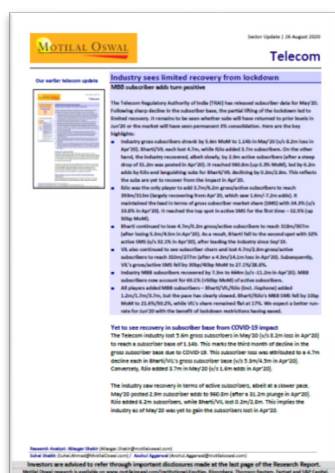


## Our earlier telecom update



## Upcoming spectrum auction

## Will we see another fierce battle for supremacy?

The spectrum auction will begin on 1st Mar'21. Given the consolidation in the sector over the last decade, we hope telcos will say goodbye to the old irrational and desperate price bidding to acquire the limited available spectrum.

- We expect low competition intensity as there is sufficient spectrum, and different band usage and priorities of each player.
- RJio/Bharti/VIL need to spend INR280b/INR129b/INR83b at the reserve price to renew their existing spectrum.
- However, the Earnest Money Deposit (EMD) indicates that Bharti, RJio may be interested in spending 2-3x the renewal requirement in other bands. VIL has limited options given its liquidity position.
- The sub-GHz band will be of high interest to Bharti and RJio. But unlike previous times, both companies may choose separate bands (900MHz/800MHz), and hence, should not be a cause for concern.
- The two bands of 1,800-2,300MHz may see some clashes, but given the sufficient amount of spectrum available, we expect limited competition.
- With a FCF of over INR215b (excluding spectrum renewal charges) in FY22E, Bharti should be comfortably placed. However, its net debt would increase to INR850-900b. RJio has sufficient liquidity from the recent stake sale, with a FCF of INR143b in FY22E.

## Expect lower competitive intensity

The auction may see lower competitive intensity given the varied priorities of each player. VIL's weak liquidity position may keep its interest low. Bharti's sub-GHz spectrum interest may largely be limited to 900MHz, while RJio's renewal of 800MHz spectrum may not see much interest from rest of the players. The 1,800MHz and 2,300MHz spectrum may be of high interest to both Bharti and RJio, which may eye it for their 4G plans and for their 5G requirements going forward.

## How much spectrum is expiring for each telco?

In the 800MHz band, RJio will see the expiry of 115MHz, which it acquired/shared from RCOM in 19 circles. The same for Bharti and VIL stands at 57MHz in the 1,800MHz band and 37.8MHz/6.2Mhz in the 1,800MHz/900MHz band, respectively. This would cost RJio/Bharti/VIL INR280b/INR129b/INR83b at the reserve price. Though this is a mere 5-10% of Bharti and VIL's spectrum, it is significant in the case of RJio.

## EMD indicates Bharti, RJio's interest may lie beyond renewal spectrum

RJio/Bharti has deposited a higher earnest money for the upcoming auction, while the same for VIL has been lackluster. As per media reports, RJio deposited the highest earnest money of INR90b, which would allow it to purchase spectrum worth INR450-660b. Bharti is said to have deposited INR30-33b, which would allow it to purchase spectrum worth INR150-250b. VIL has deposited a mere INR5b to buy spectrum worth INR25-35b. The high EMD will allow RJio to spend INR200-250b, beyond the INR280b that it requires for renewal of its expiring spectrum at the reserve price. Bharti will require INR130b at the reserve price to renew its expiring

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1,800MHz spectrum. The management said it could also look to buy additional spectrum in the sub-GHz band. RJio/Bharti could also buy additional spectrum for 5G services as per the recent modification of rules. VIL's low EMD against its need to spend INR83b to renew existing spectrum at the reserve price implies it may not renew all its attractive 1,800MHz/900MHz spectrum, further weakening its position.

#### Sub-GHz spends by Bharti, RJio could be of key focus, but in different bands

Bharti intends to build a sub-GHz spectrum coverage. In six circles with a market share of about 20%, it has no sub-GHz (900MHz) spectrum. In the remaining circles, it has below 10MHz, so it could explore additional spectrum. This may necessitate an investment of INR60-80b if it plans to acquire spectrum in majority of the circles. If RJio acquires on an average 10MHz in 800MHz across all 22 circles, it may need to spend about INR55b. But given that the demand of both telcos is in different spectrum bands, we may see lesser competitive intensity.

#### 1,800MHz and 2,300MHz could see a clash

Bharti has a strong portfolio of 1,800MHz spectrum, with an average 15MHz in 15 circles and below 10MHz in four circles. In Delhi, it does not have a high proportion of spectrum in 900MHz and largely relies on 2,300MHz for capacity. So, it could be keen to acquire spectrum in 1,800MHz, which could entail an investment of ~INR22b for 5MHz at the reserve price. RJio has an average 7MHz in 1,800MHz, so it could spend wherever sufficient 800MHz spectrum is unavailable. In the 2,300MHz band, both Bharti and RJio could look to top up their spectrum capacity. Bharti may choose to fill gaps in the three circles where it does not hold any spectrum. But with a healthy 2-4 blocks of 10MHz available in 2,300MHz, there could be lesser competition intensity.

#### Implication on Bharti, RJio's cash flow and Balance Sheet

With a FCF of INR99b/INR215b in FY21E/FY22E (excluding spectrum renewal), Bharti should be comfortably placed. But it could reduce the company's FY22E post interest FCF to INR75b and increase its net debt to INR882b (v/s INR755b expected earlier). RJio has sufficient liquidity from the recent stake sale to fulfil its capex requirement, with a FCF of INR132b/INR143b in FY21E/FY22E. VIL's liquidity remains precarious and may choose not to renew its existing spectrum in most circles. We have factored in INR130b/INR280b towards spectrum acquisition for Bharti/RJio. We maintain a Buy on Bharti with a TP of INR720 and value RJio at INR900/share.

#### Exhibit 1: Bharti's FY23 based SoTP

Particulars	EBITDA (INR b)	Ownership	Proportionate EBITDA (INR b)	EV/ EBITDA	Fair value (INR b)	Value/ share
India SA business (excluding towers)	446	100%	446	10	4,587	841
Tower business (15% discount to fair value)		41.0%			230	42
Africa business	192	55.2%	106	6	582	107
Less: Net debt					1,474	270
<b>Total value</b>					<b>3,924</b>	<b>720</b>
Shares o/s (b)	5.5					
<b>CMP</b>						<b>600</b>
<b>Upside (%)</b>						<b>20</b>

Source: MOSL

**Exhibit 2: RJio SoTP**

EBITDA	521
EV-to-EBITDA (x)	17
EV	8,621
Debt	42
Equity Value	8,580
Value Per Share	1,353
RIL's Stake	66.48%
<b>RJio's value in RIL</b>	<b>900</b>

Source: Company, MOFSL

**Exhibit 3: Capex required by Bharti for spectrum renewal at reserve price (INR m)**

Circle	Quantity (MHz)	Available quantity (MHz)	Reserve price/ MHz	Total investment required at reserve price
Gujarat	6.2	17.8	2,730	16,926
Haryana	6.2	19.4	570	3,534
Kerala	6.2	16.4	950	5,890
MP	8	15	950	7,600
Maharashtra	8.2	22.2	3,650	29,930
Mumbai	9.2	15.6	5,610	51,612
Tamil Nadu	6.8	17.6	1,000	6,800
UP West	6.2	19.4	1,150	7,130
<b>Total</b>	<b>57</b>			<b>1,29,422</b>

Source: MOFSL, DoT

**Exhibit 4: Capex required by RJio for spectrum renewal at reserve price (INR m)**

Circle	Quantity (MHz)	Available quantity (MHz)	Reserve price/ MHz	Total investment required at reserve price
Delhi	6.25	12.5	6400	40,000
Mumbai	5	10	7270	36,350
Kolkata	7.5	12.5	1600	12,000
MH	6.25	15	5100	31,875
Gujarat	7.5	6.5	3850	25,025
AP	6.25	13.75	3900	24,375
Karnataka	6.25	13.75	1920	12,000
Tamil Nadu	6.25	13.75	1740	10,875
Kerala	6.25	13.75	1570	9,812.5
Punjab	7.5	11.25	1570	11,775
Haryana	5	10	570	2,850
UP (West)	7.5	12.5	1610	12,075
UP (East)	6.25	12.5	2510	15,687.5
Rajasthan	5	12.5	2660	13,300
MP	5	12.5	1430	7,150
WB	6.25	12.5	740	4,625
HP	5	10	240	1,200
Bihar	5	12.5	1360	6,800
Odisha	5	11.25	470	2,350
<b>Total</b>	<b>115</b>			<b>280,125</b>

Source: MOFSL, DoT

**Exhibit 5: Capex required by VIL for spectrum renewal at reserve price (INR m)**

VIL's 1,800MHz spectrum up for renewal in CY21				
Circle	quantity (MHz)	Available quantity	Reserve price/MHz	Total investment required at reserve price
Delhi	8	25.4	4570	36560
Karnataka	8	21	1090	8720
Tamil Nadu	1	17.6	1000	1000
Punjab	6.2	19.4	880	5456
UP (East)	6.2	15	1530	9486
Rajasthan	6.2	16.8	1050	6510
HP	2.2	19	180	396
<b>Total</b>	<b>37.8</b>			<b>68128</b>
VIL's 900MHz spectrum up for renewal in 2021				
Circle	quantity (MHz)	Available quantity	Reserve price/MHz	Total investment required at reserve price
Tamil Nadu	6.2	17	2350	14570
<b>Total capex requirement</b>				<b>82698</b>

Source: MOFSL, DoT

**Exhibit 6: Bharti's spectrum holding in 900MHz; available spectrum and reserve price (INR m)**

	Circles	Spectrum holding	Available spectrum	Reserve price/MHz (INR m)	Reserve price/block (INR m)	RMS (%)	SMS (%)
No spectrum	Maharashtra	0	4.2	5230	1046	20.6	18.7
	Gujarat	0	4.2	3730	746	15.3	16.6
	Kerala	0	4.6	1990	398	18.0	14.2
	Haryana	0	0.8	1020	204	20.5	18.0
	UP (West)	0	2.4	2110	422	28.6	24.8
	MP	0	5.8	1950	390	19.2	18.9
< 5MHz	Mumbai	5	2.2	6910	1382	25.9	27.2
5-10MHz	Delhi	6	2.2	5850	1170	35.2	29.8
	Kolkata	7	4.2	2210	442	26.1	22.8
	AP	9	3.6	4170	834	36.9	34.4
	Karnataka	8.8	3.8	2380	476	49.3	43.6
	Tamil Nadu	6.2	17.6	2350	470	36.1	32.0
	Punjab	10	0	0	NA	28.3	26.9
	UP (East)	6.2	6.4	2620	524	33.5	33.5
	Rajasthan	6	0	0	NA	32.0	32.9
	West Bengal	6.6	5.2	1240	248	23.6	27.2
	HP	7.4	5.2	370	74	34.3	30.0
	Bihar	7.8	10.4	2010	402	34.2	41.2
	Odisha	7.4	5.2	860	172	31.5	32.5
	Assam	8	5.8	830	166	36.9	36.6
	North East	8.8	5	230	46	40.4	43.4
	J&K	6.2	0	0	NA	46.0	47.1

Source: MOFSL, DoT

**Exhibit 7: Bharti's spectrum holding in 1,800MHz; available spectrum and reserve price (INR m)**

	Circles	Spectrum holding	RMS (%)	SMS (%)	Available spectrum	Reserve price/MHz (INR m)	Reserve price/block (INR m)
<b>&lt;10 MHz</b>	Delhi	7	35.2	29.8	15.4	4570	914
	Kolkata	9	26.1	22.8	14.4	1730	346
	Karnataka	8.8	36.9	34.4	24.8	1090	218
	Punjab	10	28.3	26.9	19.4	880	176
	Rajasthan	10	32.0	32.9	16.8	1050	210
	West Bengal	6.2	23.6	27.2	7	530	106
	J&K	5	46.0	47.1	14	170	34
	North East	10	40.4	43.4	3.8	170	34
<b>10-15MHz</b>	Tamil Nadu	14.2	36.1	32.0	19.4	1000	200
	Kerala	11.2	18.0	14.2	18.2	950	190
	UP (East)	12.8	33.5	33.5	18.8	1530	306
	HP	10.2	34.3	30.0	22.8	180	36
	Odisha	11.8	31.5	32.5	7.6	270	54
<b>15-20MHz</b>	Mumbai	15.2	25.9	27.2	15.6	5610	1122
	Maharashtra	18.2	20.6	18.7	22.2	3650	730
	Gujarat	16.2	15.3	16.6	17.8	2730	546
	AP	16.4	49.3	43.6	16.4	2790	558
	Haryana	16.2	20.5	18.0	23.2	570	114
	UP (West)	18.2	28.6	24.8	23.2	1150	230
	MP	17	19.2	18.9	18.8	950	190
	Bihar	15.2	34.2	41.2	8.6	880	176
	Assam	15.45	36.9	36.6	6.8	460	92

Source: MOFSL, DoT

**Exhibit 8: RJio's spectrum holding in 1,800MHz; available spectrum and reserve price (INR m)**

	Circles	Spectrum holding	RMS (%)	SMS (%)	Available spectrum	Reserve price/MHz (INR m)	Reserve price/block (INR m)
<b>&lt;10Mhz</b>	Delhi	5.4	45.6	35.8	15.4	4570	914
	Mumbai	6.6	38.6	40.8	15.6	5610	1122
	Kolkata	10	36.5	41.1	14.4	1730	346
	Maharashtra	5	43.8	37.8	22.2	3650	730
	Gujarat	6	45.1	37.1	17.8	2730	546
	AP	5.8	38.7	35.8	16.4	2790	558
	Karnataka	5	29.2	31.0	24.8	1090	218
	Tamil Nadu	6.8	35.6	30.2	19.4	1000	200
	Kerala	5	24.5	22.2	18.2	950	190
	Punjab	5.2	42.7	36.0	19.4	880	176
	Haryana	5	42.6	34.4	23.2	570	114
	UP (West)	5	47.6	32.6	23.2	1150	230
	UP (East)	6.4	46.8	30.4	18.8	1530	306
	Rajasthan	10	49.8	38.4	16.8	1050	210
	MP	6.4	59.2	42.9	18.8	950	190
	Bihar	5	57.5	37.0	8.6	880	176
	Odisha	5	59.8	40.5	7.6	270	54
	Assam	5.4	50.9	36.7	6.8	460	92
	North East	6.4	44.5	33.0	3.8	170	34
	J&K	10	43.0	37.7	14	170	34
<b>10-15MHz</b>	West Bengal	10.6	52.3	36.5	7	530	106
	HP	10.4	53.5	36.0	22.8	180	36

Source: MOFSL, DoT

**Exhibit 9: Bharti's spectrum holding in 2,300MHz; available spectrum and reserve price (INR m)**

	Circles	Spectrum holding	RMS (%)	SMS (%)	Available spectrum	Reserve price/MHz (INR m)	Reserve price/block (INR m)
<b>No spectrum</b>	UP (West)	0	28.6	24.8	40	120	1200
	UP (East)	0	33.5	33.5	40	90	900
	Rajasthan	0	32.0	32.9	40	60	600
<b>&lt;20MHz</b>	Maharashtra	20	20.6	18.7	20	720	7200
	Gujarat	10	15.3	16.6	20	700	7000
	Kerala	20	18.0	14.2	20	200	2000
	Punjab	20	28.3	26.9	40	210	2100
	Haryana	20	20.5	18.0	40	80	800
	MP	20	19.2	18.9	20	90	900
	HP	10	34.3	30.0	20	10	100
	J&K	20	46.0	47.1	40	10	100
	<b>&gt;20 MHz</b>	Delhi	30	35.2	29.8	20	1640
Mumbai		30	25.9	27.2	20	1670	16700
Kolkata		30	26.1	22.8	20	380	3800
AP		30	49.3	43.6	20	780	7800
Karnataka		30	36.9	34.4	20	1120	11200
Tamil Nadu		30	36.1	32.0	20	1510	15100
West Bengal		30	23.6	27.2	20	60	600
Bihar		30	34.2	41.2	20	70	700
Odisha		30	31.5	32.5	20	50	500
Assam		30	36.9	36.6	20	20	200
North East		30	40.4	43.4	20	10	100

Source: MOFSL, DoT

**Exhibit 10: RJio's spectrum holding in 2,300MHz; available spectrum and reserve price (INR m)**

	Circles	Spectrum holding	RMS (%)	SMS (%)	Available spectrum	Reserve price/MHz (INR m)	Reserve price/block (INR m)
<b>&lt;20Mhz</b>	Punjab	20	42.7	36.0	40	210	2100
	Haryana	20	42.6	34.4	40	80	800
	UP (West)	20	47.6	32.6	40	120	1200
	UP (East)	20	46.8	30.4	40	90	900
	Rajasthan	20	49.8	38.4	40	60	600
	J&K	20	43.0	37.7	40	10	100
<b>&gt;20MHz</b>	Delhi	30	45.6	35.8	20	1640	16400
	Mumbai	30	38.6	40.8	20	1670	16700
	Kolkata	30	36.5	41.1	20	380	3800
	Maharashtra	30	43.8	37.8	20	720	7200
	Gujarat	30	45.1	37.1	20	700	7000
	AP	30	38.7	35.8	20	780	7800
	Karnataka	30	29.2	31.0	20	1120	11200
	Tamil Nadu	30	35.6	30.2	20	1510	15100
	Kerala	30	24.5	22.2	20	200	2000
	MP	30	59.2	42.9	20	90	900
	West Bengal	30	52.3	36.5	20	60	600
	HP	30	53.5	36.0	20	10	100
	Bihar	30	57.5	37.0	20	70	700
	Odisha	30	59.8	40.5	20	50	500
Assam	30	50.9	36.7	20	20	200	
North East	30	44.5	33.0	20	10	100	

Source: MOFSL, DoT

**Exhibit 11: Spectrum available in 2,500MHz band**

Circles	Block size = 10 MHz			Bharti		Rjio	
	Available spectrum	Reserve price/MHz (INR m)	Reserve price/block (INR m)	RMS (%)	SMS (%)	RMS (%)	SMS (%)
AP	30	780	7800	49.3	43.6	38.7	35.8
Bihar	10	70	700	34.2	41.2	57.5	37.0
Delhi	20	1640	16400	35.2	29.8	45.6	35.8
Gujarat	10	450	4500	15.3	16.6	45.1	37.1
Himachal Pradesh	10	10	100	34.3	30.0	53.5	36.0
Jammu & Kashmir	10	10	100	46.0	47.1	43.0	37.7
Karnataka	40	980	9800	36.9	34.4	29.2	31.0
Kolkata	20	380	3800	26.1	22.8	36.5	41.1
Maharashtra	10	660	6600	20.6	18.7	43.8	37.8
Mumbai	20	1670	16700	25.9	27.2	38.6	40.8
Punjab	10	240	2400	28.3	26.9	42.7	36.0
Tamil Nadu	40	1320	13200	36.1	32.0	35.6	30.2

Source: MOFSL, DoT

## NOTES



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

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