

Company In-Depth

21 February 2007 | 24 pages

Bharti Airtel (BRTI.BO)

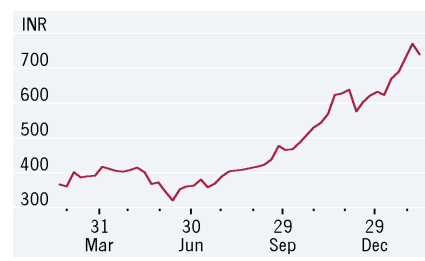
Buy: Tower Power – Raising Target Price to Rs960

Rating change
Target price change
Estimate change

- New target price on the tower option** — We incorporate an option value of Rs158 for Bharti's towerco based on improving visibility in tower dynamics in India. Maximum leverage on many value drivers to robust Indian wireless growth keeps Bharti our top regional telco pick and a India model portfolio constituent.
- Many drivers to more tower sharing in India** — (1) Significant build-out ahead largely in rural areas – sharing bodes well for significant capex savings; (2) potential cost savings could see low tariffs go lower to drive penetration growth: a national objective; and (3) policy and regulatory forces are all in favor. Sharing at ~25% now; we estimate this will rise to 60-70% by FY11.
- TowerCo: opportunity to further leverage Bharti's competitive edge** — Bharti's demonstrated rollout capabilities, tower share of 36-38% (versus 22% subs share) and early initiatives on infrastructure sharing (asset spin-off, tower sharing MoU with Vodafone) open up the opportunity for Bharti Infratel to become the largest towerco in India.
- TowerCo potential: numbers and value** — On a DCF, we see US\$6.1bn of NPV from the towerco initiative. The implied EV/EBITDA of 17.5x FY08E and 11.7x FY09E are at discounts to a US peer group trading at ~20x on the same metric.
- Valuation implications for Bharti, and risks** — TowerCo NPV is Rs145/Bharti share. We estimate cost savings at Rs13/share – all of which add to an option value of Rs158/share from its tower initiatives. We see this gradually building into the stock price as execution data points filter in. Slower tower sharing uptake would be the key risk to our argument.

Buy/Low Risk	1L
Price (20 Feb 07)	Rs791.40
Target price	Rs960.00
	<i>from Rs800.00</i>
Expected share price return	21.3%
Expected dividend yield	0.3%
Expected total return	21.6%
Market Cap	Rs1,500,372M
	US\$34,007M

Price Performance (RIC: BRTI.BO, BB: BHARTI IN)



See Appendix A-1 for Analyst Certification and important disclosures.

Figure 1. Bharti Televentures – Statistical Abstract

Year to	Revenue	Net Profit	EPS	EBITDA	EBITDA	P/E	P/CEPS	Dividend
31-Mar	(Rs m)	(Rs m)	(Rs)	(Rs m)	Growth (%)	(x)	(x)	(%)
2005	80,028	14,978	8.081	29,687	27.0	97.9	56.5	0.0
2006	116,215	22,566	11.915	42,981	44.8	66.4	39.5	0.0
2007E	191,932	41,352	21.835	75,057	74.6	36.2	22.4	0.3
2008E	274,091	60,326	31.853	109,330	45.7	24.8	15.7	0.6
2009E	338,855	72,968	38.528	135,921	24.3	20.5	12.8	1.0

Source: Company Reports and Citigroup Investment Research estimates

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¹Citigroup Global Market India Private Limited; ²Citigroup Global Markets Asia

Fiscal year end 31-Mar	2005	2006	2007E	2008E	2009E
Valuation Ratios					
P/E adjusted (x)	97.9	66.4	36.2	24.8	20.5
EV/EBITDA adjusted (x)	52.9	37.1	21.7	15.3	12.4
P/BV (x)	24.0	16.3	11.6	8.4	6.4
Dividend yield (%)	0.0	0.0	0.3	0.6	1.0
Per Share Data (Rs)					
EPS adjusted	8.08	11.92	21.83	31.85	38.53
EPS reported	8.08	11.92	21.83	31.85	38.53
BVPS	32.95	48.67	68.16	94.64	124.55
DPS	0.00	0.00	2.10	4.80	7.70
Profit & Loss (RsM)					
Net sales	80,028	116,215	191,932	274,091	338,855
Operating expenses	-61,305	-88,610	-142,536	-199,854	-247,428
EBIT	18,723	27,605	49,395	74,236	91,427
Net interest expense	-1,996	-2,512	-1,589	-3,265	-2,981
Non-operating/exceptionals	-124	272	0	0	0
Pre-tax profit	16,604	25,365	47,806	70,972	88,446
Tax	-1,528	-2,539	-6,454	-10,646	-15,478
Extraord./Min.Int./Pref.div.	-98	-260	0	0	0
Reported net income	14,978	22,566	41,352	60,326	72,968
Adjusted earnings	14,978	22,566	41,352	60,326	72,968
Adjusted EBITDA	29,687	42,981	75,057	109,330	135,921
Growth Rates (%)					
Sales	65.6	45.2	65.2	42.8	23.6
EBIT adjusted	129.1	47.4	78.9	50.3	23.2
EBITDA adjusted	89.8	44.8	74.6	45.7	24.3
EPS adjusted	195.1	47.4	83.2	45.9	21.0
Cash Flow (RsM)					
Operating cash flow	32,583	48,320	106,541	121,867	126,784
Depreciation/amortization	10,964	15,376	25,662	35,094	44,494
Net working capital	1,029	7,295	37,938	23,183	6,341
Investing cash flow	-29,938	-54,095	-103,809	-110,074	-93,651
Capital expenditure	-26,982	-57,309	-103,998	-110,490	-94,230
Acquisitions/disposals	-1,464	3,631	0	0	0
Financing cash flow	-860	5,338	3,771	-10,854	-25,881
Borrowings	-1,017	-806	10,000	3,000	-6,000
Dividends paid	0	0	-4,451	-10,174	-16,321
Change in cash	1,784	-438	6,503	939	7,252
Balance Sheet (RsM)					
Total assets	159,073	215,681	306,384	388,971	449,077
Cash & cash equivalent	3,087	2,649	9,915	10,853	18,105
Accounts receivable	10,098	14,203	19,193	24,668	27,108
Net fixed assets	131,809	180,971	258,545	333,941	383,677
Total liabilities	97,258	122,545	176,348	208,783	212,242
Accounts payable	0	0	0	0	0
Total Debt	89,048	112,898	166,701	199,136	202,595
Shareholders' funds	61,814	93,135	130,036	180,188	236,835
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	37.1	37.0	39.1	39.9	40.1
ROE adjusted	28.0	29.5	37.4	39.1	35.2
ROIC adjusted	13.1	13.9	17.1	19.0	18.9
Net debt to equity	139.1	118.4	120.6	104.5	77.9
Total debt to capital	59.0	54.8	56.2	52.5	46.1

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De-mystifying Tower Sharing

The recent hive-offs of the tower assets into 100% subsidiaries by RCOM and Bharti have brought tower sharing in focus. We analyse the prospects for tower sharing in India, followed by Bharti's positioning and potential value creation opportunity through independent tower companies (towerco).

Tower companies are an operator-agnostic play on wireless growth

Tower industry drivers : Clear and present, in our view

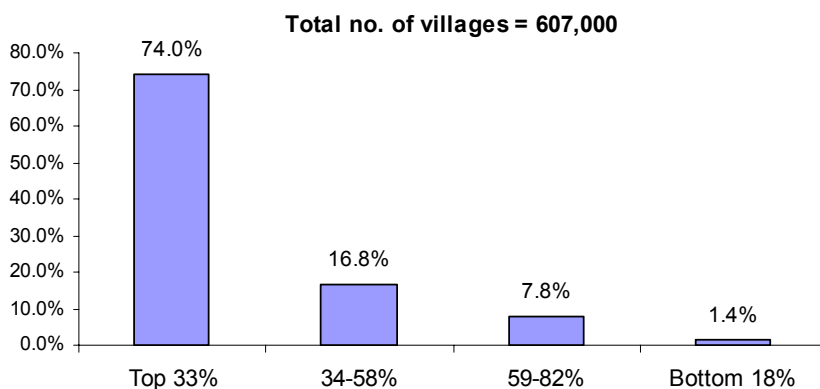
The tower industry, in our view, offers a clean way to play the wireless growth as it is neutral to competitive changes in terms of market share movement between operators. For now, tower assets would include all passive infrastructure i.e. land, foundation/civil work, tower, shelter, electricals, air-conditioning, power supply/ DG sets and optical cables/ducts (see Appendix for a typical plan). Typically, the towerco would charge a rental that would cover all the direct opex (incl. the escalation thereof) and generate sufficient returns on the capex incurred to set up the tower. Over time, as and when regulation allows for it, active infrastructure (electronics and transmission) sharing could well come under consideration as well – we are not incorporating this into our workings for now.

The key drivers of tower companies' prospects and growth in the Indian context are as below.

1. Low penetration (14%), coverage (~54%) and pending rural rollout mean that tower additions would continue at a scorching pace over the next 2-3 years, providing enough opportunity for tower companies to establish themselves. It should be noted however that in a low penetration scenario like India, operators will try and optimize their sharing ratio in a way that does not compromise too much their geographical head start.

Market dynamics, geography and regulation are supportive

Figure 2. Skewed Population Distribution Will Also Necessitate Tower Sharing in Not-So-Dense Areas



Source: TRAI

2. Lowest voice tariffs in the world (2cents/min) and moderate EBITDA margins (mid 30s) imply operators are always looking to cut costs and pass it on to the consumers to drive growth. The TRAI indicates that 60% of wireless roll-out costs today are going into setting up of passive

infrastructure with the balance 40% contributing to active infrastructure/electronics. Our discussion with the operators supports this. We also see tower sharing as having a strong demonstration effect i.e. if two companies start sharing and thus lower their costs, the rest will have to follow to achieve cost parity.

3. High MOUs and spectrum scarcity imply denser coverage requirements, thus increasing the requirement for cell sites/towers. While 3G services would increase the need for tower space, growth would continue to be driven predominantly by voice.
4. Policy makers and the regulator (TRAI) appear fully in favour. The DoT has in fact sought the TRAI's views for any amendments/changes to existing licensing conditions or legislation to encourage infrastructure sharing. The TRAI has since issued a comprehensive consultation paper on ways and means to promote infrastructure sharing – the last date for interested parties to respond to the regulator on the various initiatives was Dec 31, 2006. We see it as only an issue of time to more infrastructure sharing being officially encouraged if not mandated. In fact, the DoT has already initiated the first round of USO-funded towers to be built in low-density areas for which the bids have been invited.

Cost saving opportunity will drive sharing, though regulatory push is an added positive

Figure 3. Identified Sites Under USO Funded Scheme to Cover 11% of Population

State	No. of proposed towers	No. of villages covered	Population coverage(m)
Assam	121	4717	2.5
UP	447	11126	13.7
MP	1845	27642	24.0
Rajasthan	1484	7906	5.0
Jharkhand	305	1872	2.4
Karnataka	415	17276	21.5
Maharashtra	1018	13349	17.1
AP	774	11866	21.1
Orissa	679	9860	5.7
West Bengal	159	5465	6.4
Gujarat	246	1872	2.4
Tamilnadu	68	862	1.2
Total	7561	113813	122.8
%of India's population			11%

Source: Company Reports and Citigroup Investment Research

5. A six-seven operator market is a positive driver for tower sharing as operators try to minimize duplication and maximise efficiency of rollout. The market share of the top 4 operators (Bharti, Reliance, BSNL and Hutch-Vodafone) is relatively close indicating that they would be more amenable to infrastructure sharing. All the operators are either well-capitalized or backed by strong promoters ensuring no slowdown in the future rollouts. Despite recurring consolidation (the opportunities for which appear limited for the time being), we expect India to remain a 4-5 operator market, thus boding well for tower sharing in the long term.

We believe that at such a nascent stage, tower sharing in India faces very little risks. The main difference vis-à-vis the more developed US market is the lack of zoning restrictions, which could lower the entry barriers for Indian towercos.

However, it is offset by the bigger growth opportunity in India and entry barriers in form of rollout skills and capital requirements. In the long-term, risks could emerge from consolidation and emergence of new technologies.

Tower companies: Investment attractiveness

We see tower Companies provide a relatively risk-free and operator-agnostic play on wireless growth.

High FCF and steady annuity stream make it an attractive investment

1. Tower companies' have a visible and predictable annuity cash flow stream with low working capital requirements and negligible bad debt.
2. Maintenance capex is low. In fact the economic life of towers could be 40-50 years as against book depreciation schedule of 12 years.
3. High operating leverage means that the paybacks can improve dramatically as the tenancy factor increases. Most of the tower rental contracts also allow the towerco to pass on the cost escalations in direct operating costs.

As a result, the towerco's free cash flow generation is healthy and goes up exponentially as the proportion of sharing increases on its towers. In an Indian context, though the initial few years would see negative to low FCF, the cash flow generation could be quite healthy in a stable state especially if the tenancy factor rises >2.0x.

Figure 4. Typical Return Profile of Tower Capex

Tenancy Factor (x)	1.0	1.5	2.0
RoA	8.0%	10.5%	12.5%
Payback (years)	13	10	8

Source: Citigroup Investment Research

Indian tower industry: Nascent stage but significant potential

We have arrived at the potential size of the Indian tower base based on our estimates for traffic growth, keeping MOUs/cell site more or less stable, as outlined in Figure 5 below. The number of towers is derived from the number of cell sites by assuming an average tenancy factor – 1.15x at present going up to 2.0x by FY11 and 2.5x in the long term.

High growth potential in towers as well as level of sharing

Two points worth highlighting here:

- As a sanity check, our estimates on total cell sites (A) are not very different from TRAI estimates (135,000 by 2007 and 330,000 by 2010)
- We acknowledge our tenancy assumptions as more guesstimates for now but with Bharti's headstart, the consequent market pressures and the regulatory push, we think these are realistic expectations

Figure 5. Indian Wireless: Tower Industry Estimates

	FY05	FY06	FY07E	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Subscriber base –end of period (m)	53	92	162	239	314	388	452	510	561	600	634	664
MOU per month	279	323	338	340	345	333	329	331	335	342	352	362
Total minutes per year (m)	144814	281940	515885	818594	1144083	1399809	1658050	1909591	2152153	2382856	2607403	2822013
Subs per cell site	1200	1200	1150	1100	1000	1000	975	975	975	950	950	925
No. of cell sites (A)	36103	60560	110532	182462	276540	350794	430867	493675	549070	610973	649781	701828
Average tenancy	1.05	1.10	1.15	1.25	1.50	1.75	2.00	2.10	2.20	2.30	2.40	2.50
No. of towers (B)	34384	55055	96115	145970	184360	200453	215433	235083	249577	265640	270742	280731

Source: Citigroup Investment Research estimates

Large operators with execution track record have a natural edge

Given the favorable industry dynamics in tower sharing, we think Bharti is very well placed to capitalize on this opportunity given the management's demonstrated strengths in managing aggressive rollout plans. We have estimated the tower option to be worth Rs158/share based on (a) the NPV of incremental cash flows from the standalone towerco business model (Rs145/share) plus, (b) NPV of the resultant cost savings in Bharti's EBITDA based on efficiency improvements and progressively lower rentals with higher sharing (Rs13/share). Our entire analysis treats the towerco as a separate standalone entity, which means that part of the revenues of the towerco would be an expense item for Bharti (as an anchor tenant).

Bharti Infratel – Leveraging Parent’s Strengths

Bharti has decided to hive off its passive infrastructure assets into 100% subsidiary (Bharti Infratel). While the move is aimed at deriving cost efficiencies, we believe it also offers an opportunity for Bharti to establish leadership in the still nascent tower industry, and hence create a platform for value creation and monetization.

Strong rollout track record

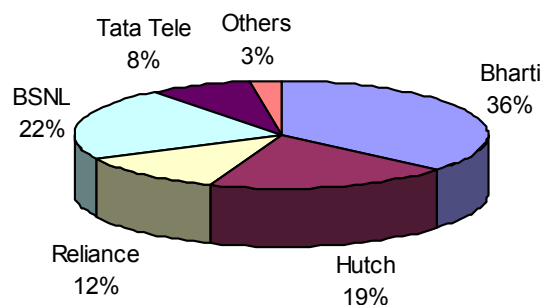
Bharti Infratel could leverage on the efficient execution machinery and large scale O&M experience of the company. Given the strong enabling conditions for tower sharing in India, Bharti’s towerco therefore has a good opportunity to convert its competitive advantage into a standalone business model. As per our estimates, Bharti has 36-38% of total towers today, which is likely to be sustained especially with the proposed arrangement with Vodafone-Hutch. The key hurdle that Bharti would face is the reluctance of other operators to come to the table. However, with a strong anchor tenant (Bharti itself) and likely strong second tenant (i.e. Vodafone), we believe Bharti can establish a head start and would therefore be able to offer much better rentals to other potential tenants.

Largest stock of towers

We estimate Bharti to own about 36,000 towers by end-FY07, highest among the Indian operators and even higher than the stock owned by the US towercos viz. American Tower, Crown Castle, etc. However, there is lack of clarity on how many of these towers are shareable especially the older sites (which were built for only own use) and the smaller rooftop towers. Some of the older towers could however be upgraded to accommodate 3-4 tenants. A typical ground-base tower would cost Rs2.0-2.5m for own use and Rs3.0-3.5m for 3-4 tenants.

Bharti owns more towers than listed US peers...

Figure 6. Estimated Share of Towers in India



Source: Citigroup Investment Research

Low level of sharing at present

In addition, given Bharti’s disclosures regarding 23% of its 34,000 sites to be shared (and the fact that higher proportion of the shared towers are owned by them than otherwise), we estimate average tenancy factor for Bharti’s towers to be about 1.1x, marginally below the industry’s.

...with low sharing at present

Figure 7. Bharti's Sites/Towers (as on December 2006)

Bharti's cell sites - (a)	34,000	As on Dec-06
Less: Shared towers	7,820	@23% as disclosed by the company
Add: Own of shared towers	4,692	@60% of total shared towers
Bharti's owned towers - (b)	30,872	
Bharti's tenancy factor (x)	1.10	

Source: Company and Citigroup Investment Research

How Do We Value the Towerco Option?

The option value for Bharti's towerco is estimated at Rs158/share and comprises:

(1) The NPV of cash flows from the standalone towerco business model (Rs145/share)

plus,

(2) NPV of the resultant cost savings in Bharti's EBITDA based on a) efficiency improvements and b) progressively lower rentals with higher sharing (Rs13/share).

Tower co operating assumptions

The key assumptions in estimating towerco's cash flows and NPV are as below.

- Bharti's share of towers staying in the high-30s, going up gradually to 40% by FY12E, as the leadership gets established.
- Tenancy factor to increase to 1.5x (from 1.1 currently) in FY09E and 2.0x by FY11E.
- Based on the estimated mobile network opex for FY06-07 and average number of cell sites, we estimate Bharti's average opex per tower to be about Rs40,000 per month. Focus on efficiency improvements (for example from bulk buying of consumables and services, etc.) could lead to a gradual reduction in opex/site. We have assumed the opex to gradually decline to Rs35,000/month over the next 3-5 years.
- Capex per tower of Rs2.5-2.7m initially but going up to Rs3.0m from FY09 onwards. In addition, maintenance capex is assumed at 2.5-3.0% of outstanding gross assets. Please note that the net result of these assumptions is an estimated tower capex of US\$1137m in FY08. This is in line with Bharti's total capex guidance of US\$2.5bn in FY08. Assuming the wireless capex to be US\$1.8bn (70% of total), the tower capex translates to 60-65% of that, which is in line with the current industry norms.
- The rentals are assumed to come down gradually to reflect higher sharing and declining opex per tower. However, EBITDA margins estimated to go up from ~30% at 1.0x tenancy to ~50% at 2.0x tenancy.
- Overall assumptions are broadly in line with the typical payback associated with different levels of sharing (refer Figure2).
- Depreciation over 12 years. Low tax rates in the initial years due to interest/depreciation shelter, but full tax rates in the terminal year (FY16).
- WACC of 10.8% (same as for Bharti) and a terminal growth rate of 4% beyond FY16.

We estimate the NPV of cash flows to be worth Rs145/share for Bharti, which implies EV/EBITDA of 17.5x for FY08E and 11.7x for FY09E.

Figure 8. Bharti TowerCo — Financial Projections

	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Bharti's share	38%	40%	40%	40%	40%	40%	40%	40%	40%
Bharti owned towers (nos)	55468	73744	80181	86173	94033	99831	106256	108297	112292
Rental per tenant per month (Rs)	50000	43000	38000	35000	35000	35000	35000	34000	34000
Average tenancy on Bharti's towers	1.25	1.50	1.75	2.00	2.10	2.20	2.30	2.40	2.50
Tower rental revenues (Rs m)	41601	57078	63985	72386	82937	92244	102643	106044	114538
Opex per tower per month (Rs)	39000	38000	37000	36000	35000	35000	35000	35000	35000
Operating costs (Rs m)	25959	33627	35601	37227	39494	41929	44628	45485	47163
EBITDA (Rs m)	15642	23451	28384	35159	43443	50315	58016	60560	67375
EBITDA (%)	38%	41%	44%	49%	52%	55%	57%	57%	59%
EBITDA per tower (Rs/year)	282000	318000	354000	408000	462000	504000	546000	559200	600000
Implied RoA	9.4%	10.6%	11.8%	13.6%	15.4%	16.8%	18.2%	18.6%	20.0%
Implied Payback (years)	11	9	8	7	6	6	5	5	5
Capex per tower (Rs m)	2.5	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total capex (Rs m)	50035	53088	24843	23990	30043	24446	26763	14091	20109
Total Capex (US\$m)	1137	1207	565	545	683	556	608	320	457
EBIT (Rs m)	7959	11344	14207	18983	24764	29598	35069	36438	41578
NOPAT (Rs m)	7167	10241	13214	18134	23525	27526	31141	32357	27857
FCF (Rs m)	-35185	-30740	2549	10320	12162	23797	27325	42388	33545
Terminal Value (Rs m)	496969								
Implied terminal EV/EBITDA (x)	7.4								
NPV (Rs m)	274230								
NPV (Rs/share)	145								
WACC (Bharti's current)	10.8%								
Terminal growth rate	4%								

Source: Citigroup Investment Research estimates

Note that the imputed EV/EBITDA is at a discount to the more established US peers. This indicates that our valuation estimates are reasonable notwithstanding the higher cost of capital for Indian TowerCos, which is offset by the higher growth potential and favorable industry dynamics for tower sharing in India.

Figure 9. Valuation Parameters — US Tower Companies

Company Name	RIC Code	Share price (US\$)		Mkt. cap. US\$m	EV/EBITDA (x)	
		19-Feb-07	US\$m		2007E	2008E
American Tower Corp	AMT.N	40.3	17,156	20.9	19.6	
Crown Castle International Corp	CCI.N	34.9	10,987	20.1	19.1	
SBA Communications Corp	SBAC.O	28.7	2,999	21.9	19.4	
Bharti Infratel (Implied)	NA	NA	NA	17.5	11.7	

Source: Citigroup Investment Research, For Bharti Infratel, the implied valuations are for FY08E and FY09E respectively

We have also highlighted current KPIs for the more established US peer group versus our estimates for Bharti InfraTel from FY14-16E and note a lot of these are in sync. In particular, our long-term assumptions for sharing per tower,

average revenue per tenant per month and EBITDA margins are relatively conservative vis-à-vis US peers. The capex/sales assumptions for Bharti TowerCo in the terminal year at 18% are quite conservative in relation to ~10% at present for the US peers.

Figure 10. US Towers Companies : Financial & Operational Snapshot (US\$ in Millions)

	American Tower (YE Dec)			Crown Castle (YE Dec)			SBA Communications (YE Dec)			Bharti Infra (YE March)		
	2005	2006	2007E	2005	2006	2007E	2005	2006	2007E	2014E	2015E	2016E
Rev	945	1,317	1,440	677	788	1,380	260	351	410	2281	2357	2545
EBITDA	601	884	990	330	424	745	92	155	205	1289	1346	1497
EBITDA Margins (%)	63.7%	67.1%	68.8%	48.8%	53.8%	54.0%	35.3%	44.0%	50.1%	56.5%	57.1%	58.8%
Capex	89	127	131	65	125	148	20	27	33	608	320	457
Capex to sales (%)	9.4%	9.6%	9.1%	9.6%	15.8%	10.7%	7.6%	7.7%	7.9%	27%	14%	18%
Total Towers ('000 nos)	22.8	23.0	23.3	12.5	12.9	23.9	3.3	5.5	5.7	106	108	112
Tenants/Tower	2.9	3.2	3.5	2.8	3.2	3.1	2.9	3.0	3.2	2.3	2.4	2.5
Total rental/mgmt rev	930	1,294	1,413	597	697	1,271	161	256	317	2281	2357	2545
Monthly Rentals/Tenant	1,172	1,464	1,447	1,441	1,426	1,425	1,403	1,291	1,447	778	756	756

Source: Company, Citigroup Investment Research estimates

Cost savings would be an added positive (to the extent retained)

In addition to the towerco cash flows, we also value the cost savings for Bharti (especially in the latter years) from lower rentals vis-à-vis base case opex (Rs40,000/month if there was no hive-off). Please note that in the initial years (when Bharti is likely to be the sole tenant on most of the towers), the EBITDA impact is negative but is more than offset in later years by the cost reductions from efficiency improvements and higher sharing.

We assume that 50% of these cost savings would be passed through to the consumers. The post-tax cash flows from the retained cost savings could be worth Rs13/share as per our estimates. Please note that the retained cost savings translate to only 70-80bps improvement in EBITDA margin, which we believe is reasonable despite the competitive intensity.

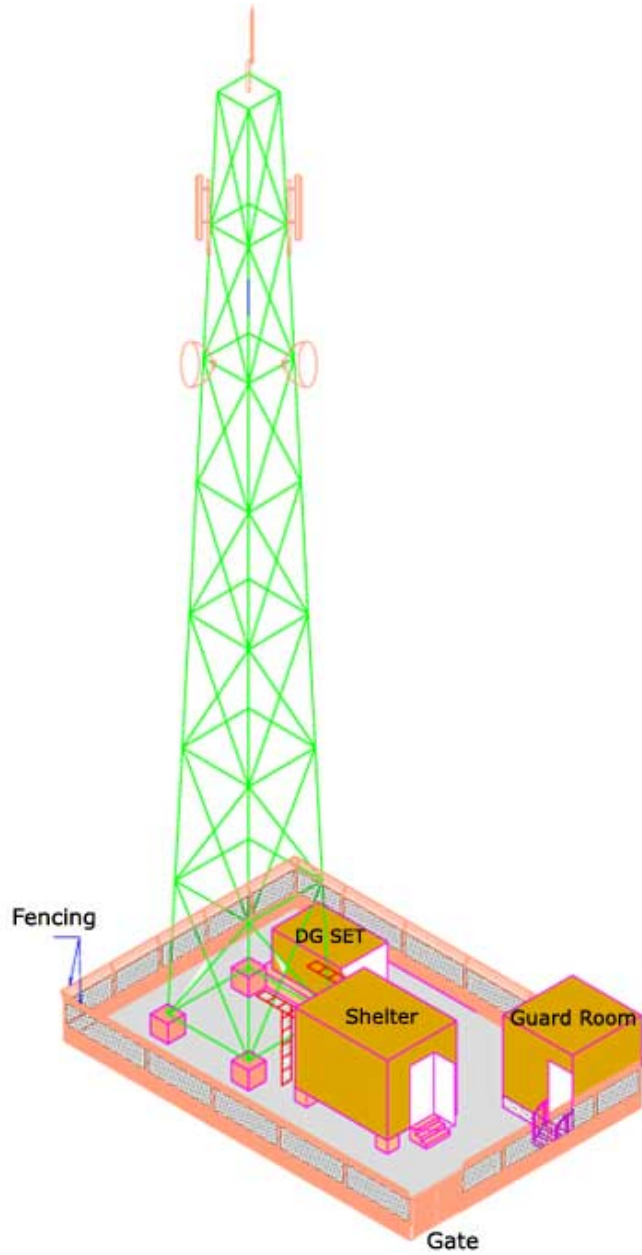
Figure 11. Bharti: Cost Savings From Infrastructure Sharing

	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Bharti's opex savings versus base case	-6656	-2655	1924	5170	5642	5990	6375	7797	8085
Assuming Bharti retains 50%	-6656	-2655	962	2585	2821	2995	3188	3899	4043
Potential EBITDA margin improvement	-3.2%	-1.0%	0.3%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%
Post-tax cash flow	-5658	-2190	770	1991	2116	2216	2263	2690	2708
NPV (Rs m)	24320								
NPV (Rs/share)	13								

Source: Citigroup Investment Research estimates

Including the NPV of the towerco's cash flows, we arrive at the total option value of the towerco at Rs140/share.

Appendix — Typical Layout for a Ground-Base Tower



Source: GTL Infrastructure Ltd.

Figure 12. Bharti — Income Statement, FY05-FY09E (Rs in Millions)

Year to 31 Mar	FY05	FY06	FY07E	FY08E	FY09E
Mobile revenue	52,976	80,822	144,420	207,156	257,777
Infotel revenue	35,264	46,613	71,233	97,389	118,728
Intersegment revenue	0	0	0	0	0
Total service revenue	78,936	113,724	191,932	274,091	338,855
Other revenue	1,092	1,160	-	-	-
Total Revenue	80,028	114,884	191,932	274,091	338,855
Access charges	(16,869)	(21,776)	(54,340)	(78,321)	(96,681)
Network operating	(6,537)	(11,729)	(21,525)	(29,765)	(37,148)
Cost of sales of goods	(1,021)	(1,169)	(662)	(761)	(875)
Personnel	(5,155)	(8,186)	(12,570)	(16,599)	(19,529)
SG&A	(13,029)	(19,146)	(32,384)	(42,857)	(52,989)
Intersegment elimination	-	-	23,722	30,455	37,651
Total Operating Expenses	(42,611)	(62,006)	(97,759)	(137,849)	(169,571)
EBITDA ex license fee	37,417	54,210	94,173	136,242	169,283
License fee	(7,730)	(11,228)	(19,116)	(26,911)	(33,362)
Adjusted EBITDA	29,687	42,981	75,057	109,330	135,921
Depreciation	(9,908)	(14,206)	(24,119)	(33,613)	(43,073)
Amortization	(1,056)	(1,170)	(1,542)	(1,481)	(1,421)
Preoperative expenditure	(533)	(120)	-	-	-
Other income	410	392	-	-	-
EBIT	18,600	27,877	49,395	74,236	91,427
Net finance costs	(1,996)	(2,512)	(1,589)	(3,265)	(2,981)
Non recurring items gain/(loss)	-	-	-	-	-
PBT	16,604	25,365	47,806	70,972	88,446
Current tax	(945)	(1,773)	(6,454)	(10,646)	(15,478)
Deferred tax (expense)/income	(583)	(767)	-	-	-
PAT	15,076	22,826	41,352	60,326	72,968
Minority interests	(98)	(260)	-	-	-
Profit/ (loss) for the year	14,978	22,566	41,352	60,326	72,968
EPS (Rs)	8.1	11.9	21.8	31.9	38.5
DPS (Rs)	-	-	2.1	4.8	7.7
Payout ratio (%)	0.0%	0.0%	10.0%	15.0%	20.0%
Shares outstanding (MM)	1,853	1,894	1,894	1,894	1,894
Growth Y/Y (%)					
Revenues	65.6%	43.6%	67.1%	42.8%	23.6%
EBITDA	89.8%	44.8%	74.6%	45.7%	24.3%
EPS	195.1%	47.4%	83.2%	45.9%	21.0%
DPS	NA	NA	NA	128.6%	60.4%

Source: Company Reports and Citigroup Investment Research estimates

Figure 13. Bharti — Balance Sheet, FY05-09E (Rs in Millions)

As at 31 Mar	FY05	FY06	FY07E	FY08E	FY09E
Net PP&E block	92,597	142,411	221,527	298,403	349,561
Investments	5,662	3,216	3,216	3,216	3,216
Deferred tax asset (net)	(1,183)	(1,946)	(1,946)	(1,946)	(1,946)
Inventories	545	381	1,256	2,033	2,711
Sundry debtors	10,098	14,203	19,193	24,668	27,108
Cash and bank balances	3,087	2,649	9,915	10,853	18,105
Other current assets, loans and advances	5,471	11,042	11,042	11,042	11,042
Total current assets	19,202	28,275	41,405	48,597	58,966
Current liabilities	51,245	78,396	122,199	151,634	161,093
Provisions	-	-	-	-	-
Total current liabilities	51,245	78,396	122,199	151,634	161,093
Net current assets	(32,043)	(50,121)	(80,793)	(103,037)	(102,126)
Total Assets	106,644	135,339	182,240	235,392	286,039
Share capital	18,534	18,939	18,939	18,939	18,939
Reserve and surplus	(5,056)	17,511	54,412	104,564	161,210
Shareholders equity	13,478	36,450	73,351	123,502	180,149
Secured loans	37,803	34,503	44,503	47,503	41,503
Minority interests	749	957	957	957	957
Total Liabilities	106,644	135,339	182,240	235,392	286,039

Source: Company Reports and Citigroup Investment Research estimates

Figure 14. Bharti — Cash Flow Statement, FY05-09E (Rs in Millions)

Year to 31 Mar	FY05	FY06	FY07E	FY08E	FY09E
Cash Flow from Operations	32,583	48,320	106,541	121,867	126,784
Capex	(26,982)	(57,309)	(103,998)	(110,490)	(94,230)
Cash Flow from other Investing Activities	(29,938)	(54,095)	(103,809)	(110,074)	(93,651)
Cash flow from Financing Activities	(860)	5,338	3,771	(10,854)	(25,881)
Change in cash	1,784	(438)	6,503	939	7,252
Beginning Cash	1,303	3,087	3,412	9,915	10,853
Closing cash	3,087	2,650	9,915	10,853	18,105

Source: Company Reports and Citigroup Investment Research estimates

Figure 15. Bharti — Key Assumptions, FY05-09E (Rs in Millions)

Year to 31 Mar	FY05	FY06	FY07E	FY08E	FY09E
Wireless Subscribers (million)	10.98	19.58	37.07	55.00	70.80
% Prepaid Subscribers	75%	83%	86%	87%	88%
ARPU prepaid (Rs)	336	326	338	297	267
ARPU postpaid (Rs)	1,030	899	912	889	876
MOU prepaid (Mins)	243	320	358	340	323
MOU postpaid (Mins)	695	740	784	792	808
Rev. per minute - prepaid (Rs)	1.38	1.02	0.94	0.87	0.82
Rev. per minute -postpaid (Rs)	1.48	1.22	1.16	1.12	1.08
Capex / Sales (%)	54%	55%	54%	40%	28%
Net Debt (Rs M)	34,716	31,853	34,588	36,649	23,397

Source: Company Reports and Citigroup Investment Research estimates

Figure 16. Asian Telecoms — Regional Wireless Valuations Comps

Company	RIC	Price	Rating	PE(x)		Earning CAGR 06E-09E/ FY07E-10E	P/CEPS(x)		EV/EBITDA(x0)		EBITDA CAGR 06E-09E/ FY07E-10E	Dividend Yield(%)	
				20-Feb-07			06E/ FY07E	07E /FY08E	06E/ FY07E	07E /FY08E		06E/ FY07E	07E /FY08E
AIS	ADVA.BK	Bt77.5	2H	13.5	13.1	6.5%	6.4	6.2	5.7	5.5	4.5%	8.1%	7.6%
Bharti	BRTI.BO	Rs791.4	1L	36.2	24.8	26.0%	22.4	15.7	20.4	14.0	29.0%	0.3%	0.6%
China Unicom	0762.HK	HK\$10.46	1L	22.0	18.9	12.5%	4.6	4.2	4.8	3.9	5.4%	1.1%	1.1%
China Mobile	0941.HK	HK\$74.8	2L	23.4	19.9	15.4%	11.1	9.9	8.9	7.8	8.5%	2.0%	2.3%
Digi	DSOM.KL	RM17	1L	15.8	14.5	8.2%	8.9	8.3	7.2	6.5	7.3%	6.6%	6.9%
FET	4904.TW	NT\$37.8	2L	11.1	11.2	1.0%	5.7	5.7	5.0	4.8	0.0%	8.2%	7.7%
Globe	GLO.PS	P1355	2L	14.3	13.0	10.0%	5.9	5.9	5.5	5.0	4.5%	3.7%	5.9%
Indosat	ISAT.JK	Rp5850	3M	23.1	17.9	24.9%	6.6	4.9	5.9	5.2	16.0%	2.6%	1.9%
KTF	032390.KS	W26150	3M	13.4	10.4	21.5%	3.4	3.2	3.8	3.3	6.4%	4.5%	5.1%
LGT	032640.KQ	W11450	1M	8.5	7.3	9.3%	4.1	3.5	5.1	3.9	11.5%	0.0%	3.0%
Maxis	MXSC.KL	RM12.1	2L	15.5	15.1	3.2%	10.2	9.1	8.1	8.0	9.9%	6.3%	6.9%
MobileOne	MONI.SI	\$2.18	2L	13.1	13.1	2.2%	7.7	7.8	7.0	7.3	0.7%	10.7%	6.9%
RCOM	RLCM.BO	Rs452.15	1M	32.9	21.8	NA	17.8	12.7	17.5	12.1	NA	0.4%	0.7%
SKT	017670.KS	W201500	3M	10.7	9.8	7.8%	5.2	4.9	4.7	4.3	2.6%	4.2%	5.2%
SmarTone	0315.HK	HK\$7.64	3M	54.1	24.5	43.6%	5.6	5.1	3.3	2.6	4.2%	1.2%	2.7%
TAC	TACC.SI	US\$4.1	3L	14.6	11.9	18.2%	6.0	5.1	6.5	5.9	9.3%	0.0%	0.0%
Tata Tele	TTML.BO	Rs24.05	1M	NM	NM	NM	25.9	14.1	21.4	14.5	39.2%	0.0%	0.0%
Taiwan Mobile	3045.TW	NT\$32.3	2L	9.9	11.3	-2.6%	6.7	7.2	6.0	5.9	0.5%	8.0%	8.0%
Wtd. Avg				23.2	18.9		11.4	9.6	9.8	8.0		2.3%	2.6%
Median				14.6	13.1		6.5	6.0	6.0	5.7		3.1%	4.0%

Note : Includes special dividend for M1

Source: Citigroup Investment Research estimates

Figure 17. Asian Telecoms — Regional Integrated Valuations Comps

Company	RIC	Price	Rating	PE(x)		Earning CAGR 06E-09E/ FY07E-10E	P/CEPS(x)		EV/EBITDA (x)		EBITDA CAGR 06E-09E/ FY07E-10E	Dividend Yield (%)	
				20-Feb-07			06E/ FY07E	07E/ FY08E	06E/ FY07E	07E/ FY08E		06E/ FY07E	07E/ FY08E
China Tel	0728.HK	HK\$3.87	1L	14.3	13.8	6.7%	4.3	4.2	5.0	4.6	1.6%	2.1%	2.1%
China Netcom	0906.HK	HK\$20.5	1L	12.7	12.3	6.4%	3.8	3.6	4.6	4.2	0.4%	2.7%	2.9%
Chunghwa	2412.TW	NT\$63.9	1L	14.0	13.0	2.6%	7.2	7.2	5.8	5.5	-0.6%	5.6%	6.7%
HTIL	2332.HK	HK\$16.74	3M	178.7	53.5	114.0%	13.4	10.0	11.4	8.9	25.8%	0.0%	0.0%
KT	030200.KS	W42750	2L	10.5	9.5	0.7%	3.7	3.5	4.4	4.2	0.2%	4.8%	8.4%
MTNL	MTNL.BO	Rs144.8	3L	18.2	22.6	-21.4%	7.8	8.2	4.3	4.9	-6.6%	3.1%	2.8%
PCCW	0008.HK	HK\$4.67	1M	14.3	13.5	0.4%	6.2	5.6	6.6	6.0	2.0%	4.2%	4.5%
PLDT	TEL.PS	P2595	1L	15.1	13.7	12.3%	7.7	8.4	6.6	6.1	6.4%	4.4%	5.2%
PT Telkom	TLKM.JK	Rp9650	1L	17.5	15.5	15.9%	9.0	8.1	6.1	5.3	12.6%	2.3%	3.6%
VSNL	VSNL.BO	Rs427.85	2M	20.9	19.3	9.8%	12.3	11.1	10.6	8.9	9.6%	1.1%	1.0%
Singapore Tel	STEL.SI	\$3.44	1L	17.1	14.8	7.8%	11.1	9.9	9.4	8.7	2.8%	7.0%*	3.4%
StarHub	STAR.SI	\$2.79	1L	20.4	15.6	14.3%	10.2	9.3	10.1	8.6	8.0%	3.9%	5.4%
True Corp	TRUE.BK	Bt6.6	1H	NM	NM	NM	2.6	2.4	6.7	5.4	11.7%	0.0%	0.0%
Telekom Mal	TLMM.KL	RM10.7	1L	19.9	16.3	16.7%	6.2	5.6	6.1	5.5	8.0%	4.0%	4.5%
Wtd Avg				15.4	14.0		7.4	6.8	6.7	6.0		3.9%	3.7%
Median				17.1	14.8		7.5	7.6	6.4	5.5		3.5%	3.5%

Note : Include special dividend for SingTel

Source: Citigroup Investment Research estimates

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Quant View — Glamour

Bharti lies in the Glamour quadrant of our value/momentum map with relatively expensive valuation but strong momentum. The stock looks relatively expensive as strong trend earnings growth of 49% fails to support trading at 47x trailing EPS. On the momentum front, price momentum has been improving for the past half year. This, coupled with positive earnings estimate revision for the fifth month, results in a strong relative momentum score.

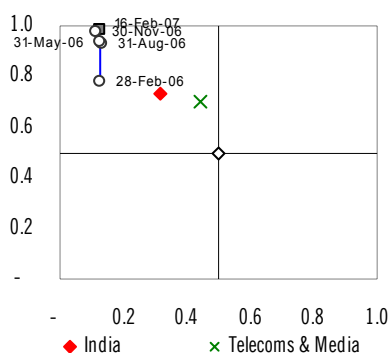
The stock currently ranks better than the Indian market and Telecoms & Media sector on momentum but worse on valuation.

Risk analysis suggests a moderately positive exposure to falling Asian interest rates and small cap out-performance.

Radar Screen Quadrant Definitions

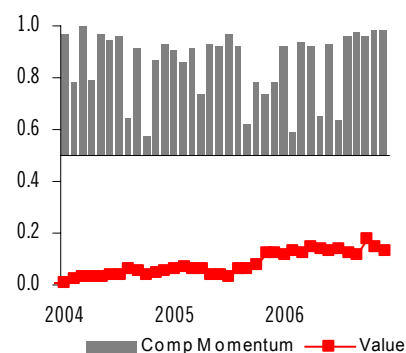
Glamor <i>Poor relative value but superior relative momentum</i>	Attractive <i>Superior relative value and superior relative momentum</i>
Unattractive <i>Poor relative value and poor relative momentum</i>	Contrarian <i>Superior relative value but poor relative momentum</i>

Figure 18. Radar Quadrant Chart History



Source: Citigroup Investment Research

Figure 19. Radar Valuation Momentum Ranks



Source: Citigroup Investment Research

Figure 20. Radar Model Inputs

IBES EPS (Actual and Estimates)			
FY(-2)	3.15	Implied Trend Growth % (3+2)	48.7
FY(-1)	6.53	Trailing PE (x)	46.5
FY0	10.78	Implied Cost of Debt (%)	5.00
FY1	21.44	StdMktCap	3.00
FY2	31.37		

Source: Worldscope, I/B/E/S

Figure 21. Macro Sensitivity

Region	1.13	Commodity ex Oil	(0.11)
Local Market	0.87	Rising Oil Prices	(0.06)
Sector	0.28	Rising Asian IR's	(0.46)
Growth Outperforms Value	0.04	Rising EM Yields	(0.03)
SmallCaps Outperform LargeCaps	0.30	Stronger US\$ (vs Asia)	1.73
Widening US Credit Spreads	(0.24)	Weaker ¥ (vs US\$)	(0.07)

Source: Citigroup Investment Research

Bharti Airtel

Company description

Bharti Airtel, through its group companies, provides cellular-phone services in all the 23-telecom circles of India. The group also provides fixed-line phone services, broadband, long-distance and enterprise services. The company is listed on The Stock Exchange, Mumbai (BSE) and The National Stock Exchange of India Limited (NSE). The major shareholders are Bharti Telecom, SingTel and Vodafone.

Investment thesis

We rate Bharti as Buy/Low Risk (1L) with a target price of Rs960. We believe continued robust wireless market expansion and Bharti's ability to capture this growth profitably will be a recurring theme. We estimate FY06-09 earnings CAGR of 47.9%, more than double that of the broader market. We believe that competitive pressures, though intense, will continue to be rational as low revenue yields and moderate EBITDA margins leave little room for disruptive pricing. Additionally, most regulatory concerns are behind us and 3G recommendations, though discomfiting, cannot derail the growth path, in our view. The strategic shareholding of SingTel, which the company has increased over time, leaves us comfortable with execution issues and new initiatives (such as electronic recharge, vendor tie-ups or a One Alliance partnership). Combined with strong brand presence and a good corporate governance standard, Bharti appears a strong investment. The company has yet to realize the benefits of economies of scale, and we expect a slight strengthening of margins.

Valuation

Our 12-month forward target price of Rs960 is based on core DCF of Rs800 and a towerco option value of Rs158. The core DCF (as on March-08) is based on a WACC of 10.8%, a terminal growth rate of 4% and beta of 0.9 (implying a terminal EV/EBITDA multiple of 8.5x). We prefer DCF as our primary valuation methodology because the wireless market will likely continue to see robust growth requiring upfront capex but should generate significant free cash beyond 2009-10. Our target price (net of towerco value) represents a FY09E P/E of 20.8x, P/CEPS of 12.9x and EV/EBITDA of 11.3x. The imputed target P/E (net of towerco) of 25.0x FY08E is at 25% premium to the broad market P/E (20.0x FY08E at the higher end of our Sensex target of 16,000). This, we believe, is justified by above-average earnings growth, improved earnings visibility and relative insulation from macro risks (interest rates and political risks).

Risks

Our quantitative risk-rating system, which tracks 260-day share price volatility, rates Bharti as Low Risk. We are comfortable attributing a Low Risk rating for the following reasons: (1) Bharti has a track record of profitability and execution; (2) the company's capex plans are fully funded; and (3) the strategic shareholding of SingTel leaves us comfortable with execution issues and initiatives. The risks that could prevent the stock from reaching our target price include competition-led tariff pressures, un-remunerative capex, overall market downside, and slower-than-expected execution of the tower sharing initiative.

Appendix A-1

Analyst Certification

We, Rahul Singh and Anand Ramachandran, CFA, research analysts and the authors of this report, hereby certify that all of the views expressed in this research report accurately reflect our personal views about any and all of the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

IMPORTANT DISCLOSURES

Bharti Airtel Limited (BRTI.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since April 28 2006)



#	Date	Rating	Target Price	Closing Price
1:	17 Mar 04	1H	*220.00	146.15
2:	14 Jan 05	*1M	*260.00	210.30
3:	22 Aug 05	1M	*400.00	306.10
4:	10 Jan 06	1M	*450.00	339.25
5:	13 Apr 06	1M	*500.00	395.95
6:	12 Oct 06	*1L	*600.00	475.65
7:	2 Jan 07	1L	*750.00	633.00
8:	23 Jan 07	1L	*800.00	689.15

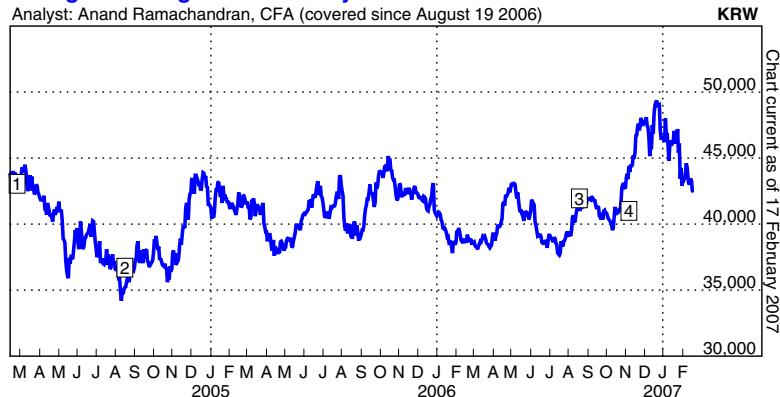
*Indicates change.

— Covered
 Not covered

KT Corp (030200.KS)

Ratings and Target Price History - Fundamental Research

Analyst: Anand Ramachandran, CFA (covered since August 19 2006)



#	Date	Rating	Target Price	Closing Price
1:	19 Feb 04	*2M	*48,000.00	43,850.00
2:	17 Aug 04	2M	*39,000.00	35,200.00
3:	18 Aug 06	*2L	*40,500.00	41,300.00
4:	7 Nov 06	2L	*45,000.00	44,400.00

*Indicates change.

— Covered
 Not covered

KT Freetel Co Ltd (032390.KS)

Ratings and Target Price History - Fundamental Research

Analyst: Anand Ramachandran, CFA (covered since August 19 2006)



#	Date	Rating	Target Price	Closing Price
1:	19 Jul 04	2L	*21,500.00	19,500.00
2:	6 Aug 04	2L	*19,500.00	17,600.00
3:	17 Feb 05	*3L	19,500.00	23,100.00
4:	24 Jun 05	*2L	*26,000.00	24,600.00
5:	29 Jul 05	2L	*27,500.00	27,200.00
6:	8 Dec 05	*2M	*26,000.00	23,450.00
7:	26 Jan 06	2M	*27,000.00	23,900.00
8:	18 Aug 06	*3M	*26,000.00	26,500.00
9:	10 Nov 06	3M	*25,000.00	29,900.00

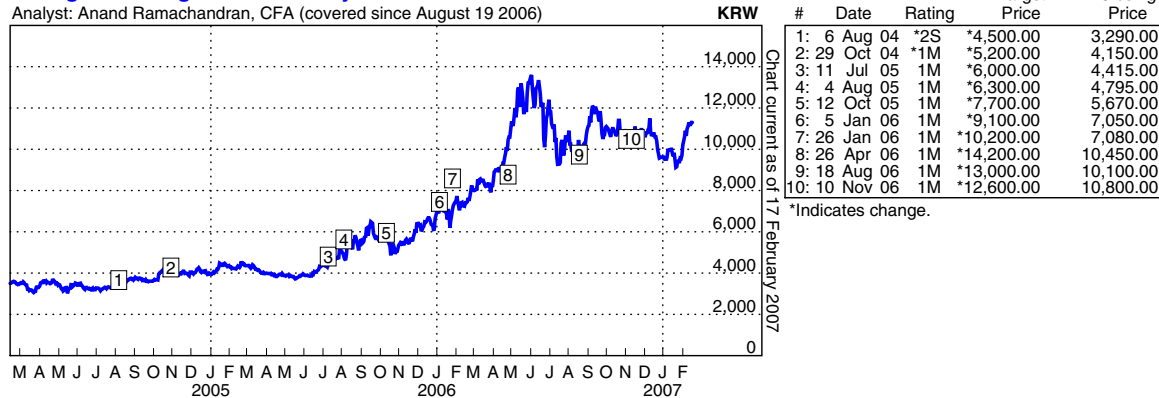
*Indicates change.

— Covered
 Not covered

LG TeleCom Co Ltd (032640.KQ)

Ratings and Target Price History - Fundamental Research

Analyst: Anand Ramachandran, CFA (covered since August 19 2006)

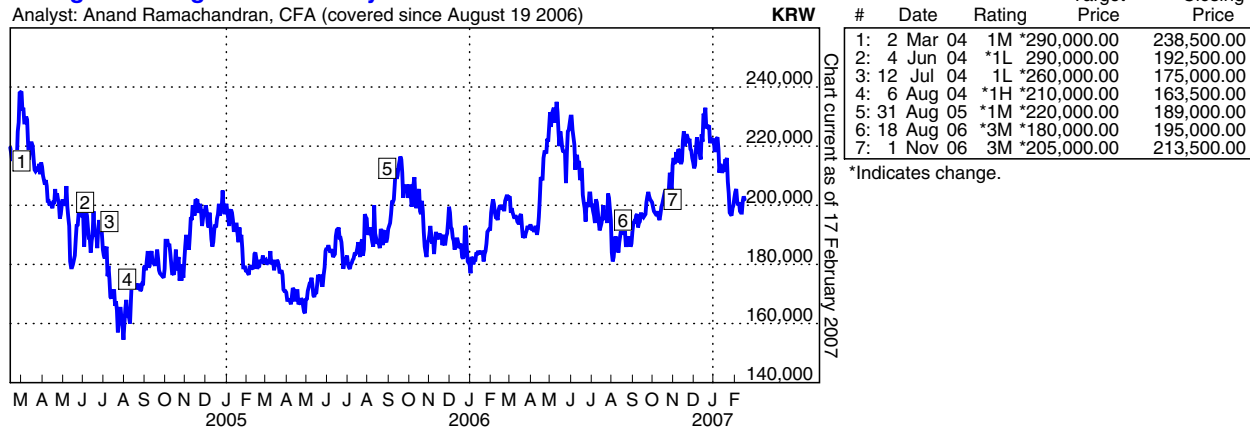


— Covered
 Not covered

SK Telecom Co Ltd (017670.KS)

Ratings and Target Price History - Fundamental Research

Analyst: Anand Ramachandran, CFA (covered since August 19 2006)



— Covered
 Not covered

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Taiwan -- Asia Pacific (85)	59%	24%	18%
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Telecommunications--Infrastructure Services -- North America (5)	40%	60%	0%
<i>% of companies in each rating category that are investment banking clients</i>	50%	33%	0%
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Citigroup Investment Research Australia Quantitative Scoring Stocks Model Coverage (10)	50%	0%	50%

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