

3G auctions concluded with a pan-India price tag of US\$3.65bn, but none of the operators got pan-India spectrum. Bharti, Vodafone and RCOM obtained spectrum in the 'coveted' Mumbai and Delhi circles, while Aircel was the major surprise factor, gaining spectrum in 13 circles. Broadly, all players seem to have followed a strategy of either: 1) winning Delhi + Mumbai, along with a 'few' A circles and most 'B'+ 'C' circles; or 2) foregoing the expensive Delhi and Mumbai circles and gaining more geographical and population spread. We believe that 3G will serve as a churn reduction strategy in the near term, and hence it is imperative to have it in leadership circles. We believe that broadly all players have ensured spectrum in circles of strength. We retain BUY on Bharti and REDUCE on Idea/RCOM.

Revenue coverage strongest for Aircel, Idea: In terms of 3G coverage of the current revenue base, Idea and Aircel have been the clear winners, covering 79% and 86% of their base, while having one of the lowest payout levels. Given that MNP is a few months away, 3G services might serve as a churn reduction tool to protect high-ARPU customers. Bharti and Vodafone have gained 3G coverage for 69% of their existing revenue base. The highly-leveraged RCOM and Idea could stretch balance sheets, considering BWA and 3G capex payouts.

Distribution of spectrum across circles could be a trigger for M&A: Looking at the different circles acquired by incumbents, some of the players had adopted a strategy of gaining spectrum across a geographical corridor. Notably, Aircel won most of the southern and eastern circles, while Tata Docomo covered the western and northern parts. We believe that complementary distributions may be useful in deriving synergies when consolidation starts in earnest.

BWA could also see fierce bidding: Given that most operators haven't utilised all their ammunition for the 3G auctions (in terms of the payout being as expected), and that none of the operators have got pan-India spectrum, BWA auctions could also see fierce bidding. As there are only two slots and as many as 11 bidders (5-6 serious players), bidding intensity will remain high. Players such as Idea, RCOM and Bharti have already expressed interest in BWA in addition to 'fresh, not bruised' player like Qualcomm.

RCOM is the only operator with a considerable stretch on its balance sheet

Operator	Current Debt (\$mn)	Payout (\$mn)	Total Debt (post 3G excl BWA) (\$mn)	Debt /EBITDA
Bharti	10,522	2,674	13,196	2.82x
Rcom	4,324	1,826	6,150	3.54x
Idea	1,109	1,261	2,370	2.84x

Source: IIFL Research, No capex related debt added to the payout figure which will further stretch the balance sheet, Bharti debt has been adjusted for the Zain deal (payout and capex)

Impact as a % of EPS will be higher for RCOM and Idea and then Bharti

Operator	Payout (\$mn)	Interest Cost (@8%)	Post tax per share impact (Rs)
Bharti	2,674	214	2.2
RCOM	1,826	146	2.8
Idea	1,261	101	1.3

Source: IIFL Research, No Principal payments considered as we assume that the market value of the spectrum will prevail to be a sellable asset for the operator. Also Amortization will not be completely booked in FY11 (since spectrum will come only by Sep'10)

Strategy of different players

Operators	Strategy	Price paid	Population coverage	Revenue coverage	Access to high ARPU mkts
Bharti, RCOM, Vodafone	Acquire Delhi + Mumbai + "Leadership circles" + "C" circles	High	Medium	Medium	High
Idea, Aircel, Tata Docomo	Forego Delhi and Mumbai, increase population and geographical coverage	Low	High	High	Medium

Source: IIFL Research

Summary of winners in each circle and their final payouts

Operator	No. of Circles	Payout (US\$m)	Circles Won
Bharti	13	2,674	Delhi, Mumbai, AP, Karnataka, TN, Rajasthan, UP(W), Assam, Bihar, HP, J&K, NE, WB
Vodafone	9	2,522	Delhi, Mumbai, Maharashtra, TN, Gujarat, Haryana, Kolkata, UP(E), WB
RCOM	13	1,826	Delhi, Mumbai, Kolkata, MP, Punjab, Rajasthan, Assam, HP, J&K, NE, Orissa, WB, Bihar
Idea	11	1,261	AP, Maharashtra, Gujarat, Haryana, Kerala, Punjab, UP(E), MP, UP(W), HP, J&K
Tata Docomo	9	1,283	Karnataka, Maharashtra, Gujarat, Haryana, Kerala, MP, Punjab, Rajasthan, UP(W)
Aircel	13	1,413	Karnataka, AP, Kerala, Tamil Nadu, Kolkata, WB, HP, J&K, NE, UP(E), Orissa, Bihar, Punjab

Source: IIFL Research, DoT

G V Giri
gvgiri@iiflcap.com
91 22 4646 4676

Mudit Bali
mudit.bali@iiflcap.com
91 22 4646 4672

Figure 1: Winners in different circles, and the final price to be paid

Circle	Winning Price (US\$m)	Winner 1	Winner 2	Winner 3	Winner 4
Delhi	721	Bharti	Vodafone	RCOM	
Mumbai	706	Bharti	Vodafone	RCOM	
Andhra Pradesh	299	Bharti	Idea	Aircel	
Karnataka	343	Bharti	Aircel	Tata	
Maharashtra	273	Tata	Vodafone	Idea	
Tamil Nadu	318	Bharti	Vodafone	Aircel	
Gujarat	234	Tata	Vodafone	Idea	
Haryana	48	Tata	Vodafone	Idea	
Kerala	68	Aircel	Tata	Idea	
Kolkata	118	Aircel	Vodafone	RCOM	
Madhya Pradesh	56	Idea	RCOM	Tata	
Punjab	70	Aircel	Tata	Idea	RCOM
Rajasthan	70	Bharti	RCOM	Tata	
UP (East)	79	Aircel	Vodafone	Idea	
UP (West)	112	Bharti	Tata	Idea	
Assam	9	Aircel	Bharti	RCOM	
Bihar	44	Bharti	RCOM	Aircel	Stel
HP	8	Bharti	RCOM	Idea	Stel
J&K	7	Bharti	RCOM	Idea	Aircel
NorthEast region	9	Bharti	RCOM	Aircel	
Orissa	21	RCOM	Aircel	Stel	
WB and AN	27	Bharti	Vodafone	RCOM	Aircel

Source: IIFL Research

What are the benefits from 3G?

Data revenue uplift: Since 3G supports higher data speeds and data services, an operator equipped with 3G capabilities will grow its share of the data market. International precedents suggest that data services' contribution to revenue grows from 10% to 30% in 3-4 years. Also, data revenues have higher EBITDA margins (we estimate about 40-45%), as there are no interconnect expenses, etc. As such, data services make a disproportionately high contribution to bottomline.

Preventing higher-ARPU churn: 3G would an effective tool to reduce churn of the top-ARPU customers, especially given that MNP is likely to be introduced in the next few months. 3G would give service providers an opportunity to differentiate from the plain-vanilla voice services. Hence, we believe that players' strategy to ensure that they get spectrum in their key markets was optimal.

Figure 2: India's per capita income distribution

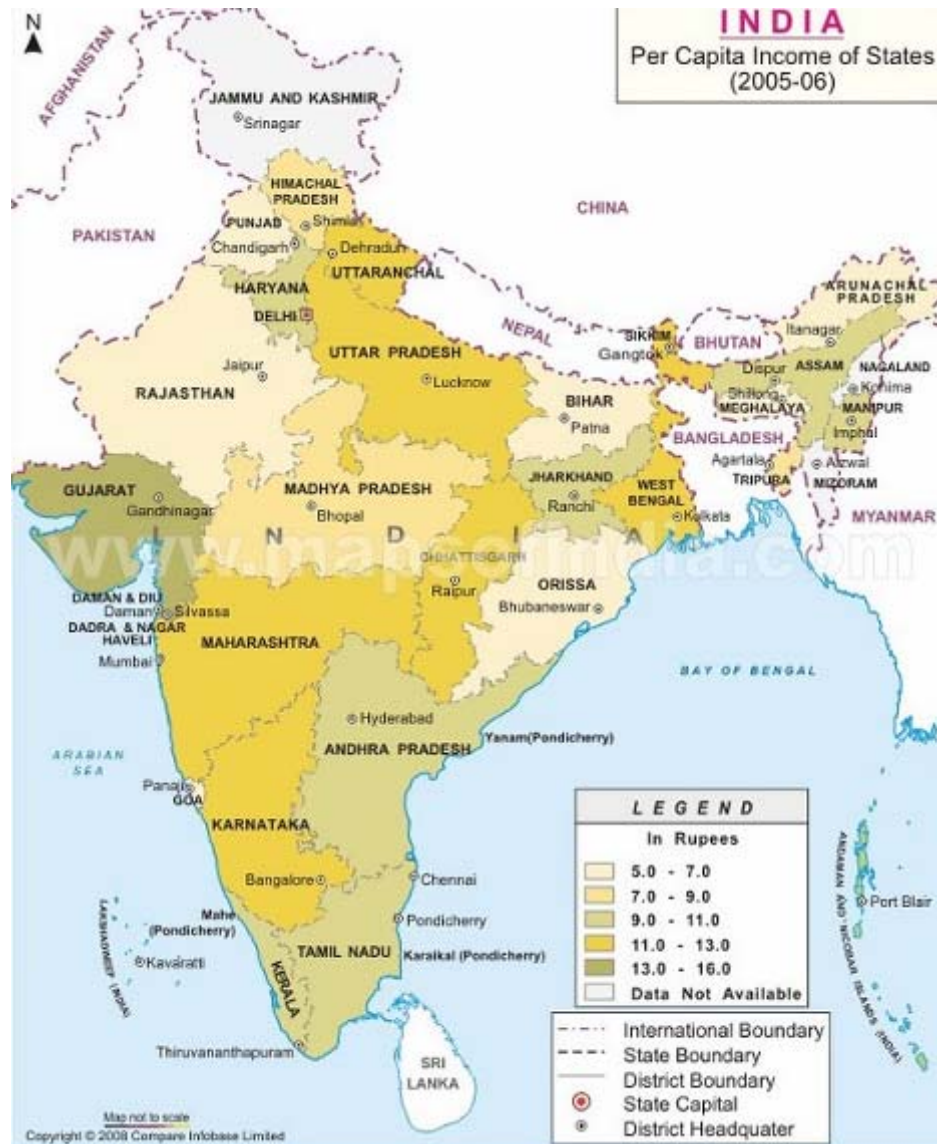


Figure 3: Circle-wise details of total telecom revenues, subscriber base, number of cities in top 100 in that circle, and the population that is part of the top 100 cities in each circle. This explains attractiveness of circles from a 3G standpoint.

	Revenue	Price	Subscriber base	No of cities in top 100	Population in top 100 cities
Delhi	1,964	721	27,315,888	1	18,362,625
Mumbai	1,589	706	25,065,669	1	20,870,764
AP	1,792	299	42,904,993	6	6,895,194
Karnataka	1,617	343	34,444,732	7	7,429,210
Maharashtra	1,724	273	41,173,675	18	14,711,934
Tamil Nadu	1,690	318	51,238,085	7	8,408,596
Gujarat	1,282	234	30,141,470	6	9,182,226
Haryana	419	48	13,192,070	1	1,055,938
Kerala	903	68	22,770,881	4	2,138,674
Kolkata	583	118	15,402,765	6	17,761,735
MP	952	56	29,603,965	7	6,264,372
Punjab	826	70	18,888,521	3	3,071,372
Rajasthan	1,004	70	31,539,072	6	5,272,645
UP (East)	1,209	79	40,062,233	6	7,810,920
UP (West)	919	112	28,161,940	8	6,223,655
Assam	337	9	8,111,141	1	809,895
Bihar	1,029	44	34,013,034	6	3,906,637
HP	143	8	4,662,551	-	-
J&K	189	7	5,142,145	2	1,268,399
NE region	199	9	4,901,479	-	-
Orissa	413	21	13,646,025	2	1,182,686
WB and AN	645	27	22,665,802	2	968,844

Source: IIFL Research

Bharti's Strategy: Delhi + Mumbai, along with few 'A' and bulk of 'C' circles

Leadership circles won, Bharti gets 69% of revenues from these circles: Circles where Bharti has gained access to spectrum are primarily those where Bharti had leadership position. Except for Punjab, MP and Orissa where it did not get spectrum, Bharti has acquired spectrum in each of the leadership markets. In place of these, Bharti has added Mumbai, Uttar Pradesh (W) and West Bengal. These circles account for ~69% of Bharti's revenues, so acquisition of spectrum in these circles is a strategy to protect market share in key markets.

Payout of Rs12.3bn (US\$2.6bn) should be comfortable for Bharti: Assuming different levels of payout (including BWA payout), we perform a stress test on Bharti's leverage position. At payout levels of even US\$4bn (and higher interest rate of 9%), the debt coverage is pretty strong at 3.5x, while the debt-to-EBITDA ratio reaches 3.2x.

Figure 1: The table below clearly shows that Bharti has enough headroom to service debt upto US\$4bn (including BWA), as all leverage ratios are robust

3G+BWA payout	\$3.5bn	\$3.7bn	\$3.9bn	\$4.1bn	\$4.3bn	\$4.5bn	\$4.7bn	\$4.9bn	\$5.1bn
Net Debt (Rs bn)	645	654	663	672	681	690	699	708	717
EBITDA(Rs bn)	215	215	215	215	215	215	215	215	215
Interest rate	8%	8%	8%	9%	9%	9%	9%	10%	10%
Interest payment (Rs bn)	52	52	53	60	61	62	63	71	72
Coverage	4.2x	4.1x	4.1x	3.6x	3.5x	3.5x	3.4x	3.0x	3.0x
Networth (Rs bn)	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6	477.6
debt/Equity	135%	137%	139%	141%	143%	144%	146%	148%	150%
Debt/EBITDA	3.0x	3.0x	3.1x	3.1x	3.2x	3.2x	3.2x	3.3x	3.3x

Source: IIFL Research

Bharti has chosen a combination of 1) leadership position circles and 2) high-per-capita-income states in addition to 'C' circles, with decent population coverage



Idea gets established circles, higher geographical coverage



Idea goes for higher geographical coverage: Idea acquired spectrum in different pockets where it has established revenue and has avoided ‘block-buster’ circles such as Delhi and Mumbai. Its revenue coverage through the spectrum will be ~79% and will be the highest among the frontline telcos.

EV/EBITDA for Idea could go up, but equity value lower, on account of expected negative NPV: We reckon that the EV / EBITDA multiple as well as the EBITDA CAGR will be higher in the 2G+3G scenario, and equity value will be lower, since the NPV of the 3G spectrum would be negative at just the current 3G prices. We develop two scenarios for Idea: 1) pure 2G; and 2) 2G+3G.

Common assumptions for 2G as well as 2G+3G scenarios: Out of an initial revenue of US\$100 for Idea, voice is assumed to be US\$90 and data US\$10. The data EBITDA margin is assumed to be 15pps higher than that on voice revenues, as this would be the approximate impact of the absence of interconnect fees in data. Based on blended EBITDA margin of 24.5%, the voice EBITDA margin comes to 23% and data to 38%. Capex-to-sales is at ~11% standalone in both cases.

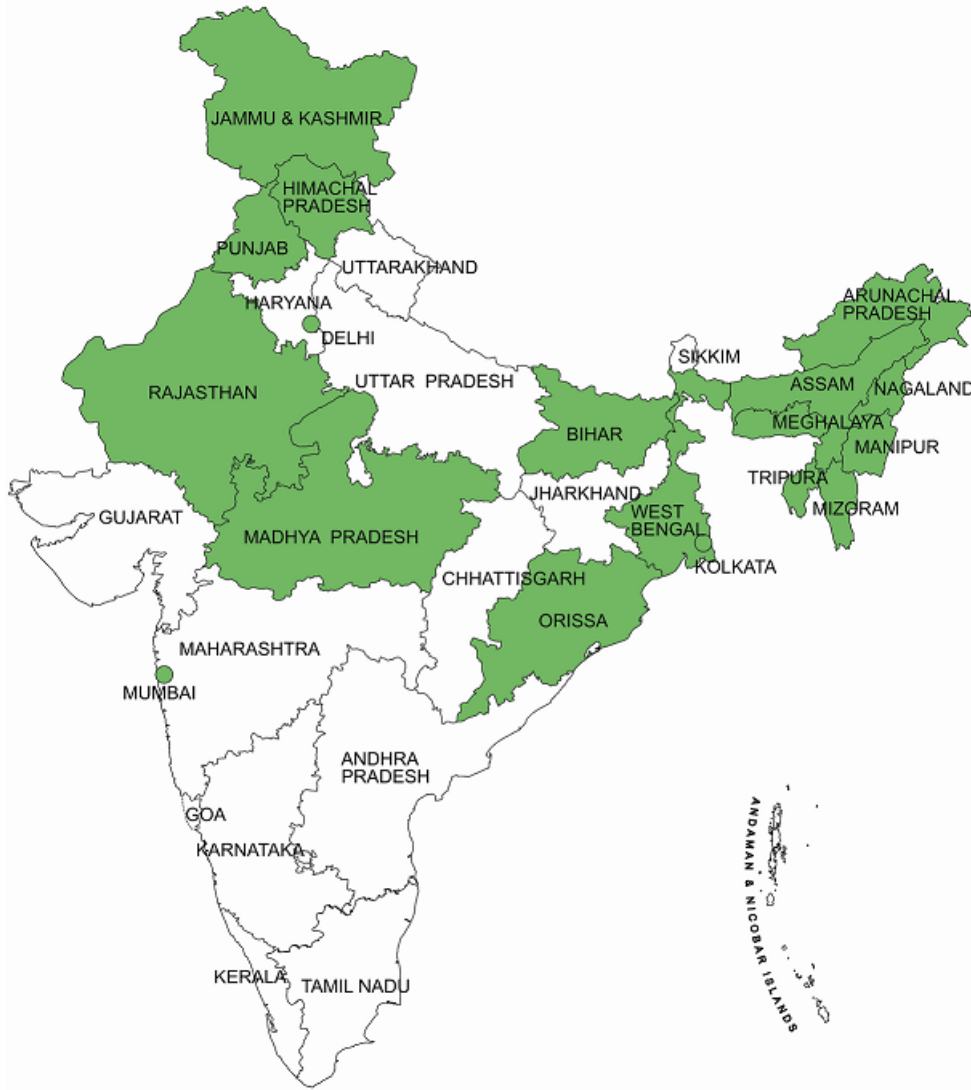
2G assumptions: Data grows from the initial US\$10 to US\$15 in four years. Voice grows from US\$90 to US\$118, a ~7% CAGR. Voice and data EBITDA margins remain as above, ie 23% and 38%, respectively.

3G assumptions: Data grows from the initial US\$10 to US\$45 in four years. Voice grows from US\$90 to US\$105, a ~4% CAGR. Data grows from US\$10 to US\$45, a ~45% CAGR. Voice and data EBITDA margins remain as above, ie 23% and 38%, and capex-to-sales at 11%. 3G spectrum cost is taken at current unit prices (~US\$2.8bn) for Idea’s 10 main circles, which comes to ~US\$1.8bn. (~63% of pan-India price).

Based on this, for the pure 2G case, our target 12-month-forward EV / EBITDA works out to 7.1x and EBITDA CAGR from FY10 to FY14 at 7.5%. The corresponding numbers for the 2G+3G case work out to be 7.4x and 13.9%, respectively. Hence in the pure 2G case, the target price is at a 4% discount to 2G+3G case.

Including BWA, the total net debt addition could be US\$2.2bn: Hence, net debt / EBITDA would move from 1x to 3x+. Additional interest cost at 8% would be US\$176m, that’s almost 23% of cash profit. So Idea will have a large component of net debt when cash flows are relatively less predictable. If Idea dilutes, and sells off a bit of the US\$1.2bn worth holding of Indus Towers, then it would allay debt fears.

RCOM gets Delhi+Mumbai, and a few other 'C' circles



Leverage would be a concern, equity dilution looks likely: RCOM's put up an aggressive showing in the 3G auctions, where it has a payout obligation of over US\$1.8bn in addition to the US\$4.3bn debt currently. This would lead to a debt-to-EBITDA of over 3.5x. In addition to this, there will be an outlay of US\$1bn-US\$1.5bn for rolling out 3G services (over the next three years) implying that RCOM may dilute equity to fund the payout. The tower business looks to be the likely source of dilution.

Aircel and Docomo have won complementary circles

Aircel won most South and East circles (with a few North circles), implying an intention to cover more population and greater geographical area.



TATA Docomo, originally expected to have been the most aggressive bidder, surprised with just nine circles, mainly sticking to a strategy similar to that of Aircel. But, interestingly, both Aircel and Tata Docomo seem to have complementary circles, indicating that the spectrum distribution could trigger future M&A opportunities.



Vodafone's strategy appears to be similar to Bharti

Vodafone seemed to have followed a 'defensive' strategy like Bharti, by acquiring spectrum in key markets, while foregoing a few big circles where it does not enjoy leadership or has substantial difference to the leader (like Karnataka and Rajasthan)





Key to our recommendation structure

BUY - Absolute - Stock expected to give a positive return of over 20% over a 1-year horizon.

SELL - Absolute - Stock expected to fall by more than 10% over a 1-year horizon.

In addition, **Add** and **Reduce** recommendations are based on expected returns relative to a hurdle rate. Investment horizon for **Add** and **Reduce** recommendations is up to a year. We assume the current hurdle rate at 10%, this being the average return on a debt instrument available for investment.

Add - Stock expected to give a return of 0-10% over the hurdle rate, ie a positive return of 10%+.

Reduce - Stock expected to return less than the hurdle rate, ie return of less than 10%.

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