cluster/association after the partial relaxation of the lock-down on May 6, 2020. Some MSMEs pointed out that reduction/cancellation of existing orders and very few new orders have constrained operations. Lack of demand as reflected in declining sales was a major concern – 27 per cent of the surveyed firms ranked it as the most challenging issue and 24 per cent ranked it as the second most challenging issue. Overdue receivables in the form of non-receipt/ delay of payment emerged as another important constraint that was cited by more than half the respondents (Chart 1). All the surveyed associations felt that labour shortage may intensify going forward, given the exodus of several migrant workers, both inter-state as well as intra-state, although with the easing of lockdown in recent months, several migrant workers are reported to be returning.

With regard to the *Aatma Nirbhar Bharat Abhiyan* package announced by the Government of India in May 2020, the Emergency Credit Line Guarantee Scheme was the most favoured among the MSMEs surveyed. Reflecting this, disbursements under the scheme by public sector banks at ₹6,980.3 crore as on October 8, 2020²⁵ was the second highest for Tamil Nadu among all states.

Chart 1: Major Challenges faced by Surveyed MSMEs



Note: Fall in sales includes reduction/cancellation of existing orders.

(Contd...)

²³ The incentive package of the Tamil Nadu government includes 30 per cent capital subsidy, subject to a ceiling of ₹20 crore, on the investment made in eligible fixed assets, to be paid by the state government in equal instalments over a 5-year period; interest subvention of 6 per cent for two quarters (up to December 31, 2020) for working capital availed from banks/financial institutions; stamp duty waiver; and guaranteed purchase of at least 50 per cent of the medical equipment/drugs produced at a negotiated price (GoTN, 2020b).

²⁴ The survey was conducted by the Department of Economic and Policy Research, Reserve Bank of India, Chennai.

²⁵ According to data from Ministry of Finance, Government of India.

Going forward, the signing of memorandum of understanding (MoU) by Tamil Nadu government with 17 foreign investors for ₹15,128 crores²⁶ during the first quarter of 2020-21 to facilitate the relocation of their manufacturing activities has created an opportunity for MSMEs to meet their supply chain requirements from within the state. During 2020-21 (up to October 12), Tamil Nadu has garnered an overall investment of over ₹41,000 crores through MoUs signed with domestic and foreign investors (GoTN, 2020d and GoTN, 2020e).

References:

1. GoTN (2020a), Press Release No. 447, June 25.
2. GoTN (2020b), G.O. No. 113, April 2.
3. GoTN (2020c), Press Release No. 422, June 13.
4. GoTN (2020d), Press Release No. 686, September 19.
5. GoTN (2020e), Press Release No. 750, October 12.

with a corpus of ₹10,000 crore, will be created for infusing ₹50,000 crore as equity into MSMEs with growth potential and viability. Moreover, global tenders will be disallowed in government procurement tenders up to ₹200 crore. While all these measures are likely to help MSMEs from the supply side, particularly in increasing their business, their effectiveness will depend upon the revival of demand and improvement in orders post-lock down (Ghosh, 2020; Purohit, 2020).

3.43 Consequent upon COVID-19 related reverse migration, many states went ahead with alteration in their labour laws (Annex III.3). Some of them seek to address reverse migration and the resultant labour shortage by enhancing work hours and some have also experimented with relaxing/suspending labour laws to enhance flexibility for relocations of global value chains (GVCs). On May 14, 2020, the centre announced a few measures as part of the *Aatma Nirbhar Bharat Abhiyan* Programme to streamline the labour codes in the country for the benefit of workers.

6. Digitalisation and Banking

3.44 Digital technologies offer immense scope to mobilise resources and for provision of public goods and services, especially during pandemics.

Digitalising government-to-person (G2P) transfers carry positive externalities that include increased transparency, better identification and targeting, reduced leakages, more convenient and faster transfer of funds, safer transactions with lower transaction costs and privacy of payments besides furthering financial inclusion (World Bank, 2014; Klapper and Singer, 2017; Mishra and Dey, 2020). To the degree G2P digital payments replace cash, there is improvement in tax compliance and shrinking of the shadow economy (Gupta *et al.*, 2017). India's track record of adoption of digital technology is reflected in IMD's World Digital Competitiveness Ranking, 2020 in which it ranks 19th in a list of countries with population of 20 million or more, well ahead of most emerging market peers (Chart III.22).

6.1 Digital Preparedness of States

3.45 The Direct Benefit Transfer (DBT) system, launched by the union government in January 2013, was developed to transfer subsidies/benefits directly to *Aadhaar* linked bank accounts of the identified beneficiaries. Subsequently, state governments were nudged by the centre to move their welfare schemes to the *Aadhaar*-based DBT platform, which ensures timely transfer of benefits directly to the beneficiaries without any

²⁶ Refer GoTN(2020c).



need of paperwork and curbs leakages by linking the *Aadhaar* numbers to the beneficiaries. The success of DBT depends, *inter alia*, on *Aadhaar* saturation²⁷, availability of banking services and high-speed internet as these are instrumental in minimising inclusion and exclusion errors. More populous states like Bihar, Uttar Pradesh, Rajasthan and Madhya Pradesh lag behind the national average in terms of both *Aadhaar* saturation and availability of banking services (Chart III.23a). While there are small variations in average internet download speed, overall teledensity²⁸ still varies widely amongst states, with Bihar, Uttar Pradesh, Madhya Pradesh, Assam lagging significantly, reporting a teledensity below 70 (Chart III.23b).

3.46 The ability of state governments to mitigate the effects of the pandemic crucially depends on their capacity to harness digital technologies.

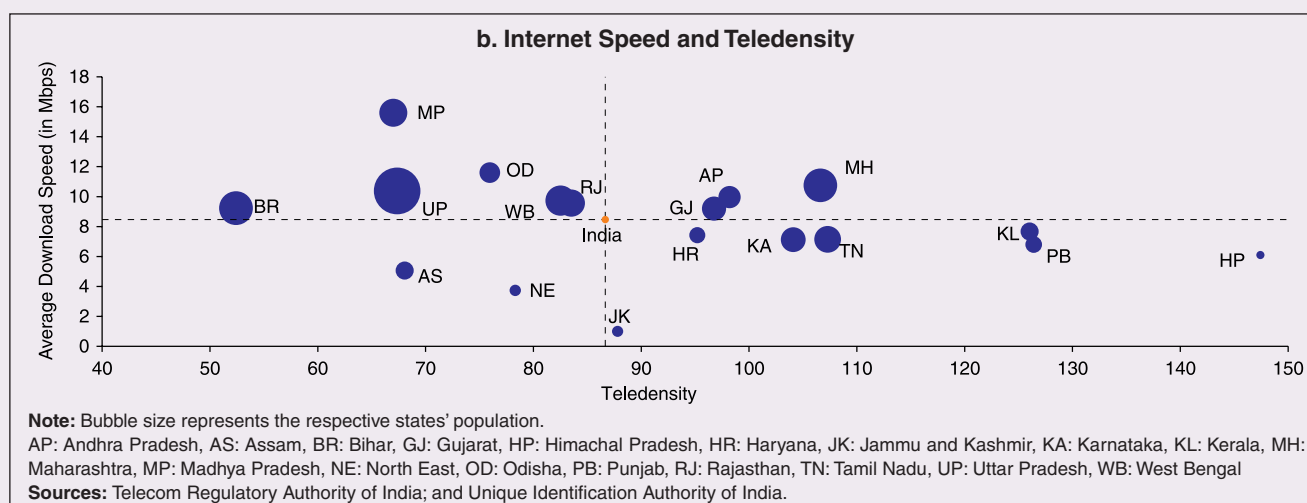
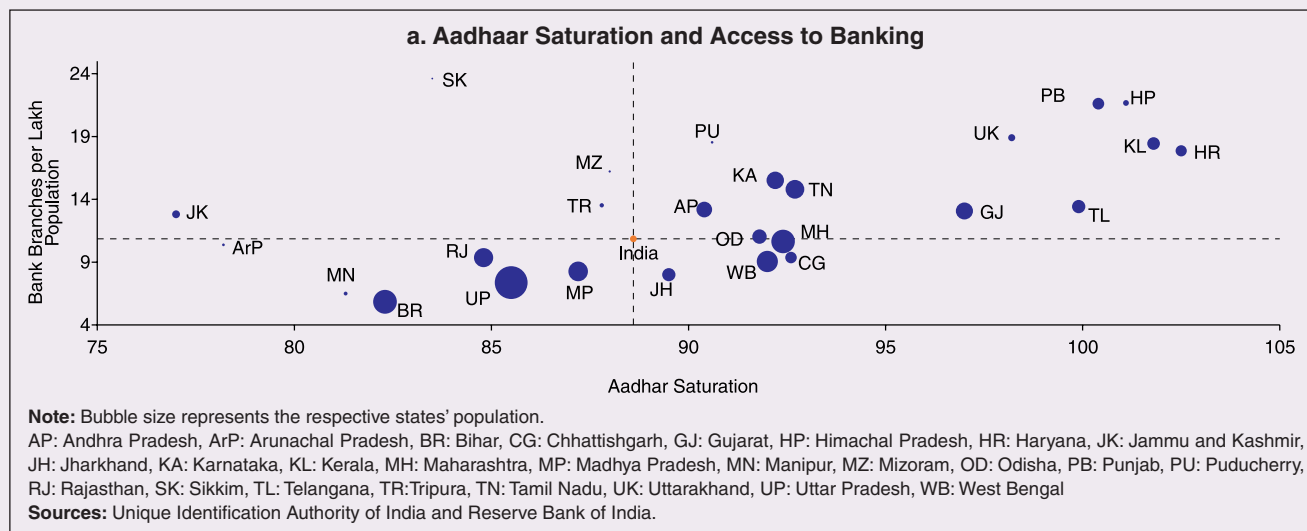
States have been assigned DBT scores, in the spirit of competitive federalism, based on their performance in 2019 on parameters like *Aadhaar* saturation, data reporting, savings-expenditure ratio and DBT per capita. Haryana tops this list, with an overall score of 88.8 as against the national average of 56.1 (Chart III.24a). In COVID-19 times, owing to social distancing norms, scaling up public work programmes became challenging, and consequently digital financial transfers have emerged as the most viable public intervention throughout the world. In India, several state governments have adopted large-scale, technology-enabled, real-time financial support through the DBT platform in order to provide immediate relief to vulnerable sections of the population like small farmers, migrant labour, women and senior citizens. Of the states and UTs for which data are available for 2020-21, Goa leads with a per capita DBT of ₹4,705 (Chart III.24b). Several digital strategies have also been adopted by states in the COVID-19 period for information dissemination, effective surveillance and citizen services, which aim to improve the quality of public services as well as spur innovation by unlocking the power of government data (Annex III.4).

3.47 Public financial management (PFM) systems can also leverage digital solutions for efficient and transparent implementation of government programmes in the COVID-19 and post COVID-19 period. In this regard, the Reserve Bank as a banker to state governments is leveraging its Core Banking System *i.e.*, *e-Kuber* to augment states' capacity for digitalisation. To achieve complete automation of process flow, the centralised treasury systems of states are

²⁷ *Aadhaar* saturation is defined as the ratio of number of live *Aadhaars* assigned to the total population.

²⁸ Teledensity is defined as total telephone subscribers per 100 population.

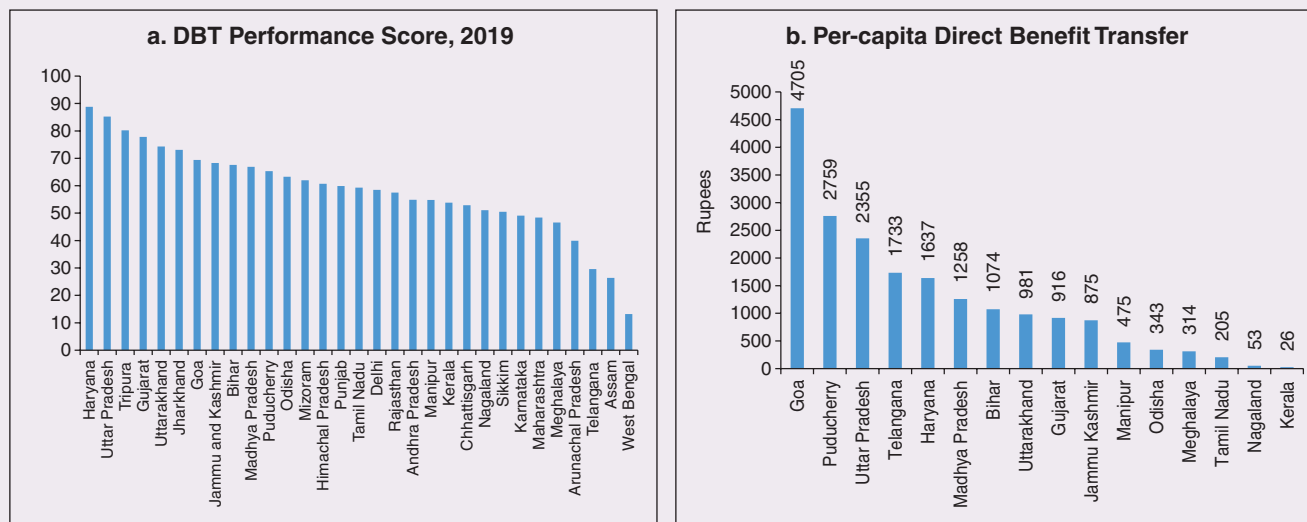
Chart III.23: Digital Preparedness of States 2020



being securely integrated with *e-Kuber* and a standardised e-payments/receipts model is being implemented. This results in a complete straight through processing (STP) of electronic payments of state governments, allowing them to make just-in-time payments and to have better control over their funds position. By end-April 2020, 16 states are integrated with *e-Kuber* for e-receipts and 19 states for e-payments.

6.2 Digital Retail Transactions

3.48 Along with the government sector, other economic entities have also been rapidly adopting digitalisation as an enabling tool in their operations. India has been one of the fastest growing market for digital transactions, with a rich variety of digital payment options. During the five-year period 2014-19, digital transactions per capita per

Chart III.24: Direct Benefit Transfers – State-wise Analysis


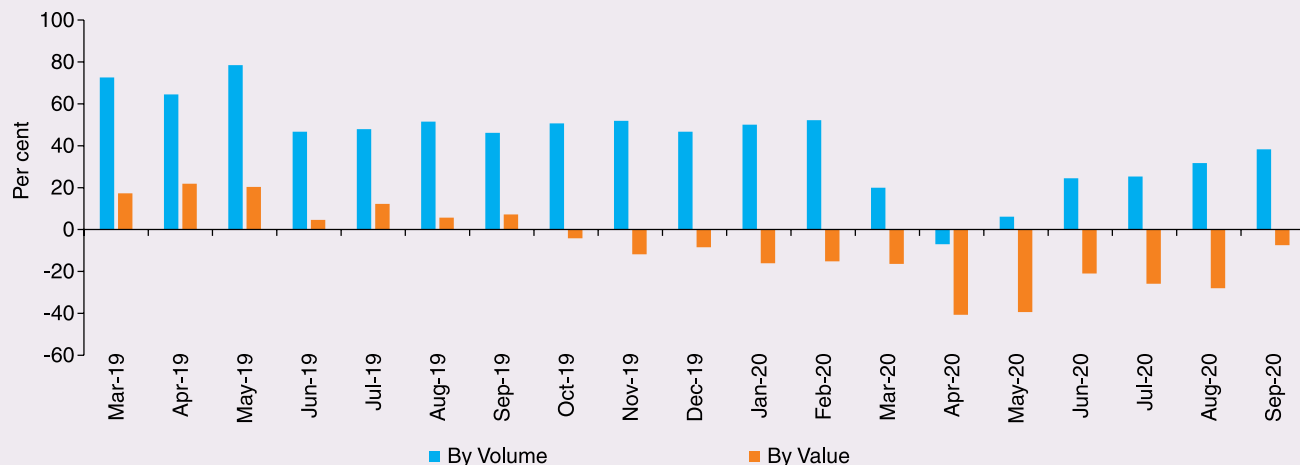
Source: DBT Bharat, Government of India.

Note: Data is updated upto October 18, 2020.

Sources: State DBT Portals; and UIDAI.

annum increased from 2.4 in 2014-15 to 22.4 in 2018-19 (RBI, 2019b). During 2019-20, the first eleven months witnessed a year-on-year (y-o-y) growth in volume of digital transactions in excess

of 45 per cent (Chart III.25). This trend snapped in March 2020 when the COVID-19 pandemic and the associated containment measures brought economic activity to a near standstill. However,

Chart III.25 : Y-o-Y Growth Rate of Digital Transactions


Note: Digital transactions include Real Time Gross Settlement (RTGS), National Electronic Fund Transfer (NEFT), Electronic Clearing System (ECS), National Automated Clearing House (NACH), Immediate Payment Service (IMPS), Pre-paid Payment Instruments (PPI), Unified Payments Interface (UPI), Unstructured Supplementary Service Data (USSD), National Electronic Toll Collection (NETC) and Cards at Point of Sale (PoS).

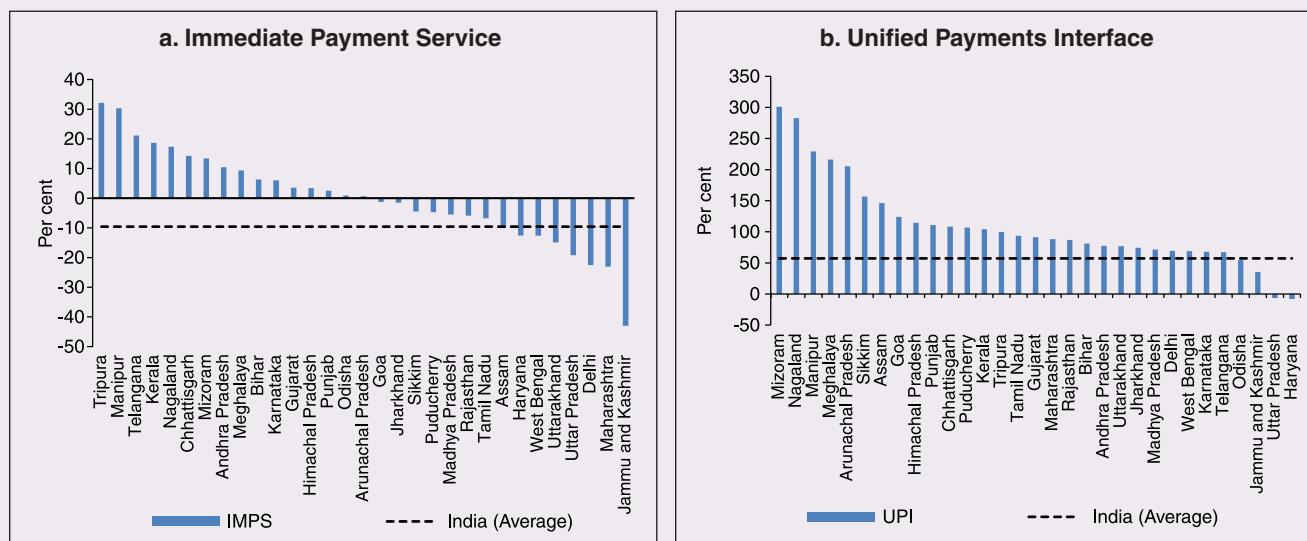
Source: Reserve Bank of India.

as the lockdown was gradually rolled back, digital transactions got a boost as people avoided use of cash for the fear of virus transmission through currency notes and preferred online shopping, keeping in view social distancing norms. Thus, digital payments, which were earlier a matter of convenience, became a necessity during the pandemic.

3.49 In terms of volume, digital transactions contracted in April 2020 for the first time in several months. In terms of value, digital transactions had been contracting consistently since October 2019 and during the early months of COVID-19 *i.e.*, April-May 2020, this contraction became particularly severe. The quick rebound in volume thereafter, reflects the growing preference for digital transactions even for small value essential

retail payments in an otherwise slowing economy. Economically advanced states like Maharashtra and Delhi, which account for a higher share of total digital transactions, saw a significant fall in Immediate Payment Service (IMPS) transactions volume during Q1:2020-21, as against the all-India average decline of 9.6 per cent. Unified Payment Interface (UPI) volume, on the other hand, saw a healthy rise of 57.3 per cent during the same period, with states in the north-east reporting growth in excess of 140 per cent. Except Uttar Pradesh and Haryana, all the states, including those with a decline in IMPS volume, saw a growth in UPI transactions volume (Chart III.26)²⁹. This highlights the user preference of UPI over IMPS during the pandemic on account of its ease of usage and operability, especially for small value transactions.

Chart III.26: Y-o-Y Change in Digital Transactions, Q1: 2020-21



Source: National Payments Corporation of India.

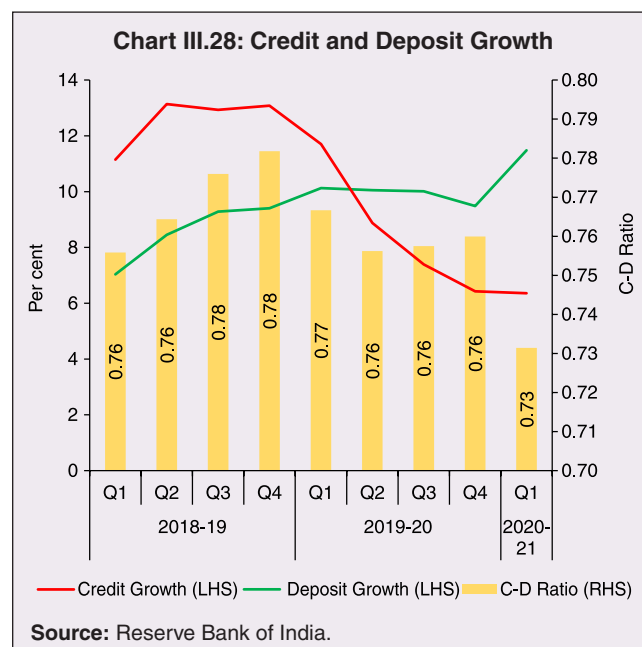
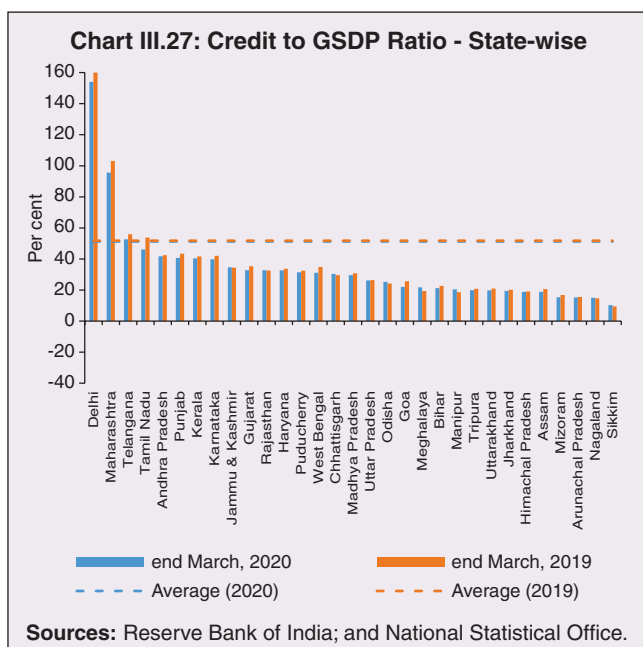
²⁹ Data on IMPS and UPI are originally collected by National Payments Corporation of India (NPCI) bank branch-wise and converted to state-wise transactions by using the unique Indian Financial System Code (IFSC) allotted to each bank branch.

6.3 Banking Penetration

3.50 The adverse impact of the COVID-19 pandemic at the regional level is also reflected in state-wise performance of bank branches. Inter-state inequality in banking outreach, in terms of number of credit and deposit accounts, had been narrowing down since 2005 (RBI, 2019c). However, credit penetration, as measured by credit to GSDP ratio, in the hilly and less industrialised and urbanised states needs to catch up to take India's financial penetration closer to its emerging market peers (Chart III.27).

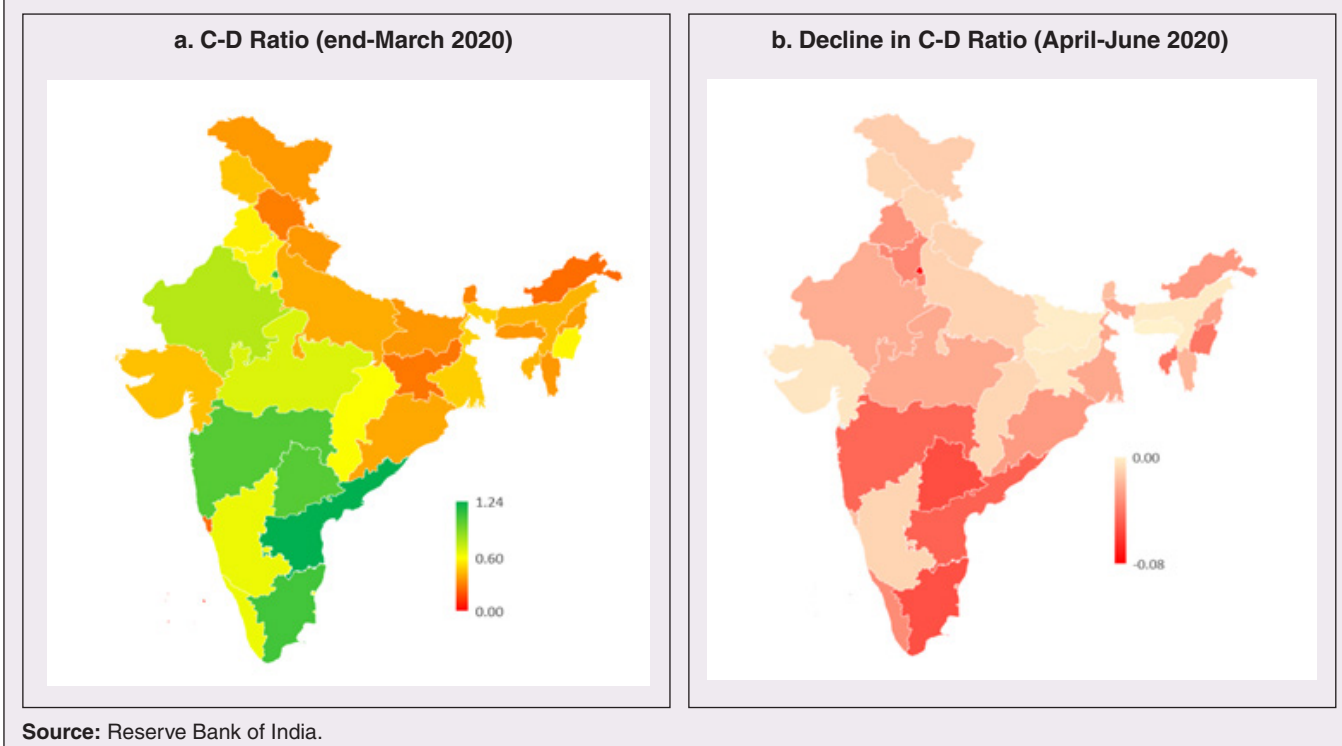
3.51 The credit offtake from banks, which has been on a secular decline since Q4:2018-19, got further affected on account of COVID-19. Concomitantly, the C-D ratio³⁰, which had deteriorated during 2019-20, saw a further fall in Q1:2020-21, even after incorporating seasonal factors (Chart III.28).

3.52 Regional variations in C-D ratio are difficult to interpret as credit provided from a region is often not used in the region. Yet, heterogeneity in this ratio can, to some extent, reflect activity levels, per capita incomes, level of banking infrastructure and effectiveness of financial intermediation by the banking system (Ghosh, 2012). Prior to the pandemic, urbanised and industrial states like Maharashtra, Andhra Pradesh, Telangana, Tamil Nadu and Delhi, which account for higher share in credit demand, had higher C-D ratios compared to the rest of India (Chart III.29a). With COVID-19 cases being largely concentrated in the urban centres in Q1:2020-21, prolonged lockdown and containment measures led to a decline of C-D ratios in urbanised states *vis-à-vis* the rural and hilly states, leading to an overall convergence in C-D ratio across states, *albeit* at a lower level than in the pre-COVID-19 period (Chart III.29b).



³⁰ C-D ratio is a measure of how much banks lend out of the deposits they have mobilised. While there are no stipulations on the minimum and maximum levels, a very low C-D ratio indicates that banks are not utilising their resources optimally, while a high C-D ratio indicates pressure on resources.

Chart III.29: Impact of COVID-19 on C-D Ratio across States



7. COVID-19 and the Role of Third Tier Government

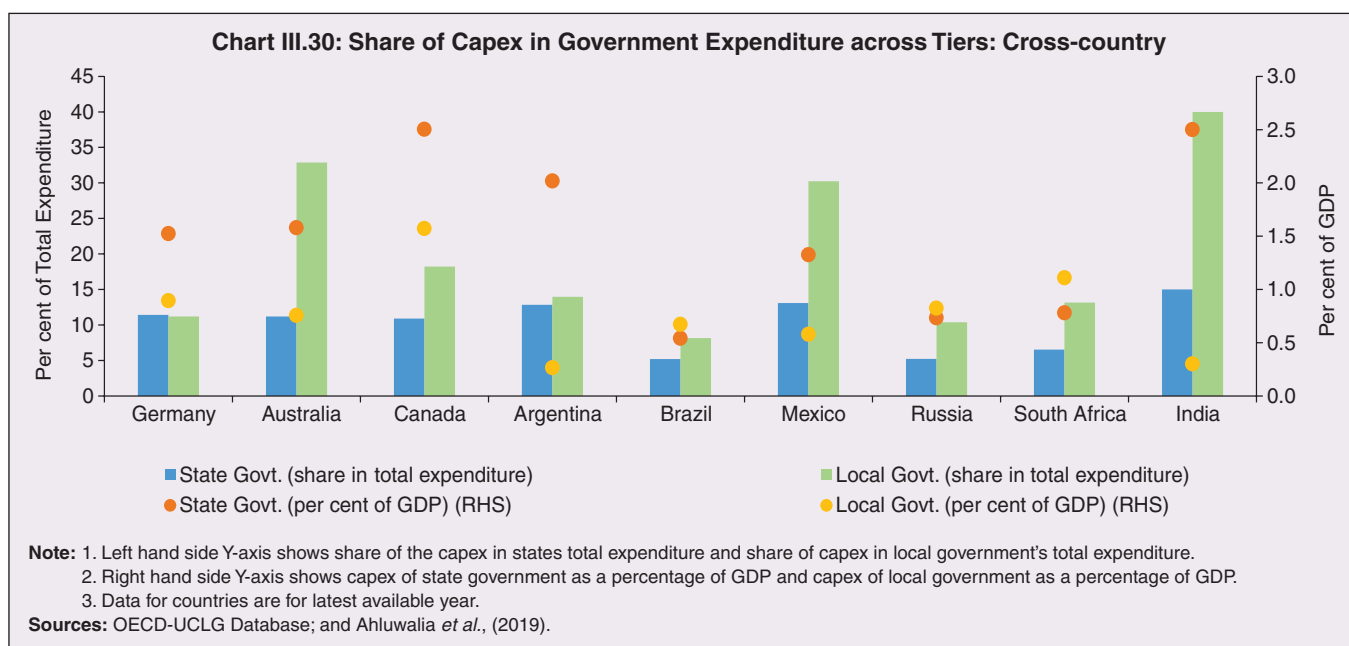
3.53 COVID-19 has brought to the fore the need for modern, revamped and fiscally sound municipal bodies, which constitute the third tier of government. Municipal bodies in India perform a set of functions³¹ that are critical in a pandemic such as sanitation facilities, uninterrupted provision of basic utility services, and disinfecting public places to stop the spread of the virus. During the pandemic, various civic bodies adopted innovative approaches, which include, institution of a disinfection tunnel in Rajkot; high clearance boom sprayers in Surat; and use of drones across various cities including Raipur, Guwahati, Bengaluru and Chennai.

Notwithstanding these novel initiatives by civic bodies, COVID-19 exposed their constraints in providing adequate and efficient health services.

7.1 Cross-country Comparison

3.54 An analysis of capital expenses across select advanced and emerging market economies (having a federal structure) suggests that local governments incur a relatively higher proportion of expenditure towards capital (asset) creation, except in the case of Germany. The proportion of capital expenses in total budgets of local governments is nearly double the proportion for state governments in the case of Australia, Mexico, Russia, South Africa and India. Local governments' capex share in total expenditure is the highest in India among some of these federal

³¹ The 74th Constitutional Amendment in 1992 assigns to ULBs vital functions such as town planning, regulation of land use, provision of water, sanitation and solid waste management, public health, urban poverty alleviation, *etc.* Almost all functions have been transferred to ULBs excepting the job of town planning, which is still in the domain of respective state governments.



states, however, as a proportion to GDP it remains the lowest at 0.3 per cent. (Chart III.30).

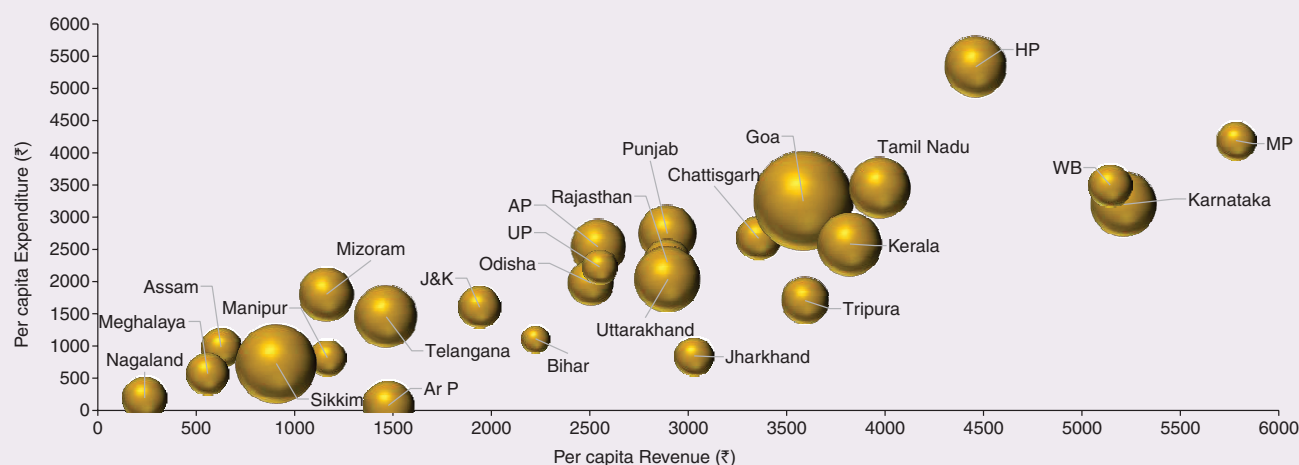
7.2 India's Third Tier

3.55 In times of pandemics like COVID-19, strong and empowered local bodies can effectively play an intermediary role between the state and the people with policy interventions in the form of containment measures, spreading awareness and building infrastructure. Urban local bodies (ULBs) in India are, however, weak in terms of financial autonomy for raising resources. Though resource transfers to ULBs from the centre and states have increased over time, ULBs continue to face revenue constraints and their finances (revenues/expenditures) have remained stagnant at around 1 per cent of GDP for over a decade (Ahluwalia *et al.*, 2019). Municipal tax revenues have lacked buoyancy, declining from 0.3 per cent of GDP in 2010-11 to 0.25 per cent in 2017-18. User charges levied by urban

utility bodies remain low and add to budgetary constraints. While constrained revenues limit their expenditures, there also remain significant disparities in per capita expenditures and revenues of ULBs across states (Chart III.31).

3.56 ULBs depend heavily on the transfer of funds from, by and large, the state government, in the form of state grants and tax revenue sharing. The increase in share of transfers in total municipal revenues as observed from 2015-16 has, *inter alia*, been facilitated by the recommendations of the Finance Commissions. Specifically, the 14th Finance Commission had recommended assured transfers to the ULBs for smooth and effective delivery of mandated basic services, which were further enhanced by the 15th Finance Commission's Interim Report for 2020-21. Per capita expenditure of the ULBs in India is found to be positively correlated with transfer of resources by the state government,

Chart III.31: Per Capita Expenditure and Revenues of all ULBs in India (2017-18)



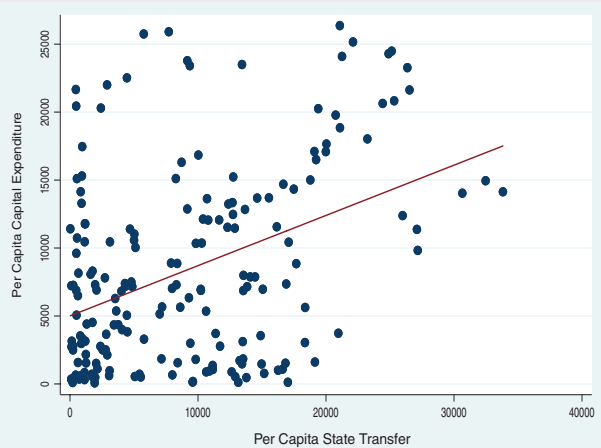
Notes: 1. Size of bubble represents per capita NSDP.
2. Haryana has been dropped for lack of data on per capita expenditure.
Source: Ahluwalia *et al.*, (2019).

with the correlation relatively stronger for capital expenditure (Chart III.32). States which have strengthened their local government institutions with substantial devolution of funds and greater

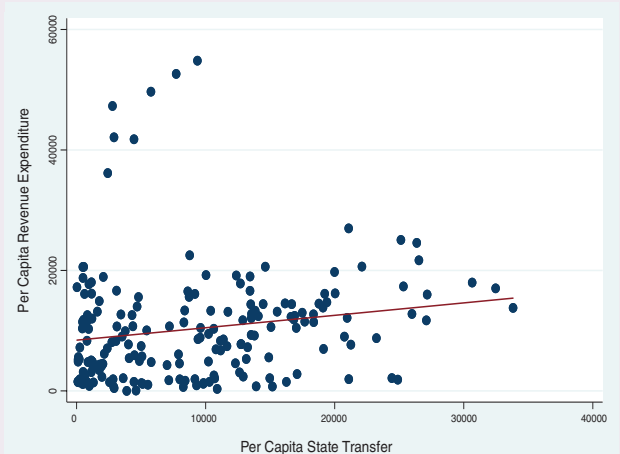
autonomy over the years are observed to be managing the COVID-19 pandemic in a relatively more efficient and low-cost manner (Box III.3).

Chart III.32: State Government Transfer of Resources and Expenditure of the ULBs (2011-12 to 2017-18)

a. Per Capita State Transfer and Capital Expenditure (in ₹)



b. Per Capita State Transfer and Revenue Expenditure (in ₹)



Source: Ahluwalia *et al.*, (2019).

Box III.3: COVID-19 - The Kerala Model of Containment – The Role of Local Self-Government

Kerala was the first state in India to record a case of COVID-19. It also led the country in number of active cases up to March 2020. Given the high global migration of its residents and it being an international tourist destination, it was feared that Kerala would develop into a hotspot. The state, however, successfully managed to contain the spread of the pandemic in the first wave of infections. However, the state witnessed a second wave of infections (Chart 1) with the arrival of non-resident Keralites from outside the state and with easing of restrictions. The state now ranks third in active cases (as on October 13, 2020) and also has the highest percentage of active cases to total confirmed cases. However, Kerala reports a lower death rate at 0.3 per cent compared to the all-India average of 1.5 per cent. In the face of rising cases, Kerala has set up 101 Covid First Line Treatment Centres across the state and is focusing on intense contact tracing, testing and quarantine to minimise the community spread of the disease.

The presence of empowered local governance institutions and community participation helped the state in effectively reaching out to affected people. With the resurgence in new cases, Kerala is actively roping in the services of local self-governments (LSGs) in its fight against the pandemic. LSGs have been entrusted with the task of collecting information, spreading awareness, identifying the vulnerable sections, ensuring quarantine and lockdown guidelines being followed, cleaning and disinfecting the public places and ensuring the supply of essential services to those under quarantine. Thus, panchayats have emerged as frontline institutions in containing the disease and in alleviating the distress caused to the poor and vulnerable.

Kerala's efforts in the last two decades to empower LSGs through devolution of both financial resources and political and administrative power has strengthened the resource base of these institutions and this leaves them in a better position to deal with COVID-19 than before. Kerala's 1200 strong LSGs worked in tandem with the state government

to create effective interventions during the COVID-19 crisis. Intensive contact tracing and case isolation followed by LSGs succeeded in containing large scale community transmission of the infection. LSGs managed to create this system with the help of health workers, Kudumbasree members, Anganwadi staff, local authorities, and the state police. The state also set up a 3,00,000-strong volunteer force for working with their respective local government bodies.

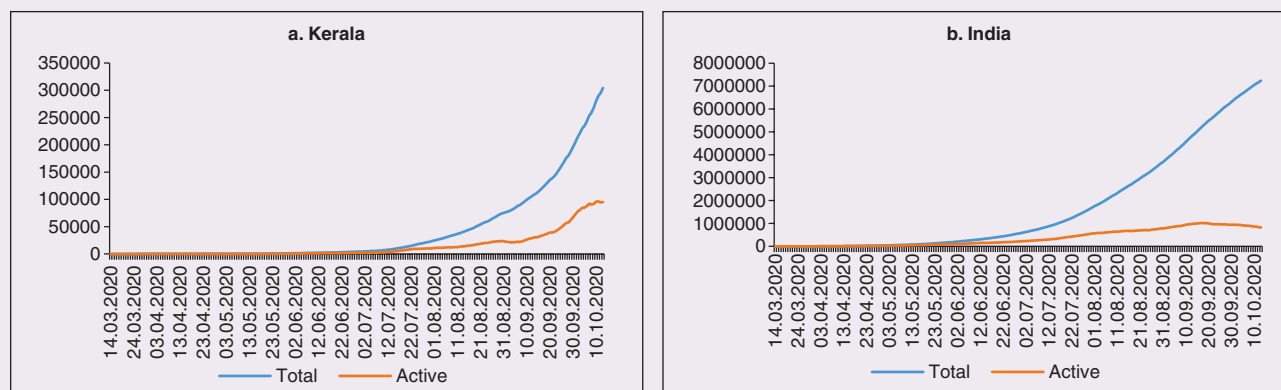
Substantial devolution of funds to the local governments over the years has helped to strengthen these institutions. A comparison with all-India figures shows that devolution of funds to LSGs is much higher in Kerala than the all-states' average (Table 1).

Table 1: Trend in the Devolution of Funds to LSGs in Kerala and India

Year	Devolution to the LSGs	Share of LSG Devolution to State's own tax revenue	Share of LSG Devolution to State's revenue receipts	Growth in LSG's Devolution
	(₹ crore)	(per cent)	(per cent)	(per cent)
Kerala				
2012-13	4,739	15.8	10.7	
2013-14	5,926	18.5	12.1	25.0
2014-15	7,454	21.2	12.9	25.8
2015-16	5,029	12.9	7.3	-32.5
2016-17	6,060	14.4	8.0	20.5
2017-18	8,470	17.6	10.2	39.8
2018-19	10,278	20.1	11.1	21.3
2019-20 (RE)	9,929	17.7	10.0	-3.4
2020-21 (BE)	11,819	17.4	10.3	19.0
All-India				
2018-19	1,15,349	9.5	4.4	-
2019-20 (RE)	1,79,120	13.3	6.0	55.3
2020-21 (BE)	1,85,733	12.3	5.5	3.7

Source: Budget documents of states.

Chart 1: Number of COVID-19 Cases



Source: covid19india.org.

8. COVID-19 and States' Output for 2020-21

3.57 Although the top ten COVID-19 affected states account for two-third of Indian agriculture and allied activities, the farm sector's share in overall output is not even one-fifth for majority of states (Chart III.33).

3.58 When the pandemic broke out, India had comfortable food stocks, which further increased to 629.99 lakh metric tonne (MT) by end-September 2020, *i.e.*, double the buffer stock norms. Some high COVID-19 incidence states had a low share in the foodgrains stock and accordingly, this necessitated steps to mitigate inter-state variations in stocks. The enhancement in area under wheat cultivation during the *Rabi* sowing season by 7.3 per cent in the states of Bihar, Gujarat, Jharkhand, Karnataka, Maharashtra, Rajasthan and West Bengal, helped in replenishment of food stocks (Table III.4).

3.59 Several state-specific measures have played an important role during this lockdown period to ensure timely production, harvesting and procurement. The Punjab government allowed combine harvesters to run for 13 hours a day instead of the normal 8 hours. The Bihar government provided inter-state curfew passes to harvester drivers from Punjab and Haryana to promote the full mechanisation of the harvest of wheat. Punjab, in an effort to maintain social distancing and prevent overcrowding, issued coupons with holograms to farmers to bring their wheat crop to the *mandi*. Haryana launched the *Bhavantar Bharpaii Yojana* under which farmers are reimbursed for the difference in prices. Madhya Pradesh sent out messages to farmers directly to bring produce to the buying centre on a particular day. Uttar Pradesh conducted online sessions with *mandi* officials to facilitate sales, and used idle rickshaws to take the produce

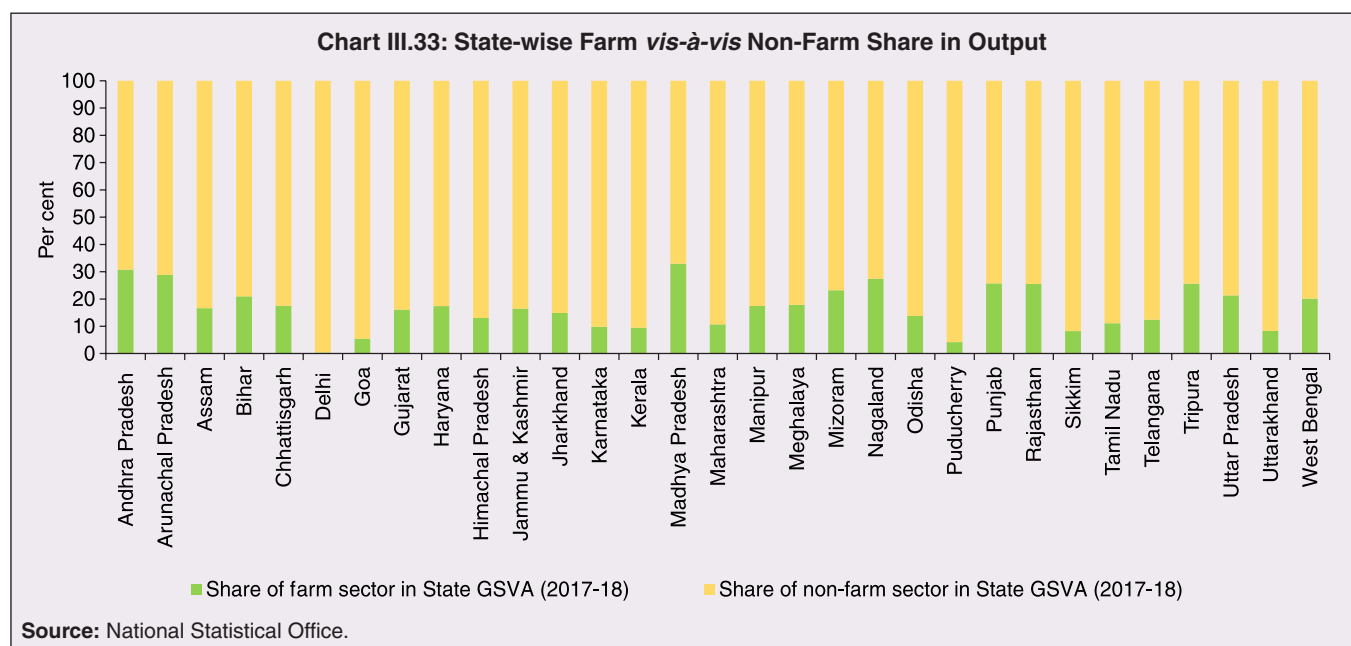


Table III.4: Foodgrain Stock, Rabi and Kharif Production of Foodgrains
(State-wise Share in per cent)

States	Foodgrain Stock		Rabi Production of Foodgrains		Kharif Production of Foodgrains	
	end-March 2020	end-September 2020	2018-19	2019-20 (IV th AE)	2019-20 (IV th AE)	2020-21 (I st AE)
Maharashtra	3.2	2.6	2.6	5.0	4.4	5.2
Andhra Pradesh	4.5	3.4	3.5	4.3	4.1	4.0
Karnataka	1.4	1.2	1.6	2.1	6.5	5.7
Tamil Nadu	2.7	2.0	2.0	1.6	6.0	5.4
Uttar Pradesh	6.3	4.8	24.5	23.0	13.8	14.3
Delhi	0.5	0.4	0.1	NA	NA	NA
West Bengal	1.9	1.5	4.6	4.4	8.1	8.0
Kerala	0.8	0.7	0.1	0.1	0.3	0.3
Odisha	1.9	1.7	0.8	0.6	5.4	5.4
Telangana	4.8	1.9	2.5	3.1	4.4	3.7
Bihar	2.3	1.4	6.3	5.2	4.5	4.9
Assam	0.6	0.5	0.9	0.8	2.8	2.9
Rajasthan	1.7	2.5	8.9	9.6	6.0	6.4
Gujarat	1.1	1.0	2.1	2.9	2.5	2.3
Madhya Pradesh	10.0	21.3	14.9	15.0	7.0	7.2
Haryana	16.1	16.3	8.8	7.8	4.1	3.7
Chhattisgarh	3.6	1.9	0.4	0.2	4.8	5.1
Punjab	34.1	31.9	12.7	11.5	8.6	8.6
Jharkhand	0.5	0.5	0.5	0.6	2.9	3.1
Jammu & Kashmir	0.4	0.3	NA	NA	NA	NA
Uttarakhand	0.4	0.2	0.7	0.7	0.6	0.6
Tripura	0.0	0.0	0.2	NA	NA	NA
Himachal Pradesh	0.1	0.1	0.5	0.4	0.6	0.7
Manipur	0.1	0.1	0.3	NA	NA	NA
All India (in lakh MT)	569.4	629.9	1436.9	1532.6	1433.8	1445.2

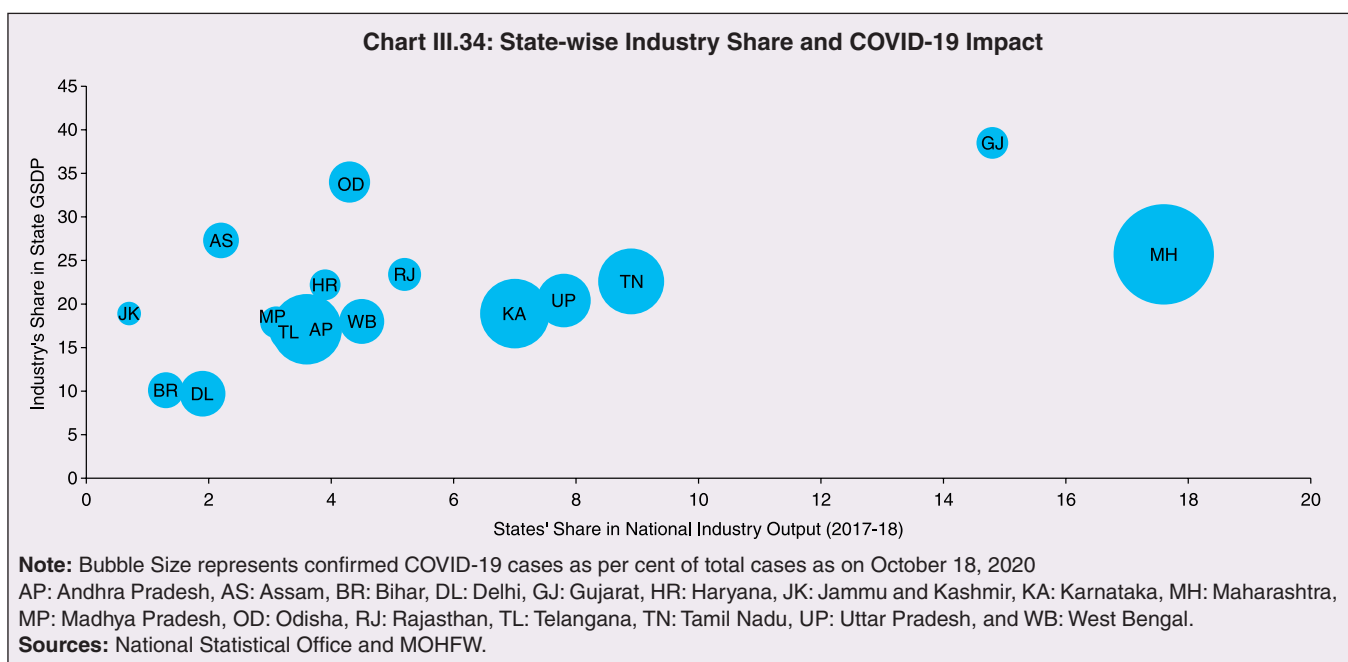
Note: In this table, states have been arranged in decreasing incidence of COVID-19 cases.

Sources: Foodgrain Bulletin, Ministry of Consumer Affairs, Food and Public Distribution; All-India Crop Situation, Ministry of Agriculture and Farmer's Welfare, GoI; and CMIE States of India database.

directly to consumers to avoid overcrowding in *mandis* and also to provide employment to daily wage earners. Rajasthan opened centres even at the panchayat level to arrange for procurement, sale, and purchase of wheat, mustard, and gram. Consequent upon these efforts by states, procurement operations remained broadly immune to COVID-19, with some of the highly affected states of Madhya Pradesh, Maharashtra, Tamil Nadu, Telangana, Gujarat and Punjab seeing a rise in their share in rice and wheat procurement.

8.1 Non-Farm Activities

3.60 By contrast, non-farm activities came to a near standstill (Chart III.34). In manufacturing and services, units badly affected include transport equipment sectors; retail and wholesale trade; professional and real estate services; travel and tourism; and other services with direct contact between consumers and service providers and retailers such as cinemas and restaurants (OECD, 2020c,d).



3.61 Using eight select high frequency economic activity indicators (monthly frequency), viz., vehicle registrations, air traffic, google mobility, electricity consumption, e-payments, unemployment rate, tax revenues and consumer price inflation, a composite index using Principal Component Analysis (PCA)³² technique is constructed for the select 14 states³³ (Table III.5). The index reveals the severity of the pandemic's impact on states and local authorities. Also, it shows that in states where disease control has improved between March and June 2020, signs of

improvement in economic activity are visible. As the lockdown was gradually lifted, trajectories of recovery became evident in an increasing number of states in June 2020. All the states witnessed further improvement in economic activity in the month of July 2020, except Assam, Tamil Nadu and Tripura. During the month of August 2020, however, a rise in the unemployment rate and slowdown in electricity consumption in many states, coupled with surge in COVID-19 cases, especially in rural areas, brought about a slight reduction in economic activity.

³² The index is compiled on the basis of eight key sectoral indicators as per the availability of equal frequency data with a similar time lag. Mean imputation method has been followed to ensure a complete data set without missing values. All the indicators are normalised using z-scores. Weights are assigned using the PCA technique, which reduces the dimensionality while preserving variability, and extracts factors that are accountable for the co-movement of a cohort of key indicators. These co-movements are assumed to be predominantly due to fluctuations in the broader economic system. In order to create an index; each variable is first standardised so that they are expressed in the same units. Second, the proportion of variation explained by the principal components (PC) is also determined by eigen values. The eigen vectors or the factor loadings of the PCs are used as weights for constructing the index.

³³ These 14 states together accounted for around 70 per cent of India's GDP (2018-19).

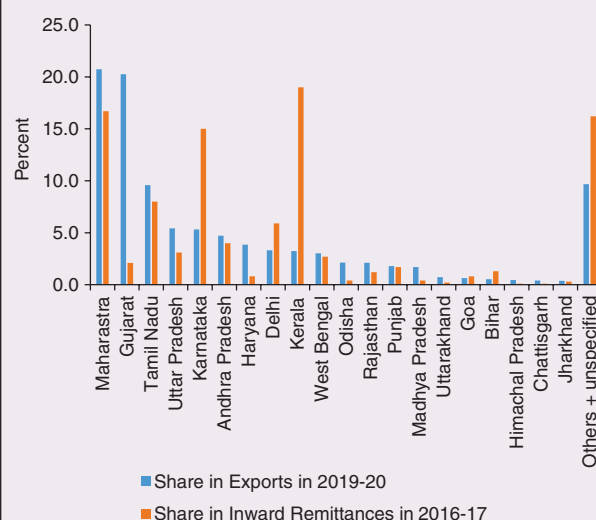
Table III.5: Trends in Economic Activity Index – Select States

States	Feb 2020	Mar 2020	Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020
Assam	0.3	-0.2	-0.3	-0.1	0.4	0.0	-0.1
Chhattisgarh	-0.2	0.0	0.0	0.1	-0.2	0.2	0.1
Gujarat	0.0	-0.3	0.0	-0.7	0.3	0.4	0.3
Karnataka	0.3	0.2	-1.0	-0.3	0.1	0.4	0.3
Kerala	0.5	0.0	-1.0	0.0	0.3	0.4	-0.2
Maharashtra	0.3	0.3	0.3	0.0	-0.6	-0.3	0.0
Odisha	-0.5	-0.4	0.2	0.1	0.0	0.5	0.1
Punjab	0.6	0.0	-0.4	-0.1	-0.2	0.1	0.0
Rajasthan	0.1	-0.1	-0.9	0.1	0.1	0.6	0.0
Tamil Nadu	0.2	0.0	-0.4	-0.3	0.2	0.1	0.2
Tripura	-0.4	-0.3	0.6	-0.2	0.5	0.1	-0.3
Uttar Pradesh	0.0	-0.2	-0.1	-0.2	0.0	0.6	0.0
Uttarakhand	0.1	-0.1	-0.2	-0.4	0.3	0.3	0.1
West Bengal	0.0	0.0	0.0	-0.8	0.4	0.5	-0.1

Source: RBI staff estimates.

8.2 Exports and Remittances

3.62 As a consequence of the pandemic, private transfer receipts, embodying remittances from Indians working overseas, dropped by 8.7 per cent y-o-y in Q1:2020-21. India's exports were weakened by demand and supply-side shocks and, together with the fall in remittances, per capita income levels in some states (Chart III.35). The top six states, viz., Maharashtra, Gujarat, Tamil Nadu, Uttar Pradesh, Karnataka and Andhra Pradesh, which reported around 60 per cent of total confirmed COVID-19 cases, account for nearly two-third of India's merchandise exports. With slowdown in economic activity amid lockdown measures, exports from these states may have also become vulnerable³⁴. Apart from the direct economic impact in the top six states, the loss of employment could be significant going forward for some of the other low-investment states like Uttar Pradesh, Bihar, West Bengal and Rajasthan, which had seen a large chunk of migration for overseas employment in recent years.

Chart III.35: India's Exports and Inward Remittances: State-wise Share


Sources: DGCI&S; RBI Inward Remittances Survey, August 2018

3.63 This is reflected in the drastic fall in emigration clearances (EC) obtained by recruiting agents, project exporters and under direct recruitment by foreign employers in January-September 2020 on a y-o-y basis (Table III.6). While reverse migration started in March, the

³⁴ Given the fact that Maharashtra, Karnataka, Delhi and Gujarat have been the major recipients of FDI in India, COVID-19 may have impacted finances of companies registered in these states. These states are reported to have hosted 75 per cent of FDI in India by end-March 2020 (Gol, 2020b).

Table III.6: Emigration Clearances for Overseas Employment- Share and Trend

State	State's share (in per cent)		Emigration Clearances (ECs) obtained by RAs, PEs and under Direct Recruitment by Foreign Employers	
	2019	2020 (Jan-Sept)		
Uttar Pradesh	31.6	32.6	2015	7,84,152
Bihar	15.1	15.0	2016	5,20,938
West Bengal	7.9	8.1	2017	3,91,024
Rajasthan	7.9	6.9	2018	3,40,157
Kerala	5.2	6.9	2019	3,68,043
Tamil Nadu	7.5	6.6	2019*	2,59,168
Andhra Pradesh	4.9	4.4	2020*	84,585
Punjab	4.0	3.3	Note: *Data is for Jan-Sept RA: Recruiting Agents; PE: Project Exporters.	
Telangana	3.6	3.0		
Maharashtra	2.1	2.7		
Odisha	2.0	2.1		
Gujarat	1.0	1.5		
Karnataka	1.4	1.4		
Jammu & Kashmir	1.2	1.3		
Others	4.5	4.2		
Total	100.0	100.0		

Source: Ministry of External Affairs, Gol.

government repatriated more than 18 lakh stranded Indians (both workers and tourists) safely to India under the *Vande Bharat* Mission (VBM) from 137 countries. Kerala received the largest number of stranded Indians, followed by Delhi, Uttar Pradesh, Tamil Nadu, Maharashtra, West Bengal, Telangana, Karnataka, Bihar and Andhra Pradesh. The largest number of Indians returning by VBM flights were from UAE, followed by Saudi Arabia, Qatar, Kuwait, Oman, and USA.

9. Concluding Observations

3.64 The pandemic has changed the landscape of sub-national government functioning and finance. As the public health crisis recedes, the priorities will need to shift to improving the

resilience of economic, social and fiscal systems by addressing the stark vulnerabilities exposed by COVID-19. An unambiguous lesson from the varied experiences of states is the need to step up health care and related expenditure. Yet another important takeaway is boosting investment in basic digital infrastructure so as to sharpen aspects like contact-tracing, targeted public service provisioning amidst social distancing norms and sanitation compulsions. Upgrading the urban infrastructure to improve the resilience of our cities, which were severely hit during the pandemic, also assumes crucial importance. This highlights the role of local governance institutions and the importance of empowering these institutions for effective interventions at the grass-root level.

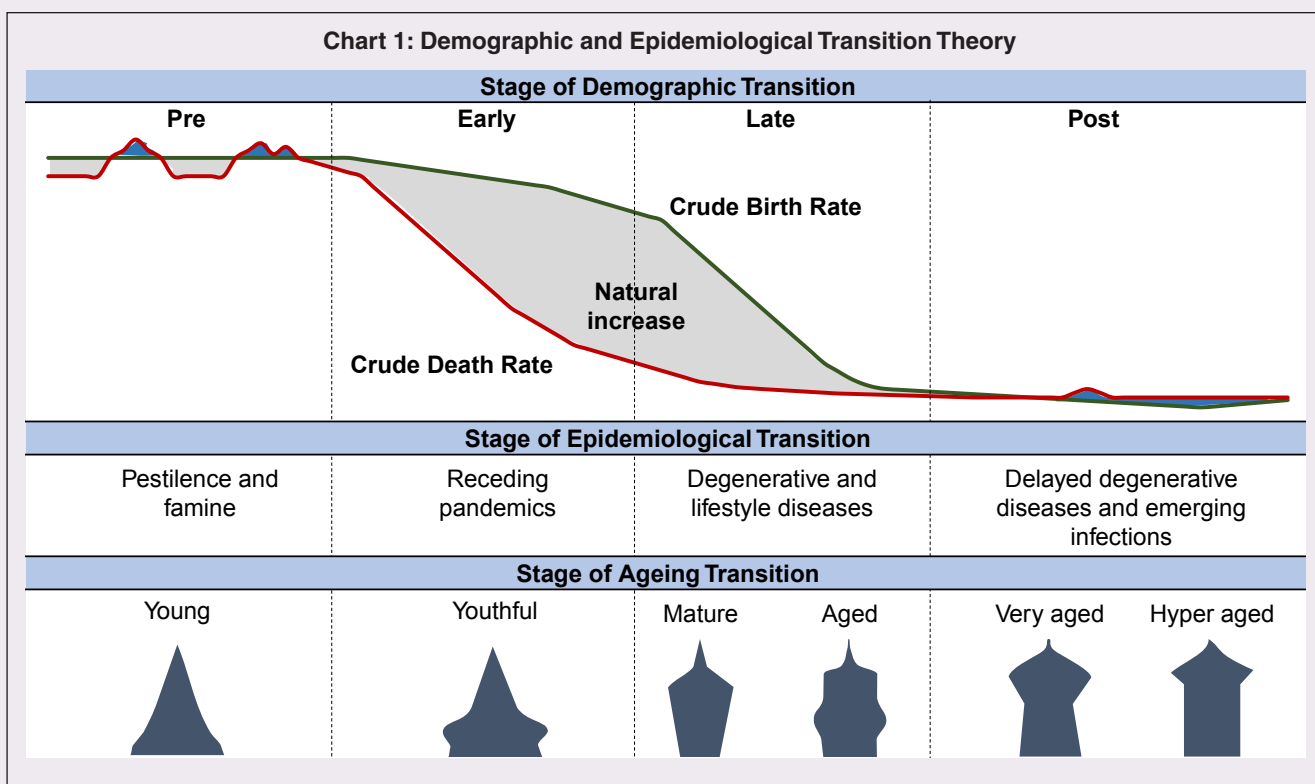
3.65 States have to be prepared better to manage migrations and reverse migrations through effective labour law reforms that bring in the flexibility to absorb migrant/informal labour productively and seamlessly. For out-migration states, it may be important to skill more people so that they get absorbed closer to home and contribute to greater regional balance. For in-migration states, gainful employment through state-specific urban schemes must go hand in hand with scaling up health infrastructure and social safety nets for migrant labour.

3.66 Even as states re-engage in restoring sustainability and quality of their finances especially in respect of capital spending, credibility considerations warrant retracing a glide path back to FRL fiscal targets within a stipulated time frame.

Annex III.1: Demographic and Epidemiological Transition: A Review of Theory

Demographic transition theory describes the stages (typically 4 to 5) in the transition from high mortality / high fertility to low mortality / low fertility for a population, commonly studied through variables such as birth rate, death rate, infant mortality rate, population growth rate, life expectancy and age composition. Typically, countries have gone through two intermediate stages in the transition from high mortality and high fertility to low mortality and low fertility. First, called early expanding stage, the crude death rate (CDR) registered a sharp fall though the crude birth rate (CBR) remains elevated, resulting in high growth of population (population explosion). The decline in CDR was driven by improvement in nutrition, and,

successes in curbing the impact of pandemics through understanding diseases (germ theory) and taking societal measures, particularly in sanitation and vaccination, to safeguard against them. Reduction in mortality from communicable diseases (such as Smallpox) was the dominant factor in this decline; consequently, younger age cohorts (under 5 and under 10) saw a more perceptible decline in mortality as older cohorts had a higher likelihood of having survived these infections before and developed some form of immunity from it. In the second intermediate stage, called late expanding stage, fertility catches up to mortality as CBR registers a sharp decline, resulting in moderation in population growth rate (Chart 1).



(Contd...)

Closely linked with the demographic transition model is the epidemiological transition model, which considers the compositional change in causes of mortality, commonly studied through metrics of absolute and age standardized mortality, and, their composition³⁵ (Omran, 1971; McCracken *et al.*, 2017). In recent years, with gains from life expectancy tapering, improvement in quality of healthy life and reducing burden of disease have gained importance in defining public health policy goals. Disability adjusted life years (DALYs) is a single measure that combines the burden of disease from both morbidity and mortality, by aggregating Years of life lost (YLL) due to premature death and Years lived with disability (YLD³⁶) (WHO Global Burden of Disease (GBD) project). DALY as a measure for healthcare goals has gained wide acceptance across the world and is also recommended by India's National Health Policy, 2017 and NITI Aayog Action Agenda, 2017–2020.

Significantly, there was also a transition in the age composition of the population that accompanied demographic transition. The age structure progressively transformed from the initial shape of a triangle to a trapezoidal shape if fertility falls below replacement level and gains from life expectancy continue, as witnessed in some areas of Western Europe like Northern Italy (Chesnais, J., C., 1990). During the transition phases, initially the population tends to grow younger with a rising

young age dependency ratio in early expansion stage (as decline in mortality is highest at the youngest ages). In the late expansion stage, the young age dependency ratio declines initially as fertility declines, causing an increase in share of working age population. In the later part of this stage, increased longevity results in an increase in share of elderly population and old age dependency ratio (Lee, R., 2003).

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³⁵ Causes are broadly categorized into communicable, maternal, neonatal and nutritional diseases (CMNND), Non Communicable Diseases (NCD) and Injuries.

³⁶ YLDs are measured by assigning disability weights to specific diseases.

Annex III.2: Unemployment Convergence across States

An analysis of the evolution of convergence in unemployment rates between Indian states/UTs over recent years is attempted with the available data to understand the spatial distribution of employment conditions. Absolute or unconditional convergence is measured in levels in order to assess the catching up process across states/UTs between 2009-10 and 2018-19³⁷. Unemployment rate data are sourced from NSS 66th and 68th rounds and Periodic Labour Force Survey (PLFS) Annual Reports.

In a cross-sectional ordinary least square (OLS) framework (Baumol, 1986) i.e.,

$$\frac{1}{T} \ln \left(\frac{UR_{it}}{UR_{i0}} \right) = \alpha + \beta \ln(UR_{i0}) + \varepsilon_i \dots \dots \dots (1)$$

T is the time interval from 0 to t , UR_{it} is the unemployment rate of state i in the final year t and UR_{i0} is the unemployment rate of state i at

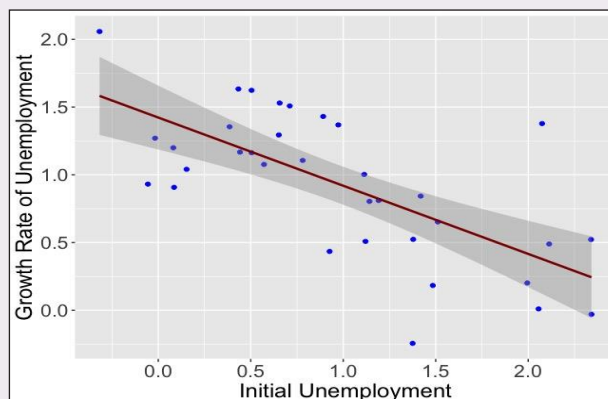
the beginning of time, α is the constant term, β is the slope coefficient that must be negative and statistically significant to confirm absolute convergence, ε is the error term, and \ln is natural logarithm.

The results bring out evidence of beta-convergence across states (Chart 1). The negative sign of β shows that, on average, the higher the unemployment rate, the lower is the growth in unemployment. The speed of convergence, measured by half-life, indicates that the gap in unemployment rates will be reduced by 50 per cent in approximately 32 years. The regression satisfies all the residual diagnostic tests such as homoscedasticity and normality of the residuals. The model is parsimonious and the results are robust.

Chart 1: Beta Convergence: OLS Estimates

Dependent Variable	α	β	R^2	D-W
UR	0.34*** (11.9)	-0.12*** (-5.0)	0.45	2.71

Notes: 1. Numbers in parentheses are t-statistics.
2. *, **, ***, represent statistical significance at 1, 5 and 10 percent respectively.
3. D-W denotes Durbin-Watson test statistic.



Note: Convergence is further reinforced when checked through sigma convergence using an analysis of variance (ANOVA) and trend regression model, which shows a statistically significant ebbing of dispersion of unemployment rate between 2009 and 2018 from 73 to 53 percent.

Source: RBI staff estimates.

³⁷ Due to data limitations, UTs of Daman and Diu and Dadra and Nagar Haveli have been eliminated from the analysis, and mean imputation has been performed for newly formed state of Telangana using value of Andhra Pradesh for the data prior to bifurcation of Andhra Pradesh into Telangana and Andhra Pradesh.

**Annex III.3:
Labour Laws**

A. Changes in Labour Laws by States			
No	States	Key Labour Laws Changed	Specific Changes in the Laws
1.	MP	<p>Madhya Pradesh Labour Laws (Amendment) Ordinance, 2020. amended two state laws:</p> <p>Madhya Pradesh Industrial Employment (Standing Orders) Act, 1961.</p> <p>Madhya Pradesh Shram Kalyan Nidhi Adhiniyam, 1982. (Provides for constitution of a fund that will finance activities related to welfare of labour.)</p> <p>Changes notified in the following Acts:</p> <p>Factories Act (FA), 1948</p> <p>Madhya Pradesh Industrial Relations Act (MPIRA), 1961</p> <p>Contract Labour (Regulation and Abolition) Act, 1970 (No. 37 of 1970)</p> <p>Industrial Disputes Act (IDA), 1947.</p>	<p>Increased the threshold of applicability of MPE, 1961 to 100 or more workers from 50 or more workers; of CLRA, 1970 to 50 or more workmen from 20 or more workmen; and of FA, 1948 to 50 or more workers from 10 or more workers earlier.</p> <p>Amendment allows the state government to exempt any establishment from the provisions of the MPSKNA Act, 1982 through a notification.</p> <p>All factories exempted from the provision of FA, 1961 which regulate working hours.</p> <p>Exemption given to 11 categories of industries from the MPIRA, 1961.</p> <p>Validity of license will be for the period as applied for under CLRA, 1973 instead of 1 year earlier.</p> <p>New Manufacturing Units not required to seek permission of the government to lay-off workers for next 1000 days under IDA, 1947</p>
2.	GJ	<p>Changes notified under sections 51, 54, 55 and 56 of Factories Act, 1948</p> <p>Exemption from all labour laws except Minimum Wages Act 1948, Industrial Safety Rules and The Employee Compensation Act.</p>	<p>Maximum daily work hours increased to 12 hours and weekly hours to 72 hours for a period of 3 months till July 19, 2020. Earlier they were 8 hours and 48 hours respectively.</p> <p>All firms which set up new units in the state will be freed from labour laws for 1,200 days.</p>
3.	MH	<p>Changes notified under sections 51, 52, 54 and 56 of Factories Act, 1948</p>	<p>Maximum daily work hours increased to 12 hours and weekly hours to 60 hours till June 30, 2020. Earlier they were 8 hours and 48 hours respectively.</p>

(Contd...)

4.	PB	Changes notified under sections 54 and 56 of Factories Act, 1948 Notified the Contract Labour (Regulation and Abolition) (Punjab Amendment) Ordinance, 2020.	Maximum daily work hours increased to 12 hours from 9 hours earlier for a period of 3 months from April 30, 2020. Increased the threshold of applicability of CLRA, 1970 to 50 or more workers from 20 or more workers earlier.
5.	UP	Uttar Pradesh Temporary Exemption from Certain Labour Laws Ordinance, 2020 passed by the Assembly for suspension of labour laws for 3 years.	Labour laws barring the Building and Other Construction Workers Act 1996; Workmen Compensation Act 1923; Bonded Labour System (Abolition) Act 1976; and section 5 of the Payment of Wages Act and the Maternity Benefits Act suspended for three years. Since the Ordinance restricts the implementation of central level labour laws, it requires the assent of the President to come into effect.
6.	HR	Changes notified under sections 51, 54, and 56 of Factories Act, 1948	Maximum daily work hours increased to 12 hours from 8 hours earlier for a period of 2 months from April 29, 2020.
7.	KA	Changes notified under sections 51 and 54 of Factories Act, 1948	Maximum daily work hours increased to 10 hours and maximum weekly hours to 60 hours for a period of 3 months till Aug 21, 2020. Earlier they were 8 hours and 48 hours respectively.
8.	HP	Changes notified under sections 51, 54, 55 and 56 of Factories Act, 1948	Maximum daily work hours increased to 12 hours and maximum weekly hours to 72 hours for a period of 3 months till July 20, 2020. Earlier they were 8 hours and 48 hours respectively.
9.	OD	Changes notified under sections 51, 54, 55 and 56 of Factories Act, 1948	Maximum daily work hours increased to 12 hours and maximum weekly hours to 72 hours. Earlier they were 8 hours and 48 hours respectively.

(Contd...)

10.	AS	<p>Changes notified in Contract Labour Act, 1971</p> <p>Introduced fixed term employment in industries</p> <p>Changes notified under sections 51, 52, 54, and 56 of Factories Act, 1948 and Assam shops and establishments Act, 1971</p>	<p>Minimum number of workers for implementation of the Factories Act increased from 10 to 20 (factories run with power) and 20 to 40 (without power).</p> <p>Minimum number of workers for implementation of Contract Labour Act increased from 20 to 50.</p> <p>Maximum daily work hours increased to 12 hours from 8 hours earlier for a period of 3 months from May 08, 2020.</p>
11.	GA	<p>Changes notified under Factories Act, 1948</p>	<p>Maximum daily work hours increased to 12 hours and maximum weekly hours to 60 hours till July 31, 2020. Earlier they were 8 hours and 48 hours respectively.</p>

Note : State Abbreviations - MP – Madhya Pradesh, GJ – Gujarat, MH – Maharashtra, PB – Punjab, UP – Uttar Pradesh, HR – Haryana, KA – Karnataka, HP – Himachal Pradesh, OD – Odisha, AS – Assam, GA- Goa.

Source: Respective state government notifications.

B. Reforms in Labour Codes as announced in <i>Aatma Nirbhar Bharat Abhiyan</i>	
No.	Measure
1	Universalization of right of minimum wages and timely payment of wages to all workers including unorganized workers – presently minimum wages applicable to only 30% of workers.
2	Statutory concept of national floor wage. This will reduce regional disparity in minimum wages.
3	Fixation of minimum wages simplified, leading to less number of rates of minimum wages and better compliance.
4	Appointment letter for all workers- this will promote formalization.
5	Annual Health Check-up for employees.
6	Occupational safety and health (OSH) Code also applicable to establishments engaged in work of hazardous nature even with threshold of less than 10 workers.
7	Definition of inter-state migrant worker modified to include migrant workers employed directly by the employer, workers directly coming to destination State of their own besides the migrant workers employed through a contractor.
8	Portability of welfare benefits for migrant workers.
9	Extension of Employees' State Insurance Corporation (ESIC) coverage pan-India to all districts and all establishments employing 10 or more employees as against those in notified districts/areas only.
10	Extension of ESIC coverage to employees working in establishments with less than 10 employees on voluntary basis.
11	Mandatory ESIC coverage through notification by the central government for employees in hazardous industries with less than 10 employees.
12	Social security scheme for gig workers and platform workers.
13	Re-skilling fund introduced for retrenched employees.
14	All occupations opened for women and permitted to work at night with safeguards.
15	Provision for social security fund for unorganised workers.
16	Gratuity for fixed term employment - Provision of gratuity on completion of one year service as against 5 years.

Source: Press Information Bureau, May 14, 2020.

Annex III.4:
E-Governance Initiatives of States during COVID-19

State	Objective		
	Information Dissemination	Effective Surveillance	Citizen Services
Bihar	-	Garur App	Bihar Corona Tatkal Sahayata
Chhattisgarh	-	Raksha Serv App	-
Delhi	-	-	Delhi Corona App
Haryana	haraadesh.nic.in sahayak.haryana.gov.in	healthy.haryana.gov.in	atmanirbhar.haryana.gov.in; Jan Sahayak Helpme App; saralharyana.gov.in; trackpds.edisha.gov.in
Himachal Pradesh	covidportal.hp.gov.in; covidorders.hp.gov.in	covid19.hp.gov.in Corona Mukht Himachal App	-
Jharkhand	-	Suraksha COVID-19	Mukhyamantri Vishesh Sahayata Yojana App
Karnataka	COVID-19 Information Portal; K-GIS COVID-19 Geospatial Portal	Containment Watch App; Quarantine Watch App; Corona Watch App; Contact Tracing App; Karnataka Health Watch App	Apthamitra App; KSP Clear Pass; Dasoha 2020 Food Delivery; Skill Connect.
Kerala	GoK Direct; health.kerala.gov.in	Kerala Health Disease Surveillance and Awareness App	24x7 State Corona Call centre
Maharashtra	-	Mahakavach	-
Odisha	Odisha Covid Dashboard App	covid19.odisha.gov.in	Covid-Sachetak App;
Punjab	COVA Punjab; corona.punjab.gov.in	COVA Punjab	-
Rajasthan	covidinfo.rajasthan.gov.in	RajCovidInfo App	Aayu App; Sehat Saathi App; e-Bazaar COVID-19 App
Sikkim	covid19sikkim.org	COVID19 Online Transmission Chain Prevention System	-
Tamil Nadu	stopcorona.tn.gov.in; COVID19 whatsapp chatbot	COVID-19 Quarantine Monitor Tamil Nadu App; TNGIS Portal	-
West Bengal	wb.gov.in/containment-zones-in-west-bengal.aspx; wbhealth.gov.in/contents/coronavirus; wb.gov.in/COVID-19.aspx	Sandhane App; Covid-19 West Bengal Govt App	Annadatri App; e-Retail Mobile App; karmabhumi.nltr.org; Sneher Paras App; Prochesta Prokolpo App

Source: As received from state governments.

IV

Way Forward

4.1 Downside risks confronting the Indian economy in the train of the slowdown that set in from early 2018-19 precipitated by COVID-19, which has produced the steepest quantity contraction in the Indian economy in its history in Q1 of 2020-21. With states at the forefront of the fight against the pandemic, their finances have taken a body blow in the first half of 2020-21. State governments' gross fiscal deficit is projected to widen in 2020-21 beyond 4.0 per cent of GDP in the baseline scenario. Given the clear inter-linkages between growth and tax revenues and considering the fact that tax revenues fall faster than GDP when growth is negative (Belinga *et. al.*, 2014 and OECD, 2020a), tax revenues are likely to be reduced for the next few years. Pandemic related spending, particularly on health and other support measures for households and firms are likely to keep these expenditures high; prolonging the 'scissor effect'. In addition, states' fiscal position is likely to be affected by a surge in contingent liabilities (guarantees). In this milieu, state governments may have to face the difficult choice of putting investment projects on hold, but, given the multiplier associated with capital spending, this will inevitably entail growth losses in a vicious circle feeding itself.

4.2 The visitation of the pandemic stalls a critical phase in the implementation of targeted structural reforms by the states - overhaul of the Agriculture Produce and Marketing Committee (APMC); restructuring of state marketing boards; land leasing for agriculture; ease of doing business (EoDB); improving logistics for exports, and simplification of labour regulations and labour reforms through amendments to Factories Act

and Industrial Disputes Act, to call a few. States are also engaged in re-building the social and economic infrastructure, including public health, urban and digital infrastructure. The pandemic has underscored their criticality and momentum must not be lost.

4.3 The pandemic may also leave lasting scars on federalism in India. It will have a bearing on inter-generational transfers, with lower discretionary spending or higher taxation in future. States' indebtedness is set to rise, and if it is not accompanied by an acceleration in growth, fiscal sustainability will become the casualty, overwhelming the modest gains of the prudence in recent years.

4.4 What could be the key elements of a virtuous post-pandemic fiscal response by states? First, reprioritising expenditures towards more productive high multiplier capital projects has to be made centre-stage and insulated from being sacrificed repeatedly at the altar of the expediency of shortsighted fiscal arithmetic. Investing in health care systems and social safety nets in line with the states' demographic and co-morbid profiles and strengthening urban infrastructure have to be an integral part of the fiscal strategy. Protecting human capital is as important as investing in physical capital formation, with equally strong Keynesian multipliers. In this context, expanding states' spending on health towards achieving the universal health coverage goal of 2.5 per cent of GDP at the aggregate level must be brought forward in the agenda of fiscal priorities of states. States with limited fiscal space can focus on low gestation and high labour intensity projects that also crowd in private business.

4.5 Second, improving revenue mobilisation has to be frontloaded to make up for the tax base and accruals lost in the pandemic. Clearly, the revival of strong growth is the best way to boost tax revenues, but in order to make up for lost ground, concomitant engines have to be directed to harnessing efficiency gains *via* improving tax compliance, and greater digitalisation of the tax administration to expand the tax base (RBI, 2019a; RBI, 2020).

4.6 Digitalisation can give dual benefits. First, it will help states lower cash dependence and physical access to banking infrastructure in times of social distancing and build resilience against future epidemics. Second, digitalisation can foster improvements in direct benefit transfer systems, including through e-governance initiatives. Digital platforms can also be utilised to reduce tax evasion and to expand the tax base. It is estimated that the direct benefit of digitalising government payments could create gains of 0.5-0.8 per cent of GDP for India (Lund, S. *et al.*, 2017) and pave the way for the formalisation of the economy. It will also help in job creation in the digital space.

4.7 The future of sub-national finances in India will be shaped by inter-state coordination and close engagement between various layers of sub-national administrations and health authorities. A cohesive national agenda built up on these blocks can mitigate vertical as well as horizontal imbalances and promote co-operative federalism. In this endeavour, special attention will be needed for ULBs, the weakest link and lagging behind similar bodies in other parts of the world in terms of capacity to raise resources, including financial autonomy to do so. Empowering local governments with higher resources and enabling them to raise resources has to be mainstreamed

into the fiscal fabric of governance, including improving their market access. Viewing from the spatial lens, setting up uniform and timely database collection systems across states with regard to – nature of employment and migrant workers, health infrastructure and human resources, local government capabilities and resources – could be the first step towards identifying and prioritising the associated service gaps.

4.8 Good house-keeping will require maintaining fiscal transparency on assessing and quantifying the fiscal risks, particularly from ‘below the line’ items. Fiscal transparency also encompasses provision of ready access to reliable, comprehensive, timely, understandable, and internationally comparable information on government activities, so that the electorate and financial markets could accurately and easily assess the government’s financial position as well as the true costs and benefits of its activities. Linking higher borrowing with financing capital expenditure, and central transfers to transparent fiscal would bring in incentive-compatibility.

4.9 Keeping in mind the inter-generational burden of debt, it is important for states to chart out a glide path back to fiscal rectitude. Like the centre, states may also consider revising their fiscal legislations by bringing in the desired counter-cyclicality and by incorporating debt as a medium-term anchor. No fiscal rule is static and the cross-country evidence suggests that fiscal rules should improvise on the basis of experience and new developments, so long as goal posts are not moved as a matter of expediency stemming from camouflaging breaches. By and large, while states have succeeded in adhering to their fiscal discipline targets, their fiscal policy has failed to act as a macroeconomic stabilising tool.

Budgetary constraints on fiscal spending have made their fiscal policies pro-cyclical. Laying down a transparent institutional mechanism in terms of revised FRLs, coupled with productive incentive systems, has potential to move states towards playing an effective balancing role in supporting growth while meeting their debt-deficit targets.

4.10 The next few years are going to be challenging for the Indian states. They need to remain empowered with effective strategies to drive through these difficult times. Sub-national fiscal policy has to be judicious and calibrated. Across states, maintaining overall stability, quality of spending and credibility of budgets may distinguish one state's resilience from another.

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Explanatory Note on Data Sources and Methodology

Data Sources

This Report is based on the receipts and expenditure data presented in the budget documents of 31 state governments and union territories (UTs) with legislature. For accounts data, this has also been supplemented with the data taken from Finance Accounts of the state published by Comptroller and Auditor General (CAG) of India, wherever required. Data from 2017-18 onwards includes UTs with legislature. The analysis conforms to the data presented in state budgets and the accounting classification thereof. The detailed Appendices are based on the classification of receipts and expenditure of individual states/UTs into revenue and capital accounts. Some supplementary information regarding outstanding guarantees (contingent liabilities), expenditure on 'wages and salaries' and 'operations and maintenance' are obtained from state governments. Data on outstanding guarantees from 2006-07 to 2016-17 were obtained from CAG.

Data on the outstanding state-wise loans under the National Small Savings Fund have been obtained from the CAG. The outstanding state-wise central loans have been sourced from Controller General of Accounts (CGA). Besides, several items of data including the availment of ways and means advances (WMA)/overdraft (OD), market borrowings, investment of state governments in central government treasury bills and the data on the state development loans (SDLs) have been taken from the Reserve Bank records. Data on gross domestic product (GDP) and the state-wise gross state domestic product

(GSDP) are at market (current) prices and have been sourced from the National Statistical Office (NSO). This is supplemented by information received from the respective state governments and GSDP estimates used in the budget documents of the State Governments. Wherever GSDP data are not available or not consistent with NSO's data, the data are estimated based on the previous three years' annual average growth rate. GSDP data prior to 2011-12 correspond to base 2004-05 and data from 2011-12 onwards correspond to 2011-12 base, as published by NSO. GDP data for the year 2020-21 (BE) is taken from the Union Budget 2020-21.

Jammu & Kashmir has not provided account data for 2018-19 in its budget for 2020-21. This has been the practice in the past also. Therefore, the RBI has been using audited accounts data released by CAG each year. For 2018-19, however, the data pertaining to J&K are provisional data as these are not yet approved. Furthermore, in this year Annual Financial Statement, budget data are available for 2019-20 in 3 parts – Accounts (pre-actual for 1st April 2019 to 30th October 2019), Budget Estimates (31st October 2019 to 31st March 2020) and Revised estimates (31st October 2019 to 31st March 2020). In this Report, BE for 2019-20 is being repeated as given in the last year budget. For comparability with other states/UTs, RE for J&K is taken by combining Accounts (pre-actual for 1st April 2019 to 30th October 2019) and RE (31st October 2019 to 31st March 2020). BE for 2020-21 is given for the full year and is taken as it is.

The disaggregate of 'Discharge of Internal Debt' are not available for Arunachal Pradesh since 2006-07. Therefore, the whole amount was put under 'others'. The data are available this year from the government for 2018-19, 2019-20 and 2020-21 and incorporated accordingly.

A new statement (Statement 36) is added giving states' subsidies data for 2018-19 to 2020-21 collected from respective state governments.

Methodology

The analysis of the expenditure data is disaggregated into development and non-development expenditure. All expenditures relating to revenue account, capital outlay and loans and advances are categorised into social services, economic services and general services. While social and economic services constitute development expenditure, expenditure on general services is treated as non-development expenditure. Thus, development expenditure includes the development components of revenue expenditure, capital outlay and loans and advances by state governments. Social sector expenditure includes expenditure on social services, rural development, and food storage and warehousing (given under revenue expenditure, capital outlay and loans and advances by state governments).

The term 'Aggregate Expenditure' used in Chapter II is defined as summation of revenue expenditure, capital outlay and loans and advances. The term 'Aggregate Disbursement' used in Appendix Tables and Statements is summation of aggregate expenditure and debt repayments. The capital receipts provided in Appendix Tables (consolidated) and Statements

(state-wise) and used in the analysis include public account items on a net basis while these are excluded from the respective capital expenditure. Percentage variation worked out in Appendix Tables and Statements may differ due to rounding-off of figures.

The data provided in Appendix III (capital receipts) and Appendix IV (capital expenditure) are on a gross basis for all items, including public account items. Additionally, total capital receipts taking public account items on a net basis are also given in Appendix III to have comparable data with those of the previous years. Total capital expenditure given in Appendix IV is exclusive of public account items. The 'overall deficit/surplus' in the appendices is equal to the sum of cash deficit/ surplus (difference between the closing balance and opening balance), increase/decrease in cash balance investment account and the increase/ decrease in WMA/ ODs extended by the Reserve Bank.

Methodology for Debt Statistics

The Reserve Bank in its Report of 2005-06 budgets had compiled a data series on outstanding liabilities of state governments since 1990-91. In the 2006-07 Report, a revised series of outstanding liabilities was published by including data on reserve funds, deposits and advances and contingency funds of state governments. In the 2007-08 Report, a revised data series on outstanding liabilities of state governments was published from 2003-04 onwards based on the Combined Finance and Revenue Accounts of union and state governments, Reserve Bank of India records, data received from the Ministry of Finance (Government of India), Union Finance Accounts (CGA) and the budget documents of

state governments. The present Report follows the same methodology for compilation of outstanding liabilities as given in 2007-08 Report and uses the same data sources.

The outstanding liabilities of the state governments as at end-March 2019 have been directly taken from CAG of India's 'Combined Finance and Revenue Accounts of the Union and State Governments in India' (except for column nos. 2 to 4 and 15 in Statement 18).

The outstanding liabilities position for end-March 2020 and end-March 2021 have been derived by adding annual flows [2019-20 (RE) and 2020-21 (BE)] to the outstanding amounts for end-March 2019 and end-March 2020. This has been done in conformity with recommended methodology of 'Report of the Working Group

on Compilation of State Government Liabilities', 2005. Based on the state wise market loans (Statement 22), the maturity profile of outstanding state government securities is provided in Statements 23 and 24. These Statements also incorporate the appropriation of liabilities of the four bifurcated states (Bihar, Madhya Pradesh, Uttar Pradesh and Andhra Pradesh) to their respective newly formed states (Jharkhand, Chhattisgarh, Uttarakhand and Telangana) on the basis of Government of India notifications.

e-STATES Database

Subsequent to the release of this Report, the e-STATES data base released by the Reserve Bank of India along with the previous issue of this Report will stand updated.