

Telecom



In the Prime of Youth

Contents

Pa	ge No.
Fight over Hutch Essar - validation of our bullish sector stance	4-8
Indian wireless - huge potential	. 9-15
India racing ahead of China	16-17
Huge pent-up rural demand	18-19
Early entrants to retain their leadership	20-22
Long distance business - expect robust growth	23-24
Challenges that lie ahead	25-27
Valuations to follow growth	28-29
Companies	30-66
Bharti Airtel 31-39	
Reliance Communication 40-49	
VSNL 50-58	
MTNL 59-66	

Telecom

BSE Sensex: 13,362 S&P CNX: 3,850 10 January 2007

COMPANY NAME	PG
Bharti Airtel	31
(Buy, Rs613)	
Reliance Communication	40
(Buy, Rs407)	
VSNL	50
(Neutral, Rs420)	
MTNL	59
(Neutral, Rs156)	

We believe that the wireless industry in India is 'In the Prime of Youth'. We expect the robust growth in subscriber addition to continue, given the multiple growth drivers that exist. Increasing per capita GDP, improving demographics, lower handset prices, expansion by wireless operators, strengthening handset distribution, infrastructure sharing and lower regulatory levies are some of the factors that would help wireless telephony in India to continue racing ahead of China. We expect the wireless subscriber base (inclusive of FWP) in India to touch 329m by FY09 and 383m by FY10, rising from the current subscriber base of 140m.

We have had unflinching faith in India's wireless story since the introduction of the 'calling party pays' regime. While the momentum in subscriber additions has consistently exceeded expectations, the fierce bidding that we are currently witnessing for Hutch Essar only validates our bullish view. In this report, we have explored the implications of a probable acquisition of Hutch Essar by Reliance Communication. If this were indeed to happen, Reliance Communication would displace Bharti Airtel to become India's largest wireless services operator. Irrespective of which suitor finally claims Hutch Essar, we believe that the resultant industry consolidation would bode well for all players.

Early entrants are likely to retain their leadership positions. The current market share landscape reflects that there are four major wireless players in India, with Bharti Airtel and Reliance Communication fighting neck-to-neck, and Hutch and BSNL being the other two. The market is fragmented, with each major player being a leader in a different category. While Hutch has leadership position in the metros, BSNL has capitalized on its large network to achieve leadership in B circles. We believe that these four carriers will remain leaders, with the possibility of one more player joining the big league.

We maintain our positive sector stance, retaining our Buy recommendation on Bharti Airtel and initiating coverage on Reliance Communication with a Buy rating. We expect both these players to continue witnessing robust subscriber growth and experience an improvement in their wireless EBITDA margins. Both companies are likely to turn free cash flow positive in the next two years and Reliance Communication could even declare a maiden dividend in FY09. We are also re-initiating coverage on VSNL and MTNL with a Neutral rating.

COMPARATIVE VALUATIONS

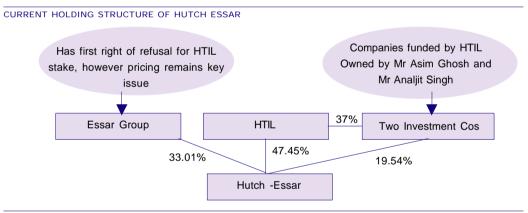
COMI ANATIVE VALO	ALIONS										
COMPANY	RECO	СМР	TARGET	MKT CAP	MKT CAP)	EPS	P/E	EV/EBITDA	EV/SALES	ROE	ROCE
		(RS)	(RS)	(RS B)	(US\$M)	(RS)	(X)	(X)	(X)	(%)	(%)
Bharti	Buy	613	780	1,161.8	25,301	39.0	15.7	8.3	3.4	32.4	31.8
Reliance Comm.	Buy	407	558	832.7	18,800	27.9	14.6	7.6	3.0	26.9	22.9
VSNL	Neutral	420	435	119.7	2,704	16.8	25.0	8.9	2.3	7.2	10.1
MTNL	Neutral	156	159	98.4	2,143	8.0	19.6	7.3	1.6	4.2	6.3

Fight over Hutch Essar - validation of our bullish sector stance

We have had unflinching faith in India's wireless story since the introduction of the 'calling party pays' regime. While the momentum in subscriber additions has consistently exceeded expectations, the fierce bidding that we are currently witnessing for Hutch Essar only validates our bullish view (see 'Indian wireless - huge potential', page 9). We expect the wireless subscriber base (inclusive of FWP) in India to touch 329m by FY09 and 383m by FY10, rising from the current subscriber base of 140m.

Hutch Essar - a valuable asset

Hutch-Essar, the fourthlargest wireless services provider in India... Hutch Essar is the fourth largest wireless services provider in India, with operations in 16 circles and 15.9% market share. It was either the first entrant or it acquired the first entrant in 12 of the 16 circles in which it operates. In these 12 circles, Hutch uses the 900-MHz frequency, ensuring lower cost of network operations and a high quality wireless network.



Source: Company

...is a valuable asset

As it has a 21.5% market share in the metros compared to a 15.9% all-India market share, Hutch's overall revenue share is likely to be higher than its market share. The 12 circles, in which Hutch enjoys first mover advantage, currently constitute 64% of India's wireless market. Its average revenue per minute (ARPM) is the highest in the industry. Though margins are lower than Bharti's, its capex at US\$85-90/subscriber is also lower than Bharti's US\$120/subscriber.

OPE	RAT	ING	MAT	RIX
-----	-----	-----	-----	-----

	JUN-05	SEP-05	DEC-05	MAR-06	JUN-06	SEP-06	PREM/DISC (%) VS BHARTI	
ARPU (Rs)								
Hutch	554	518	511	454	433	420	-4.1	
Bharti	491	476	470	442	441	438		
Reliance	403	421	413	379	379	354		
Blended MOU (minutes)								
Hutch	351	369	385	378	392	406	-10.0	
Bharti	383	388	411	431	441	451		
Reliance	501	568	547	532	491	461		
ARPM (Rs)								
Hutch	1.58	1.4	1.33	1.2	1.1	1.03	5.1	
Bharti	1.31	1.25	1.17	1.04	1.01	0.98		
Reliance	0.8	0.74	0.76	0.71	0.77	0.77		
EBITDA Margins (%)								
Hutch	33.6	NA	31.3	NA	32.7	NA		
Bharti	34.8	36.5	36.5	36.2	36.4	36.9		
Reliance	22.7	28.2	32.1	35.7	36	36.1		

Note: Huth Esssar margins are for half year

Source: Company/ Motila Oswal Securities

HTIL-INDIA SUMMARY (US\$M)

P&L	CY04	CY05	CY06E	CY07E	CY08E
Revenue	913	1,286	2,035	2,999	4,105
EBITDA	283	417	680	1,035	1,457
EBITDA Margins (%)	31.0	32.4	33.4	34.5	35.5
Wireless Subscribers (m)	7.2	11.4	23.3	35.9	48.5
Capex/Sub (US\$)	104	83	82	90.0	90.0
ARPU(Rs)	597	507	429	383	368

Source: Company/ Motilal Oswal Securities

Strategic bidders

HTIL, which controls majority stake, intends to exit the Indian market... Hutchison Telecom International Limited (HTIL), the majority shareholder in Hutch Essar, intends to exit the Indian market and there are multiple bidders for its stake. At the forefront are Vodafone, which has a keen interest in emerging markets, Reliance Communication (RCom), which has been exploring a nationwide GSM rollout, and Essar Teleholdings, which currently holds 33% stake in Hutch Essar.

...and there are multiple suitors in the race for Hutch Essar **Vodafone:** Acquisition of HTIL's stake in Hutch Essar will give Vodafone direct access to Indian markets, with majority ownership. As part of its long-term strategy, Vodafone is exiting markets where it does not have majority stake. It recently sold its 25% take in Proximus in Belgium and has agreed to sell its minority stake in Swisscom's mobile unit. Considering Vodafone's keen interest in emerging markets and its constraints in raising stake further in Bharti, it could emerge as a serious bidder for Hutch Essar. India is the fastest growing wireless market in the world and Vodafone could pay a control premium to get a direct entry. From a brand equity perspective, we consider Vodafone a more suitable acquirer.

RCom: RCom has indicated its interest in bidding for Hutch Essar. While protecting its CDMA subscriber base, it is exploring a nationwide GSM rollout. Acquisition of Hutch Essar will not only give RCom an already established GSM business, but will also make it the largest wireless operator in India. Further, RCom could also leverage its existing infrastructure and scale-led economies to cut costs.

RCom can raise the necessary resources to fund the acquisition. It has US\$2b cash on its books. Besides, it is reported to have the backing of financial investors and private equity funds. It already has tie-ups in place for a syndicated loan. If it intends to raise funds through equity, the current promoter's stake of 66% can be brought down to 51%.

Essar Teleholdings: The Essar Group arm that controls its telecom investments in Hutch Essar is interested in buying out HTIL's stake. We believe that Essar can raise funds by pledging the current equity it holds in Hutch Essar. Further, since Essar already has 33% stake, it is easier for it to buy out 18% and place the remaining 48% with private equity funds or strategic investors.

What if RCom gets Hutch?

RCom + Hutch would create India's largest wireless services entity

If RCom emerges victorious, it could displace Bharti to become India's largest wireless services provider Hutch Essar is India's fourth largest GSM operator, with a market share of 15.9%. It is present in 14 out of the 15 circles where RCom intends to start GSM services. Also, RCom is present in 6 out of the 7 circles, where Hutch intends to expand. Spectrum allocation, network planning and rolling out services typically takes 9-12 months. Considering that India's wireless subscriber growth is likely to remain strong over the next few years, faster rollout would be a key success factor. If RCom acquires Hutch Essar, it would become India's largest wireless operator, with a market share of 36.3%. Bharti, the current market leader, has a share of 21.6%.

Margins of combined entity could expand 600bp

Both Hutch Essar and RCom combined will have lower wireless margins than Bharti to start with, however, realization of synergies could close the margin gap. The combined entity could have margins that are at par with or higher than Bharti. We believe that scaleled cost synergies would be available to RCom in SG&A costs (17.4% of sales in FY06) and network costs (11.7% of sales in FY06). Based on our interactions with the industry, near-term savings could lead to a 300bp margin expansion for the combined entity.

LIKELY COST SAVINGS OF 300BP TO 600BP

	COSTS STRUCTURE	NEAR TERM	LONGER TERM
	(% OF REVENUE)	SAVINGS	SAVINGS
Subscriber acquisition and servicing	12.7	0.50	2.00 \
Advertising and business promotion	4.4	0.66	1.40
Administrative expenses	4.3	0.65	1.30
Employee costs	6.0	0.75	0.90
Network operating costs	11.4	0.50	0.50
Cost of trading goods	0.3	0.00	0.00
License fees	10.0	0.00	0.00
Roaming and access	16.4	0.00	0.00
Total	65.5	3.06	6.10

Note: Given the limited financial disclosures by RCom and Hutch, we have used Idea Cellular's cost structure

Source: Idea DRHP/Motilal OSwal Securities

Further, the combined entity could trade at a premium to Bharti, given its larger size. Valuation would largely depend on two factors: (1) cost synergy, and (2) revenue traction that the combined entity would have due to better competitive positioning and better pricing power. Since the extent of potential synergies remains subjective, we have done a sensitivity analysis to assess the fair value of RCom under three scenarios - wireless EBITDA margins of 38.5%, 40.5% and 42.5% repectively, in FY09. Assuming an acquisition price of US\$18b and EBITDA margin of 38.5% for the combined entity v/s our current EBITDA margin estimate of 37.5% for RCom's wireless business in FY09 (case A), we arrive at a fair value of Rs511/share for the combined entity.

VALUING THE COMBINED ENTITY (RS M)

RCOM PLUS HUTCH	CASE A	CASE B	CASE C
Combined Wireless Revenue	413,866	413,866	413,866
Wireless EBITDA	159,338	167,616	175,893
Wireless EBITDA Margin (%)	38.5	40.5	42.5
Non Wireless EBITDA	22,380	22,380	22,380
Total Consolidated EBITDA	181,718	189,996	198,273
Target EV/EBITDA Multiple	10.3	10.3	10.3
EV (US\$m)	41,674	43,572	45,471
EV of Acquisition	18,000	18,000	18,000
EV of RCOM	23,674	25,572	27,471
Current Net Debt	460	460	460
Fair Value per Share (Rs)	511	553	594

Source: Company/ Motilal Oswal Securities

Likely deal structure

We believe that the value accruing to RCom shareholders would also depend on the financing structure of the deal. Assuming an acquisition price of US\$18b, we expect RCom to fund the acquisition through debt of US\$11b (some of this has already been raised) and issue equity to raise the balance US\$7b. As the promoters currently hold 67% in RCom, even after a 30% equity dilution, their shareholding would not fall below 50%. Under these assumptions, the net debt/EBITDA for the combined entity would remain comfortable at 2.9x.

Other players may also benefit

Assuming RCom acquires Hutch, the top-3 players post the deal could come together to curb tariff war. The acquirer, RCom would be looking to reduce its payback period, whereas Bharti and BSNL would be more than willing to increase their profitability considering their worsened competitive positioning. Industry consolidation would also have a positive impact on second and third-tier providers, as carrier choice would become more limited.

Regional players and late entrants may sell out

We believe that the gap between pan-India players and regional players would widen, as the top-3 players would benefit from their strong leverage in costs, notably SG&A and network costs. Scale economies and faster rollout by large players such as Bharti, BSNL and RCom would help them take away share from small regional players. Consequently, regional players and late entrants would come under pressure and would be more open to being acquired by stronger entities. They would become attractive targets for large players such as Bharti, which is likely to turn free cash flow positive in the next two years.

Consolidation would improve industry dynamics

We believe that the resultant industry consolidation bodes well for all players

We believe that consolidation would have a positive impact on the industry for the following reasons:

- 1. Fewer players would mean lower churn and lower subscriber acquisition costs
- 2. Since the top-3 players would control more than 75% of the wireless market, irrational behavior would be less likely
- 3. Fewer players would mean more efficient utilization of resources, particularly spectrum
- 4. Potential gains from infrastructure sharing
- 5. Better pricing power and higher EBITDA margins

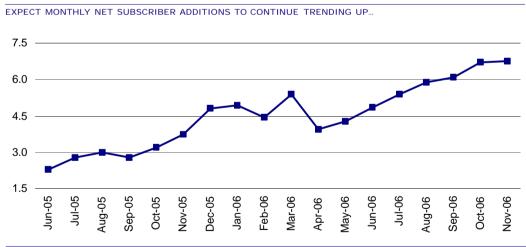
Indian wireless - huge potential

Given the low telecom penetration and high population density, we believe that the growth potential for India's wireless industry is huge. India has a burgeoning consuming class (income of Rs45,000-215,000), which currently constitutes about 432m people - almost the entire population of the European Union. Also, India's population density is almost thrice that of the European Union's 116 people per sq km. The consuming class is likely to expand to over 674m by 2010 and wireless penetration, which is a dismal 16.6% despite aggressive growth in the last 2 years, should increase. We expect the wireless subscriber base (inclusive of FWP) in India to touch 329m by FY09 and 383m by FY10, rising from the current subscriber base of 140m.

Monthly subscriber additions to continue trending up

Monthly net subscriber additions have more than doubled in the last 12 months

Monthly net additions in the last 12 months have more than doubled from 3.7m to 6.7m. We expect monthly net subscriber additions to continue trending up and touch 7m by the end of FY07. Further, we expect tele-density to increase from 16.6% as at November 2006 to 36.8% by March 2010.



Source: TRAI/Motilal Oswal Securities

Source: TRAI/Motilal Oswal Securities

AND TELE-DENSITY TO N	TORE THAN	DOORLE	BA EA10					
	FY04	FY05	FY06	FY07E	FY08E	FY09E	FY10E CA	GR (06-10)
Wireless Market (Rs b)	138	246	379	605	853	1,074	1,197	33.3
All India ARPU (Rs)	485	455	410	374	330	304	280	-9.1
Cellular (m)	33.3	52.0	89.5	161.5	241.9	309.7	360.7	41.7
GSM (m)	26.2	41.0	69.2	122.0	183.2	234.2	272.6	40.9
CDMA (m)	7.2	11.0	20.3	39.5	58.7	75.5	88.1	44.3
WLL - F (m)	1.2	3.6	8.9	10.1	17.3	19.7	22.1	25.5
Fixedline (m)	42.1	42.8	41.3	42.5	46.1	48.5	52.1	6.0
Total	76.6	98.4	139.7	214.1	305.3	377.9	434.9	32.8
Population Teledensity ((%) 7.1	9.0	12.7	19.1	26.7	32.4	36.8	N.A.

10 January 2007 9

CAGR (%)

Key growth drivers

I. Lower handset prices

We expect the strong growth to continue, as there are multiple growth drivers We believe handset pricing is becoming more important from the total cost of ownership perspective than tariffs. The minimum outlay requirement, determined by monthly recharge coupons, has gone down considerably and the incentive for the industry to lower tariffs to expand the market is much lower now. Fall in prices of entry-level handsets is likely to be a key to further expansion of the market.

According to industry estimates, the entry-level handset market constitutes about 60% of US\$5.5b mobile handset sales in India. Our conversation with Motorola indicates that it is aggressively focusing on the entry-level handset segment of the market. It has launched a new handset priced at about Rs1,600. The strategic pricing is aimed at enhancing its leadership in the sub-Rs2,000 handset market. It competes with Chinese players like Haier and Bird that sell their products at prices starting from Rs1,200 per unit.

The lowest-cost GSM devices are currently sold at an average retail price of about Rs1,900. The lowest-cost CDMA devices are available even cheaper at the retail level, though they actually cost the carrier more. Unlike GSM players, CDMA operators in India subsidize handsets. While the cheaper prices of GSM devices reflect a more competitive market and scale advantages, Indian CDMA players are able to negotiate good deals with handset manufacturers. Though there are fewer CDMA handset manufacturers (hence limited competition), India is one of the largest CDMA markets, giving Indian service providers bargaining power. Dominant CDMA players like RCom are working towards a broader low-end handset portfolio.

We expect entry-level handset prices to fall further; in fact, Texas Instruments' LoCosto initiative could bring down the average retail price of a handset to below Rs1,000. With its mobile single-chip solution, LoCosto would drive down handset costs significantly, helping to accelerate wireless penetration in emerging high-volume markets like India. The LoCosto chip integrates the base-band, RF function and certain analog functions on to one system on a chip (SoC). Five major handset manufacturers are already planning to roll out handsets based on LoCosto. Low-cost handsets based on the LoCosto platform are likely to be launched in India in 2007. A sub-Rs1,000 handset would go a long way in increasing teledensity in rural India.

II. Significant expansion by wireless operators

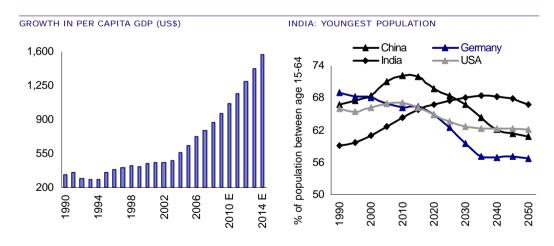
Wireless operators have planned significant capacity expansions, which would help enhance wireless coverage. BSNL has invited bids for 45.5m GSM lines. Though its planned capacity addition is ~60m new lines, ~15m lines are reserved for the ITI Alcatel JV. Expansion would involve both 2G and 3G (WCDMA) equipment, in the ratio 75:25. BSNL expects to finalize orders for the 45.5m lines by the end of March 2007. The company has guided capex of US\$3b for FY07, up 20% YoY.

Bharti plans to install an additional 20,000 base transceiver systems (BTS) in FY07, up 100% YoY. It has guided for a capex of US\$1.8-2b for FY07 against US\$1.4b in FY06, reinforcing confidence in subscriber additions. RCom targets capex of US\$900m for FY07 but its actual capex could be higher depending on its GSM strategy.

Hutch targets capex of US\$1.2-1.3b for FY07, of which US\$900m is likely to be spent on wireless. It intends to expand from 11,000 sites to 18,000 sites. Idea has guided capex of US\$500m for FY07, up 67% YoY, as the company plans to expand into Mumbai and Punjab. TTSL is likely to spend ~US\$700m in FY07, as it proposes to ramp its presence from 2,500 towns to 4,500 towns.

III. Increasing per capita GDP and improving demographics

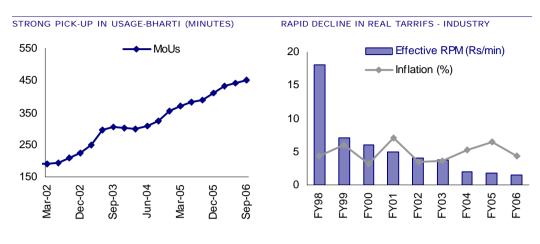
The proportion of India's working population (ages 15-64), which currently is at 62.7%, is expected to increase by 30bp every year over the next 15 years. Strong economic growth, which would translate into higher per capita GDP, is creating a new audience for wireless services at an accelerated pace. India's per capita GDP is expected to grow at ~10% for next three years. Thus, more consumers will be able to afford wireless services. In view of the average 4.6% inflation over last five years and falling tariffs, MoUs have consistently been going up. Moreover, increasing per capita GDP would also mean higher usage - in the last two years, MoUs have gone up by 40%. We expect usage to continue rising for the next two years.



Source: Company/ Motilal Oswal Securities

Most cellular operators offer plans that include free minutes to induce higher usage. Though such initiatives also result in lower revenues per minute (RPM), higher volumes usually translate into lower cost per minute. Therefore, EBITDA margins are favorably impacted despite lower RPM. Further, we believe that outgoing calls originating from cell phones could increase owing to elasticity of demand, as average revenue per minute continues to fall, thus reducing the fall in ARPU.

10 January 2007



Source: Company/ Motilal Oswal Securities

IV. Strengthening handset distribution

One key distinction of the GSM market in India is that operators typically do not distribute or subsidize devices. This means that a handset vendor that builds its own distribution network could have a sustainable advantage. Recognizing this fact, GSM handset vendors have begun to expand their distribution networks well beyond the metros.

Operators and vendors strengthening distribution channel

Bharti currently has over 400,000 retail distribution outlets, ~1,500 franchises, and ~1,000 shops. With higher population coverage, its total points of presence are expected go rise 35-40% by FY07. Motorola has tied up with DCM Shriram Consolidated's Hariyali Kisaan Bazaar, a chain of rural utility marts for sale and distribution of its handsets. Spice would also be setting set up 1,000 mobile retail outlets over the next three years.

Specialty retail chains have arrived

The traditional supply chain for handset distribution involves national distribution centers that supply to regional distributors. These distributors then supply to retail outlets. Although in the past two years, the supply chain for handset distribution has under gone rationalization, cost reductions in entry-level handsets are likely to come from specialty retail chains, as they will directly negotiate with handset vendors and supply directly to consumers thus eliminating intermediaries.

SUPPLY CHAIN	
ENTITY	MARGINS (%)
National Distributors	2.5-3
Regional Redistributors	2.5-3
Retailers	5-10
Total	10-16

Source: Motilal Oswal Securities

Pantaloon has also ventured into mobile handset retailing. It is setting up ConvergeM mobile retail chain under the brand names M Bazaar, M Port and Gen M. It has launched 40 stores across cities. An investment of around Rs1b has been earmarked for the venture.

Mobile Magic, a chain of retail mobile stores, offers mobile handsets & accessories, cellular plans bundled with value-added services, mobile repairs and software. It currently has 34 retail outlets.

MobileNXT Teleservices Pvt Ltd, a retail chain that offers a one stop-solution for all mobile telephony needs, is targeting a business turnover of Rs3.8b in three years and plans to roll out 31 stores in its first year of operation.

The Essar group has planned an initial investment of Rs15b early this year for its telecom retail project. The total capex is believed to be about Rs30b. The company will roll out over 2,500 small format stores across India by 2010. The group is expected to launch 300 to 600 sq ft stores, tentatively named 'Mobile Shop', in the next 2-4 months. The company will also set up kiosks for high-density areas.

These specialty stores will cater to both GSM as well as CDMA users. Along with mobile phone services, these retail outfits will also cater to other communication needs of a consumer. The trend is increasingly towards bundling handset distribution with other entertainment options like broadband and gaming. The higher margins that these entertainment options offer would complement the high volume (but low margin) handset business. Thus, handset availability would not be a constraint. Although the number of stores may look small, the important point to note is that specialty chains are targeting tier-2 and tier-3 cities. Further, replacement demand for the industry is also expected to pick up.

V. Lower regulatory levies

India's telecom sector is the most heavily taxed in the world, with a blended tax rate of 20-30% on revenues. Of this, 6-10% relates to license fees (including contribution to USO fund), 2-6% relates to spectrum fees (depending on the circle category), another 1.5% relates to access deficit charge (ADC), while the remainder relates to service and sales tax. TRAI has recommended to the government to reduce license fees to a flat 6% and also to abolish the ADC. The ADC was designed to encourage rural coverage via fixed lines. However, given the topology of rural India, it is easier and more cost effective to take the wireless (digital mobile or FWP) route. The ADC has declined from 15% in 2003 to 1.5%, and in its present form, should expire by 2009.

INDIA'S TELECOM SECTOR IS MOST	THE HEAMIN	TAYED IN THE	WODID	(CHINA)	(VIUNIS)
INDIA'S TELECOM SECTOR IS MOST	THE HEAVIET	TAXED IN THE	. WORLD ((CIIIIVA 1	vo invoirs)

COUNTRY	CHINA	INDIA
CHARGES	% OF REVENUE	% OF REVENUE
Service Tax, GST	3	12 + GST
Licence Fee	Nil	6-10
Spectrum Charge	~0.5 (China Mobile)	2~6
USO	Nil	USO Incl in license fees; ADC of 1.5-2
Total Sector Charges	0.5% + 3% (Tax)	20-30% + GST (of which 12% service tax)

Source: Company/Motilal Oswal Securities

10 January 2007

VI. Infrastructure sharing

Government of India has set a target of 250m total telephone subscribers by 2007 and 500m by 2010. While India is likely to achieve its 2007 target, TRAI has proposed to incentivize infrastructure sharing to help the industry to achieve the 2010 target.

TRAI's key proposals include

- 1) Mobile operator must enter into agreement with at least two other mobile operators for infrastructure sharing.
- 2) Fixed amount per tower can be considered as incentive and adjusted against the license fee for the years in which such tower is operational and functional. The exact fixed benefit per tower is yet to be determined.
- 3) It has indicated that incentive in urban areas may be kept at reduced slab to maintain the interest of mobile operators to go to rural and uncovered areas. This will bring in additional 122m people (v/s the current wireless subscriber base of 140m) under wireless coverage via infrastructure sharing.
- 4) TRAI has proposed to modify license conditions to allow resale of bandwidth, as common back-haul sharing will require resale, as it will be shared among various service providers on commercial considerations. Current license conditions do not permit resale.

At present ~90k towers have been commissioned to cater to 140m wireless subscribers. In order to achieve the target fixed by the government, approximately 135k towers will be required by 2007 and 330k towers will be needed by 2010. Currently, each tower costs ~Rs3m, which translates into potential investment of US\$16b by 2010 by the industry.

DoT, COAI, TEMA and AUSPI have jointly proposed 'Project MOST' to share towers. The project has kicked-off in Delhi and its scope would be expanded to other urban and semi-urban areas.

VII. Negative working capital an advantage for rapidly expanding operators

Since 80-90% (50% in China) of the subscribers in India are prepaid subscribers, working capital for the industry is negative. The negative working capital nature of business offers advantage to rapidly expanding operators such as Bharti and RCom - they are able to partially fund their aggressive expansion plans through working capital gains. We expect working capital gains for the industry to increase, going by the rapidly expanding prepaid subscriber base. We present below an analysis of Bharti's working capital as an example.

WORKING CAPITAL GAINS LIKELY	TO CONTINUE ((RS M)

Net Working Capital Gains	-1,420	311	4,757	13,377	3,035	17,218
Net Working Capital	-27,353	-27,664	-32,421	-45,798	-48,833	-66,051
Equipment Supply Payables	15,898	18,630	19,297	25,045	29,390	37,023
Current Liabilities	57,836	61,377	66,262	78,531	88,931	104,434
Current Assets	30,483	33,713	33,841	32,733	40,098	38,383
	JUN-05	SEP-05	DEC-05	MAR-06	JUN-06	SEP-06

Source: Bharti Airtel

MOTILAL OSWAL

VIII. RCom and Bharti to turn free cash flow positive in next two years

We expect Bharti to turn free cash flow positive in FY09 while RCom is expected to be free cash flow in FY08. We believe that both Bharti and RCom could positively surprise on the timing of free cash flow, as our current model factors in the conservative working capital gains. Once Bharti and RCom are free cash flow positive, both can utilize cash to further consolidate market share by acquisitions.

FREE CASH FLOW SITUATION TO IMPROVE (RS M)

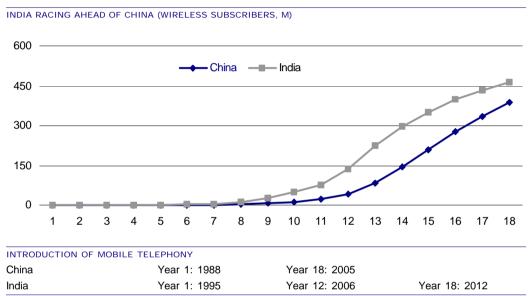
COMPANY	PARTICULARS	FY06E	FY07E	FY08E	FY09E	FY10E
Bharti	Incremental Revenue Wireless	28,377	62,309	93,068	70,759	39,608
	Working Capital Gains	15,712	15,044	18,190	18,426	20,267
	Free Cash Flow	-5,126	-22,962	-11,822	36,692	77,843
	FCF/Share	-3	-12	-6	19	41
RCom	Incremental Revenue Wireless	-	37,203	58,191	58,793	44,038
	Working Capital Gains	-	32,665	27,204	16,931	10,215
	Free Cash Flow	-	-3,738	14,264	27,929	46,169
	FCF/Share	-	-1.83	6.98	13.66	22.58

Source: Company/ Motilal Oswal Securities

10 January 2007

India racing ahead of China

Mobile telephony in India has been faring better than in China... Mobile services were launched in China in 1988, whereas in India, these services were launched in 1995. A comparison of the first 12 years of mobile telephony in India and China indicates that India has fared better. Even after the late take-off of wireless in India, since year four (Indian-1998, China 1991) it has consistently done better than China.



Source: TRAI /India Projections-Motilal Oswal Securities

...and we expect this to continue

We expect India to continue to outperform China based on the following five reasons:

- (1) In India, entry-level handset prices are expected to decline rapidly from the current levels of US\$35. With per capita GDP expected to grow rapidly and handset prices touching US\$20, the affordability factor would improve significantly.
- (2) Further, capex/subscriber for China in the same year (12th year) of mobile telephony was also higher by 60-70%. Most of the equipment suppliers in emerging markets have signed managed-network contracts to help companies roll out networks quickly and more cost effectively. This benefit is only now available to China.
- (3) Stiff competition has ensured falling tariffs in India today tariffs are at the world's lowest. Also, from total cost of ownership perspective, entry-level recharge coupons in India are far more attractive versus entry-level coupons in China.
- (4) After 12 years of mobile telephony, India's fixed line subscriber base is approximately 25% of China's fixed line subscriber base in the comparable year. This indicates strong pent-up demand for household connectivity, which can be satisfied faster and more easily through the wireless route.
- (5) India has six players with pan-India presence that have aggressively rolled out networks in the last couple of years. China, on the other hand, has only two players China Unicom and China Mobile (both government-owned) that provide cellular services.

China has achieved mobile penetration of 30% after 18 years of launch. We expect India to reach this level in 16 years. In China, monthly additions started falling month over month after mobile penetration touched 23%. We believe India's mobile growth rate would taper off on reaching ~20% penetration and monthly subscriber addition would start falling earlier than China due to the higher per capita GDP of China, which is more than 2x India's per capita GDP. While the growth may taper off sooner in the Indian scenario, we note that in the subsequent two years after the decline, China's market grew by 16% and 15%. Similarly, India is expected to grow 31% and 18% in the subsequent two years.

Huge pent-up rural demand

Telecom penetration in rural India has lagged... Although telecom penetration in India currently stands at around 16.6%, there is a large urban-rural divide. While urban penetration is as high as 40% (more than 50% in New Delhi and Mumbai), rural penetration is as low as 2%. Demand for telephony is buoyant in rural and semi-urban areas, as is reflected in the robust growth of public call offices (PCOs). We believe that the low rural telecom penetration is a reflection of poor availability of telecom services, which the government is seeking to correct through policy measures. As wireless operators expand their coverage to rural areas, we expect rural tele-density to rise faster than the all-India average.

PCOs and mobility

Although tele-density has been consistently improving, we believe that there is no let up in demand in semi-urban and rural areas. We expect demand for telephony to remain strong in these areas despite increasing net adds in B and C circles. Our view is further validated by the growth in public call offices (PCOs) at the all-India level. The PCO subscriber base has grown 51% in FY06.

ROBUST GROWTH IN PCOS							
	1QFY06	2QFY06	3QFY06	4QFY06	1Q FY07		
BSNL	1,892,373	1,986,323	2,023,673	2,064,174	2,112,703		
Reliance	408,441	532,594	688,308	944,859	1,118,388		
TTSL	176,836	327,707	489,366	635,462	692,462		
Others	471,418	805,118	533,340	554,662	579,000		
Total Industry	2,949,068	3,651,742	3,734,687	4,199,157	4,502,553		
			Source: Co	ompany/Motilal(Oswal Securities		

Government focusing on increasing rural tele-density

...but this is likely to be redressed...

The priority for the UPA government is the rural economy, which represents 70% of India's population, but where telecom penetration is abysmally low. Most villages in India have no service or have BSNL, the incumbent operator, as the only option. Going forward, we expect rural tele-density to improve significantly on the back of coverage expansion by operators.

According to the recommendations for the Eleventh five-year plan (2007-2012) the Department of Telecommunications (DoT) is in the process of finalizing the 'plan vision' or the approach paper, based on the inputs of the telecom-working group. The target is to reach a rural tele-density of 10% by 2010, from the present 2%. This roughly translates into providing one phone for two rural households by 2010. By the end of the plan period (2012), the objective is to have a phone subscriber base of 575m, twice the current subscriber base, v/s our estimate of 517m.

To achieve this objective the Cabinet has approved a proposal from the Communications Ministry to bring an ordinance to amend the Indian Telegraph Act 1885 to help bring mobile services in rural areas under the ambit of the Universal Service Obligation (USO) Fund. The USO fund is built from a 5% levy on the adjusted gross revenue (AGR) of all telecom service operators. So far only fixed line service providers were eligible for support from USO Fund. The Amendment will enable the USO Fund to extend financial support for mobile services in rural areas.

... given the serious policy initiatives in this direction

The government proposes to build about 10,000 towers to provide cellular services in areas currently not covered by operators. The infrastructure will cost about Rs35-50b, which will be funded from the Rs70b corpus of USO fund. While most towns and cities are well covered by operators, the cabinet has underscored the need to expand telecom services in India's villages.

To enhance rural coverage, TRAI has also proposed the following incentives:

- A subsidy of Rs1.2m per rural base station, if it is shared. This may be used as the operators want, and need not only be allocated to electronics cost. In addition, the proposal suggests sharing of transmission capacity and power supplies.
- Rural operators would also receive a 30% discount for backbone services, with an additional 10% incentive from the USO fund for a period of five years.
- Offering additional spectrum for rural areas.

The USO fund is likely to be disbursed over the coming years to subsidize rural expansion. In FY06, an estimated Rs1.3b were disbursed. In FY07, Rs1.6b is likely to be disbursed. There is a growing sense that mobile telephony is the most effective way to increase rural tele-density. Hence, most of the incentives would be targeted at wireless players. While BSNL is likely to receive the largest allocation from the USO fund, being the largest state-owned operator, we believe that private operators such as RCom, Bharti Airtel and Tata Tele are also likely to benefit.

USO FUNDS DISBURSEMENT (RS B)

	COLLECTION	DISBURSEMENT	BALANCE
FY03	165.4	30.0	135.4
FY04	214.3	20.0	194.3
FY05	345.8	131.5	214.3
Total	725.5	181.5	544.0
FY05-10E	3,754.1	1,793.7	1,960.4

Source: TRAI

Early entrants to retain their leadership

We expect the early entrants to retain their leadership After three years of consolidation, the current market share landscape reflects that there are four major wireless players in India, with Bharti and RCom fighting neck-to-neck, and Hutch and BSNL being the other two. The market is fragmented, with each major player being a leader in a different category. While Hutch has leadership position in the metros, BSNL has capitalized on its large network to achieve leadership in B circles. We believe that these four carriers will remain leaders, with the possibility of one more player joining the big league. While Tata Tele has larger footprint, Idea and Aircel are on an expansion drive post their new management.

INDIAN WIDELESS:	THE COMPETITIVE	I ANDSCADE AS	ON NOVEMBER 2006 ((%)

	MARK	ET				MA	RKET SHA	RE			
	SIZE	BHARTI	RCOM	BSNL	HUTCH	IDEA TA	TA TELE	AIRCEL	SPICE	MTNL	OTHERS
Delhi	7.9	24.1	17.6		19.2	11.5	16.9			10.7	
Mumbai	6.7	17.6	21.4		25.1		11.1			13.5	11.2
Kolkatta	3.3	17.9	28.2	11.8	25.2		17.0				
Chennai	2.9	21.6	15.5	16.8	15.0		7.1	24.0			
Metro	20.8	20.7	20.2	4.2	21.4	4.4	13.7	3.3	0.0	8.4	3.6
Maharashtra	7.7	19.2	19.2	16.8	9.5	23.2	12.1				
Gujarat	7.0	13.8	16.4	9.9	35.8	16.3	7.8				
AP	8.1	26.5	22.2	13.8	11.1	13.4	12.9				
Karnataka	7.0	35.8	17.3	15.4	15.5		9.3		6.7		
Tamil Nadu	6.2	17.7	18.3	22.9	8.7		5.2	27.2			
A-Circle	36.0	22.8	18.8	15.6	16.0	11.1	9.7	4.7	1.3	0.0	0.0
Kerala	4.7	12.1	20.9	28.2	11.5	20.3	7.1				
Punjab	5.1	33.6	9.9	9.3	13.4		8.4		23.6		1.8
Haryana	2.4	19.0	12.8	17.7	16.5	19.8	14.3				
UP (W)	4.8	13.0	19.5	17.4	18.7	21.6	9.8				
UP (E)	6.1	13.7	21.1	28.6	27.9	1.5	7.2				
Rajasthan	4.3	22.3	18.9	25.7	18.0	1.8	12.0				1.4
MP	4.2	17.4	36.3	17.5		21.5	7.4				
West Bengal	2.9	14.7	27.7	22.6	23.9		7.9	3.2			
B-Circle	34.5	18.3	20.7	21.1	16.5	10.2	8.9	0.3	3.5	0.0	0.4
HP	0.8	44.0	18.1	30.5		0.8	6.5				
Bihar	3.7	32.7	36.9	21.9			8.4				
Orissa	1.7	30.1	29.3	27.4			8.7	4.4			
Assam	1.1	26.6	17.6	30.8				25.0			
NE	0.6	18.6	14.6	43.0				23.8			
J&K	0.9	36.4	0.0	59.3				4.3			
C-Circle	8.7	31.8	26.1	30.1		0.1	5.8	6.2		0.0	0.0
Total	100.0	21.6	20.4	16.4	15.9	8.4	9.9	3.0	1.7	1.8	0.9

Wireless Industry = GSM + CDMA digital Mobile+ Fixed wireless Phones

Source: TRAI/ COAI/ AUSPI

20 10 January 2007

Blue Highlighted cells are market leaders in category

Grey highlighted cells are market leaders in circles

GSM v/s CDMA landscape

Bundling and handset subsidies

Since CDMA operators currently provide handset subsidies, which are in the form of promotional minutes, the average revenue per minute (ARPM) is higher in GSM. We note that the gap is the highest in the C circles, where handset subsidies are higher. The gap is narrowing in prepaid category, where bundling of free minutes is used for subscriber acquisition. We expect the gap in ARPM to narrow further, as GSM operators have also started bundling free minutes.

NARROWING GAP BETWEEN GSM AND CDMA

		4QFY06						1	QFY07			
		GSM			CDMA			GSM			CDMA	
	ARPU	MOU	RPM	ARPU	MOU	RPM	ARPU	MOU	RPM	ARPU	MOU	RPM
Post Paid												
Metros	775	745	1.04	574	819	0.70	758	793	0.96	630	754	0.84
Circle A	625	809	0.77	562	850	0.66	660	984	0.67	493	837	0.59
Circle B	499	588	0.85	494	829	0.60	511	746	0.68	451	874	0.52
Circle C	551	570	0.97	578	1204	0.48	580	646	0.90	495	1208	0.41
Prepaid												
Metros	295	287	1.03	191	475	0.40	287	299	0.96	195	376	0.52
Circle A	284	316	0.90	182	440	0.41	275	322	0.85	177	373	0.47
Circle B	306	308	0.99	182	495	0.37	286	320	0.89	173	392	0.44
Circle C	329	380	0.87	165	629	0.26	328	353	0.93	218	480	0.45

Source: TRAI

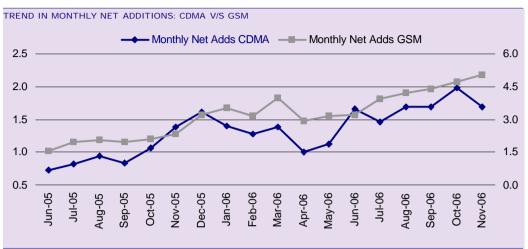
OEMs

Healthy competition at component level in GSM is resulting in lower entry-level handset costs. The CDMA ecosystem, however, continues to face challenges. Over the past few years, Ericsson has effectively withdrawn from CDMA infrastructure, and Nokia has recently indicated a restructuring of its CDMA business in emerging markets. Nevertheless, RCom has been successfully negotiating lower handset prices with OEMs.

Spectrum

Although CDMA operators in India are not facing spectrum crunch, it remains an issue, as GSM operators are awarded twice the amount of spectrum awarded to CDMA for same level of subscribers. While there is available spectrum remaining for CDMA at 800 MHz, the path towards the Ministry of Defense clearing 1900 MHz spectrum (CDMA) is less clear than at 1800 MHz spectrum (GSM).

MOTILAL OSWAL



Source: Company/Motilal Oswal Securities

Outlook

Despite all the pressures, CDMA has increased its share in net additions in the last 12 months. We expect CDMA subscriber base to grow at a CAGR (2006-10) of 44.3% while the GSM subscriber base should grow at a CAGR (2006-10) of 40.9%.

Long distance business - expect robust growth

Although the national long distance (NLD) business is likely to show robust volume growth, the industry environment remains competitive. Following in the footsteps of Bharti, RCom and BSNL, other operators Hutch, Idea, Spice and Tata Tele have all applied for NLD licenses.

While all players are adopting different strategies for growth, as tariff differential narrows between fixed line and wireless for a long distance call, we believe that captive subscriber base is likely to play an important role.

- Bharti is likely to witness solid subscriber growth and is also ramping up its NLD backbone. We believe Bharti's long distance strategy is tightly woven around its wireless strategy and its expansion of NLD presence is likely to be following up of wireless coverage expansion.
- ✓ VSNL has existing relationships with most operators focusing on major routes (top 100 cities), which generate ~ 50% of volume. Volume growth for VSNL is likely to be driven by TTSL subscriber additions and economic activity on major routes
- RCom, apart from focusing on top major cities, is also focusing on peripheral coverage as it has largest NLD backbone and NLD interconnection with BSNL. Its CDMA business gives it higher population coverage. Volume growth for RCom would be driven by wireless subscriber additions and growth in fixed line additions.

The liberalized long-distance voice market in India has not only spurred competition among domestic carriers, but is also attracting an influx of foreign carriers such as BT Group and AT&T. However, most of the players that have applied for NLD licenses do not have their own OFC network and those with OFC networks are in the process of establishing PoPs. We do not see significant change in traffic routing patterns in the near term, as interconnections with operators is a key bottleneck.

COMPANIES PLANNING TO	O ENTER NLD BUSINESS		
Hutchison Essar	TTSL	HCL infinet	Oil India
Gailtel	Spice Communications	HECL	Shipping Stop
Railtel	IDEA	Sify	i2i Enterprise
PGCIL	Dishnet Wireless	Aksh Broadband	Tulip IT

We believe that the Powergrid Railtel and Gailtel consortium is unlikely to emerge as a serious NLD player in the near term, although their combined OFC network is larger than that of VSNL and Bharti. Overlap of the network, interconnection, marketing and PoPs will be key issues that the consortium needs to consider to scale up operations.

NLD NETWORK

	BSNL	VSNL	RCVL	BHARTI	RAILTEL	POWERTEL	GAILTEL
OFC	496,000	34,670	61,500	32,900	29,000	18,800	12,500
Market Share (%)	75.3	6.6	7.7	8.9	0.4	0.2	0.2

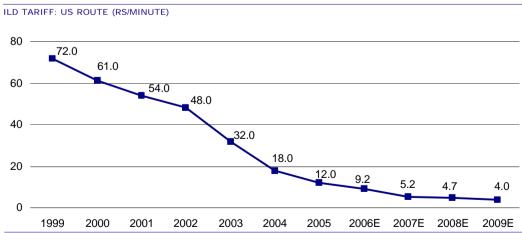
Source: Company/Motilal Oswal Securities

The ILD voice market growth would be driven by cut in ADC. However, we believe that price elasticity for ILD calls is lower than domestic calls. The reduction in tariffs is likely to be driven by capacity additions and new players. We expect 44.7% and 30% growth in minutes in FY07 and FY08, respectively. Further, we expect ADC to be phased out by 2009, helping the industry. As in the case of NLD, most ILD providers that have applied for licenses are non-facility based operators and will route their calls on the existing undersea cables controlled by VSNL, Bharti and RCom. Although BSNL is in the process setting up its ILD gateways, monitoring equipment and sub-sea cable networks, we do not expect the company to commission ILD operations in the next six months.

ILD MINUTES TO GROW AT A HEALTHY RATE FOLLOWING ADC CUT AND SUBSCRIBER GROWTH

	FY02	FY03	FY04	FY05	FY06	FY07E	FY08E	FY09E
Incoming Minutes	2,546	3,110	4,043	5,251	7,685	11,247	14,657	18,792
Growth (%)	17.5	22.2	30.0	29.9	46.4	46.4	30.3	28.2
Out going Minutes	575	764	1,176	1,661	2,308	3,208	4,134	4,698
Growth (%)	9.1	32.9	53.9	41.2	39.0	39.0	28.9	13.6
Total	3,121	3,874	5,219	6,912	9,993	14,455	18,792	23,489
Growth (%)	15.9	24.1	34.7	32.4	44.6	44.7	30.0	25.0
Incoming as a of	Total (%) 81.6	80.3	77.5	76.0	76.9	77.8	78.0	80.0

Source: Company/Motilal Oswal Securities



Source: Company/Motilal Oswal Securities

Challenges that lie ahead

Interconnection

The Department of Telecommunications (DoT) has proposed setting up a National Interconnect Exchange (NIE) to surmount the perennial problem of delays in interconnection between telecom operators, and consequent network congestion and poor services. Till the end of April 2006, 606 interconnect applications were pending with BSNL.

The exchange will operate on a no-profit, no-loss basis and will be the one-stop shop for all interconnections among different networks across the country. DoT plans to take a 26% stake in NIE, with the balance to be shared by different telecom operators. DoT plans to make the exchanges operational in states by March 2007 and all telecom and Internet operators will have to connect to these exchanges. Post-July 2007, no direct connections will be allowed.

To start with, NIE will function under the state-run BSNL. Since NIE was conceived after private operators blamed BSNL for all interconnection woes, the proposal by DoT is unlikely to go through and private operators will argue for a neutral administrator.

Spectrum fears

As subscriber growth accelerates, capacity constraints are becoming increasingly challenging for operators, particularly in metropolitan areas. Several operators who qualify and have applied for additional spectrum have been forced to wait. However, this issue is likely to be addressed in the next 6-9 months, as India's Ministry of Defense has agreed to vacate 45 MHz of spectrum in the 1,800 MHz band. The spectrum should be cleared by March 2007.

The CDMA operations are in 800 MHz band, in which a total of 2x20 MHz is available. Out of this, 2x15 MHz in Mumbai and 2x13.75 MHz in Delhi stand assigned to CDMA operators, and the remaining carriers are yet to be allocated. In other service areas, equal or more carriers are available. The unassigned carriers available in the 800 MHz band are reserved for future use for CDMA operations. These carriers are to be allocated to CDMA operators, on their fulfilling the requisite subscriber-base criterion, giving them some relief. Further, we believe that CDMA operators are not feeling as much spectrum crunch as GSM operators, as CDMA subscribers are less concentrated in particular circles.

While additional 1,800 MHz spectrum would address the requirements of the GSM operators, CDMA operators would need to obtain the 1,900 MHz spectrum, to be in line with CDMA operators in other major markets. The spectrum is also being used for defense purposes, and the Ministry of Defense has expressed more reservations about clearing this spectrum, in part because it has deployed newer network equipment at this frequency. While these

issues may take a few quarters to resolve, we remain confident that additional spectrum will be allocated in the next 6-9 months.

3G licensing

The TRAI has recommended auctioning radio frequencies for 3G telecom services. About 32.5 MHz of spectrum will be available within next six to nine months. Spectrum will be allocated in three bands:

- ≥ 25 MHz in 2.1 GHz band will go to five operators, each will get 5 MHz
- ✓ 1.25 MHz each to the two CDMA operators in the 800 MHz band
- ≤ 5 MHz in the 450 MHz band to one CDMA operator

Operators will have to pay the amount they quote during the auction above the reserve price (see table below) plus the spectrum charges amounting to one per cent of their annual revenues from the second year of operations.

RESERVE PRICE BY CIRCLE (RS M)

· · · · · · · · · · · · · · · · · · ·		
CIRCLES	RESERVE PRICE	OUTGO
Mumbai+Delhi+5 'A' Circles	800	5,600
Chennai+Kolkata+8'B' Circles	400	4,000
6 'c' circles	150	900
Total		10,500
otal		1

Source: TRAI

Our conversations with equipment suppliers reveal that most operators have made detailed plans to aggressively gear up for 3G launch. However, the Ministry of Defense has informed the DoT that the armed services would require additional time, up to 390 days, to vacate spectrum (includes 3G spectrum) which it currently occupies. The primary reason for the Ministry seeking more time was due to BSNL's and MTNL's failure to complete the alternative optic fiber backbone for the armed forces as per requirement.

The 3G spectrum is unlikely to be released in near term as Defense considers that network built by BSNL and MTNL is unsecured. There will be additional cost of Rs27b for building secured network as per Defense requirements. The DoT has not decided who will bear this additional expenditure. The delay means that 3G services will now be launched only in early 2008 instead of the second half of 2007.

While we remain skeptical about the potential for 3G networks to be deployed beyond the major metropolitan areas in the next 2-3 years, we believe 3G could help address capacity issues in the largest cities. 3G deployments will primarily be driven by voice capacity requirements in the medium term, which will limit deployments to large urban areas. Also, 3G-handset pricing is likely to limit demand to the high end of the market for at least the next few years.

Number portability

DoT has rejected the TRAI recommendation that mobile number portability be implemented in a phased manner from 1 April 2007. DoT has said that portability is not a mandatory service and the timing of its implementation should be left to the commercial judgment of operators.

We believe number portability will have little impact on India's wireless industry, as 85% of the market is prepaid, where monthly churn is as high as 6%. Investments for the industry for such services are expected to be Rs9-10b and international experience indicates that not more than 8% of subscribers port their number. Further, the price-sensitive Indian subscriber is unlikely to pay Rs50 for porting.

IDC survey indicates poor customer satisfaction

The India Mobile Service Usage and Satisfaction Survey 2006 conducted by IDC India had a surprise for everyone. Spice Telecom is the only service provider that has been able to cross the TRAI recommended benchmark of 95% on overall satisfaction.

One of the key findings of the study was that a high 28% of mobile users, even though satisfied with their current service provider, are likely to shift for a better service or offer. Though the percentage of such 'disloyal customers' has come down from the previous year's figure of 30%, it is still a large number to tackle.

No service provider is perceived to be very strong on Quality of Service (QoS). Since customers are unable to distinguish between service providers on Quality of Service, schemes and offers become the key factors while selecting or shifting to a new service provider. We believe this situation is set to improve, as companies are likely to focus on dark spots with infrastructure sharing. Although pricing is an important parameter, we believe customer care, branding and VAS will gain further importance.

Note: The IDC Survey 2006 was conducted on a sample of 3,743 mobile users spread across Metro and category A, B and C telecom circles. The study covered all the four metros and 10 other major cities from a representative set of category A, B and C circles.

MOTILAL OSWAL

Valuations to follow growth

We believe that peer group comparison is irrelevant in the wireless space due to the Indian wireless market's superior growth profile and lower penetration. In the wireless space, emerging market peers are at different stages in the industry life cycle and have different growth outlooks. Further, return ratios of Indian wireless operators are much better than most Asian counterparts. On a PEG basis, Bharti and RCom are the most attractive stocks in the wireless space.

COMPARATIVE	VALATION:	WIRFLESS	(RS M)

	PEG RATIO	P/E RA	TIO (X)	ROE (%)	EPS (GR. (%)
	CY07E	CY07E	CY08E	CY06E	CY07E	CY08E
Reliance Communication*	0.6	19.4	14.6	20.4	60.1	32.7
Bharti Airtel *	0.4	19.8	15.7	35.7	47.1	25.8
Indosat	1.6	17.5	14.6	11.8	19.6	19.4
China Mobile	1.0	16.9	15.0	21.2	17.9	13.2
Telecom Italia	2.0	14.2	12.7	15.4	9.3	11.5
China Unicom	1.7	19.7	17.3	6.6	15.7	13.8
China Netcom	3.5	10.8	10.6	21.8	0.6	1.2
Advanced Info	4.9	11.8	11.1	25.8	9.7	5.6
Maxis Com.	4.8	13.5	13.1	29.2	0.0	2.8
Sk Telecom	14.7	9.4	8.8	24.4	9.6	6.9

^{*} CY06E=FY07E, CY07E =FY08E and CY08E=FY09E

Bharti Airtel

We maintain our Buy recommendation on Bharti...

We maintain our **Buy** recommendation on Bharti. Our 15-month target price of Rs780 indicates an upside of 27.3%. We arrive at our target price based on 20x FY09E earnings. We forecast EPS of Rs31 in FY08 and Rs39 in FY09. We project EPS CAGR of 48.5% during FY06-09, backed by revenue CAGR of 46.1% and EBITDA margin expansion of 300bp. We believe Bharti remains one of the best-managed telecom companies in India with innovative management and solid execution skills.

RCom

...and initiate coverage on RCom with a Buy

We initiate coverage on RCom with a **Buy** rating and a 15-month target price of Rs558, an upside of 36.9%. We derive our price target based on a target multiple of 20x FY09E EPS of Rs27.9. We forecast a CAGR of 36% in revenues and a CAGR of 134.2% in EPS over the next three years, one of the highest growth rates among the large-cap companies in the Indian market.

VSNL

We have used sum of the parts (SOTP) methodology for valuing VSNL owing to the limited financial disclosures on international business and the large investments that it holds (TTSL and real estate). The stock is fairly valued and there is limited upside to our SOTP-based target price of Rs435. We recommend **Neutral**.

Source: Bloomberg/ Motilal Oswal Securities

We value VSNL's standalone business at 11x FY09E earnings. We have valued Teleglobe and Tyco at cost, as we believe significant scale up is needed to achieve a turnaround. We have valued VSNL's stake in TTSL at the average EV/subscriber of US\$371 and US\$427/ subscriber paid by Temasek to acquire a stake in TTSL. VSNL owns approximately 773 acres of surplus land in Pune, Kolkata, Chennai and Delhi. We have valued these tracts of land at 20% discount to current market prices.

SOTP VALUATION OF VSNL

SEGMENTS OF	VALUE ASCRIBED	PER SHARE	RATIONALE
VALUE	(RS M)	VALUE	
	· · · /		44. EV00E
Core Business	52,753	185	11x FY09E earnings
Teleglobe	10,755	38	At 1x of original cost of acquisition
Tyco	5,850	21	At 1x of original cost of acquisition
TTSL	22,480	79	latest average stake sale of TTSL
Land	32,278	113	Calculated after 20% discount to current prices
Fair Value per	Share	435	

Source: Motilal Oswal Securities

MTNL

Unlike the wireless industry, we believe the fixed line industry in emerging markets is following a similar growth trajectory. Hence, MTNL's core business should be compared with peers.

COMPARATIVE VALUATIONS: FIXED-LINE

	P/E RA	P/E RATIO (X)		EPS GR. (%)	
	CY07E	CY08E	CY06E	CY07E	CY08E
MTNL*	12.5	12.5	3.7	20.6	-0.4
China Telecom	12.5	12.4	16.4	2.4	1.0
PCCW	16.0	13.8	10.5	9.9	15.7
Chunghwa Telecom	12.4	12.4	11.8	4.5	0.7

^{*} CY06E=FY07E, CY07E =FY08E and CY08E=FY09E; valuation adjusted for cash per share, value of tax refund

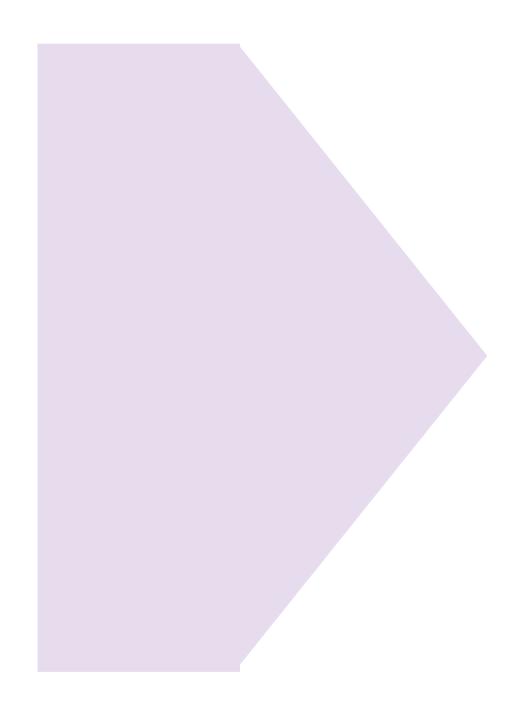
Source: Company/ Motilal Oswal Securities

We have valued MTNL using sum of the parts (SOTP) methodology, considering the uncertainty on its tax refunds and potential liabilities. Considering the uncertainty in its other income, we have used the EV/EBITDA multiple approach to value MTNL's core business. We value its core business at Rs100 (5.5x FY09E EV/EBITDA). We estimate cash at Rs27/share as at the end of FY07. Excluding potential liabilities (Rs14.5b), we value the remaining section 80-IA benefit of Rs25.5b at 50% discount at Rs18.75/share. Excluding GPF provision, we arrive at a value of Rs13.75/share from license fees refund. Our SOTP value of Rs159/share indicates little upside from the current stock price. Further, on relative valuations basis, the stock is trading at par with Asian peers. We recommend **Neutral**.

Companies

BSE Sensex: 13,362	S&P CNX: 3,850	10 January 2007
--------------------	----------------	-----------------

COMPANY NAME	PG.
Bharti Airtel	31
(Buy, Rs613)	
Reliance Communication (Buy, Rs407)	40
VSNL	50
(Neutral, Rs420)	
MTNL	59
(Neutral, Rs156)	



Bharti Airtel

STOCK INFO.	BLOOMBERG
BSE Sensex: 13.362	BHARTI IN
DSE Selisex. 13,302	REUTERS CODE
S&P CNX: 3.850	BRTI.BO

Y/E MARCH	2006	2007E	2008E	2009E
Net Sales (Rs m)	116,631	188,490	282,052	363,579
EBITDA (Rs m)	43,599	73,963	112,796	146,918
NP (Rs m)	22,584	39,949	58,750	73,891
EPS (Rs)	12.0	21.1	31.0	39.0
EPS Growth (%)	48.29	75.87	47.06	25.77
BV/Share (Rs)	48.5	69.7	100.7	139.7
P/E (x)	51.1	29.1	19.8	15.7
P/BV (x)	12.6	8.8	6.1	4.4
EV/EBITDA (x)	27.7	16.7	11.1	8.3
EV/Sales (x)	10.4	6.6	4.5	3.4
RoE (%)	29.5	35.7	36.4	32.4
RoCE (%)	21.6	27.9	30.6	31.8

KEY FINANCIALS	
Shares Outstanding (m)	1,895.0
Market Cap. (Rs b)	1,161.8
Market Cap. (US\$ b)	25.3
Past 3 yrs. Sales Growth (%)	55.4
Past 3 yrs. NP Growth (%)	104.9
Dividend Payout (%)	-
Dividend Yield (%)	-

STOCK DATA	
52-Week Range	652/310
Major Shareholders (as of September 2006)	%
Promoters	45.4
Domestic Institutions	4.0
FIIs/FDIs	47.9
Others	2.7
Average Daily Turnover	
Volume ('000 shares)	1,066.4
Value (Rs million)	474.3
1/6/12 Month Rel. Performance (%)	1/35/39
1/6/12 Month Abs. Performance (%)	1/61/81

10 January 2007 Buy

Previous Recommendation: Buy Rs613

To retain leadership in the wireless segment: We expect India's wireless industry to have 383m subscribers by the end of FY10, implying a CAGR of 40.4% during FY06-10. Bharti is the industry leader, with a market share of 21.6%, which we expect would increase to 22.9% by FY09. However, Bharti's leadership status could change if RCom were to acquire Hutch. Even in this scenario we expect strong subscriber growth for Bharti to continue.

Profitability to improve despite tariff declines: Despite Bharti's ARPM declining 37.6% in the last 8 quarters, its wireless EBITDA margins have expanded by 364bp. This is because demand for outgoing calls is highly price elastic and lower ARPM translates into more outgoing calls and better network utilization. As capacity utilization improves with new subscriber additions and higher minutes of use (MoU), we expect further improvement in wireless margins. We estimate Bharti's wireless EBITDA margins to expand from 36.1% in FY06 to 36.8% in FY07, 37.1% in FY08 and 38.3% in FY09.

Strong earnings visibility; Buy: Consolidated margins are likely to improve from 37.4% in FY06 to 39.2% in FY07, 40% in FY08 and 40.4% in FY09. We expect revenue CAGR of 46.1% and net profit CAGR of 48.3% for the next three years. Due to strong profit growth and higher earnings visibility, we expect valuations to remain rich. The stock trades at 19.8x FY08E and 15.7x FY09E earnings. We recommend **Buy** with a price target of Rs780 (20x FY09E EPS), an upside of 27.3%.



Background

Bharti Airtel, promoted by Sunil Bharti Mittal, is the largest and most profitable cellular services provider in India. It has a subscriber base of over 30m and a market share of over 21.6% of the overall cellular market. It offers wireless services across 4,357 towns in India and by the end of FY07, it would have a wireless presence in 5,161 towns.

Besides wireless services, Bharti also provides fixed line services and digital subscriber line (DSL)-based broadband services in 94 cities and plans to expand to 100 cities. The company offers long distance services, where it has 36,151 km of optic fiber within the country. For its international business, it has access to i2i and SEA-ME-WE-4 cable, giving it connectivity to the East and the West, respectively.

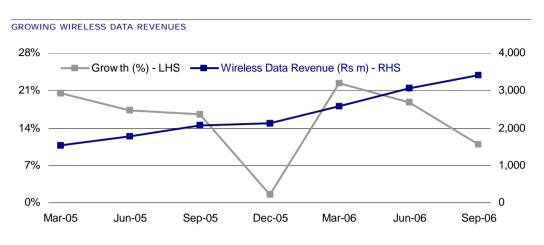
Key investment positives

Leader in the wireless segment

We expect India's wireless industry to have 383m subscribers by the end of FY10, implying a CAGR of 40.4% during FY06-10. Bharti is the industry leader, with a market share of 21.6%, which we expect would increase to 22.9% by FY09. This is despite the high competitive intensity and the fact that Bharti is not the price leader. We believe that the management's focus on core business would help it to maintain its leadership status. The management has outsourced activities like network management and call centers, while retaining key activities such as tariff structuring, distribution, branding and promotion.

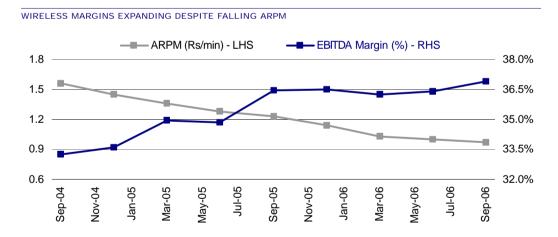
We expect Bharti to add 1.75m subscribers per month from December 2006 to March 2007, with a 5.3% decline in ARPU for 2HFY07. However, given that ARPU remained flat in 1HFY07, ARPU decline in FY07 may be lower than our estimate. We have assumed subscriber addition of 1.85m per month in FY08, with a 6% decline in ARPU and 1.3m per month in FY09 with a 5% decline in ARPU. We have factored in lower ARPU declines going forward due to the following three reasons:

- Bharti's ARPM has declined 37.6% in the last 8 quarters. Although we expect further
 fall in ARPM, we believe ARPU would not fall as much. The demand for outgoing
 calls is highly price elastic and lower ARPM translates into higher outgoing calls.
 Therefore, the impact of lower ARPM would be considerably mitigated by an increase
 in volumes.
- 2. By the end of FY07, we expect 87% of Bharti's subscribers to be in the prepaid segment, considerably higher than the 82.7% at the end of FY06. In FY08, however, we expect only a marginal increase in the share of prepaid subscribers to 89%. Accordingly, the fall in ARPU in FY08 would be moderate.
- 3. Bharti's non-voice revenues are currently at 10.3% of wireless revenues, which are likely to reach 12% by FY08. The company has started aggressively marketing its Easy Music stores, from where users can download ring tones from a library of songs. Data usage in the low-end segment, which constitutes 25-30% of net additions, is likely to pick up, going forward.



Source: Company/Motilal Oswal Securities

Further, despite falling ARPM, we expect wireless EBITDA margins to expand further. Bharti's ARPM has declined 37.6% in the last 8 quarters, but its wireless EBITDA margins have expanded by 364bp. As capacity utilization improves, with new subscriber additions and higher minutes of use (MoU), we expect further improvement in wireless margins. We estimate Bharti's wireless EBITDA margins at 36.8% for FY07, 37.1% for FY08 and 38.3% in FY09.



Source: Company/Motilal Oswal Securities

Blended ARPU (Rs)	506	475	433	407	386
Post-paid	2,636,227	3,387,203	4,735,926	6,178,926	7,143,006
Pre-paid	8,348,053	16,192,005	32,475,806	53,232,806	68,336,726
Total Subscribers	10,984,280	19,579,208	37,211,732	59,411,732	75,479,732
EBITDA/Subscriber	2,081	2,056	1,910	1,812	1,775
Margin (%)	34.3	36.1	36.8	37.1	38.3
EBITDA	18,520	29,711	53,230	88,257	118,138
YoY Growth (%)	74.7	52.5	75.6	64.3	29.8
Revenues	54,015	82,392	144,701	237,770	308,529
Y/E MARCH	FY05	FY06	FY07E	FY08E	FY09E

Source: Company/Motilal Oswal Securities

Bharti has launched fixed wireless phone (FWP) offerings based on GSM technology under the brand, Airtel Mega. Capex for rolling out FWP services is likely to be minimal, as it will use same GSM network and current distribution systems. Bharti's ability to explore new revenue streams with such initiatives would favorably impact its financial performance and stock valuations.

Z Long distance and enterprise business - robust volume growth

Given the capacity additions by large players, we expect margins in the long distance business to be under pressure. However, the pressure on Bharti is likely to be lower, as most of its traffic is captive. Further, we believe that since interconnection with operators and establishment of PoPs is time consuming, non-captive traffic of other wireless operators will continue to be routed by wholesale players like Bharti. Bharti is also ramping up its optic fiber network, which currently stands at 36,151 route km to 42,500 route km.

In the long distance segment, we expect robust volume growth driven by wireless subscriber growth and falling tariff. In the enterprise business segment, Bharti focuses on delivering customized services to key corporate clients. It is now spreading its operations and creating infrastructure in various parts of India. Although EBITDA margins in enterprise business may decline marginally, volume growth in this segment would remain robust.

In 2QFY07, Bharti's long distance and enterprise business witnessed EBITDA margins of 40.7%. We conservatively estimate margins at 38.9% in FY08 and 38.2% in FY09. We believe presales of FALCON as well as entry of foreign players would bring down margins, as more capacity becomes available from 2QFY07.

LONG	DISTANCE	AND	ENTERPRISE	BUSINESS

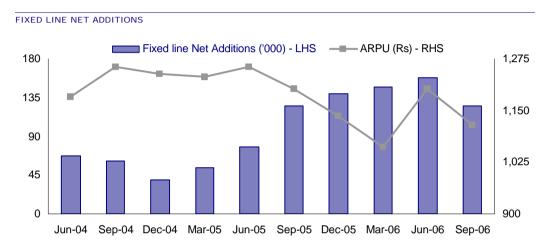
Y/E MARCH	FY05	FY06	FY07E	FY08E	FY09E
Gross Revenues	24,055	31,741	43,153	50,592	61,829
YoY Growth (%)	64.0	32.0	36.0	17.2	22.2
EBITDA	9,025	11,491	16,946	19,669	23,640
Margin (%)	37.5	36.2	39.3	38.9	38.2
Incremental EBITDA Margin (%)	43.7	32.1	47.8	36.6	35.3

Source: Company/Motilal Oswal Securities

In its fixed-line business, Bharti has been cherry picking customers. We believe that its strategy of focusing on data-centric cities and high usage corporate customers would help the company to maintain its ARPU. Bharti plans to increase its coverage from 94 cities currently to 100 cities by the end of FY07. Growth in fixed-line business would be a function of volume growth in the retail DSL segment and subscriber base.

We have factored in subscriber additions of 484,000 in FY07 and 445,000 in FY08. We expect ARPU to remain stable in FY07 at Rs1,143, as the company has recently realigned

its DSL business. The retail DSL business that was earlier part of Bharti's enterprise business has been moved to fixed line business from 1QFY07. The wholesale DSL business will continue to be with the enterprise segment. The retail DSL business will help buoy Bharti's fixed line margins as 29% (2QFY07) of fixed line subscribers use DSL service.



Source: Company/Motilal Oswal Securities

We expect EBITDA margins to expand from 24.5% in FY06 to 24.8% in FY07 and then accelerate to 26% in FY08 and 28% in FY09. New operations are likely to start contributing meaningfully from 1QFY08. We expect revenues to grow at 23.4% CAGR and EBITDA at 29% CAGR during FY06-09.

FIXED LINE BUSINESS

Y/E MARCH	FY05	FY06	FY07E	FY08E	FY09E
Subscriber Base	831,000	1,274,000	1,758,000	2,203,750	2,603,750
Additions	225,667	443,000	484,000	445,750	400,000
ARPUs	1,237	1,164	1,143	1,028	977
Revenues (Rs m)	11,209	15,014	21,990	24,727	28,180
YoY Growth (%)	45.7	33.9	46.5	12.5	14.0
EBITDA (Rs m)	2,853	3,675	5,454	6,429	7,890
Margin (%)	25.5	24.5	24.8	26.0	28.0
EBITDA/Subscriber	3,779	3,419	3,400	3,209	3,283

Source: Company/Motilal Oswal Securities

Z IPTV - pilot launch receives positive response

Bharti is working on an offering of about 100 TV channels. The initial response to its pilot launch has been positive and it plans to launch its IPTV service by 4QFY07. However, we have not factored IPTV operations into our model, as we believe that for the successful rollout of IPTV, broadband has to take-off first. Hence, commercial launch is likely to be delayed.

KEY ASSUMPTION	IS
----------------	----

KEY ASSUMPTIONS							
	FY06	FY07E	FY08E	FY09E	FY10E	FY11E	FY12E
Wireless Market (Rs b)	379	587	854	1,086	1,198	1,262	1,317
Bharti's Wireless Revenues (Rs b)	82	145	238	309	348	379	396
Bharti's Revenue Share (%)	21.7	24.7	27.9	28.4	29.1	30.0	30.1
All India Subscribers (m)	98.4	171.6	259.2	329.4	382.8	431.4	463.2
All India Mobile Penetration (%)	9.0	15.3	22.7	28.3	32.4	35.9	37.9
All India GSM Subs (m)	69	122	183	234	273	309	330
Bharti Subscribers (m)	20	37	59	75	87	99	106
Bharti's Share of Overall Subs (%)	19.9	21.7	22.9	22.9	22.9	22.9	22.9
Bharti's Share of GSM Subs (%)	28.3	30.5	32.4	32.2	32.1	32.0	32.1
Bharti Prepaid Subscribers (m)	16	32	53	68	80	91	98
Bharti Postpaid Subscribers (m)	3	5	6	7	8	8	8
Wiresss EBITDA	29,711	53,230	88,257	118,138	138,977	159,073	175,176
Bharti's ARPU (Rs/month)	475	433	407	386	363	345	328
Bharti's MOU (mins/month)	403	455	469	473	473	473	473
Bharti's ARPM (Rs/min)	1.18	0.95	0.87	0.82	0.77	0.73	0.69
EBITDA per Min (Rs)	0.43	0.35	0.32	0.31	0.31	0.31	0.31
EBITDA per Sub (Rs)	2,056	1,910	1,812	1,775	1,740	1,740	1,740
Capex/Sub (US\$)	104	114	102	105	105	105	105
Capex/Sales (%)	50.0	62.4	42.9	24.6	16.3	14.1	9.6
Fixed-line							
All India Fixedline Subscribers (m)	41.3	42.5	46.1	48.5	52.1	53.3	53.9
Bharti's Fixedline Subscribers (m)	1.3	1.8	2.2	2.6	3.0	3.2	3.3
Bharti's Share of Subs (%)	3.1	4.1	4.8	5.4	5.8	6.0	6.2
Bharti's ARPU (Rs/month)	1,164	1,143	1,028	977	957	919	882
Long distance business							
Dharti'a II D Dayanyaa (Da h)							
Bharti's ILD Revenues (Rs b)	10	12	15	17	17	16	16
Bharti's Market Share in ILD (%)	10 20.8	21.1	15 22.4	17 21.6	17 22.0	16 22.4	16 22.7
, ,							
Bharti's Market Share in ILD (%)	20.8	21.1	22.4	21.6	22.0	22.4	22.7
Bharti's Market Share in ILD (%) Market Minutes (m mins)	20.8 9,993	21.1 14,455	22.4 18,792	21.6 23,489	22.0 24,664	22.4 25,897	22.7 27,192

Concerns

- Hutch stake sale could change equation: If Vodafone acquires Hutch Essar, it may result in a short-term overhang in the stock but we do not anticipate major changes in the competitive landscape. If RCom acquires Hutch, the competitive landscape could change, as RCom would become the market leader. However, considering the control premium that Hutch Essar can command, the acquirer is more likely to focus on profitability post-acquisition which will be positive for all industry players.
- **3G** road map still unclear: While we remain skeptical about the potential for 3G networks beyond the major metropolitan areas in the next 2-3 years, we believe 3G could help address capacity issues in the largest cities. Given that 3G deployments will primarily be driven by voice capacity requirements in the medium term, deployment would be limited to large urban areas. 3G rollout could help Bharti alleviate potential spectrum crunch but there is still uncertainty on the 3G road map.

MOTILAL OSWAL Bharti Airtel

Financial outlook

Consolidated EBITDA margins set to expand: We expect consolidated margins to expand from 37.4% in FY06 to 39.2% in FY07, 40% in FY08 and 40.4% in FY09. Margin expansion is likely to be driven by better network utilization and control on SG&A expenditure.

Earnings growth to surpass revenue growth: While we expect revenue CAGR of 46.1%, Bharti's EBITDA and net profits should grow at an impressive CAGR of 50% and 48.5%, respectively over FY06-09.

Return ratios to improve in FY07: We expect Bharti's RoE to improve from 29.5% in FY06 to 35.7% in FY07, 36.4% in FY08 and 32.4% in FY09. RoCE should increase from 21.6% to 27.9% in FY07, 30.6% in FY08 and 31.8% in FY09 due to improving asset turnover.

Capex plans: The company has targeted capex of US\$1.8-2b for FY07, two-third of which is likely to be spent on the wireless business. We have assumed a capex of US\$2.3b for FY07, US\$2.8b for FY08 and US\$1.8b for FY09.

No dividends on the horizon: We do not expect Bharti to be free cash flow positive in FY08, owing to continued investments. Given the company's reluctance to raise debt, we believe that dividends are unlikely in near future.

Valuation and view

We believe that the strong momentum in wireless business would continue, driven by strong subscriber additions. Fixed line business continues to be robust, with strong subscriber additions and expanding margins. In the long distance segment, although margins are likely to stabilize, volume growth is likely to remain robust. Consolidated margins are likely to improve from 37.4% in FY06 to 39.2% in FY07, 40% in FY08 and 40.4% in FY09. We expect revenue CAGR of 46.1% and net profit CAGR of 48.5% for the next three years. Due to strong profit growth and higher earnings visibility, we expect valuations to remain rich. The stock trades at 19.8x FY08E and 15.7x FY09E earnings. We recommend **Buy** with a price target of Rs780 (20x FY09E EPS), an upside of 27.3%.

DCF analysis suggests fair value of Rs779, in line with P/E-based target: We have assumed a discount rate of 12.25% for Bharti's DCF analysis - WACC derived from a risk-free rate of 7.6%, equity risk premium of 7%, cost of debt of 6.5%, and beta of 0.97. We have assumed interim free cash flow growth of 9% (FY13-20) and terminal growth rate of 4%. Our DCF analysis yields a fair value of Rs779, in line with our P/E multiple based price target of Rs780.

MOTILAL OSWAL Bharti Airtel

DCF VALUATION (RS M)

Y/E MARCH	FY07E	FY08E	FY09E	FY10E	FY11E	FY12E
EBITDA	73,963	112,796	146,918	171,557	193,493	207,933
Tax	-5,739	-13,008	-22,276	-26,826	-31,504	-35,253
Inc/(Dec) in Working Capital	15,044	18,190	18,426	20,267	26,243	15,165
CashFlow from Operations	83,268	117,978	143,068	164,998	188,233	187,845
Capex	-106,230	-129,800	-106,376	-87,155	-79,387	-62,461
Free Cash Flow	-22,962	-11,822	36,692	77,843	108,846	125,385
WACC (%)	12.3					
Present Value of Cash flows till 2012	184,183					
Interim Growth Rate FY13-FY20 (%)	9.0					
PV of FCF from FY13-FY20	480,197					
Terminal Gr. Rate FY20 and onwards ((%) 4.0					
FCF in FY20	249,837					
PV of Terminal Value	654,987					
Net Present Value	1,319,368					
Less Debt	-47,395					
Add Cash/Investment	3,530					
Value to Equity Share Holders	1,275,503					
Per Share Value (Rs)	779					
Current Price (Rs)	613					
Upside (%)	27.3					

Source: Motilal Oswal Securities

MOTILAL OSWAL Bharti Airtel

VIE MADOLL	2025	2021	20075	20005	20005	V/F MADOU	2025	0001	20075	20005	2022=
Y/E MARCH	2005	2006	2007E	2008E	2009E	Y/E MARCH	2005	2006	2007E	2008E	2009E
Revenues	80,028	116,631	188,490	282,052	363,579	Basic (Rs)	0.4	40.0	04.4	24.0	20.0
Change (%)	65.6	45.7	61.6	49.6	28.9	EPS	8.1	12.0	21.1	31.0	39.0
Total Expenses	49,963	73,032	114,527	169,256	216,661	Cash EPS	14.2	20.3	33.9	49.3	62.3
EDITO A		40 500	70.000	440 700	440.040	Book Value	32.9	48.5	69.7	100.7	139.7
EBITDA	30,065	43,599	73,963	112,796	146,918	DPS	0.0	0.0	0.0	0.0	0.0
% of Gross Sales	37.6	37.4	39.2	40.0	40.4	Payout %(Incl.Div.Taxes)	0.0	0.0	0.0	0.0	0.0
Depn. & Amortisation	11,341	15,830	24,363	34,713	44,253						
EBIT	18,724	27,769	49,600	78,083	102,664	Valuation (x)					
Net Interest	1,996	2,651	4,638	6,865	6,865	P/E		51.1	29.1	19.8	15.7
Other Income	-124	456	1,051	1,051	1,051	Cash P/E		30.2	18.1	12.4	9.8
						EV/EBITDA		27.7	16.7	11.1	8.3
PBT -	16,604	25,574	46,012	72,269	96,851	EV/Sales		10.4	6.6	4.5	3.4
Tax	1,528	2,736	5,739	13,008	22,276	Price/Book Value		12.6	8.8	6.1	4.4
Rate (%)	9.2	10.7	12.5	18.0	23.0	Dividend Yield (%)		0.0	0.0	0.0	0.0
Adjusted PAT	14,978	22,584	39,949	58,750	73,891						
Change (%)	195.1	50.8	76.9	47.1	25.8	Profitability Ratios (%)					
PAT after EO	14,978	22,584	39,949	58,750	73,891	RoE	28.0	29.5	35.7	36.4	32.4
						RoCE	17.6	21.6	27.9	30.6	31.8
BALANCE SHEET				(R:	S MILLION)						
Y/E MARCH	2005	2006	2007E	2008E	2009E	Turnover Ratios					
Share Capital	18,534	18,939	18,952	18,952	18,952	Debtors (Days)		41	50	42	35
Additional Paid up Capital	47,987	56,060	56,060	56,060	56,060	Asset Turnover (x) 0		0.4	0.5	0.5	0.5
Reserves	-5,455	16,894	57,010	115,861	189,752						
Net Worth	61,065	91,893	132,022	190,873	264,764	Leverage Ratio					
_oans	49,040	47,395	76,049	99,179	76,679	Debt/Equity Ratio(x)	0.9	0.6	0.6	0.6	0.3
Minority Interest	749	951	1,276	1,786	2,471						
Other Liabilities	3,076	3,704	5,556	5,834	6,125						
Deferred Tax Liability	1,183	1,945	1,945	1,945	1,945	CASH FLOW STATEMENT				(R	S MILLION
Capital Employed	115,114	145,888	216,848	299,618	351,984	Y/E MARCH	2005	2006	2007E	2008E	2009E
						Op.Profit/(Loss) bef Tax	30,065	43,599	73,963	112,796	146,918
Gross Block	163,634	228,252	334,408	464,408	570,784	Other Income	-124	456	1,051	1,051	1,051
Less : Depreciation	31,825	47,655	72,019	106,732	150,986	Interest Paid	-1,996	-2,651	-4,638	-6,865	-6,865
Net Block	131,879	180,598	262,589	357,676	419,798	Direct Taxes Paid	-1,472	-1,974	-5,739	-13,008	-22,276
Intangible Fixed Assets	39,211	38,200	34,380	33,349	32,348	(Inc)/Dec in Wkg. Cap.	16,731	15,712	15,044	18,190	18,426
Investments	671	692	567	567	567	CF from Op.Activity	43,205	55,142	79,681	112,164	137,254
Other Non-Current Assets	2,400	3,258	3,421	5,131	6,158		•	,	•	•	,
						(inc)/Dec in FA + CWIP	-43,248	-64,549	-106,355	-129,800	-106,376
Curr. Assets	24,124	31,002	46,589	60,086	73,208	(Pur)/Sale of Investments	-2,146	2,848	125	0	0
Inventories	545	381	431	451	451	CF from Inv.Activity	-45,393			-129,800	-106.376
Debtors	7,308	10,620	21,689	27,046	28,887	· · · · · · · · · · · · · · · · · · ·	10,000	,	,	,	,
Cash & Bank Balance	3,256	2,838	5,111	10,706	19,084	Issue of Shares	-129	8,073	0	0	0
Other Current Assets	13,015	17,163	19,358	21,883	24,787	Inc/(Dec) in Debt	3,317	-1,645	28,654	23,130	-22,500
	. 5,5 10	.,,,,,	. 0,000	_1,500	_ 1,101	Other Financing Activities	951	-288	168	101	-22,300
Curr. Liab. & Prov.	43,959	69,662	96,318	123,842	147,747	CF from Fin.Activity	4,139	6,141	28,822	23,231	-22,499
Sundry Liabilities	40,486	64,879	90,817	118,066	141,682	or nom rim. Activity	7,100	0,141	20,022	20,201	22,433
Other Current Liabilities		4,783		5,775	6,064	Inc//Dec) in Cash	1 051	_//10	2 272	5,595	8,379
	3,473		5,500			Inc/(Dec) in Cash	1,951	-418 2 256	2,273	-	•
Net Curr. Assets	-19,835	-38,660	-49,728	-63,756	-74,538	Add: Opening Balance	1,305	3,256	2,838	5,111	10,706
Appl. of Funds	115,114	145,888	216,848	299,618	351,984	Closing Balance	3,256	2,838	5,111	10,706	19,085

Reliance Communication

BLOOMBERG STOCK INFO RCOM IN BSE Sensex: 13,362 S&P CNX: 3,850

REUTERS CODE RLCM.BO

10 January 2007	7

Buy

Previous Recommendation: Buy

Rs407

2008F 2009F Y/F MARCH 2006 2007F Net Sales (Rs m) 107,664 149,357 214,170 270,574 EBITDA (Rs m) 24,762 57,090 83.183 107.814 NP (Rs m) 4,439 26,817 42,347 57,004 EPS (Rs) 2.2 13.1 21.0 27.9 EPS Growth (%) NA 504.1 60.1 32.7 BV/Share (Rs) 57.5 70.9 91.9 115.3 P/E(x)187.6 31.0 194 14.6 P/BV (x) 7.1 5.7 4.4 3.5 EV/EBITDA (x) 34.7 15.1 10.1 7.6 EV/Sales (x) 8.0 5.8 3.9 3.0 7.6 25.4 26.9 RoE (%) 20.4 RoCE (%) 7.4 13.3 18.5 22.9

KEY FINANCIALS	
Shares Outstanding (m)	2,044.6
Market Cap. (Rs b)	833.0
Market Cap. (US\$ b)	18.8
Past 2 yrs. Sales Growth (%)	n.a.
Past 2 yrs. NP Growth (%)	n.a.
Dividend Payout (%)	-
Dividend Yield (%)	-

STOCK DATA	
52-Week Range	489/186
Major Shareholders (as of September 2006)	%
Promoters	66.8
Domestic Institutions	6.4
FIIs/FDIs	14.6
Others	12.2
Average Daily Turnover	
Volume ('000 shares)	8,187.3
Value (Rs million)	2,652.0
1/6/12 Month Rel. Performance (%)	-5/36/-
1/6/12 Month Abs. Performance (%)	-5/62/-

Maintaining growth in CDMA while exploring GSM expansion:

We expect RCom to add 1.42m subscribers per month from December 2006 to March 2007, 1.5m subscribers per month in FY08 and 1.2m subscribers per month in FY09. We have assumed a bulk of our increase in monthly additions to come from CDMA, while it continues to explore pan-India GSM expansion from current footprint of 8 GSM circles.

Profitability of wireless business set to increase: RCom is introducing value-added services currently offered by its GSM competitors to shore-up its non-voice revenues. Strong subscriber growth coupled with lower free minutes and higher value-added services should drive up its wireless margins from 36.1% in 2QFY07 to 36.8% in FY08 and to 37.5% in FY09.

Not just a wireless play: RCom is the leader in the ILD segment, with more than 40% market share in the voice business. While we expect retention in the long-distance voice business to be challenging, RCom would counter this through higher volumes. In the broadband segment, growth in access lines has trailed the growth in buildings connected, indicating robust growth in the future.

Valuations attractive: Buy: The wireless business continues to witness strong subscriber additions. Consolidated margins are likely to improve from 23% in FY06 to 38.2% in FY07, 38.8% in FY08 and 39.8% in FY09. The stock trades at 19.4x FY08E and 14.6x FY09E earnings. We recommend **Buy**, with a price target of Rs558 (20x FY09E EPS), an upside of 36.8%.



40 10 January 2007

 $\operatorname{Motilal}$ Oswal Reliance Communication

Background

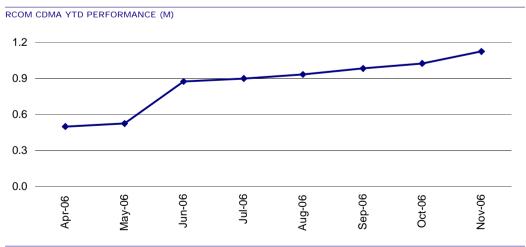
Reliance Communication Limited (RCom) is an Anil Dhirubhai Ambani Group (ADAG) company that has business interests in wireless, long distance and broadband. Together with its subsidiaries, the company has rolled out a CDMA-1x network across the country, spanning 6,000 towns. Its global businesses include NLD, ILD and Flag operations. It has more than 60,000 km of fiber optic network and 54,000 km of sub-sea cable capacity, which would expand by 11,500 km with the commissioning of its FALCON project.

Key investment positives

Maintaining growth in CDMA while exploring GSM expansion

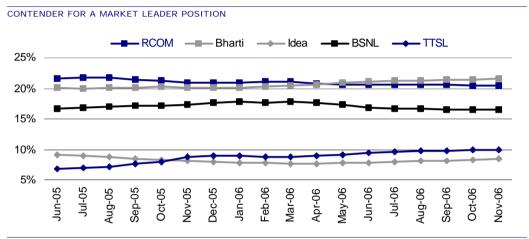
RCom runs CDMA networks in 21 out of the 23 telecom circles in India and its CDMA wireless subscriber base currently totals ~25m i.e. 88% of its total wireless subscriber base. The company's GSM network spans 8 telecom circles (with an exclusive presence in only 2 small circles i.e. Assam & North-East) and its GSM subscriber base currently totals ~3.4m i.e. 12% of its wireless subscriber base. We expect GSM to constitute 15.2% of its subscriber base by FY09. Our current estimates factor in selective rollout in Mumbai and Delhi, beginning FY09. We have not factored in nation-wide rollout in our estimates.

For the rest of FY07, we have assumed monthly net additions of 0.21m subscribers in the GSM segment and 1.2m subscribers in the CDMA segment. In FY08, we have assumed monthly net additions of 0.23m subscribers in the GSM segment and 1.26m subscribers in the CDMA segment. In FY09, we have assumed monthly net additions of 0.26m subscribers in the GSM segment and 0.94m subscribers in the CDMA segment. We have assumed that a large part of our increase in monthly additions would come from CDMA, as validated by the year to date performance of RCom.



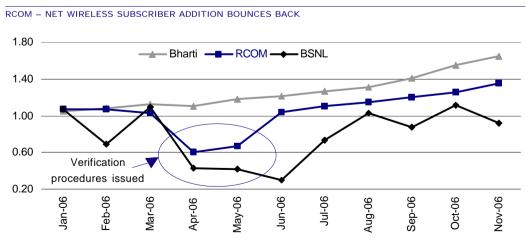
Source: AUSPI

We expect RCom to remain a strong number two in the wireless business, closely tracking Bharti. The Indian wireless industry (including FWP) should grow at a CAGR of 40.5% over FY06-10 and the subscriber base should grow from 140m subscribers to 383m subscribers by 2010. We expect the company to add 1.42m subscribers per month in the rest of FY07, 1.5m subscribers per month in FY08, and 1.2m subscribers per month in FY09. Our current estimates factor 7%, 8% and 3% decline in ARPU in FY07, FY08 and FY09, respectively.



Source: Company/Motilal Oswal Securities

RCom is the second largest player in terms of mobile subscriber base (including FWT users) after Bharti. Though subscriber additions slowed down during 1QFY07 due to the stringent verification process that operators now have to follow before allotting connections to new customers, subscriber additions have bounced back after June 2006.



Source: Company/Motilal Oswal Securities

Profitability of wireless business set to increase

RCom is marginally behind Bharti in terms of market share but far behind in terms of average revenue per user (ARPU) and average revenue per minute (ARPM). While Bharti's ARPU was 23% higher than RCom's in 2QFY07, its ARPM was higher by ~27%. RCom's revenue per minute for 2QFY07 was Rs0.77 against Bharti's Rs0.98.

We believe there are three key reasons for RCom's ARPM being lower:

- 1. While at the retail level, the lowest-cost CDMA handset is priced competitively relative to a GSM handset, the cost to the carrier is Rs500 higher. The carrier usually subsidizes the handset by offering promotional talk-time (free minutes).
- 2. The share of non-voice revenue is lower for RCom (6.2%) than GSM operators $(\sim 10\%)$.
- 3. Upfront rentals under RCom's lifetime free incoming schemes are booked over 46-65 months vis-à-vis 18 months in the case of Bharti.

Wireless EBITDA margins to improve by 140bp by FY09

We see gradual decline in handset subsidies offered by RCom, as it continues to actively negotiate with OEMs for lower prices. Further, as demand for outgoing calls is highly price elastic, lower ARPM translates into more outgoing calls and better network utilization. RCom is currently seeing low capacity utilization in some of the areas it operates in. As its capacity utilization improves, with new subscriber additions and higher minutes of use (MoU), its margins would be favorably impacted.

RCom intends to raise its coverage from 54% to 73% by March 2007, largely on the back of ramp-ups in smaller towns and villages. We expect the company to add 1.42m subscribers per month in the rest of FY07, 1.5m subscribers per month in FY08 and 1.2m subscribers per month in FY09. The resultant improvement in capacity utilization together with lower free minutes should drive up its wireless margins from 36.1% in 2QFY07 to 36.8% in FY08 and to 37.5% in FY09.

RCOM - EXPECT WIRELESS MARGINS TO EXPAND

	1QFY07	2QFY07	FY07E	FY08E	FY09E
MOU	491	461	472	462	459
ARPU	379	354	355	326	320
Susbscribers	22,522,329	25,979,332	34,229,332	52,229,332	66,629,332
CDMA	20,205,558	23,020,847	29,950,666	44,625,368	56,501,990
GSM	2,316,771	2,958,485	4,278,667	7,603,964	10,127,342
Wireless Revenue	24,320	25744	110,840	169,031	227,825
Wireless EBITDA	8,746	9294	40,235	62,204	85,434
EBITDA per Minute	0.28	0.28	0.27	0.26	0.26
Cumulative Minutes	31.44	33.52	149.19	239.44	327.01
EBITDA Margins (%)	36.0	36.1	36.3	36.8	37.5

Source: Company/Motilal Oswal Securities

GSM and/or CDMA

RCom is pushing GSM but not at the cost of CDMA

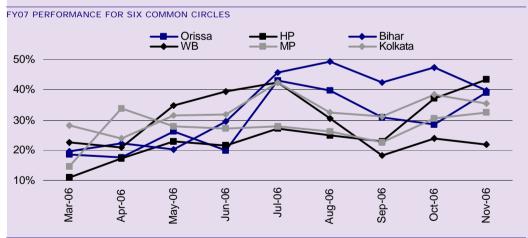
RCom remains committed to CDMA, while exploring selective exposure to GSM. From a strategic perspective, it is exploring circles with relatively higher churn and higher inbound roaming revenues, like Mumbai and Delhi. Our interaction with the management indicates that it is unlikely that RCom will enter new GSM circles as a 'price warrior'.

GSM rollout earliest in 2HFY08

Assuming RCom receives 1,800 MHz spectrum, the award would be followed by an equipment tender, network planning and a substantial network deployment. All this would take 9-12 months. Therefore, we expect RCom to continue marketing CDMA aggressively to protect its market share over the next 12-18 months.

A market share game

Currently, RCom holds a market share of ~20% and believes that while market share could move higher with CDMA, there is an incremental opportunity to aggressively enter the GSM segment with a complementary consumer offering. In our view, the company's entry into GSM would help it to expand its share of India's wireless market. Given the high potential to leverage existing infrastructure and limited incremental opex to operate a GSM network, the planned GSM expansion could pay off at a low subscriber threshold.



Source: Company/Motilal Oswal Securities

RCom has a larger distribution network than Nokia, the most popular GSM handset manufacturer. This was built out of necessity, given that it was the first CDMA operator to enter the market. RCom is the only operator in India (CDMA or GSM) to bundle a wide range of handsets with service. As it expands its GSM presence, RCom could use its distribution muscle to its advantage, in our view. It owns and operates over 1,650 Reliance Web World stores with a presence in over 700 Indian cities. RCom's retail presence spans over 1,300 towns with 7,000 preferred retailers and recharge outlets approaching 300k.

3G not a deciding factor for GSM roll out

The CDMA circles where RCom has sought trial spectrum are Delhi, Mumbai, Bangalore, Kolkata, Chennai, Bangalore and Hyderabad in the 2.1 GHz band. It has also sought spectrum in its 7 GSM circles - Madhya Pradesh, West Bengal, North East, Assam, Himachal Pradesh, Orissa and Bihar. Since RCom has sought CDMA technology for 3G rollout in major metros, choice of migration path for 3G to WCDMA or EVDO is not a deciding factor for the renewed thrust on GSM. The path for 3G is dependent on approval from regulatory authorities on the GSM front, availability of spectrum and capex considerations. Initial launch of 3G is likely to be in the top 30 cities. Further, initial 3G rollouts in India are likely to be voice-driven.

Leading player in the long distance business

RCom's global business includes its NLD, ILD and Flag operations. It has more than 60,000 km of fiber optic network and 54,000 km of sub-sea cable capacity, which would expand by 11,500 km, with the commissioning of its FALCON project. The Flag cable system is one of the largest private submarine cable systems in the world, directly connecting to 28 countries. The 11,500 km FALCON cable system has achieved significant success in pre-sales to most of its landing parties in the Middle East and is now being extended to Maldives and Africa.

RCom is the leader in the ILD segment, with more than 40% market share in the voice business. It has a very strong presence on the India-US route. We expect margins in the long-distance voice business to be under pressure, given the competition from new entrants. RCom, would however, counter this through volume growth of 35% in long distance minutes and robust data business growth. The company is considering the launch of its Indiacall product in new geographies that have large ethnic Indian populations. Also, a rapidly growing data market in Asia and the Middle East is likely to reduce RCom's dependence on the voice market.

GLO	BAL	BUSI	INESS

	1QFY07	2QFY07	FY07E	FY08E	FY09E
NLD Mins (m)	3,085	3,722	13,224	17,191	18,910
NLD Revenue (Rs m)	4,319	5,136	17,500	20,019	19,819
Indiacall Subs (m)	0.60	0.80	0.82	0.86	0.91
Indiacall ARPU (Rs)	1,036	1,005	980	921	894
Indiacall Revenue (Rs m)	1,787	2,412	9,643	9,534	9,711
ILD Mins (m)	1,214	1,287	5,465	6,011	6,612
ILD Total Revenue (Rs m)	2,407	2,519	10,008	10,778	10,485
Voice Revenue (Rs m)	8,513	10,068	37,151	40,332	40,015
Data Revenue (Rs m)	3,825	4,208	17,021	25,531	29,361
Total Revenue (Rs m)	12,340	13,158	54,171	65,863	69,376
EBITDA (Rs m)	2,842	3,199	12,568	15,148	15,956
EBITDA Margins (%)	23.0	24.3	23.2	23.0	23.0

Source: Company/Motilal Oswal Securities

Contribution of Flag Telecom is likely to improve significantly, as it is seeing robust volume growth in data segments. After winning an international arbitration case against Videsh Sanchar Nigam Limted (VSNL) with respect to Flag East Asia's (FEA) cable landing station, it is likely to upgrade capacity from current 10 GBPS to 80-160 GBPS. Although the potential pay-off from the arbitration to RCom could be substantial, we have not factored any upsides from the same. We expect margins to remain stable as proportion of data business rises and the volume in voice business gathers steam with lower tariffs.

Broadband business expected to pick up

Over the past few quarters, the company is rapidly expanding its broadband presence, which is evident from a more than nine fold rise in the number of buildings connected to its network to 270k, up from a little over 30k at the end of 2QFY06. However, the growth in the number of access lines has trailed, indicating higher growth in the future. The company has also indicated that it plans to launch broadband services in more metros. We have factored 352k additions in access lines in FY07, 432k net additions in FY08 and 480k net additions in FY09.

We believe that RCom is poised to become a leader in the domestic enterprise services in the medium term. It has 170 MPLS enabled cities and 20k route km of fiber laid, which connects 30 cities in India. We believe that volume ramp up in this business is likely to very fast with access lines growing at 81% CAGR during FY06-09.

	1QFY07	2QFY07	FY07E	FY08E	FY09E
Access Lines ('000)	322	425	608	1,040	1,520
Net Additions ('000)	66	103	352	432	480
ARPL Rs/line	2,618	2,420	2,479	1,958	1,595
Revenue	2,271	2,710	12,112	19,619	24,764
EBITDA	882	1,215	4,845	7,652	9,163
EBITDA Margins (%)	38.8	44.8	40.0	39.0	37.0

Source: Company/Motilal Oswal Securities

RCom is the most liquid Indian telecom stock with trades averaging US\$90-100m daily on the Indian bourses (BSE+NSE) versus US\$15-20m for Bharti, the second most liquid Indian telecom stock. This is on account of its large free float and huge headroom for foreign investors to buy into the stock, given that the maximum foreign ownership limit of 74% is still far away. FIIs can, therefore, freely trade in the stock without having to pay a liquidity premium.

Concerns

- Although its value for money brand can be leveraged for GSM rollout, marketing execution is likely to determine the success of the strategy. Running GSM alongside CDMA could also increase churn. We believe that RCom's current GSM pursuit is unlikely to result into a nation-wide rollout and GSM rollout will be selective.
- RCom bundles free minutes for new subscribers to subsidize CDMA handset cost. Our conversations with handset manufacturers indicate that a US\$20 GSM handset could come into the markets in the next 12 months. Without a parallel decline in CDMA handset costs, RCom's subsidy burden could increase, hurting its operating performance.

Financial outlook

Solid overall EBITDA growth: In addition to a rapidly growing wireless business, we believe RCom offers unique exposure through Flag, FALCON, and domestic enterprise data business. Although wireless will continue to dominate both revenue and EBITDA, other segments are also likely to grow at healthy rate.

CAGR FY07-FY09 (%)

	REVENUE	EBITDA
Wireless	43.4	45.7
Global Business	13.2	12.7
Broadband Revenue	43.0	37.5

Source: Company/ Motilal Oswal Securities

- Robust improvement in consolidated EBITDA margins: Consolidated margins are expected to improve from 23% in FY06 to 38.8% in FY08 and 39.8% in FY09. Apart from lower license fees, margin expansion is likely to be driven by network operation costs and focus on SG&A.
- Earnings growth much higher than revenue growth: While we expect revenue CAGR of 36%, RCom's EBITDA and net profits would grow at an impressive CAGR of 63.3% and 134.2%, respectively during FY06-09.
- ✓ Improving capital return ratios: We expect RoE and RoCE to show marked improvement from their FY06 levels of 7.6% and 7.4%, respectively. We expect RoE to touch 25.4% in FY08 and 26.9% in FY09. RoCE would touch 18.5% in FY08 and 22.9% in FY09.
- ∠ Comfortable net debt position: RCom currently has net debt of US\$460m and cash on hand of US\$2.3b. This cash on hand would enable it to focus on its plans on the retail broadband front and expansion in the GSM space through organic or inorganic route.
- Capex plans: We have assumed a capex of US\$1.9b in FY07 v/s management guidance of US\$1.5b. For FY08 and FY09, we have assumed capex of US\$1.7b, as we expect infrastructure sharing to kick off. RCom's net debt to EBITDA stands at 0.38x as of 2QFY07. Higher cash on hand and higher EBITDA growth will help the company maintain momentum on the capex front.

Watch out for maiden dividend in FY09: We expect the company to be free cash flow positive in 1HFY09. We expect modest dividend per share of Rs4 in FY09. We also expect a modest decline of Rs3b in debt in FY08.

Valuation and view

We believe that the momentum in RCom's wireless business is accelerating, driven by strong subscriber additions. Its fixed line business is likely to gain traction, with strong subscriber additions and robust margins. In the long distance segment, although margins are likely to stabilize, volume growth is likely to remain robust. Consolidated margins are likely to expand from 23% in FY06 to 38.8% in FY08 and 39.8% in FY09. The stock trades at 19.4x FY08E and 14.6x FY09E earnings. Given the strong profit growth and higher earnings visibility, we recommend **Buy**, with a price target of Rs558 (20x FY09E EPS), an upside of 36.8%.

DCF analysis suggests fair value of Rs562 - in line with P/E-based target: We have assumed a discount rate of 12.65% for RCom's DCF analysis - WACC derived from a risk-free rate of 7.6%, equity risk premium of 7%, cost of debt of 6.7%, and beta of 1. We have assumed interim free cash flow growth of 9% (FY13-20) and terminal growth rate of 3.25%. The DCF-based fair value of Rs562 is in line with our P/E multiple based price target of Rs558.

DCF	VAL	UAT	ION	(RS M)	

DOI VILOITION (NO III)						
Y/E MARCH	FY07E	FY08E	FY09E	FY10E	FY11E	FY12E
EBITDA	57,090	83,183	107,814	128,218	145,001	160,435
Tax	-637	-5,850	-10,850	-13,589	-15,834	-18,226
Inc/(Dec) in Working Capital	27,204	16,931	10,215	10,941	10,278	10,215
Cash Flow from Operations	83,657	94,264	107,179	125,569	139,445	152,424
Capex	-87,395	-80,000	-79,250	-79,400	-81,385	-60,000
Free Cash Flow	-3,738	14,264	27,929	46,169	58,060	92,424
WACC (%)	12.6					
PV of Cash Flows till FY12	145,876					
Interim Growth rate FY13-FY20 (%)	9.0					
PV of FCF from 2013-20	342,391					
Terminal Gr. rate FY20 and Onwards (%)	3.3					
FCF in FY20	184,161					
Terminal Value	405,140					
Net Present Value	893,407					
Less Debt	35,079					
Add Cash/Investment	60,038					
Value to Equity Shareholders	918,366					
Per Share Value (Rs)	562					
Upside (%)	36.8					
			(Source: Ma	tilal Ocual	Socurition

Source: Motilal Oswal Securities

Note: For RCOM, the previous financial year (FY06) has been cut short to nine months (April to December 2005) and the new financial year starts from January 2006 lasting a period of 15 months. The first detailed annual report is likely to be released after March 2007 and will be for the 15-month period. However, our forecasts are based on a normal 12-month financial year (April to March).

Y/E MARCH	2006	2007E	2008E	2009E	Y/E MARCH	2006	2007E	2008E	2009E
Revenues	107,664	149,357	214,170	270,574	Basic (Rs)				
Change (%)	-	38.7	43.4	26.3	EPS	2.2	13.1	21.0	27.9
Total Expenses	82,902	92,267	130,987	162,760	Cash EPS	10.5	25.8	36.2	46.2
					Book Value	57.5	70.9	91.9	115.3
EBITDA	24,762	57,090	83,183	107,814	DPS	0.0	0.0	0.0	4.0
% of Gross Sales	23.0	38.2	38.8	39.8	Payout % (Incl.Div.Taxes)	0.0	0.0	0.0	16.2
Depn. & Amortisation	16,987	25,954	31,656	37,500	Valuation (x)				
EBIT	7,775	31,136	51,527	70,313	P/E	187.6	31.0	19.4	14.6
Net Interest	-2,625	-3,082	-2,724	-2,452	Cash P/E	38.9	15.8	11.3	8.8
					EV/EBITDA	34.7	15.1	10.1	7.6
PBT	5,150	28,054	48,803	67,862	EV/Sales	8.0	5.8	3.9	3.0
Tax	337	637	5,856	10,858	Price/Book Value	7.1	5.7	4.4	3.5
Rate (%)	6.5	2.3	12.0	16.0	Dividend Yield (%)	0.0	0.0	0.0	1.0
Adjusted PAT	4,813	27,417	42,947	57,004	Profitability Ratios (%)				
Change (%)		469.6	56.6	32.7	RoE	7.6	20.4	25.4	26.9
PAT after EO	4,439	26,817	42,347	57,004	RoCE	7.4	13.3	18.5	22.9
					Turnover Ratios				
BALANCE SHEET			(RS MILLION)	Debtors (Days)	57	47	36	32
Y/E MARCH	2006	2007E	2008E	2009E	Asset Turnover (x)	0.5	0.5	0.5	0.5
Share Capital	10,223	10,223	10,223	10,223					
Reserves	107,292	134,709	177,656	225,434	Leverage Ratio				
Net Worth	117,515	144,932	187,879	235,657	Debt/Equity Ratio(x)	0.7	0.7	0.6	0.3
Secured Loans	87,185	107,185	104,185	74,185					
Unsecured Loans	5,791	5,791	5,791	5,791	CASH FLOW STATEMENT			(R	S MILLION
Capital Employed	210,491	257,908	297,855	315,633	Y/E MARCH	2006	2007E	2008E	2009E
					Op.Profit/(Loss) bef Tax	24,732	57,090	83,183	107,814
Gross Block	230,531	319,231	399,231	498,481	Other Income	-	-	-	-
Less : Depreciation	-47,573	-73,527	-105,183	-142,683	Interest Paid	-2,595	-3,082	-2,724	-2,452
Net Block	182,958	245,704	294,048	355,798	Direct Taxes Paid	-337	-637	-5,856	-10,858
CWIP	31,305	30,000	30,000	10,000	(Inc)/Dec in Wkg. Cap.	17,304	32,665	27,204	16,931
Investments	121	121	121	121	CF from Op.Activity	39,104	86,036	101,806	111,435
Curr. Assets	105,355	131,811	156,022	156,508	(inc)/Dec in FA + CWIP	-38,581	-87,395	-80,000	-79,250
Inventories	4,076	4,484	4,932	5,425	(Pur)/Sale of Investments	3,066	-	-	-
Debtors	16,808	19,329	21,262	23,388	CF from Inv.Activity	-35,515	-87,395	-80,000	-79,250
Cash & Bank Balance	60,038	78,678	97,485	90,444					
Other Current Assets	24,433	29,320	32,343	37,250	Inc/(Dec) in Debt	-12,960	20,000	-3,000	-30,000
	., 3	-,	- ,	- /	Dividends Paid	-	-	-	-9,225
Curr. Liab. & Prov.	109,247	149,727	182,336	206,793	CF from Fin.Activity	-12,960	20,000	-3,000	-39,225
Sundry Liabilities	89,956	130,436	163,045	187,502	•	•	*	*	•
Other Current Liabilities	19,291	19,291	19,291	19,291	Inc/(Dec) in Cash	-9,371	18,641	18,806	-7,040
Net Curr. Assets	-3,892	-17,917	-26,314	-50,285	Add: Opening Balance	69,409	60,038	78,678	97,485
Appl. of Funds	210,492	257,908	297,855	315,633	Closing Balance	60,038	78,679	97,485	90,444

E: MOSt Estimates

VSNL

STOCK INFO.	BLOOMBERG
BSE Sensex: 13.362	VSNL IN
DSL Schsex. 13,302	REUTERS CODE
S&P CNX: 3.850	VSNL.BO

Y/E MARCH	2006	2007E	2008E	2009E
Net Sales (Rs m)	37,810	39,275	43,577	47,123
EBITDA (Rs m)	8,758	8,555	10,467	12,185
NP (Rs m)	4,796	3,682	3,940	4,795
EPS (Rs)	16.8	12.9	13.8	16.8
EPS Growth (%)	-36.6	-23.2	7.0	30.4
BV/Share (Rs)	212.7	220.5	229.2	240.3
P/E (x)	25.0	32.5	30.4	25.0
P/BV (x)	2.0	1.9	1.8	1.7
EV/EBITDA (x)	13.5	13.1	10.7	8.9
EV/Sales (x)	3.1	2.9	2.6	2.3
RoE (%)	8.1	6.0	6.1	7.2
RoCE (%)	12.4	9.3	9.1	10.1

KEY FINANCIALS	
Shares Outstanding (m)	285.0
Market Cap. (Rs b)	119.7
Market Cap. (US\$ b)	2.7
Past 2 yrs. Sales Growth (%)	9.3
Past 2 yrs. NP Growth (%)	12.7
Dividend Payout (%)	39.7
Dividend Yield (%)	1.1

STOCK DATA	
52-Week Range	515/300
Major Shareholders (as of December 2006)	%
Promoters	76.2
Domestic Institutions	10.2
FIIs/FDIs	10.2
Others	3.4
Average Daily Turnover	
Volume ('000 shares)	2,551.4
Value (Rs million)	1,051.4
1/6/12 Month Rel. Performance (%)	5/-19/-31
1/6/12 Month Abs. Performance (%)	4/7/11

10 January 2007	Neutral
Previous Recommendation: Not Rated	Rs420

Expect robust volume growth in voice business: Post Teleglobe's acquisition, VSNL has become the leading voice carrier in the world, with the combined entity carrying approximately 18b minutes (16% market share). We expect VSNL's long distance voice business in India to see good volume growth following the reduction in ADC in FY06. We expect its NLD minutes to grow by 59%, 23.8% and 26% in FY07, FY08 and FY09, respectively. On the other hand, we expect ILD minutes to grow by 27.2%, 18.3% and 21.9% during the same period.

Enterprise and data business could throw up positive surprises:

VSNL has competitive edge in the domestic wholesale data market due to its extensive undersea cable network (giving it a wide reach) and control of majority of the landing stations in India (enabling it to control the quantum of bandwidth available). It has a market share of over 50% in the domestic data business and we expect revenue CAGR of 20% over FY06-09. VSNL is also trying to break into the global enterprise market, which could provide upsides to our estimates.

PAT to remain flat over FY06-09, stock fairly valued: We expect VSNL's revenues to grow at 7.6% CAGR and operating profits to grow at 11.6% CAGR during FY06-09. However, net profits would remain flat because of lower other income and higher depreciation due to continued maintenance capex. At the current market price, the stock is fairly valued and offers limited upside to our SOTP-based target price of Rs435. We recommend **Neutral**.



Background

Videsh Sanchar Nigam Limited (VSNL), a part of the Tata Group, is a leading international telecommunications company. Its operations span across USA, Canada, UK, South Africa, Singapore and Sri Lanka, besides India. It offers a range of services including wholesales voice, private leased circuits, IP MPLS VPN, Internet access, hosting, mobile signaling and several other IP services. Post its acquisition of Teleglobe, VSNL has become the world's largest carrier of international voice, complementing its emergence as one of the largest providers of submarine cable bandwidth.

Key investment positives

In India, VSNL has established points of interconnection in all circles with all major operators. It has a countrywide NLD backbone of 36,000 km, including ~23,000 km leased from Bharti for 15 years. VSNL gets business from Tata Tele Services Limited (TTSL) and from unaligned players (35-40% of subscribers). VSNL is the incumbent operator in ILD, with landing facilities at Mumbai, Cochin and Chennai. The other ILD operators are Bharti, RCom, BSNL and Data Access. VSNL has a reach of 200 countries, with 275 PoPs.

Z Volume growth to offset pricing pressure

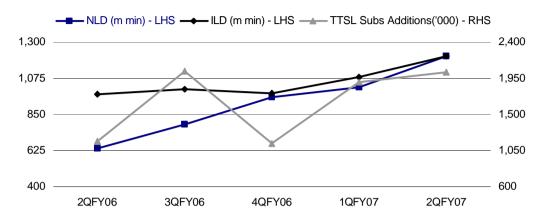
We expect VSNL's voice business to see good volume growth following the reduction in ADC in FY06. During FY07, FY08 and FY09, we expect NLD minutes to grow by 59%, 23.8% and 26%, respectively. ILD minutes should grow by 27.2%, 18.3% and 21.9% during the same period. Globally, operators are increasingly handing over traffic to wholesale players like VSNL.

We believe that volume growth in the voice business would result from three factors:

- 1. Robust growth in NLD volumes due to fall in carriage charges.
- Potential upside to ILD traffic volumes owing to improved bargaining power post the Teleglobe acquisition. Also, reduction in ADC will make legal channels more competitive, resulting in migration of illegal minutes. As ADC is phased out, there should be stronger volume growth for VSNL.
- 3. TTSL, which saw a healthy pick-up in quarterly additions in 2QFY07, is expected to maintain momentum going forward. We estimate TTSL's quarterly subscriber additions at 2.3m for rest of FY07, 2.5m for FY08 and 2.8m FY09.

We expect competition in the NLD and ILD business to intensify, as a number of operators have applied for long distance licenses. However, most of the operators that have applied for long distance licenses are non-facility based operators. Therefore, we do not see any major impact on VSNL's volumes in FY07. In FY08, we see strong momentum in TTSL's subscriber base, which would more than offset the long distance business lost from unaligned operators.

VSNL: THREE DRIVERS OF VOLUME GROWTH



Source: Company/Motilal Oswal Securities

١	/OICE	RUSII	VIFSS.	ASSUMPTION	18

	2006	2007	2008	2009
Total ILD minutes for VSNL	3,997	5,084	6,013	7,331
VSNL's I:O ratio (%)	67	70	71	72
Total Incoming minutes	2,678	3,559	4,269	5,278
Share of Fixed Line in overall Outgoing minutes (%)	75	70	65	63
Total outgoing minutes carried on Fixed Line Network	989	1,068	1,134	1,293
Total outgoing minutes carried on Cellular Network	330	458	610	759
Incoming minutes revenues				
Tarrif earned on Incoming minutes (\$/min incl ADC)	0.10	0.06	0.05	0.03
Less: ADC to be paid (Rs/Min)	3.3	1.6	1.0	0.0
Total retention by VSNL (Net Retention)	0.9	0.9	0.8	0.8
Outgoing Minutes Revenues (Fixed Line)				
Tariffs earned on Outgoing minutes (Fixed) (Rs/Min)	8.7	5.9	5.4	4.5
Less: ADC	2.5	0.8	0.6	0.0
Less: NLD Carraige charges	0.85	0.55	0.50	0.55
Gross Retention by VSNL	5.35	4.55	4.40	3.95
Less: Paid to foreign carrier (US\$/Min)	0.09	0.08	0.08	0.08
Payment to foreign Carrier (Rs/Min)	4.3	3.7	3.6	3.4
VSNL's net retention on outgoing	1.1	0.8	0.8	0.6
Outgoing Minutes Revenues (Cellular)				
Tariffs earned on Outgoing minutes (Cell) (Rs/Min)	9.0	6.0	5.7	4.9
Less: ADC	2.5	0.8	0.6	0.0
Less: NLD Carraige charges	0.85	0.55	0.50	0.55
Gross Retention by VSNL	5.66	4.65	4.60	4.35
Less: Paid to foreign carrier	0.09	0.08	0.08	0.08
Payment to foreign Carrier (Rs/Min)	4.1	3.7	3.6	3.7
VSNL's net retention on outgoing	1.6	0.9	0.9	0.7
Average Net Retention	1.0	0.9	0.8	0.8
Revenue earned on the ILD business	18,979	16,723	16,556	14,134
Growth (%)		-11.9	-1.0	-14.6
NLD minutes carried by VSNL (m)	3,114	4,952	6,130	7,726
Carraige chrg. earned by VSNL on NLD minutes (Rs/Min)	0.85	0.55	0.50	0.50
Total NLD revenues earned (Rs m)	2,646	2,683	3,019	3,805
Total Long distance business	21,626	19,406	19,575	17,939
Growth (%)		-10.3	0.9	-8.4
	Sourc	e: Company	//Motilal Osw	al Securities

Source: Company/Motilal Oswal Securities

∠ Limited downside to ILD retention

We believe that post the acquisition of Teleglobe, the downside to VSNL's ILD retention/minute is limited. The company currently has net realizations of around Rs0.9/min, which we expect will decline 4-5% YoY. In FY06, the wholesale voice business contributed ~57% of VSNL's gross revenues and ~29% of its gross profits.

VSNL enjoys significant competitive edge in the domestic wholesale data market due to its extensive undersea cable network (giving it a wide reach) and control of majority of the landing stations in India (enabling it to control the quantum of bandwidth available). VSNL has captured significant market share in the wholesale data business due to the advantages enumerated above. It has been able to provide capacities on various cable systems, restoration capacities and direct routes to various destinations. VSNL should retain a domestic market share of over 50%, in our view. The company is also trying to break into the global enterprise market, which could provide upsides to our estimates.

Volume growth in the enterprise segment remains robust. Global offshoring and increased Internet usage have been propelling growth. VSNL is looking to expand the market and provide services to the small and medium enterprise (SME) segment. Although there is pressure on IPLC prices, we expect pressure on tariffs to be offset by higher volumes. The volume growth in IPLC is likely to be supported by migration of consumers of low bandwidth to E1. Although we anticipate 20-35% decline in tariffs, volumes across the data business would be up 35-75% during the period FY06-09. We expect revenue CAGR of 20% over FY06-09.

DATAENTERPRISE BUSINESS

	2006	2007E	2008E	2009E
Leased Circuits (No. of E-1 Half Circuits)	8,400	14,700	24,255	31,532
Volume Growth (%)	40.0	75.0	65.0	30.0
Leased Line Tariffs (Rs m/Annum)	0.9	0.6	0.4	0.4
Decline in Tariffs (%)	-20.0	-35.0	-25.0	-5.0
Leased Channel Revenues	7,576	8,617	10,664	13,170
Frame Relay Circuits	553	608	669	937
Volume Growth (%)	58.0	10.0	10.0	40.0
Frame Relay Tariffs (Rs m/Annum)	3.2	3.0	2.9	2.4
Decline in Tariffs (%)	-20.0	-5.0	-5.0	-15.0
Frame Relay Revenues	1,748	1,827	1,909	2,272
Growth (%)	26.4	4.5	4.5	19.0
Other - Internet Leased Lines	3,294	4,611	5,533	6,363
Growth (%)	9.5	40.0	20.0	15.0
Total Data and Enterprise Business	12,617	15,055	18,106	21,805
Growth (%)	13.1	19.3	20.3	20.4

Source: Company/Motilal Oswal Securities

Broadband business to pick up

VSNL is currently providing broadband services by using the cable operators' right of way and having a revenue-share arrangement. Given the unorganized nature of the cable TV industry, VSNL has not been able to ramp up its services quickly. However, as local cable operators are facing increasing competition from digital platforms, they are also aggressively scouting for opportunities on the broadband front.

VSNL has acquired broadband wireless license in the 3.3 GHz range and is currently in Phase 1 of pre-WiMax deployment. While we expect continued pressure on VSNL's dial-up Internet business, as it continues to lose subscribers, its broadband business is likely to pick up in the medium term. We expect ramp-up in services in FY08 and FY09 on the back of better cooperation from cable operators and clarity on the choice of technology. VSNL currently has around 128,000 broadband subscribers. We have modeled 500,000 subscribers for FY08 and 1,500,000 subscribers for FY09.

INTERNET BUSINESS

	2006	2007	2008	2009
Broadband Subscribers (m)	0.1	0.2	0.5	1.5
ARPU (Rs/month)	1,100	830	581	349
Growth (%)		-24.5	-30.0	-40.0
Revenue (Rs m/Annum)	660	1,992	3,486	6,275
Internet Subsribers (m)	0.6	0.63	0.54	0.46
Subscriber Growth		0.05	-0.15	-0.15
ARPU (Rs/month)	270	243	219	208
Change (%)		-10.0	-10.0	-5.0
Internet Revenue (Rs m)	1,944	1,837	1,405	1,135

Source: Company/Motilal Oswal Securities

International business

∠ Leading voice carrier in the world

VSNL acquired Teleglobe International Holding Limited (for US\$239m) and Tyco Global Network (for US\$130m) in FY06, making it one of the world's largest telecom players. Teleglobe carried approximately 13b minutes of voice and 60GB of data at the time of acquisition. Post Teleglobe's acquisition, VSNL has become the No.1 voice carrier in the world, with the combined entity carrying approximately 18b minutes (16% market share). The acquisition of Tyco Global Network provided VSNL with 60,000 km of cable fiber across North America, Europe and Asia, making it one of the largest providers of submarine cable bandwidth in the world.

While VSNL's Trans-Asia submarine cable system is likely to be ready by the end of 2007, its India-Europe submarine cable system is likely to be ready by mid-2008. We believe that this is part of the overall network strategy that the company is following. Since VSNL is currently using consortium cable on for India-Europe and Tyco for Europe-US, this will help it to leverage the bandwidth growth that is expected 2008 onwards on the

India-Europe route. The India-Europe cable would also provide connectivity to the Gulf region and the African continent. The intra-Asia cable between Singapore, Hong Kong and Japan would enhance the link between the company's Tata Indicom Cable (Chennai-Singapore) and TGN Pacific (Japan-USA). Due to lower earnings visibility and inadequate disclosures, we are valuing the international business on the basis of cost of acquisition.

Concerns

Turning around Tyco, a challenge: We believe that the management faces significant challenges in turning around Tyco, as it operates in an extremely competitive environment. Since most of Tyco's network costs are of fixed nature, ramping up its sales would remain the driver of profitability. We expect the management to shift much of VSNL's and Teleglobe's traffic to Tyco's network, as the respective lease agreements with various networks expire, to increase capacity utilization of Tyco's network.

Uncertainty over real estate sale: We have ascribed a value of Rs99/share for all minority shareholders of VSNL, on account of the company's real estate. The timing of de-merger of real estate assets remains uncertain and any fall in real estate prices before their disposal would adversely impact the value available to minority shareholders.

Financial outlook (standalone)

License fee cut, larger share of data revenues to buoy margins: Despite pressure on net retention, we expect VSNL's EBITDA margins to expand from 23% in FY06 to 24% in FY08 and 25.9% in FY09. We foresee margin improvement in FY08 on account of higher revenue share of high-margin enterprise and data business. Revenue contribution from data business is likely to increase from 33.4% in FY06 to 41.6% in FY08 and 46% in FY09. Besides, we expect network operation costs to decline as a percentage of gross revenues.

Standalone capex likely to remain at FY06 levels: We estimate VSNL's annual capex at Rs9.6b for FY08 and Rs11.8b for FY09. We believe that a large part of the capex would be maintenance capex for deepening the national long-distance network and increasing points of interconnect. Our capex assumption factors in aggressive rollout on the broadband front. We believe dividend levels will remain steady at Rs4.5/share for FY06-09, given the current profitability levels.

PAT to decline marginally over FY06-09: We expect VSNL's revenues to grow at 7.6% CAGR and operating profits to grow at 11.6% CAGR. However, net profits would remain flat because of lower other income and higher depreciation due to continued maintenance capex.

Financial outlook (consolidated)

In FY06 the combined EBITDA loss of the two subsidiaries (Tyco and Teleglobe) was around Rs2.5b. Since Teleglobe is EBITDA positive, bulk of this loss pertains to Tyco. We estimate 25% CAGR in Tyco's revenues and 8% CAGR in Teleglobe's revenues over FY06-09. We believe that the key challenge for the management would be rationalization of assets and ramping up Tyco's volumes. We expect VSNL's overseas entities to report EBITDA of Rs3.3b for FY08 and Rs4.3b for FY09. We expect consolidated earnings to trail standalone earnings, as international business will continue to make losses.

STAND ALONE V/S CONSOLIDATED OUTLOOK

	Si	SALES		EBITDA		PAT		EPS (RS)	
	STAND- CONSOL		STAND- CONSOLI- STAND- CONS		CONSOLI-	STAND- CONSOLI-		STAND- CONSOLI	
	ALONE	DATED	ALONE	DATED	ALONE	DATED	ALONE	DATED	
FY06	37,810	45,624	8,762	6,229	4,796	698	16.8	2.4	
FY07	39,275	92,820	8,555	11,155	3,682	1,533	12.9	5.4	
FY08	43,577	100,250	10,467	13,717	3,940	2,575	13.8	9.0	
FY09	47,123	106,554	12,186	16,436	4,796	4,463	16.8	15.7	

Source: Company/Motilal Oswal Securities

Valuation and view

We have used sum of the parts (SOTP) methodology for valuing VSNL owing to the limited financial disclosures on international business and the large investments that it holds (TTSL and real estate). At the current market price, the stock is fairly valued and offers limited upside to our SOTP-based target price of Rs435.

SOTP	VAL	UAT	ION

SEGMENTS OF	VALUE ASCRIBED	PER SHARE	RATIONALE
VALUE	(RS M)	VALUE	
Core Business	52,753	185	11x FY09E Earnings
Teleglobe	10,755	38	At 1x of original cost of acquisition
Tyco	5,850	21	At 1x of original cost of acquisition
TTSL	22,480	79	latest average stake sale of TTSL
Land	32,278	113	Calculated after 20% discount to current prices
Fair Value per	r Share	435	

Source: Motilal Oswal Securities

Core business: We value VSNL's domestic core business (voice, data and broadband) at 11x FY09E earnings.

Acquisitions: Due to limited financial disclosures on international entities, we value them based on their cost of acquisition. We have valued both Teleglobe and Tyco at cost, as we believe significant scale up is needed to achieve a turnaround.

Investments in TTSL: VSNL holds a stake of ~14.1% in TTSL (Tata's CDMA venture, operating in fixed, fixed wireless and wireless segment). We have valued VSNL's stake at the average EV/subscriber of US\$371 and US\$427/subscriber paid by Temasek to acquire a stake in TTSL.

Real estate: We believe that real estate holdings (available to minority shareholders) could account for as much as 26% of the company's fair market value. VSNL owns approximately 773 acres of surplus land in Pune, Kolkata, Chennai and Delhi. We have valued these tracts of land at 20% discount to current market prices.

VALUE OF VSNL'S SURPLUS REAL ESTATE

LOCATION	CITY	ACRES	SQ. FT.	AVERAGE PRICE	VALUE	PER SHARE
			(M)	(RS/SQ FT)		(RS)
Dighi	Pune	524.0	22.8	225	5,136	18
Halishahar	Kolkata	35.2	1.5	1,750	2,683	9
Chattarpur	Delhi	58.0	2.5	2,300	5,811	20
Greater Kailash	Delhi	70.0	3.0	6,000	18,295	64
Padianallur	Chennai	85.9	3.7	2,250	8,423	30
Total						142
Less: Discount (2	:0%)					28
Fair Value per Sh	are					113

Source: Company/Motilal Oswal Securities

INCOME STATEMENT				(RS	MILLION)	RATIOS					
Y/E MARCH	2005	2006	2007E	2008E	2009E	Y/E MARCH	2005	2006	2007E	2008E	2009E
Revenues	33,031	37,810	39,275	43,577	47,123	Basic (Rs)					
Change (%)	4.4	14.5	3.9	11.0	8.1	EPS	26.5	16.8	12.9	13.8	16.8
Total Expenses	25,339	29,052	30,719	33,110	34,938	Cash EPS	35.1	29.4	27.4	33.1	37.3
						Book Value	201.0	212.7	220.5	229.2	240.3
EBITDA	7,692	8,758	8,555	10,467	12,185	DPS	6.0	4.5	4.5	4.5	5.0
% of Gross Sales	23.3	23.2	21.8	24.0	25.9	Payout %(Incl.Div.Taxes)	25.8	30.5	39.7	37.1	33.9
Depn. & Amortisation	2,440	3,594	4,124	5,488	5,827	Valuation (x)					
EBIT	5,252	5,164	4,432	4,979	6,358	P/E		25.0	32.5	30.4	25.0
Net Interest	554	-18	-60	-60	-60	Cash P/E		14.3	15.3	12.7	11.3
Other Income	520	2,288	1,465	1,050	553	EV/EBITDA		13.5	13.1	10.7	8.9
						EV/Sales		3.1	2.9	2.6	2.3
PBT	6,326	7,434	5,836	5,969	6,850	Price/Book Value		2.0	1.9	1.8	1.7
Tax	2,976	2,071	1,984	2,030	2,055	Dividend Yield (%)		1.1	1.1	1.1	1.2
Rate (%)	47.0	27.9	34.0	34.0	30.0						
						Profitability Ratios (%)					
Adjusted PAT	3,350	5,363	3,852	3,940	4,795	RoE	13.9	8.1	6.0	6.1	7.2
Change (%)	-16.0	60.1	-28.2	2.3	21.7	RoCE	10.4	12.4	9.3	9.1	10.1
PAT after EO	7,565	4,796	3,682	3,940	4,795						
						Turnover Ratios					
						Debtors (Days)	67	71	59	52	48
BALANCE SHEET				(RS	MILLION)	Asset Turnover (x)	1.0	0.9	0.8	0.7	0.7
Y/E MARCH	2005	2006	2007E	2008E	2009E						
Share Capital	2,850	2,850	2,850	2,850	2,850	Leverage Ratio					
Reserves	54,430	57,762	59,982	62,459	65,631	Debt/Equity Ratio (x)	0.0	0.0	0.0	0.0	0.0
Net Worth	57,280	60,612	62,832	65,309	68,481						
Loans	0	983	980	980	0	CASH FLOW STATEMENT				(RS	MILLIO
Deferred Tax Liability	997	751	1,000	1,000	1,000	Y/E MARCH	2005	2006	2007E	2008E	2009E
Capital Employed	58,277	62,345	64,812	67,289	69,481	Profit/(Loss) bef Tax	6,326	7,434	5,836	5,969	6,851
Gross Block	31,827	40,997	50,997	60,997	68,497	Depreciation	2,440	3,594	4,124	5,488	5,827
Less : Depreciation	-8,357	-10,911	-15,034	-20,522	-26,349	Direct Taxes Paid	-2,976	-2,071	-1,984	-2,030	-2,055
Net Block	23,470	30,086	35,962	40,475	42,147	(Inc)/Dec in Wkg. Cap.	934	-1,787	1,673	605	-1,055
CWIP	5,132	1,478	948	568	4,825	Others	4,238	-1,207	-575	0	0
Investments	12,006	24,993	17,267	17,249	10,963	CF from Op.Activity	10,962	5,963	9,074	10,033	9,568
Other Non-Current Assets	14,893	13,064	13,000	12,000	11,000						
Other Non-Ourient Assets	14,000	13,004	13,000	12,000	11,000	(inc)/Dec in FA + CWIP	-11,280	-5,516	-9,470	-9,620	-11,757
Curr. Assets	20.709	10.066	15,200	15,074	17 600	(Pur)/Sale of Investments	5,046	-11,158	7,790	1,018	7,286
Inventories	20,708 20	10,966 38	20	20	17,699 20	CF from Inv.Activity	-6,234	-16,675	-1,680	-8,602	-4,471
Debtors	6,089	7,376			6,212						
			6,336	6,242		Issue of Shares	0	0	0	0	0
Cash & Bank Balance	14,091	2,569	8,344	8,312	10,967	Inc/(Dec) in Debt	-630	983	-3	0	-980
Other current assets	507	983	500	500	500	Dividends Paid	-1,950	-1,462	-1,462	-1,462	-1,625
Curr Liab 9 Dear	47.024	10 044	47 505	10 077	17 154	Other Financing Activities	1,476	-331	-155	0	162
Curr. Liab. & Prov.	17,931	18,241	17,565	18,077	17,154	CF from Fin.Activity	-1,104	-811	-1,620	-1,462	-2,442
Sundry Liabilities	12,421	12,563	12,691	13,203	12,118						
Other Current Liabilities	5,510	5,679	4,874	4,874	5,037	Inc/(Dec) in Cash	3,625	-11,523	5,775	-32	2,655
Net Curr. Assets	2,777	-7,276	-2,365	-3,003	545	Add: Opening Balance	10,467	14,091	2,569	8,344	8,312
Appl. of Funds	58,277	62,345	64,811	67,289	69,480	Closing Balance	14,092	2,569	8,344	8,312	10,967

MTNL

STOCK INFO.	BLOOMBERG		
BSE Sensex: 13.362	MTNL IN		
DBE Bellsen. 13,302	REUTERS CODE		
S&P CNX: 3,850	MTNL.BO		

Y/E MARCH	2006	2007E	2008E	2009E
Net Sales (Rs m)	52,494	50,168	50,727	53,099
EBITDA (Rs m)	8,673	8,808	10,093	11,407
NP (Rs m)	5,787	4,187	5,050	5,028
EPS (Rs)	9.2	6.6	8.0	8.0
EPS Growth (%)	-39.0	-27.7	20.6	19.5
BV/Share (Rs)	173.7	179.4	182.5	187.1
P/E (x)	17.0	23.5	19.5	19.6
P/BV (x)	0.9	0.9	0.8	0.8
EV/EBITDA (x)	8.7	9.2	8.3	7.3
EV/Sales (x)	1.4	1.6	1.6	1.6
RoE (%)	5.2	3.7	4.3	4.2
RoCE (%)	6.6	5.5	6.5	6.3

KEY FINANCIALS	
Shares Outstanding (m)	630.0
Market Cap. (Rs b)	98.4
Market Cap. (US\$ b)	2.1
Past 2 yrs. Sales Growth (%)	-9.2
Past 2 yrs. NP Growth (%)	-31.5
Dividend Payout (%)	0.5
Dividend Yield (%)	2.2

STOCK DATA	
52-Week Range	226/124
Major Shareholders (as of September 2006)	%
Promoters	56.3
Domestic Institutions	15.8
FIIs/FDIs	9.6
Others	18.3
Average Daily Turnover	
Volume ('000 shares)	4,402.6
Value (Rs million)	731.6
1/6/12 Month Rel. Performance (%)	20/-23/-38
1/6/12 Month Abs. Performance (%)	19/3/3

10 January 2007	Neutral
Previous Recommendation: Not Rated	Rs156

Core fixed line business under pressure: MTNL's core fixed line business has been under pressure due to increasing wireless penetration in Mumbai and Delhi. Further, private operators like Bharti have focused on cherry picking high ARPU corporate customers. MTNL's fixed line revenue is facing pressure on all fronts, including rentals. We expect fixed line revenues to post a negative CAGR of 7.2% over FY06-09 and we do not foresee revenue turnaround in MTNL's core fixed line business.

EBITDA growth to be negated by lower other income and higher tax rate: We expect EBITDA to grow at a moderate pace, with the revenue mix changing in favor of wireless. However, this would be negated by lower other income and higher tax rate. Declining cash balance will lead to lower other income and effective tax rate is likely to go up from 21.9% to 33.9%. Net profit would decline at 4.6% CAGR over FY06-09.

Valuations leave little scope for upside; remain Neutral: MTNL's cash balance has declined to Rs18b as of June 2006 from Rs26b as of March 2006. We expect modest dividend of Rs3.5/share to continue, considering the declining cash balance and higher capex. We have valued MTNL using sum of the parts (SOTP) methodology, considering the uncertainty on its tax refunds and potential liabilities. Our SOTP value of Rs159/share indicates little upside from the current stock price. We recommend Neutral.

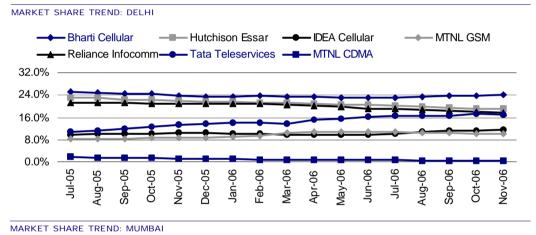


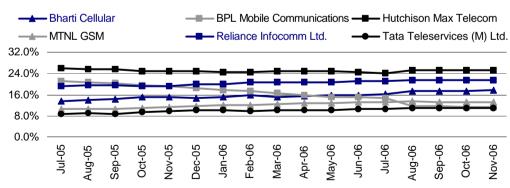
Background

Mahanagar Telephone Nigam Limited (MTNL) is a state-owned telecom services provider, which operates in India's key metros – Delhi, the political capital and Mumbai, the business capital. The Government of India, which holds 56.25% stake in MTNL, set up MTNL on 1 April 1986 to upgrade the quality of telecom services, expand the telecom network, introduce new services and to raise revenue for the telecom development needs of India.

Key investment positives

MTNL's GSM wireless subscriber growth has been encouraging. Since July 2006, the company has improved its market share in Delhi from 8.1% to 10.2% and in Mumbai from 10.4% to 13.6%.





Source: Company/Motilal Oswal Securities

We have factored in monthly GSM additions of 40,000 in the rest of FY07, 50,000 in FY08 and 100,000 in FY09. Its CDMA subscriber base, which currently stands at a meager 80,000, is expected to decline by 20% in FY07 and FY08. For FY09, we have assumed flat CDMA subscriber base. We have factored in 8% decline in MTNL's ARPU in FY07 against ~9% decline expected in Bharti's ARPU, as we believe that MTNL's tariffs are extremely competitive and are likely to fall at slower pace. We expect MTNL's wireless revenue to grow at a CAGR of 26% over FY06-09.

WIRELESS BUSINESS ASSUMPTIONS

	FY04	FY05	FY06	FY07E	FY08E	FY09E
Subscribers						
CDMA	0.1	0.2	0.1	0.1	0.1	0.1
GSM	0.4	0.9	1.9	2.5	3.1	4.3
ARPU						
Mobile - CDMA	427	560	432	397	378	378
Mobile - GSM	284	296	267	246	234	234

Source: Company/Motilal Oswal Securities

Expanding capacity to meet increasing demand

MTNL currently has the capacity to service 2.05m GSM subscribers; it is in the process of raising this to 4m subscribers by adding capacity of 1m each in Mumbai and Delhi. It is also expanding its broadband capacity from 0.5m to 1.5m. Since the company has excess capacity of about 0.92m in CDMA, it does not intend to raise CDMA capacity but is instead focusing on reducing churn. We estimate capex of Rs8.1b for FY07, Rs7.6b for FY08 and Rs5.7b for FY09.

Broadband subscriber growth to pick up

We have assumed subscriber additions of 50,000 per quarter in FY07 and 65,000 in FY08 against 56,000 additions in 2QFY07. Though broadband is not important from a revenue perspective, it will help the company to arrest fixed-line churn. We expect broadband revenue to grow at a CAGR of 31% over FY06-09.

ASSUMPTIONS BROADBAND SEGMENT

	FY06	FY07E	FY08E	FY09E
Broadband Subscribers - MTNL ('000)	212	453	581	670
Broadband ARPU (Rs/month/subs)	700	350	315	299
Broadband Revenues (Rs m)	911	1,396	1,954	2,246

Source: Company/Motilal Oswal Securities

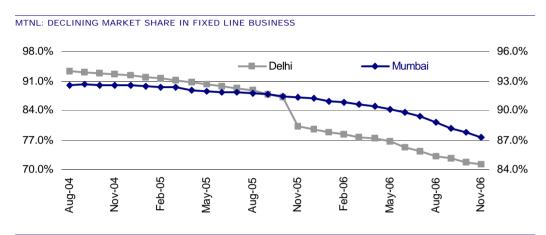
∠ Unbundling excess real estate

The management is looking to lease its excess land/real estate in prime areas to outside parties and earn rentals. The entire activity is likely to be segregated into a special purpose vehicle. The company has identified 35 plots in Delhi and 40 plots in Mumbai. MTNL has received expressions of interest (EoI) for some of the identified plots. We are currently not factoring in possible upside from real estate in our valuations, as we do not expect value unlocking to happen in the next 12-18 months.

Concerns

MTNL's core fixed line business has been under pressure due to increasing wireless penetration in Mumbai and Delhi. Further, private operators like Bharti have focused on cherry picking high ARPU corporate customers. While Bharti captured 7% market share in Delhi in November 2005, a large part of the subscriber churn for MTNL has come from

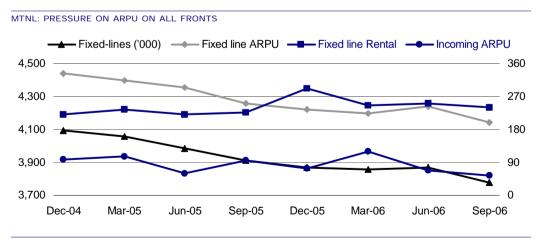
the Mumbai circle. Delhi has a number of state-owned clients that are unlikely to churn out from MTNL's network. We expect continued pressure in the Mumbai circle. Also, the proposal to allow government departments the freedom to switch to private operators could have adverse implications over the medium to longer term.



Source: Company/Motilal Oswal Securities

EXECUTE: Pressure on ARPU from all fronts

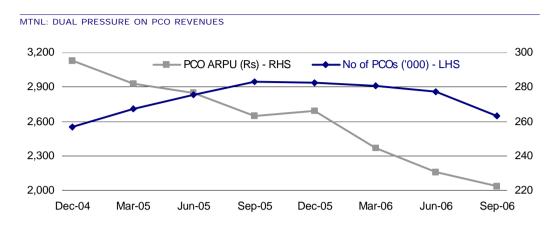
Fixed line revenue is facing pressure on all fronts, including rentals. We believe that at lower tariffs, more outgoing calls will emerge from the wireless segment. We also expect fewer calls to terminate on fixed line networks, resulting in lower incoming ARPU. Declining fixed line subscriber base, lower usage and lower interconnect revenues will continue to pull down fixed line revenues for MTNL.



Source: Company/Motilal Oswal Securities

Further, PCO revenues, which contributed 16.1% of FY06 revenues, are under pressure, as private operators are aggressively looking at the lucrative PCO segment. MTNL is facing dual pressure on PCO revenues: (1) decline in PCO ARPU because of increased wireless penetration; and (2) churn in PCO subscriber base.

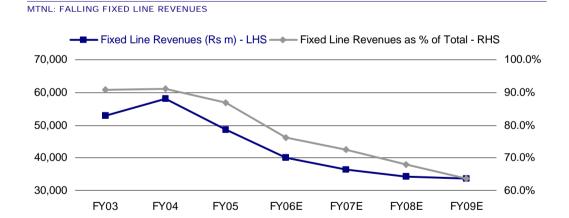
Motilal Oswal



Source: Company/Motilal Oswal Securities

Z Revenue turnaround in fixed line business unlikely in the near term

We do not foresee revenue turnaround in MTNL's core fixed line business; we expect continued pressure on fixed line rentals apart from pressure on tariffs. We have factored in churn of 40,000 subscribers per month for the rest of FY07, with higher competition from private operators and the wireless segment. We have assumed modest monthly subscriber churn of 4,000 subscribers for FY08 and additions of 3,000 subscribers in FY09. We expect fixed line revenues to post a negative CAGR of 7% over FY06-09.



Source: Company/Motilal Oswal Securities

FIXED	LINE	ASSUMPTIONS
IIALD	LIIVL	ASSONI HONG

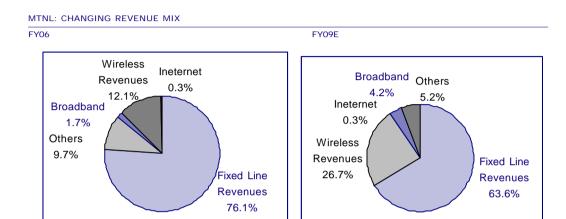
	FY04	FY05	FY06	FY07E	FY08E	FY09E
Subscribers	4.37	4.08	3.77	3.68	3.64	3.67
ARPU	832	814	763	725	689	675
Interconnect ARPU	291	174	103	108	113	113

Source: Company/Motilal Oswal Securities

MOTILAL OSWAL MTNL

Financial outlook

Flat revenues, but changing revenue mix: While we expect revenues to remain flat, contribution of the fixed line business is likely to decline from 86.9% in FY06 to 63.6% in FY09. Contribution of the wireless business, on the other hand, is likely to increase.



Source: Company/Motilal Oswal Securities

Lower interconnection costs to drive up EBITDA margins: We expect EBITDA margins to expand from 16.5% in FY06 to 17.6% in FY07, 19.9% in FY08 and 21.5% in FY09. Margin expansion is likely to be driven by lower interconnection costs and stable employee costs. We expect benefits from VRS to accrue in FY08. While we expect revenues to remain flat, MTNL's EBITDA will grow at 9.5% CAGR during FY06-09.

EBITDA growth to be negated by lower other income: Although EBITDA will grow at a moderate pace, declining cash balance will lead to lower other income. Further due to uncertainty surrounding its tax outgo, we have assumed effective tax rate to go up from 21.9% to 33.9%.

Special dividend seems unlikely considering lower cash balance and higher capex: We expect a capex of Rs8.1b for FY07, Rs7.6b for FY08 and Rs5.7b for FY09. We do not foresee a special dividend considering MTNL's huge unaccounted liabilities. We expect modest dividend of Rs3.5/share to continue considering the declining cash balance and higher capex.

Cash on balance sheet declining: MTNL's cash balance has declined to Rs18b as of June 2006 from Rs26b as of March 2006. The decline was on account of: (1) payment of Rs5.3b to provident fund trust; and (2) additional payment of Rs3b to BSNL for interconnection charges for FY06. We estimate cash of Rs27/share as at the end of FY07.

Tax refund and unaccounted liabilities: The Income Tax Department's appeal to the Committee of Disputes (CoD) to drag the tax refund case to the High Court has been denied. This could lead to a recovery of Rs18b of refunds, of which Rs4b is the interest component. MTNL has already booked interest income of Rs2.5b and we assume that of the remaining Rs1.5b, Rs1.2b will be booked in FY08 and the rest in FY09. Out of remaining Rs14b of principal we have reduced the pending Rs.5.5b provision in GPF to arrive at per share refund of Rs13.75.

Potential benefit of Rs18.8/share under section 80-IA: Tax authorities currently allow new telecom companies to claim MAT benefits under section 80-IA. MTNL too is seeking MAT benefit to the tune of Rs40b (including Rs10b interest), i.e. Rs63.5/share. The subject is currently under litigation. In our opinion, the stakes are high for both the government and MTNL. Further, MTNL has unpaid liabilities to the tune of Rs14.5b for which no provision has been made so far. Excluding potential liabilities, we value the remaining benefit of Rs25.5b at 50% discount, at Rs18.8/share.

UNPAID LIABILITIES	COMMENTS	(RS B)
Pension Liability	In negotiation with DOT	14.5
Interconnection Charges to BSNL	Has refuted 80% of BSNL claims	1.0

Source: Company/Motilal Oswal Securities

Valuation and view

We have valued MTNL using sum of the parts (SOTP) methodology, considering the uncertainty on its tax refunds and potential liabilities. Considering the uncertainty in its other income, we have used the EV/EBITDA multiple approach to value MTNL's core business. We value its core business at Rs100 (5.5x FY09E EV/EBITDA). We estimate cash at Rs27/share as at the end of FY07. Excluding potential pension liabilities (Rs15.5b), we value the remaining section 80-IA benefit of Rs25.5b at 50% discount at Rs18.8/ share. Excluding GPF provision, we arrive at a value of Rs13.75/share from license fees refund. Our SOTP value of Rs159/share indicates little upside from the current stock price. We recommend **Neutral**.

SOTP VALUATION (RS)

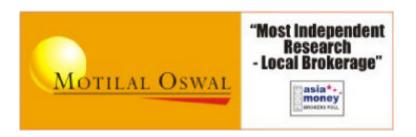
SOTI WILDITION (NS)		
	VALUE PER SHARE	RATIONALE
Core Business	100	5.5x FY09E EV/ EBITDA
Cash per Share	27	FY07 Year end Cash
License Fees	13	Principal amount to be refunded adjusted for pending provision in GPF
Sec 80 IA	19	50% discount to Estimated benefit of Rs25.5b (excluding potential liabilities)
Fair Value per Share (Rs)	159	

Source: Company/Motilal Oswal Securities

						-					
Y/E MARCH	2005	2006	2007E	2008E	2009E	Y/E MARCH	2005	2006	2007E	2008E	2009E
Revenues	55,924	52,494	50,168	50,727	53,099	Basic (Rs)					
Change (%)	-12.2	-6.1	-4.4	1.1	4.7	EPS	15.1	9.2	6.6	8.0	8.0
Total Expenses	42,446	43,821	41,361	40,634	41,692	Cash EPS	24.4	19.3	17.3	19.2	19.8
						Book Value	173.7	179.4	182.5	187.1	191.5
EBITDA	13,478	8,673	8,808	10,093	11,407	DPS	3.5	3.5	3.5	3.5	3.5
% of Gross Sales	24.1	16.5	17.6	19.9	21.5	Payout % (Incl.Div.Taxes)	0.2	0.4	0.5	0.4	0.4
Depn. & Amortization	5,880	6,377	6,739	7,076	7,420	Valuation (x)					
EBIT	7,598	2,296	2,068	3,017	3,987	P/E		17.0	23.5	19.5	19.6
Net Interest	358	250	196	196	196	Cash P/E		8.1	9.0	8.1	7.9
Other Income	4,917	5,361	4,461	4,818	3,818	EV/EBITDA		8.7	9.2	8.3	7.3
						EV/Sales		1.4	1.6	1.6	1.6
PBT	12,157	7,407	6,333	7,639	7,608	Price/Book Value		0.9	0.9	8.0	0.8
Tax	2,672	1,620	2,146	2,589	2,579	Dividend Yield (%)		2.2	2.2	2.2	2.2
Rate (%)	22.0	21.9	33.9	33.9	33.9						
						Profitability Ratios (%)					
Adjusted PAT	9,484	5,787	4,187	5,050	5,028	RoE	8.9	5.2	3.7	4.3	4.2
Change (%)	-23.2	-39.0	-27.7	20.6	-0.4	RoCE	11.2	6.6	5.5	6.5	6.3
PAT after EO	9,484	5,787	4,187	5,050	5,028						
						Turnover Ratios					
						Debtors (Days)	138	150	142	138	138
BALANCE SHEET				(R:	S MILLION)	Asset Turnover (x)	0.3	0.3	0.3	0.3	0.3
Y/E MARCH	2005	2006	2007E	2008E	2009E						
Share Capital	6,300	6,300	6,300	6,300	6,300	Leverage Ratio					
Additional Paid up Capital	6,650	6,650	6,650	6,650	6,650	Debt/Equity Ratio (x)	0.0	0.0	0.0	0.0	0.0
Reserves	96,488	100,071	102,052	104,897	107,721						
Net Worth	109,438	113,020	115,002	117,847	120,671	CASH FLOW STATEMENT				(RS	MILLION
Deferred Tax Liability	5,740	4,842	4,898	4,966	5,035	Y/E MARCH	2005	2006	2007E	2008E	2009E
Capital Employed	115,178	117,862	119,901	122,813	125,706	Net Profit	9,484	5,787	4,187	5,050	5,029
						Depreciation	4,310	6,377	6,739	7,076	7,420
Gross Block	142,523	149,628	156,707	164,949	172,346	Differed tax	106	-898	56	68	68
Less : Depreciation	-77,836	-84,213	-90,953	-98,029	-105,450	Others (writeback, others)	-94	0	0	0	0
Net Block	64,686	65,415	65,754	66,920	66,896	(Inc)/Dec in Wkg. Cap.	-2,420	-4,504	-4,177	-815	-4,977
CWIP	6,271	6,101	7,148	6,537	4,820	CF from Op.Activity	11,385	6,762	6,806	11,379	7,541
Investments	3,975	3,974	5,985	9,877	8,950	or nom opinioning	,	0,: 02	5,555	,	.,
Curr. Assets	146,959	147,641	141,639	139,311	140,204	(inc)/Dec in FA + CWIP	-8,346	-6,936	-8,126	-7,631	-5,680
Inventories	1,866	1,551	1,817	1,662	1,225	(Pur)/Sale of Investments	-168	0	-79	0	0
Debtors	17,611	16,531	15,799	15,975	16,722	Others	-1,050	1	-1,932	-3,892	927
Cash & Bank Balance	25,174	22,796	17,260	14,911	15,494	CF from Inv.Activity	-9,563	-6,935	-10,137	-11,523	-4,753
Other current assets	102,307	106,763	106,763	106,763	106,763						
Other Current doorto	102,307	100,703	100,703	100,103	100,703	Issue of Shares	0	0	0	0	0
Curr. Liab. & Prov.	106,712	105,269	100,626	99,832	95,165	Dividends Paid	-2,178	-2,205	-2,205	-2,205	-2,205
Sundry Liabilities	50,676	49,678	44,751	44,176	39,510	CF from Fin.Activity	-2,178	-2,205	-2,205	-2,205	-2,205
Other Current Liabilities	56,036	55,591	55,875	55,655	55,655						
Net Curr. Assets	40,247	42,373	41,013	39,479	45,040	Inc/(Dec) in Cash	-357	-2,378	-5,536	-2,349	583
	•			•	125,706	Add: Opening Balance	25,531	25,174	22,796	17,260	14,911
Appl. of Funds	115,178	117,862	119,901	122,813	123,700	Closing Balance	25,174	22,796	17,260	14,911	15,494

E: MOSt Estimates; All Financials as per US GAAP

NOTES



For more copies or other information, contact

Institutional: Navin Agarwal. Retail: Manish Shah, Mihir Kothari

Phone: (91-22) 39825500 Fax: (91-22) 22885038. E-mail: inquire@motilaloswal.com

Motilal Oswal Securities Ltd, 3rd Floor, Hoechst House, Nariman Point, Mumbai 400 021

This report is for the personal information of the authorized recipient and does not construe to be any investment, legal or taxation advice to you. Motilal Oswal Securities Limited (hereinafter referred as MOSt) is not soliciting any action based upon it. This report is not for public distribution and has been furnished to you solely for your information and should not be reproduced or redistributed to any other person in any form.

The report is based upon information that we consider reliable, but we do not represent that it is accurate or complete, and it should not be relied upon such. MOSt or any of its affiliates or employees shall not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. MOSt or any of its affiliates or employees do not provide, at any time, any express or implied warranty of any kind, regarding any matter pertaining to this report, including without limitation the implied warranties of merchantability, fitness for a particular purpose, and non-infringement. The recipients of this report should rely on their own investigations.

MOSt and/or its affiliates and/or employees may have interests/ positions, financial or otherwise in the securities mentioned in this report. To enhance transparency, MOSt 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.

Disclosure of Interest Statement	Bharti Airtel	Reliance Communication	VSNL	MTNL
Analyst ownership of the stock	No	No	No	No
Group/Directors ownership of the stock	Yes	No	No	No
3. Broking relationship with company covered	No	No	No	No
4. Investment Banking relationship with company covered	No	No	No	No

This information is subject to change without any prior notice. MOSt reserves the right to make modifications and alternations to this statement as may be required from time to time. Nevertheless, MOSt is committed to providing independent and transparent recommendations to its clients, and would be happy to provide information in response to specific client queries.