# <u>Motilal Oswal</u>



### The Economy Observer

### Combined fiscal deficit at just 15% of BEs in 1QFY23

Although states capex dips, Center aids in combined capex growth

- Based on provisional data of 21 states (together accounting for ~95% of all states), though total spending of all states grew ~15% YoY in FY22P, total receipts grew faster at 25% YoY. Consequently, the states' aggregate fiscal deficit came lower at INR6.4t in FY22P (or 2.7% of GDP), than ~INR8t in FY21 (4% of GDP) and INR8.7t in FY22RE (3.8% of GDP).
- Odisha (OD) was the only state to report a fiscal surplus (3.6% of GDP) in FY22P, following a fiscal deficit (1.8% of GDP) in FY21. Gujarat (GJ), Jharkhand (JH), Chhattisgarh and Uttarakhand (UK) posted nominal fiscal deficit at 0.8%-1.5% of GDP last year, while Kerala (KL), Punjab (PB) and Assam (AS) recorded the highest fiscal deficit at 4.6-5.1% of GDP in FY22P. Maharashtra (MH), the largest Indian state, clocked a deficit of just 2% of GDP, while Uttar Pradesh (UP) registered a deficit of 1.7% of GDP.
- A combined analysis of the center and states suggests that while total spending grew 13% YoY in FY22P, total receipts spiked 33% YoY. Consequently, India's combined fiscal deficit contracted to 9.4% of GDP in FY22P from 13.2% of GDP in FY21. Total receipts stood at a three-year high of 20.6% of GDP in FY22P, while total spending declined from its peak of 31.7% of GDP in FY21 to 30% of GDP in FY22P. Importantly, the fiscal capital expenditure (capex) increased sharply to a 14-year high of 4.5% of GDP in FY22P from 3.7% of GDP in the previous few years.
- For FY23E, the states have budgeted a growth of 17%/20% (v/s FY22P) in total receipts/spending, respectively, implying a fiscal deficit of 3.4% of GDP v/s 3.7% in FY22BE. Combining the center's FY23BE, total fiscal receipts are budgeted to grow 8% this year, with 9.5% growth assumed in total spending. Although capex is budgeted to increase 26% to 5.2% of GDP in FY23BE, combined fiscal deficit is likely to widen to 9.8% of GDP.
- In 1QFY23, states' total receipts (based on 18 states, accounting for ~87% of all state receipts) grew 35% YoY marking a double-digit growth for the sixth consecutive quarter. While states' own receipts (taxes and non-taxes) shot up 46% YoY in 1QFY23, following 88% YoY growth in 1QFY22, transfer from the center (devolution + grants) surged 20% YoY in the quarter. Conversely, total spending of all states is estimated to have increased 12% YoY in 1QFY23, marking a double-digit growth for the sixth consecutive quarter too. However, capex (excluding loans & advances) declined for the second consecutive quarter in 1QFY23.
- Because of higher growth in receipts than in spending, states' fiscal deficit was just INR0.5t (or 0.7% of GDP) in 1QFY23 (assuming a 17.3% YoY growth in nominal GDP), marking the slowest deficit in seven years.
- A look at individual state data reveals that seven states GJ, JH, KA, MH, OD, UP and UK exhibited a fiscal surplus in 1QFY23. The remaining 11 states (for which we have 1QFY23 data) showed fiscal deficit in the range of 3-86% of their FY23BE. At the one extreme were Punjab (PB) and Tamil Nadu (TN) with fiscal deficit at only 3-6% of FY23BE and on the other extreme was Bihar (BH) with 1QFY23 fiscal deficit at 86% of FY23BE.
- The combined 1QFY23 financial accounts of the central government and all states suggest that while total receipts grew 22.6% YoY in 1QFY23 (v/s 13.3%/115.3% YoY in 4QFY22/1QFY22), total spending rose 13.2% YoY last quarter (v/s 7.7%/8.9% YoY in 4QFY22/1QFY22), respectively.
- Although states' fiscal deficit was the lowest in seven years, fiscal deficit of the central government was high enough to take the combined fiscal deficit to INR4.0t or 6.6% of GDP in 1QFY23, v/s 15.1%/8.4% of GDP in 4QFY22/1QFY22. Notwithstanding higher Center's deficit (v/s states), the combined deficit was just 15% of FY23BE, the lowest since FY12.
- Importantly, while states' capex declined for the second consecutive quarter in 1QFY23, strong capex growth by the Center helped combined capex to surge 30% YoY in the quarter. Therefore, while states' capex in 1QFY23 was less than 10% of FY23BEs, combined capex stood at 17.1% of BEs, among the highest in the past decade propelled by the Center.

Nikhil Gupta – Research analyst (Nikhil.Gupta@MotilalOswal.com)

Yaswi Agrawal - Research analyst (Yaswi.Agrawal@motilaloswal.com)

Investors are advised to refer through important disclosures made at the last page of the Research Report. Motilal Oswal research is available on www.motilaloswal.com/Institutional-Equities, Bloomberg, Thomson Reuters, Factset and S&P Capital.

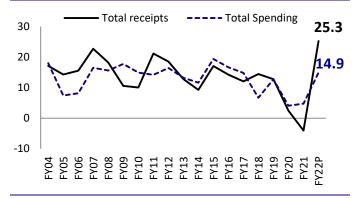


### MOTILAL OSWAL



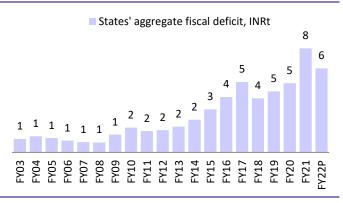
States' aggregate fiscal deficit came in at INR6.4t in FY22P, lower than INR7.9t in FY21 but higher than average ~INR4.7t over FY18-20 **States' fiscal deficit was INR6.4t in FY22P (v/s INR7.9t in FY21)...:** Based on provisional data of the 21 states<sup>1</sup>, total spending of all states grew at 14.9% YoY in FY22P. Total receipts, however, grew faster by 25.3% YoY during the year *(Exhibit 1)*. Consequently, states' aggregate fiscal deficit came in at INR6.4t in FY22P, lower than INR7.9t in FY21 but higher than average ~INR4.7t over FY18-20 *(Exhibit 2)*. This was much lower than the FY22BE/FY22RE of about INR8.7t.

## Exhibit 1: States' receipts grew at record pace in FY22P, while spending growth was modest...



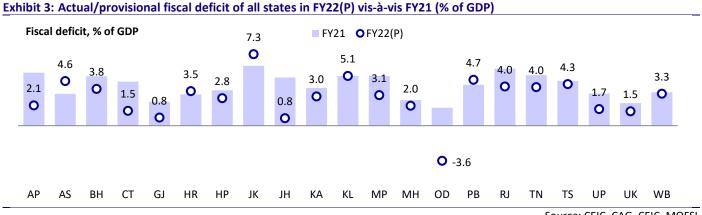
FY22P data based on supplementary accounts available for 21 states, which account for 95% of all states.

## Exhibit 2: ...which led to lower fiscal deficit of only INR6.4t in FY22P compared to INR7.9t in FY21



Source: Comptroller and Auditor General (CAG), Controller General of Accounts (CGA), CEIC, MOFSL

OD was the only state to report a fiscal surplus (3.6% of GDP) in FY22P, following a fiscal deficit (1.8% of GDP) in FY21. GJ, JH, CT and UK posted nominal fiscal deficit at 0.8%-1.5% of GDP last year, while KL, PB and AS recorded the highest fiscal deficit at 4.6-5.1% of GDP in FY22P. MH clocked a deficit of just 2% of GDP, while UP posted a deficit of 1.7% of GDP (*Exhibit 3*).



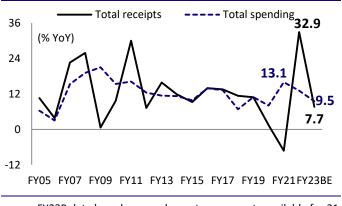
Source: CEIC, CAG, CEIC, MOFSL

### ...and combined general government (GG) fiscal deficit stood at 9.4% of GDP in

**FY22P...:** Total fiscal spending rose 13.1% YoY in FY22P, following a 16% YoY growth in FY21. Conversely, total receipts grew sharply by 32.9% YoY in FY22P as against a contraction of 7.2% YoY in FY21 *(Exhibit 4)*. As a % of GDP, total receipts of the GG stood at a three-year high of 20.6% in FY22P, while total spending declined from its peak of 31.7% of GDP in FY21 to 30% in FY22P *(Exhibit 5)*.

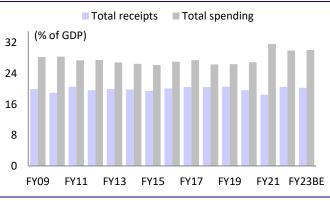
<sup>&</sup>lt;sup>1</sup>We analyze all states data for FY22P based on the finances of 21 states, together accounting for ~95% of all states. These include: Andhra Pradesh (AP), Assam (AS), Bihar (BH), Chhattisgarh (CT), Gujarat (GJ), Jammu and Kashmir (JK) Haryana (HR), Himachal Pradesh (HP), Jharkhand (JH), Karnataka (KA), Kerala (KL), Madhya Pradesh (MP), Maharashtra (MH), Odisha (OD), Punjab (PB), Rajasthan (RJ), Tamil Nadu (TN) Telangana (TS), Uttar Pradesh (UP), Uttarakhand (UK), and West Bengal (WB).

## Exhibit 4: Fiscal receipts growth was very fast compared to fiscal spending in FY22P...



FY22P data based on supplementary accounts available for 21 states, which account for 95% of all states.

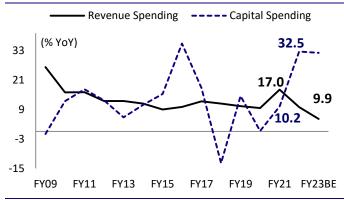
## Exhibit 5: ...which led to lower fiscal deficit of 9.4% of GDP in FY22P v/s 13.2% of GDP in FY21



Source: Comptroller and Auditor General (CAG), Controller General of Accounts (CGA), CEIC, MOFSL

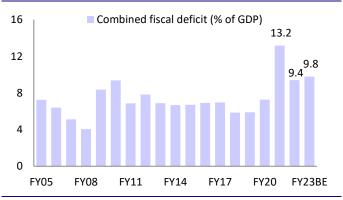
Importantly, the capital spending (including loans & advances) grew 32.5% YoY in FY22P, compared with 10% growth in revenue spending (*Exhibit 6*). It means that the government's capital spending increased to 4.9% of GDP in FY22P, from 4.4% of GDP in FY21. Consequently, combined fiscal deficit stood at INR22.2t or 9.4% of GDP in FY22P, compared to a deficit of INR26.1t or 13.2% of GDP in FY21 (*Exhibit 7*).

## Exhibit 6: Capital spending of the states grew sharply by 32.5% YoY in FY22P from 10.2% YoY in FY21...



Estimates for all states are based on data of 21 states, which together accounts for  $^{\circ}95\%$  of all states

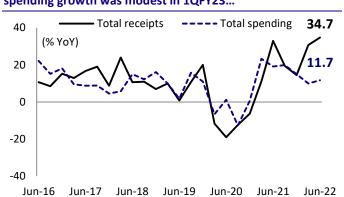
## Exhibit 7: ...and fiscal deficit stood at 9.4% of GDP last year as against 13.2% of GDP in FY21



Source: Comptroller and Auditor General (CAG), Controller General of Accounts (CGA), CEIC, MOFSL

**Combined fiscal deficit at 9.8% of GDP in FY23BE...**: As for the current financial year, the states have budgeted a growth of 16.7%/19.8% YoY (v/s FY22P) in total receipts/total spending, respectively. The central government, on the other hand, has budgeted 3.4%/4.8% YoY (v/s FY22P) growth in receipts/ total spending, respectively. When we combine these two finances together, we see that total receipts of the GG are estimated to grow only 7.7% YoY in FY23BE v/s a growth of 32.9% YoY in FY22P. Total spending, in contrast, is estimated to grow 9.5% YoY in FY23BE v/s 13.1% YoY in FY22P (*Exhibit 4 above*). Consequently, fiscal deficit too is likely to expand to 9.8% of GDP in FY23BE (*Exhibit 7 above*).

States' fiscal deficit in 1QFY23 at only 0.7% of GDP: In our analysis of 18<sup>2</sup> states up to Jun'22, accounting for ~87% of all states, we found that while total spending for all states grew 11.7% YoY in 1QFY23 compared to 10%/19% YoY in 4QFY22/1QFY22, total receipts of all states grew 34.7% YoY last quarter as against 30.6%/32.9% YoY in 4QFY22/1QFY22 (Exhibit 8), respectively. Consequently, states' aggregate fiscal deficit came at a 20-quarter low of INR446b, v/s INR1.7t/1.6t in 4QFY22/1QFY22. As a % of GDP, assuming 17.3% YoY growth in nominal GDP, states' aggregate fiscal deficit was at a seven-year low of 0.7% of GDP in 1QFY23 v/s 2.6%/3.1 of GDP) in 4QFY22/1QFY22, respectively (Exhibit 9).



### Exhibit 8: Receipts continued to grow strongly, while spending growth was modest in 1QFY23...

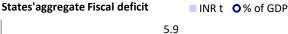
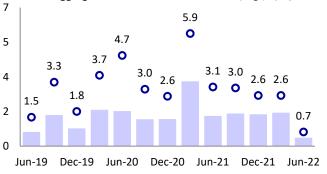


Exhibit 9: ...due to which states' aggregate fiscal deficit

stood at just 0.7% of GDP during the quarter



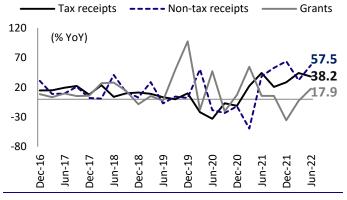
Source: CAG, CGA, CEIC, MOFSL

ECOSCOPE

Estimates for all states are based on data of 18 states, which together accounts for ~87% of all states

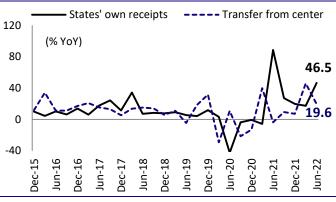
Non-tax receipts and grants-in-aid grew faster at 57.5%/17.9% YoY in 1QFY23 vis-à-vis 32.1%/-2.7% YoY in 4QFY22 Non-tax receipts/grants-in-aid held up growth in total receipts in 1QFY23...: Of the three main components of states' revenue receipts, non-tax receipts and grants-inaid grew faster at 57.5%/17.9% YoY in 1QFY23 vis-à-vis 32.1%/-2.7% YoY in 4QFY22, respectively. States' tax receipts grew slower at 38.2% YoY last quarter compared to faster growth of 44.2% YoY each in 4QFY22 and 1QFY22 (Exhibit 10). Overall, states' own receipts grew 46.5% YoY in 1QFY23, while total transfers from the center (devolution + grants) grew only 19.6% YoY (Exhibit 11).

### Exhibit 10: Non-tax revenue and grants-in-aid of all states grew faster in 1QFY23 v/s 4QFY22...



Estimates for all states are based on data of 18 states

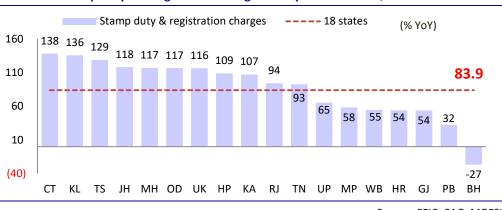
Exhibit 11: ...but due to slowdown in devolution, total transfers from the Center decelerated in 1QFY23



Source: CEIC, CAG, MOFSL

<sup>2</sup>We analyze all states data for 1QFY23 based on the finances of 18 states, together accounting for ~80% of all states. These include: Bihar (BH), Chhattisgarh (CT), Gujarat (GJ), Haryana (HR), Himachal Pradesh (HP), Jharkhand (JH), Karnataka (KA), Kerala (KL), Madhya Pradesh (MP), Maharashtra (MH), Odisha (OD), Punjab (PB), Rajasthan (RJ), Tamil Nadu (TN), Telangana (TS), Uttar Pradesh (UP), Uttarakhand (UK), and West Bengal (WB).

**Stamp duty and registration charges collection grew sharply in 1QFY23:** One of the major components of states' receipts is stamp duties and registration charges. Analysis of monthly data available for 18 states suggests that together, it grew ~84% YoY in 1QFY23, higher compared to only 16.5% YoY in 4QFY22, but lower than 102% YoY in 1QFY22 (which was led by a low base of -61.2% YoY in 1QFY21). The sharp growth was fueled by >100% rise seen in nine states out of the 18 and growth in the range of 32-94% in eight states. Only BH exhibited a 27% YoY decline in stamp duty and registration charge receipt in 1QFY23 (*Exhibit 12*).

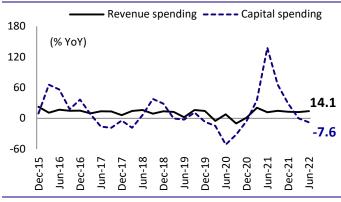


### Exhibit 12: Stamp duty and registration charges nearly doubled in 1QFY23

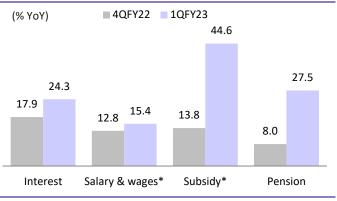
ECOSCOPE

**Capital spending of states declined in 1QFY23:** After growing marginally at 0.1% YoY in 4QFY22, states' capital spending declined 7.6% YoY in 1QFY23. Additionally, states' revenue spending grew 14.1% YoY in 1QFY23 followed by similar growth of 12.2% YoY in 4QFY22 (*Exhibit 13*).





## Exhibit 14: ...and revenue growth of all components was higher in 1QFY23 than in 4QFY22



Estimates for all states are based on data of 17 states

Further, while interest, salaries and wages of states grew slightly in 1QFY23 v/s 4QFY22, growth in subsidy and pension payouts spiked in 1QFY23 as against 4QFY22 (*Exhibit 14*).

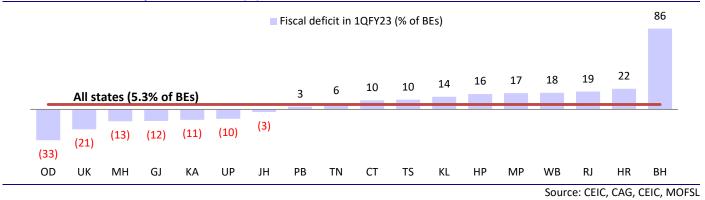
Seven states – GJ, JH, KA, MH, OD, UP and UK – exhibited a fiscal surplus in 1QFY23 Seven states have posted a fiscal surplus in 1QFY23: A look at individual states data reveals that seven states – GJ, JH, KA, MH, OD, UP and UK – exhibited a fiscal surplus in 1QFY23. The remaining 11 states (for which we have 1QFY23 data) showed fiscal deficit in the range of 3-86% of their FY23BE. At the one extreme were PB and TN with fiscal deficit at only 3-6% of FY23BE and on the other extreme was BH at 86% of FY23BE as of 1QFY23 (*Exhibit 15*).

Source: CEIC, CAG, MOFSL

<sup>\*</sup> Data for 16 states (Excl. KA and TN) Source: CEIC, CAG, MOFSL

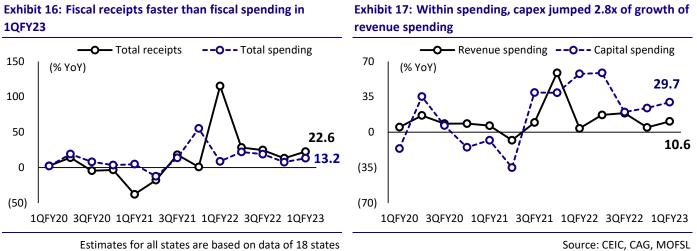


### Exhibit 15: Fiscal deficit by state in 1QFY23 (%)



Government capex grew at a three-quarter high of 29.7% YoY in 1QFY23...: A combined analysis of the central and state governments suggests that while total receipts rose 22.6% YoY (v/s 13.3%/115.3% YoY in 4QFY22/1QFY22), total spending by the GG grew only 13.2% YoY in 1QFY23 (v/s 7.7%/8.9% YoY in 4QFY22/1QFY22; Exhibit 16).

Further, within total spending, the growth came from both revenue and capital spending. Although states' capital spending declined during the quarter, strong growth by the center helped the combined capital spending to grow 29.7% YoY in 1QFY23 (Exhibits 17).



Assuming 17.3% YoY growth in nominal GDP in 1QFY23, our calculations suggest GG fiscal deficit stood at 6.6% of GDP in 1QFY23

...and combined fiscal deficit was 6.6% of GDP last quarter: Assuming 17.3% YoY growth in nominal GDP in 1QFY23, our calculations suggest GG fiscal deficit was at 6.6% of GDP in 1QFY23, less than half of 15.1% of GDP in 4QFY22 (Exhibit 18). As a % of BEs, while states' aggregate fiscal deficit was just 5.3% in 1QFY23, it was 21.2% for the center, implying the combined fiscal deficit at just 15.1% during the quarter (Exhibit 19).

### ECOSCOPE Exhibit 19: Fiscal deficit of the general government stood at

59.6

GG Fiscal Deficit, % of BEs

44.8

1QFY19

40.3

48.3

1QFY18

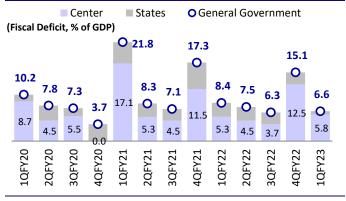
40.1

1QFY17

34.6

1QFY16

## Exhibit 18: Combined fiscal deficit was at 6.6% of GDP in 1QFY23 as against 15.1%/8.4% of GDP in 4QFY22/1QFY22



Estimates for all states are based on data of 18 states

1QFY20 1QFY21 1QFY22 1QFY23

18.6

15.1

Source: CEIC, CAG, MOFSL

### Conclusion: Combined fiscal deficit at 15.1% of BEs in 1QFY23

1QFY14

15.1% of BEs in 1QFY23

42.9

1QFY15

35.4

The fiscal finances of the state governments in FY22P/1QFY23, along with the finances of the central government, may be summarized in nine broad points:

- Total receipts of the states grew 25.3% YoY in FY22P but spending grew much slower at only ~20% YoY last year. Consequently, fiscal deficit of all states was at INR6.4t (or 2.7% of GDP) in FY22P v/s INR7.9t (or 4.1% of GDP) in FY21 and much lower than FY22BE/RE of INR8.7t. This combined with central government finances suggests that GG fiscal deficit stood at INR22.3t (or 9.4% of GDP) in FY22P v/s INR26.1t (or 13.2% of GDP) in FY21.
- 2) OD was the only state that posted a fiscal surplus (3.6% of GDP) in FY22P, following a fiscal deficit of 1.8% of GDP in FY21. MH, the largest Indian state, reported a deficit of just 2% of GDP, while UP posted a deficit of 1.7% of GDP.
- 3) For FY23, the states have budgeted a growth of 17%/20% (v/s FY22P) in total receipts/spending, implying a fiscal deficit of 3.4% of GDP v/s 3.7% in FY22BE. Combining the center's FY23BE, total fiscal receipts are budgeted to grow 7.7% this year, with 9.5% growth assumed in total spending; it implies a budgeted fiscal deficit of 9.8% of GDP in FY23 v/s 9.4% in FY22P.
- 4) While total receipts of the states grew 34.7% YoY in 1QFY23, total spending grew only 11.7% YoY last quarter. Within receipts, growth in tax receipts of the state government also slowed down. What sailed the receipts boat was the faster growth in states' own non-tax receipts and grants-in-aid in 1QFY23.
- 5) Total transfers to the states by the union government (devolution + grants-inaid) grew only 19.6% YoY in 1QFY23 after a handsome growth of 45.8% YoY in 4QFY22 on account of slower growth in devolution from the Center.
- 6) On the spending front, capital spending of all states contracted 7.6% YoY in 1QFY23. Revenue spending, on the other hand, grew slightly faster at 14.1% YoY in 1QFY23 as against 12.2% YoY in the previous quarter.
- 7) Individual states analysis suggests that seven states (GJ, JH, KA, MH, OD, UP and UK; out of the 18 under our analysis) registered fiscal surpluses in 1QFY23 and only BH recorded a fiscal deficit of 86% of FY23BE as of 1QFY23.
- 8) Combined 1QFY23 financial accounts of all states and the central government suggests that while total receipts grew 22.6% YoY in 1QFY23 (v/s 13.3% YoY in 4QFY22), total spending grew 13.2% YoY last quarter (v/s 7.7% YoY in 4QFY22). Fiscal deficit of the GG in 1QFY23 therefore, stood at INR4t (or 6.6% of GDP, assuming a 17.3% YoY growth in nominal GDP) as against a deficit of INR10t



(15.1% of GDP) in 4QFY22. The combined fiscal deficit was just 15.1% of BEs in 1QFY23, compared to 30-60% of BEs in the first quarter in the pre-Covid period.

9) Within GG spending, the combined capital spending growth was at 29.7% YoY (a three-quarter high). This was lead only by healthy capex growth of 57% YoY by the central government as the same of states actually declined 7.6% YoY last quarter.

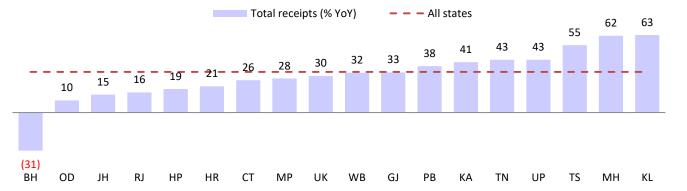
### Appendix I Exhibit 20: Details of fiscal accounts of 18 states and the central government in 1QFY23 v/s 1QFY22

% YoY, unless specified	Total receipts		Total sp	ending	Capital s	pending	Fiscal deficit (% of BE)		
	1QFY22	1QFY23	1QFY22	1QFY23	1QFY22	1QFY23	FY22	1QFY23	
Bihar (BH)	11.2	-30.9	18.6	-3.7	19.7	-28.7	114	86	
Chhattisgarh (CT)	7.2	26.2	9.6	4.6	151.3	-7.7	34	10	
Gujarat (GJ)	37.1	32.5	18.0	10.7	98.1	65.8	52	-12	
Haryana (HR)	94.6	21.3	28.0	0.3	92.3	-50.7	81	22	
Himachal Pradesh (HP)	5.4	19.0	18.7	32.0	63.2	-7.9	63	16	
Jharkhand (JH)	26.7	14.5	21.3	33.7	346.3	215.2	26	-3	
Karnataka (KA)	19.6	40.9	6.1	9.8	131.7	13.1	104	-11	
Kerala (KL)	44.2	62.8	26.4	-12.8	24.6	-16.3	150	14	
Madhya Pradesh (MP)	15.7	27.6	21.9	13.3	99.6	-6.2	72	17	
Maharashtra (MH)	23.0	62.3	24.5	39.1	351.2	424.9	98	-13	
Odisha (OD)	25.4	9.8	22.1	-7.9	-14.9	21.9	-113	-33	
Punjab(PB)	16.8	37.6	9.0	29.6	216.7	-63.7	114	2	
Rajasthan (RJ)	61.9	16.4	24.7	4.5	168.1	-18.3	101	19	
Tamil Nadu (TN)	38.7	42.8	4.9	26.2	37.0	52.3	81	6	
Telangana (TS)	67.4	54.7	15.9	16.0	149.4	-37.9	107	10	
Uttar Pradesh (UP)	29.0	42.8	19.7	6.6	1008.3	-49.5	35	-14	
Uttarakhand (UK)	8.0	29.7	30.8	-6.0	535.5	-61.4	42	-21	
West Bengal (WB)	115.4	32.3	30.3	16.9	2094.7	5.0	83	18	
18 States	33.5	34.4	18.9	11.6	134.9	-7.6	71.5	5.6	
Central government	256.4	8.9	0.7	15.4	26.3	57.0	105.3	21.2	
All states*	37.9	32.9	20.3	10.2	142.1	-10.3	96.4	5.2	
General government#	113.5	22.2	8.0	12.9	59.9	27.4	95.6	15.1	

\* Based on the share of 18 states

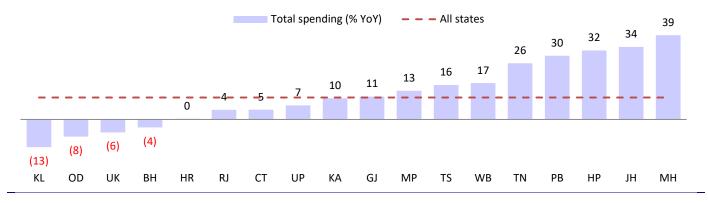
### # Adjusted for 'Grants from the Center' to states

### Exhibit 21: Total receipts by states in 1QFY23 (% YoY)

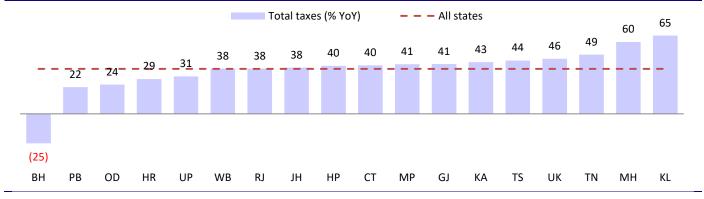




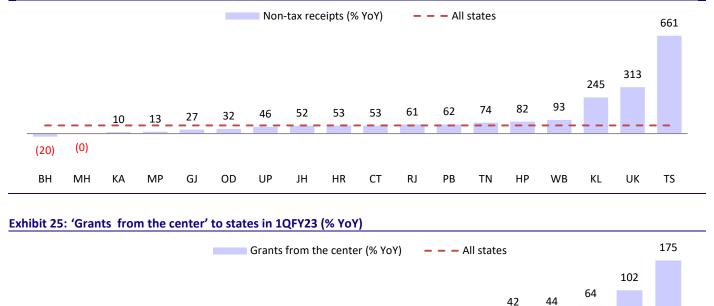
### Exhibit 22: Total expenditure by states in 1QFY23 (% YoY)







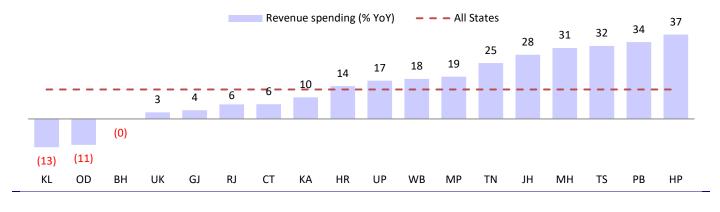




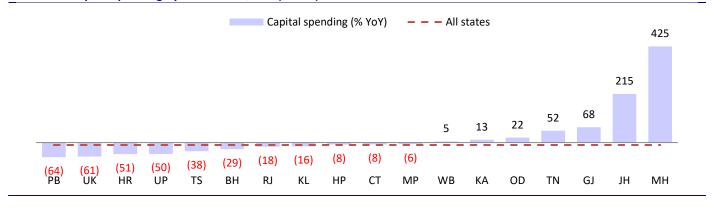
										4	19					
							(17)	(7)	(1)							
	(71)	(59)	(47)	(37)	(35)	(31)	(17)		(1)							
(100)	(/1)															
BH	OD	TS	RJ	СТ	HR	JH	MP	UK	HP	GJ	TN	KA	KL	РВ	MH	UP



### Exhibit 26: Revenue spending by states in 1QFY23 (% YoY)



### Exhibit 27: Capital spending by states in 1QFY23 (% YoY)



### Exhibit 28: Salary and Wages given by states in 1QFY23 (% YoY)

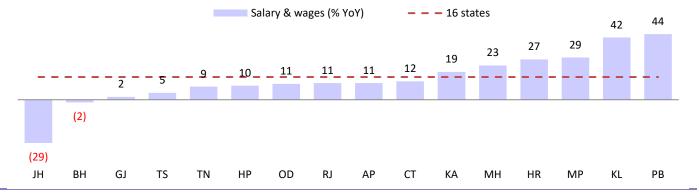




Exhibit 29: Pension given by states in 1QFY23 (% YoY) Pension (% YoY) - - - 18 states 383 55 34 35 34 27 29 30 32 26 7 7 12 13 18 24 16 (17) UP KA ΒH MH RJ UK СТ KL ΤS ΗP HR GJ AP OD JΗ РΒ MP ΤN



Explanation of Investment Rating				
Investment Rating	Expected return (over 12-month)			
BUY	>=15%			
SELL	< - 10%			
NEUTRAL	> - 10 % to 15%			
UNDER REVIEW	Rating may undergo a change			
NOT RATED	We have forward looking estimates for the stock but we refrain from assigning recommendation			
*In accord the recommandation given by the Decearch Analyst is inconsistent with the investment rating legend for a continuous paried of 20 days, the Decearch Analyst shall within following 2				

commendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

#### Disclosures:

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com. MOFSL (erstwhile Motilal Oswal Securities Limited - MOFSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL), NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at . http://onlinereports.motilaloswal.com/Dormant/documents/Associate%20Details.pdf

#### Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at <a href="https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx">https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx</a>

MOFSL, it's associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions .: however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

#### In the past 12 months, MOFSL or any of its associates may have:

- managed or co-managed public offering of securities from subject company of this research report, 1
- 2 received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
- 3. received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
- 4. Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and it's associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the report. MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MÓFŠL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures. Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, It does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

#### Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report. Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

### 

Disclosure of Interest Statement	Companies where there is interest
Analyst ownership of the stock	No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to subject company for which Research Team have expressed their views.

#### **Regional Disclosures (outside India)**

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

#### For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Financial Services Limited (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

## MOTILAL OSWAL

## ECOSCOPE

### For U.S:

Motilal Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the"1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. Any investment or investment activity to which this document relates is only available to major institutional investors. Any will be engaged in only with major institutional investors. In reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S. MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

### For Singapore:

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore,

as per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Disclaimer: The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty. express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com.

CIN No.: L67190MH2005PLC153397.Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai- 400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)\*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579 ;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP00000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs,Insurance Products and IPOs.Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

\* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.