

# Multi-Company

20 June 2007 | 36 pages

# **Indian Wireless**

## Upwards and Onwards

- Profitable growth reigns Even as expanding coverage, falling tariffs and handset costs lead us to raise subscriber growth estimates over FY08-10E, many unique drivers support modest margin expansion. We are raising estimates and target prices across the board. We prefer Bharti, Idea and Rcom (all Buys) in this order.
- Making money at 1cent/min Tower sharing, active cost deflation and a strong rupee should ensure paybacks remain healthy despite revenue/min converging to 1cent; present payback is ~2.5 years. We assume payback increases to 3.5-3.8 years in the terminal year (FY16E) to factor in a likely rise in competitive intensity.
- Several triggers to sustained re-rating Recent stock sluggishness presents entry opportunities given 1) Stronger growth with 35% penetration likely to arrive faster than expected; 2) positive earnings surprises coupled with scale and INR; and 3) Towerco valuation benchmarks emerging crystallizing additional value.
- Bharti: Going from fourth to sixth gear Amidst technologically challenged and spectrum starved peers, Bharti's undiluted leverage to growth stands out. We see the higher capex guidance as a sign of Bharti raising the ante to expand leadership – by no means in the price yet. The stellar execution track record adds comfort.
- Higher estimates, target prices EBITDA estimates up 8-12% for Bharti and Idea; less for RCOM as margin gains may be constrained. Introducing FY10E. Target price for Bharti moves to Rs1,050 (incl. towerco at Rs160/share), RCOM to Rs600 (incl. towerco at US\$3bn, Rs60/share) and Idea Rs140 (incl. 10% M&A premium).

Figure 1. India Wireless – Statistical Abstract										
		M Cap	Target Price		P/E (x)	EV/	'EBITDA (x)	EBITDA Cagr	EPS CAGR (FY07-	
Company	Rating	US\$M		FY08E	FY09E	FY08E	FY09E	(FY07-10E)	10E)	
Bharti	1L	37,840	1,050	26.3	20.4	15.4	11.5	34.7%	32.7%	
RCOM	1M	24,642	600	23.1	18.0	12.9	9.8	31.0%	29.6%	
Idea	1L	7,387	140	40.3	31.7	16.2	12.2	38.8%	36.7%	

Source: Citigroup Investment Research estimates

Note - Multiples do not include Towerco values or M&A premium

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

## Rahul Singh<sup>1</sup>

+91-22-6631-9863 rahul.r.singh@citi.com

#### Anand Ramachandran, CFA<sup>2</sup>

+852-2501-2448 anand.ramachandran@citi.com

Gaurav Malhotra<sup>1</sup> gaurav.a.malhotra@citi.com

Citigroup Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Non-US research analysts who have prepared this report are not registered/qualified as research analysts with the NYSE and/or NASD. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. <sup>1</sup>Citigroup Global Markets India Private Limited; <sup>2</sup>Citigroup Global Markets Asia

# Contents

What's changed?	3
India's wireless model displaying fixed-line dynamics	7
1cent/min and profitable	8
Towerco – Value unlocking finally happening	10
Annexure	12
Bharti Airtel (BRTI.BO)	15
IDEA Cellular (IDEA.BO)	20
Reliance Communications (RLCM.BO)	23
Appendix A-1	33

# What's changed?

## Subscriber growth momentum gathers steam

We are upgrading wireless growth estimates for India and expect 420m subs by FY10. Greater intensity of on-ground build-out, low-priced handsets and sharper declines in rev/min on the back of higher infrastructure sharing means that growth will be more front-ended in the supply-driven market and India will reach 35% penetration much faster (March-10E) than previously estimated. Our new estimates factor in an increase in the long-term wireless penetration rate of ~54% in line with the trends relative to per capital income in the region. Monthly net subscriber additions will cross 7m over the next two years with recent net additions confirming the trend.

#### Figure 2. India Wireless - Revised Subscribers

	FY08E		FY09E		FY10E		FY16E	
	Old	New	Old	New	Old	New	Old	New
Subscriber Estimates ('000)	239,186	245,321	313,894	336,165	387,693	420,459	664,128	696,695
Net additions ('000)	6,413	7,107	6,226	7,570	6,150	7,024	2,490	2,090
Population (Million)	1,147	1,147	1,164	1,164	1,182	1,182	1,292	1,292
Penetration (%)	20.9%	21.4%	27.0%	28.9%	32.8%	35.6%	51.4%	53.9%
Source: Citigroup Investment Research estimates								

#### Bharti most leveraged to the growth

Bharti's unchallenged growth opportunity in FY08 and its superior execution capabilities should give it a greater share of net additions. Its peers face constraints: 1) Maxis and RCOM lack spectrum to roll out GSM services in new circles; and 2) BSNL has capacity constraints relating to issues surrounding the tender. This should allow Bharti's market share to expand by 140 basis points in FY08E to 24.4% compared to our previous estimate of 23.0%; this trends downwards to reflect entry of new players and an active BSNL. Bharti's recent net additions confirm this trend. Lack of spectrum for new players also benefits Idea to some extent. Please note that the forecasted improvement in RCOM's market share is mainly due to inclusion of FWTs (which the company stopped reporting separately) as part of our new wireless estimates.

#### Figure 3. India Wireless – Subscriber and market share revisions

	F	Y08E	F	Y09E	F	Y10E	]F	Y16E
Bharti	Old	New	Old	New	Old	New	Old	New
Subscriber Estimates ('000)	54,998	59,921	70,796	81,489	85,933	100,710	142,462	163,688
Market share (%)	23.0%	24.4%	22.6%	24.2%	22.2%	24.0%	21.5%	23.5%
Idea	Old	New	Old	New	Old	New	Old	New
Subscriber Estimates ('000)	21,694	22,889	28,397	32,176	35,023	40,768	60,225	69,322
Market share (%)	9.1%	9.3%	9.0%	9.6%	9.0%	9.7%	9.1%	10.0%
RCOM	Old	New	Old	New	Old	New	Old	New
Subscriber Estimates ('000)	42,049	45,265	54,736	61,601	67,442	76,828	117,178	128,320
Market share (%)	17.6%	18.5%	17.4%	18.3%	17.4%	18.3%	17.6%	18.4%

## Earnings revision – Broad drivers still net +ve

We have raised FY08-09E EBITDA by 8-12% for Bharti/Idea given higher sub adds, notwithstanding sharper declines in rev/min that are compensated by higher MOUs. Idea's yoy growth will be highest (both EBITDA and EPS) over the next three years due to 1) a lower base, and 2) entry into new circles (Bihar and Mumbai). RCOM's upgrade is more muted as technological challenges prevent strong margin gains. Please note that the EPS growth trails EBITDA CAGR over FY07-10E primarily due to higher effective tax going forward, higher net debt to accommodate higher capex and lower forex gains especially in FY09-10E.

#### Figure 4. India Wireless - Change in Earnings Estimates

Figure 4. Illuid W	ileless – Glialig	se ili carilligs c	SUMALES		
<b>Bharti</b> EBITDA	2007A	2008E	2009E	2010E	3-yr CAGR (FY07-10E)
Old	74,125	109,330	135,921	161,273	
New	74,125	114,076	152,001	181,055	35%
Change %	NM	4%	12%	12%	
yoy growth %	72%	54%	33%	19%	
EPS					
Old	22.5	31.9	38.5	43.7	
New	22.5	33.8	43.7	52.4	33%
Change %	NM	6%	13%	20%	
yoy growth %	88%	50%	29%	20%	
ldea Cellular					
EBITDA					
Old	14,637	21,873	29,762	36,476	
New	14,637	23,301	32,153	39,126	39%
Change %	NM	7%	8%	7%	
yoy growth %	37%	59%	38%	22%	
EPS					
Old	1.9	2.5	3.6	4.9	
New	1.9	3.2	4.0	5.0	37%
Change %	NM	26%	14%	1.9%	
yoy growth %	161%	64%	27%	23%	
RCOM					
EBITDA	57.010	00.070	100.010		
Old	57,212	83,372	108,613	-	210/
New	57,212	84,689	109,659	128,571	31%
Change %	NM 1210	2%	1%	170/	
yoy growth %	131%	48%	29%	17%	
EPS					
Old	15.6	21.9	28.9	-	
New	15.6	22.5	28.8	33.7	29.6%
Change %	NM	2%	0%		
yoy growth %	562%	44%	28%	17%	
Source: Citigroup In	vestment Researc	h estimates			

## Target prices reflect higher growth estimates & value unlocking

We are raising target prices for all Indian wireless stocks under our coverage:

 Bharti: We are revising our target price to Rs1,050 (includes Rs157/share for towerco) on subscriber estimate revisions and towerco value upgrade. The core business value of Rs890/share represents a FY09E EV/EBITDA at 11.5x, P/E of 20.4x and P/CEPS of 13.1x.

- RCOM: We have revised RCOM's core business target price at Rs520 valuing it at a 15% discount to Bharti's imputed target EV/EBITDA of 11.5x FY09E given lower profit growth and long-term technological challenges. We are now incorporating towerco option value at Rs60/share (US\$3.0bn) given the likely emergence of a valuation benchmark. Incorporating Rs20/share relating to the potential of unlocking value in Flag in the next three months implies a SOTP target price of Rs600.
- Idea: Our revised Rs140 12-month price target for Idea Cellular incorporates a 10% M&A premium on the DCF value. The 128/share value ex-M&A premium represent a FY09E EV/EBITDA at 12.2x, P/E at 31.7x and P/CEPS at 13.0x. Though FY09E EV/EBITDA is at a slight premium to Bharti, this is justified given the higher growth over the next two years as it rolls out operations in new circles. Though the AV Birla Group has ruled out any M&A soon, we believe that potential exists in the long run, especially as spectrum constraints hinder new entrants (Maxis, RCOM, Telekom Malaysia). A significant block (~30%) of private equity investors with a lock-in of one year, will also keep potential suitors interested.

We outline our valuation comparison of Bharti, RCOM and Idea. The same comparison at our target prices (for the core business only) is also outlined.

#### Figure 5. India Wireless - Peer Valuation Comparison (at current prices)

	EV/EBITDA (x)		P/E (x)		P/CEPS (x)		EBITDA CAGR (FY07- 010E)	EPS CAGR (FY07-010E)
	2008E	2009E	2008E	2009E	2008E	2009E		
Bharti (Rs813)	14.1x	10.5x	24.1x	18.6x	15.7x	12.0x	34.7%	32.7%
ldea (Rs115)	14.7x	11.1x	36.2x	28.5x	15.7x	11.7x	38.8%	36.7%
RCOM (Rs492)	12.2x	9.3x	21.9x	17.1x	12.5x	9.9x	31.0%	29.6%
RCOM's % prem/(disc) to Bharti	-13%	-12%	-9%	-8%	-20%	-18%		
ldea's % prem/(disc) to Bharti	4%	6%	50%	53%	0%	-2%		
Source: Citigroup Investment Research e	stimates							

#### Figure 6. India Wireless – Peer Valuation Comparison (At core business target values)

	EV/EBITDA (x)		P/E (x)		P/CEPS (x)		EBITDA CAGR (FY07- 010E)	EPS CAGR (FY07-010E)
	2008E	2009E	2008E	2009E	2008E	2009E	_	
Bharti	15.4x	11.5x	26.3x	20.4x	17.2x	13.1x	34.7%	32.7%
ldea*	16.2x	12.2x	40.3x	31.7x	17.4x	13.0x	38.8%	36.7%
RCOM	12.9x	9.8x	23.1x	18.0x	13.2x	10.4x	31.0%	29.6%
RCOM's prem/(disc) to Bharti	-16%	-15%	-12%	-11%	-23%	-21%		
ldea's prem/(disc) to Bharti	5%	6%	53%	56%	2%	0%		
Source: Citigroup Investment Research es	timates							
*Excludes Idea's M&A premium of 10% ov	ver the TP							

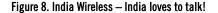
20 June 2007

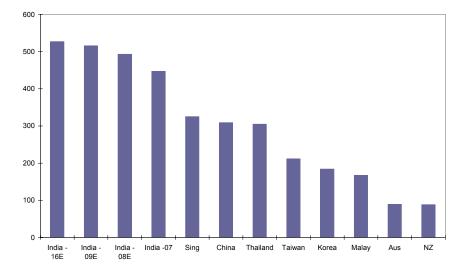
## Figure 7. India Wireless – Key assumptions

	FY06/CY05	FY07/CY06E	FY08/CY07E	FY09/CY08E	FY10/CY09E
Subs (m)					
Bharti	19.6	37.1	59.9	81.5	100.7
RCOM	17.3	29.0	45.3	61.6	76.8
Idea	7.4	14.0	22.9	32.2	40.8
Blended ARPU (Rs)					
Bharti	441	412	368	324	288
RCOM	435	391	347	301	266
Idea	395	334	305	271	237
EBITDA % - wireless					
Bharti	36.1%	37.6%	39.2%	41.7%	43.2%
RCOM	30.3%	37.1%	38.9%	40.6%	41.1%
Idea	36.0%	33.5%	34.5%	35.9%	37.8%
Wireless Capex (Rs m)					
Bharti	43,048	71,801	101,735	99,285	85,674
RCOM	NA	47,714	91,970	87,204	69,963
Idea	8,079	28,931	42,432	42,121	31,538
Capex to sales (%) - wireless only					
Bharti	52.5%	50.8%	47.5%	36.1%	27.2%
RCOM	NA	44.5%	59.4%	45.2%	31.7%
Idea	27.2%	66.3%	62.9%	47.0%	30.4%
Revenues - wireless (Rs m)					
Bharti	81,981	141,367	214,354	274,947	315,190
RCOM	74,070	107,276	154,728	192,842	220,730
Idea	29,655	43,664	67,496	89,597	103,619
EBITDA - wireless (Rs m)					
Bharti	29,565	53,210	83,950	114,669	136,286
RCOM	22,411	39,844	60,153	78,341	90,762
Idea	10,674	14,637	23,301	32,153	39,126
Source: Citigroup Investment Research estimates, Company R	leports				

# India's wireless model displaying fixed-line dynamics

India has the highest MOUs in the region (except Hong Kong), a result of low revenue/min (2 cents) and extremely low fixed line penetration of ~4%. As a result, mobile acts as a primary mode of communication even for so-called "marginal subs" who are entering the network now. Higher MOUs explained the surprising resilience in ARPUs in FY07 despite the surge in subscribers. Higher usage along with robust paybacks remains at the core of investment logic for Indian wireless. We believe the gap in usage levels between India and rest of region will sustain with the industry converging towards revenue/min of 1cents.





Source: Citigroup Investment Research estimates Note: Bharti taken as proxy for India Telecom

## Do rising MOUs have any ceiling?

The usage levels in India will continue to rise with wireless fulfilling the void created by low fixed line tele-density.

- Sharper decline in rev/min narrowing tariff differential with fixed line
- Fixed-line like usage by the subscribers as wireless operators go deeper into areas with low or no fixed lines.

We have revised our estimates factoring in a sharper decline in revenue/min and a consequent increase in MOUs till the terminal year (FY16E).

Figure 9. India Wireless – Revised MOUs and rev/min								
MOU (mins)	2008E	2009E	2010E	2016E				
New	493	516	527	561				
Old	400	383	369	402				
Rev/min (Rs)								
New	0.75	0.63	0.55	0.43				
Old	0.94	0.89	0.88	0.74				
Source: Citigroup Investment Resear	ch estimates							

Note: Above numbers are for Bharti as a industry proxy

# 1cent/min and profitable

Given the transition towards fixed line dynamics of high MOUs and low revenue/min, we believe that the capex/min holds the key to profitability even as the industry converges towards revenue/min of 1 cent (from the present 2 cents). As can be seen from the table below (based on Bharti's capex), the paybacks are quite attractive at 2.0-2.5 years. The challenge is to maintain it even while making mobile service affordable to the lower strata.

#### Figure 10. Bharti – Capex payback period

Year ended March 31	FY05	FY06	FY07
Capex (Rs m)	29,831	41,594	71,801
Capex/incremental min	1.73	1.20	0.87
EBITDA/min	0.52	0.42	0.35
Pay back period (years)	3.34	2.85	2.50
Source: Citigroup Investment Research	ı, Company Reports		

Figure 11. Bharti – Payback calculation (after netting off vendor credit for unutilized capacity)

Year ended March 31 (Rs m)	FY05	FY06	FY07
Сарех	29,831	41,594	71,801
Increase in equipment supplies payable	10,586	7,939	17,588
Capex less equipment supplies payable	19,245	33,655	54,213
Incremental mins (mn min)	17,195	34,771	82,157
Capex less equipment supplies payable/ incremental min	1.12	0.97	0.66
EBITDA/min (Rs)	0.52	0.42	0.35
Payback period (years)	2.16	2.31	1.89

So, what happens when EBITDA/min declines to Rs0.25/min over the next 2-3 years as industry drives down revenue per minute to tap the lower paying addressable market? We reckon that the decline in capex/min will keep pace given:

- About 60% of incremental capex (Rs0.87/min in FY07) is on passive infrastructure that can be brought down sharply through tower sharing. Thus tower sharing has a critical role to play in ensuring the industry's profitable transition towards lower revenue per minute.
- As far as active portion is concerned, costs are still on deflationary curve. Besides, strengthening rupee will aid in lowering capex on active components, which are dollar-denominated.

This will ensure paybacks remain healthy over FY08-10E. However, for terminal year (FY16E), we assume payback to go up to 3.5 years for Bharti to factor in potential dilution of returns post the high growth phase (FY08-10E).

Figure 12	India Wireless	– Paybacks likely	to sustain over	FY08-10F
I Iguic IZ	. IIIula Mileless	— гаураско пксту	to sustain ove	1100-105

Capex/increm min (Old) Capex/increm min (new)	<b>2007</b> 1.09 0.87	<b>2008E</b> 1.05 0.75	<b>2009E</b> 1.03 0.66	<b>2010E</b> 1.02 0.62
EBITDA/min (Old) EBITDA/min (new)	0.37 0.35	0.36 0.29	0.35 0.26	0.34 0.24
Payback (old) Payback (new) Source: Citigroup Investment Research estimates	3.0 2.5	2.9 2.6	3.0 2.5	3.0 2.6

# Towerco – Value unlocking finally happening

Telecom infrastructure is seeing strong growth with low penetration, high rollout commitments of incumbents and need to cut capex/opex in the wake of declining revenue per min. The potential value of towercos seems set to be realised, judging by recent interest from investors. Recent newspaper reports indicate towercos are in talks to tie up funds from financial and strategic investors.

#### Higher tenancy = Higher profitability

The value of the towerco depends upon: 1) number of towers and 2) Tenancy factor i.e. number of tenants per tower. The aggressive roll-out plans announced by telcos are a testament to the importance of the first mover advantage in this space. Larger number of towers initially attracts new tenants to leverage upon the wider coverage and higher tenancy factor helps attract more tenants as the towerco is able to provide more competitive rates as compared to other towercos. This virtuous cycle ensures that the towerco which is first off the line enjoys a sustained competitive advantage.

**Modifying the industry assumptions of number of towers** – Higher sub adds and higher MOUs result in increased requirement for macro tower assumptions (see table below). We expect ~300K towers over the next 4-5 years with an average tenancy of 2.3x in a fully evolved scenario. We are raising Bharti's towerco value from Rs145/share to Rs157/share while incorporating RCOM's towerco value of Rs60/share in the respective target prices.

#### Figure 13. India Wireless - Raising number of towers on account of rising MOUs & Subscriber Estimates

0	5		•						
MOU	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Old	340	345	333	329	331	335	342	352	362
New	419	465	474	482	486	492	496	501	505
Number of towers									
Old	145,970	184,360	200,453	215,433	235,083	249,577	265,640	270,742	280,731
New	170,679	228,212	259,829	290,055	309,430	328,814	338,659	342,730	345,843
Source: Citigroup Investment	Research estimates								

## **Raising Bharti's towerco value**

Bharti's towerco value has risen from US\$6.7bn to US\$7.3bn. Our DCF value incorporates a terminal tenancy factor of 2.5 and a tower market share of 35%. The increase is based upon both the increase in industry-wide tower numbers and Bharti's aggressive roll-out planned for FY08 ensuring a deeper market share of 38%.

As mentioned in our note <u>https://www.citigroupgeo.com/pdf/SAP06094.pdf</u>, Bharti's towerco enjoys a first mover advantage on two fronts:

- Largest market share of ~38% ensures that it is able to attract other tenants with wider reach than any other towerco
- MOU signed with Vodafone could give it higher tenancy factor which will help it offer more competitive rates to other tenants

#### Figure 14. Bharti – Revised towerco value

	Old	New
NPV (US\$m)	6,689*	7,279
NPV (Rs/Share)	145	157
Implied EV/EBITDA (FY09E)	11.7	11.3
Source: Citigroup Investment Researc	h, * The value is higher than original	US\$6.1bn due to rupee appeciation

## Incorporating RCOM's towerco value

While RCOM is actually ahead in the hive-off process (at least the administrative part), we believe that the towerco upside for RCOM will be less than Bharti due to 1) its lower tower count (15,000 vis-à-vis Bharti's 35,000), 2) RCOM's lower tower adds target for FY08 (20,000 vis-à-vis Bharti's 30,000) and 3) lower visibility of a second tenant as apposed to Bharti.

We are incorporating RCOM's towerco value of US\$3.0bn i.e. Rs60/share. Though smaller than Bharti's towerco, RCOM's aggressive roll-out plans of setting up 20,000 towers will be advantageous in an industry that will evolve into a 3-4 player market with 1-2 mega towercos. Please note that we assume lower tenancy factor and share of tower adds for RCOM vis-à-vis Bharti.

#### Figure 15. Indian Wireless – Tower industry estimates

	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Subscribers - end of period (m)	245	336	420	493	553	604	640	672	697
MOU per month	419	465	474	482	486	492	496	501	505
Total minutes per year (m)	1019692	1620989	2152396	2640921	3053747	3413280	3706491	3941893	4148288
Subs per cell site	950	910	910	900	890	880	875	870	860
No. of cell sites	213348	319497	415727	507597	587917	657628	711184	754006	795439
Monthly MOU per cell site	398290	422797	431452	433566	432848	432524	434310	435661	434591
Average tenancy	1.25	1.40	1.60	1.75	1.90	2.00	2.10	2.20	2.30
No. of towers	170679	228212	259829	290055	309430	328814	338659	342730	345843
Source: Citigroup Investment Research,	Note: MOU/cell site ass	umed lower in I	FY08-09E due t	o the front-ende	ed nature of the	rollout associa	ted with towerc	o landgrab	

#### Figure 16. Towerco - Value comparison

			EV.	/ebitda	
	Value (US\$m)	Per share (Rs)	FY08E	FY09E	
Bharti	7,279	157	16.9	11.3	
RCOM	2,984	60	17.3	12.3	
Source: Citigroup Investm	nent Research estimates				

#### *Higher tenancy translates into higher EBITDA margins*

#### Figure 17. Towerco – Assumptions

Market share of tower adds	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Bharti	38%	35%	35%	35%	35%	35%	35%	35%	35%
RCOM	26%	25%	25%	25%	25%	25%	25%	25%	25%
Tenancy factor									
Bharti	1.25	1.50	1.70	1.85	2.00	2.10	2.20	2.40	2.50
RCOM	1.15	1.30	1.50	1.65	1.80	1.90	2.00	2.10	2.20
EBITDA margin									
Bharti	38%	41%	43%	44%	50%	52%	53%	56%	56%
RCOM	32%	32%	37%	41%	46%	47%	50%	51%	53%

# Annexure

#### Figure 18. Asian Telecoms – Regional Wireless Valuations Comps

Company	RIC	Price	Rating	Pi (x		Earning CAGR	P/C ()	EPS ()	EV/EE ()		EBITDA Cagr	Dividen (%	nd Yield 6)
		19-Jun-07		07E/ FY08E	08E /FY09E	06-09E/ FY07-10E	07E/ FY08E	08E /FY09E	07E/ FY08E	, 08E /FY09E	06-09E/ FY07-10E	07E/ FY08E	08E /FY09E
AIS	ADVA.BK	Bt87.5	2H	13.9	12.5	11.1%	6.8	6.4	6.0	5.5	6.5%	7.2%	8.0%
Bharti	BRTI.BO	Rs812.75	1L	24.1	18.6	32.7%	15.7	12.0	14.1	10.5	34.7%	0.6%	1.1%
China Unicom	0762.HK	HK\$13.02	1L	20.9	17.2	18.5%	5.0	4.3	4.7	4.0	12.0%	1.8%	2.2%
China Mobile	0941.HK	HK\$80.35	2L	19.3	14.5	24.4%	10.5	8.7	7.8	6.5	15.3%	2.3%	3.2%
Digi	DSOM.KL	RM23.7	1L	18.7	15.7	14.4%	11.0	9.8	8.7	7.5	11.1%	5.4%	6.3%
FET	4904.TW	NT\$40.9	1L	13.2	9.6	9.3%	6.6	5.3	5.6	4.5	-1.8%	7.6%*	8.3%
Globe	GL0.PS	P1410	1L	13.5	12.4	13.9%	6.2	5.7	5.0	4.7	6.0%	4.7%	5.9%
IDEA	IDEA.BO	Rs116.3	1L	36.6	28.8	36.7%	15.8	11.8	14.8	11.2	38.8%	0.0%	0.0%
Indosat	ISAT.JK	Rp6850	3M	20.5	17.0	21.4%	5.5	4.9	5.7	5.1	15.7%	1.9%	2.7%
KTF	032390.KS	W29550	3M	14.1	11.4	15.9%	3.7	3.4	3.8	3.2	4.3%	2.0%	2.5%
LGT	032640.KQ	W11200	3M	10.4	8.2	-4.4%	4.4	3.8	4.9	3.9	10.9%	2.4%	3.0%
Maxis	MXSC.KL	RM15.4	2L	19.3	18.2	3.4%	11.5	10.3	9.5	8.8	12.0%	4.7%	5.0%
MobileOne	MONE.SI	S\$2.22	2L	12.4	11.8	5.4%	7.5	7.2	6.6	6.6	0.0%	6.3%	6.8%
RCOM	RLCM.BO	Rs503.6	1M	22.4	17.5	NA	12.8	10.1	12.5	9.5	NA	0.2%	0.4%
SKT	017670.KS	W211000	2M	11.2	9.9	10.3%	5.3	4.9	4.7	4.1	3.4%	3.8%	4.5%
SmarTone	0315.HK	HK\$8.88	3M	62.9	28.4	43.6%	6.6	5.9	4.2	3.4	4.2%	1.1%	2.3%
TAC	TACC.SI	US\$1.26	2H	13.1	9.7	36.3%	6.5	5.4	6.3	5.3	16.1%	2.3%	4.1%
Tata Tele	TTML.B0	Rs26.05	1M	NM	NM	NM	15.2	9.4	15.2	10.9	39.2%	0.0%	0.0%
TWM	3045.TW	NT\$38.3	1L	58.4	9.2	8.5%	17.1	6.3	6.4	4.7	0.5%	1.6%*	8.6%
Wtd. Avg Median				20.0 19.0	15.0 13.5		10.4 6.8	8.5 6.3	8.4 6.3	6.8 5.3		2.3% 2.3%	3.1% 3.2%

\*: exclude capital reduction

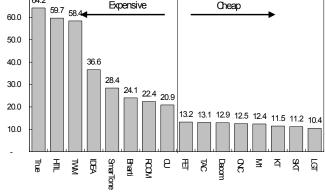
Source: Citigroup Investment Research estimates

#### Figure 19. Asian Telecoms – Regional Integrated Valuations Comps

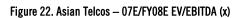
Company	RIC	Price	Rating	PI (x		Earning CAGR	P/CE (x)		EV/EB (x		EBITDA Cagr	Dividend (%	
		19-Jun-07		07E/ FY08E	08E/ FY09E	06-09E/ FY07-10E	07E/ FY08E	08E/ FY09E	07E/ FY08E	08E/ FY09E	06-09E/ FY07-10E	07E/ FY08E	08E/ FY09E
China Tel	0728.HK	HK\$4.78	1L	16.8	15.8	8.5%	4.8	4.8	5.3	4.8	1.6%	2.1%	2.3%
China Netcom	0906.HK	HK\$21.45	2L	12.5	11.1	6.4%	3.7	3.6	4.3	4.0	0.4%	2.8%	3.1%
Chunghwa	2412.TW	NT\$62.6	1L	13.4	12.7	2.2%	7.1	6.9	5.2	5.0	0.1%	6.5%	6.9%
LG Dacom	015940.KS	W26100	1M	12.9	9.4	16.1%	6.7	5.5	6.6	4.9	6.4%	2.3%	3.2%
Hanaro	033630.KQ	W9600	3M	NM	57.9	NM	5.1	4.7	5.2	4.7	4.8%	0.0%	0.0%
HTIL	2332.HK	HK\$10.28	3M	59.7	171.1	52.0%	7.9	10.5	2.0	4.0	-13.9%	0.0%	0.0%
KT	030200.KS	W45200	2L	11.5	10.8	-0.4%	3.8	3.8	4.3	4.1	0.4%	4.4%	4.5%
MTNL	MTNL.BO	Rs154.9	3L	19.6	27.6	-26.5%	8.2	9.0	7.5	7.8	-6.1%	3.2%	2.6%
PCCW	0008.HK	HK\$4.77	1M	13.7	13.4	0.4%	5.7	5.2	6.1	5.7	2.0%	4.4%	4.6%
PLDT	TEL.PS	P2640	1L	14.5	13.0	11.4%	8.5	8.0	6.6	5.9	5.4%	4.9%	5.6%
PT Telkom	TLKM.JK	Rp9700	1L	14.3	13.7	19.4%	7.6	7.2	5.3	4.8	14.5%	3.9%	5.3%
VSNL	VSNL.BO	Rs454.85	2M	20.5	18.2	9.8%	11.8	10.8	9.5	8.2	9.6%	1.0%	1.4%
SingTel	STEL.SI	S\$3.4	1L	15.0	13.3	8.9%	9.9	9.2	8.9	8.0	1.8%	6.0%	3.3%
StarHub	STAR.SI	S\$3.08	1L	15.5	13.9	19.9%	9.6	8.7	9.2	8.4	9.6%	4.9%	5.2%
True Corp	TRUE.BK	Bt7.8	1H	64.2	8.0	NM	2.3	1.8	5.1	4.0	17.8%	0.0%	0.0%
Telekom Mal	TLMM.KL	RM10.4	1L	16.4	14.4	18.4%	5.6	5.4	5.5	5.0	7.5%	4.4%	5.2%
Wtd Avg				15.2	13.8		6.6	6.4	5.9	5.5		3.4%	3.8%
Median				15.0	13.5		6.9	6.2	5.4	5.0		3.6%	3.3%
Source: Citigroup	Investment Rese	arch estimate											

Source: Citigroup Investment Research estimates

Figure 20. Asian Telcos – 07E/FY08E PE Multiples (x)
70.0
64.2
59.7 co.i
Expensive
Cheap



Source: Citigroup Investment Research estimates



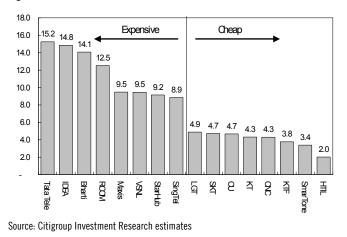
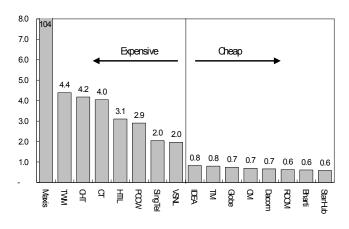
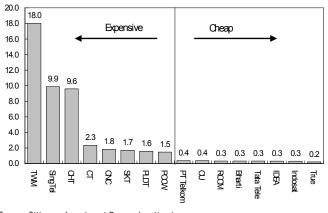


Figure 21. Asian Telcos - 07E/FY08E PE to 2YR EPS CAGR



Source: Citigroup Investment Research estimates





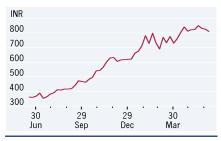


# **Company Section**

# **Company Focus**

Rating change	
Target price change 🗹	
Estimate change 🗹	
Buy/Low Risk	1L
Price (19 Jun 07)	Rs806.00
Target price	Rs1,050.00
from Rs960.00	
Expected share price return	30.3%
Expected dividend yield	0.0%
Expected total return	30.3%
Market Cap	Rs1,529,102M
	US\$37,718M

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



# Bharti Airtel (BRTI.BO)

Buy: Solid as ever, Towerco strongly positioned

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Mar	(RsM)	(Rs)	(%)	(x)	(x)	(%)	(%)
2006A	22,566	11.92	47.4	67.6	16.6	29.5	0.0
2007A	42,571	22.45	88.4	35.9	11.3	37.4	0.0
2008E	64,063	33.79	50.5	23.9	8.1	39.5	0.6
2009E	82,853	43.70	29.3	18.4	6.0	37.5	1.1
2010E	99,387	52.42	20.0	15.4	4.6	34.1	1.3

Source: Powered by dataCentral

- Upgrading target price, earnings We are revising our target price to Rs1,050/share (incl. Rs157 for towerco) on subscriber estimate revisions, higher market share and towerco value upgrade. Upgrading FY08-09E earnings by 6-13%. Introducing FY10E. The core DCF value of Rs890/share imputes an EV/EBITDA of 11.5x FY09E, P/E of 20.3x and P/CEPS of 13.1x.
- Growth momentum accelerating Spectrum uncertainty largely ensures that Bharti's undiluted leverage to growth will gather momentum in FY08E resulting in a 27% market share of net additions. Though this should trend downwards to reflect the entry of new players and an active BSNL post-FY08, subscriber additions would continue to remain robust.
- Raising towerco value to Rs157/share (US\$7.3bn) This is mainly due to forecasted increase in towers required to accommodate higher MOUs. Towerco value accrues from Bharti's highest tower count, aggressive build-out plans and better sharing visibility (agreement with Vodafone). Immediate-term impact on Bharti's EBITDA margins are manageable and partially factored in.
- Bharti remains the top pick Bharti remains our top pick in the region with its peerless execution setting it apart from the other telcos. The lack of headroom in the foreign limit remains an irritant though to gain exposure. Maintain Buy/Low risk.

## Bharti most leveraged to the wireless growth

We are raising Bharti's market share of net adds to 27% for FY08, though this will trend downwards in FY08-09E (23-24%) to reflect the entry of new players and an active BSNL.

Bharti's window of unchallenged growth should continue in FY08 with issues being faced by its peers; 1) Maxis, RCOM – Lack of spectrum availability to roll out GSM services in new circles and 2) BSNL – Capacity constraints relating to issues surrounding the tender; along with superior execution capabilities will result in a higher market share of net additions. As a result, its market share will be higher by 140 basis points in end-FY08E at 24.4% compared to our previous estimate of 23.0%

#### Figure 24. Bharti Airtel – Revised monthly subscriber net additions

	FY08E		FY09E		FY10E		FY16E	
	Old	New	Old	New	Old	New	Old	New
Subscriber monthly net additions ('000)	1,494	1,898	1,316	1,797	1,261	1,602	514	481
Market share of net additions (%)	23.3%	26.7%	21.1%	23.7%	20.5%	22.8%	20.6%	23.0%

Source: Citigroup Investment Research estimates

## Towerco value raised – Aggressive build-out planned

We have raised Bharti's towerco value from US\$6.7bn to US\$7.3bn. Our DCF value incorporates a terminal tenancy factor of 2.5 and a tower market share of 35%. The increase from earlier Rs145/share is based on higher tower requirement for the industry and incorporates Bharti's aggressive roll-out planned for FY08 (30,000 towers).

While Bharti's aggressive build out plan in FY08 could temporarily compress parent company's EBITDA margins (through the transfer pricing presumably based on cost-plus), it is necessary to wrest the first mover advantage. For the parent company, our wireless EBITDA margin for FY08E at 39.2% is conservative, especially in the context of 39.1% margin in 4QFY07 and the 150bps improvement witnessed over 3QFY07. Therefore, Bharti's EBITDA margin assumption for FY08 partially incorporates the likely impact of transfer pricing for the tower rentals taking effect sometime in the current fiscal.

#### Figure 25. Bharti Airtel - revised towerco value

	Old	New
NPV (US\$m)	6,689*	7,279
NPV (Rs/Share)	145	157
Implied EV/EBITDA (FY09E)	11.7	11.3
Source: Citigroup Investment Research	estimates, * Higher than original U	S\$6.1bn due to rupee appreciation

Bharti's towerco besides having the highest market share also enjoys advantage relating to having a tenancy factor higher than the industry average due to the MoU signed with Vodafone that will guarantee it a second tenant. This ensures that it can offer rates that are more competitive than its peers.

20 June 2007

## Figure 26. Bharti Airtel – Towerco assumptions

ingulo zo: bilatti fattor i fonoloo dot	Jamperono								
	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
Bharti's share	38%	35%	35%	35%	35%	35%	35%	35%	35%
Bharti owned towers (nos)	62562	82699	93765	104344	111125	117909	121355	122780	123869
Average tenancy (x)	1.25	1.50	1.70	1.85	2.00	2.10	2.20	2.40	2.50
Tower rental revenues (Rs m)	46921	64009	72686	81075	93345	103996	108928	116690	118915
Operating costs (Rs m)	29279	37711	41631	45076	46672	49522	50969	51567	52025
EBITDA (Rs m)	17642	26298	31055	35999	46672	54474	57959	65122	66889
EBITDA (%)	38%	41%	43%	44%	50%	52%	53%	56%	56%
EBITDA per tower (Rs/year)	282000	318000	331200	345000	420000	462000	477600	530400	540000
Implied RoA	9.4%	10.6%	11.0%	11.5%	14.0%	15.4%	15.9%	17.7%	18.0%
Implied Payback (years)	10.6	9.4	9.1	8.7	7.1	6.5	6.3	5.7	5.6
Capex per tower (Rs m)	2.5	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Capex (Rs m)	71622	54370	33198	31737	20344	20353	10337	4274	3269
Maintenance capex per tower (Rs m)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Maintenance capex (Rs m)	2120	4223	7443	8439	9391	10001	10612	10922	11050
Total capex (Rs m)	73741	58592	40641	40176	29735	30355	20949	15196	14319
Total Capex (US\$m)	1799	1429	991	980	725	740	511	371	349
Cumulative Capex (Rs m)	109774	168366	209007	249183	278918	309272	330221	345417	359736
Depreciation (Rs m)	9148	14031	17417	20765	23243	25773	27518	28785	29978
EBIT (Rs m)	8495	12268	13638	15233	23429	28701	30441	36338	36911
Debt financing (60%)	44245	58642	57590	51028	26719	0	0	0	0
Interest cost (Rs m)	3540	4691	4607	4082	2138	0	0	0	0
PBT	4955	7576	9030	11151	21292	28701	30441	36338	36911
Taxes	555	849	1011	1249	2385	3215	3409	4070	12181
NOPAT (Rs m)	6772	9871	11106	12637	20339	25487	27031	32268	24731
FCF (Rs m)	-57822	-34691	-12118	-6773	13848	20905	33601	45857	40390
Terminal Value (Rs m)	598364								
Implied terminal EV/EBITDA (x)	8.9								
NPV (Rs m)	298427								
NPV (US\$m)	7279								
NPV (Rs/share)	157								
Implied EV/EBITDA (x)	16.9	11.3							
Source: Citigroup Investment Research esti	mates								

#### Figure 27. Bharti Airtel – Profit and Loss Statement

Rs in million, year-end March	2006	2007	2008E	2009E	2010E
Mobile revenue	80,822	140,184	214,354	274,947	315,190
Infotel revenue	46,613	66,387	88,853	111,180	134,252
Intersegment revenue	0	0	0	0	0
Total service revenue	113,724	181,971	272,886	347,515	404,497
Other revenue	1,160	607	-	-	-
Total Revenue	114,884	182,578	272,886	347,515	404,497
Access charges	(21,776)	(31,378)	(72,327)	(93,263)	(112,651)
Network operating	(11,729)	(21,100)	(31,825)	(38,684)	(39,663)
Cost of sales of goods	(1,169)	(589)	(774)	(890)	(979)
Personnel	(8,186)	(12,488)	(15,370)	(18,228)	(20,238)
SG&A	(19,146)	(28,563)	(41,275)	(47,977)	(54,624)
Intersegment elimination			30,321	38,613	44,944
Total Operating Expenses	(62,006)	(94,118)	(131,251)	(160,429)	(183,211)
EBITDA ex license fee	54,210	91.078	141,635	187.086	221,286
License fee	(11,228)	(16,953)	(27,560)	(35,085)	(40,231)
Adjusted EBITDA	42,981	74,125	114,076	152,001	181,055
Depreciation	(14,206)	(23,702)	(32,662)	(44,346)	(54,125)
Amortization	(1,170)	(1,123)	(1,497)	(1,438)	(1,380)
Preoperative expenditure	(120)	(9)	-	-	-
Other income	392	1,064	-	-	-
EBIT	27,877	50,355	79,916	106,217	125,550
Net finance costs	(2,512)	(1,438)	(4,547)	(5,177)	(4,346)
Non recurring items gain/(loss)	(2,012)	(56)	(1,017)	(0,1777	(1,010)
PBT	25,365	48,861	75,368	101,040	121,204
Current tax	(1,773)	(5,330)	(11,305)	(18,187)	(21,817)
Deferred tax (expense)/income	(767)	(492)	(11,505)	(10,107)	(21,017)
PAT	22,826	43,039	64,063	82,853	99,387
Minority interests	(260)	(468)	04,005	02,000	55,507
Profit/ (loss) for the year	22,566	42,571	64,063	82,853	99,387
1 10111/ (1055) 101 tile year	22,300	42,371	04,003	02,000	55,507
EPS (Rs)	11.9	22.5	33.8	43.7	52.4
DPS (Rs)	-	-	5.1	8.7	10.5
Payout ratio (%)	0.0%	0.0%	15.0%	20.0%	20.0%
Shares outstanding (MM)	1,894	1,896	1,896	1,896	1,896
Growth Y/Y (%)					
Revenues	43.6%	58.9%	49.5%	27.3%	16.4%
EBITDA	44.8%	72.5%	53.9%	33.2%	19.1%
EPS	47.4%	88.4%	50.5%	29.3%	20.0%
DPS	NA	NA	NA	70.6%	20.7%
Source: Citigroup Investment Researc	ch estimates				

#### Figure 28. Bharti Airtel – Balance sheet

Rs in million, year-end March	2006	2007	2008E	2009E	2010E
Net PP&E block Capital WIP	142,411	210,604	309,123	388,522	446,921
Investments	3,216	2,686	2,686	2,686	2,686
Deferred tax asset (net)	(1,946)	(2,432)	(2,432)	(2,432)	(2,432)
Inventories	381	912	2,086	2,779	3,693
Sundry debtors	14,203	17,983	21,831	24,326	24,270
Cash and bank balances	2,649	7,464	1,012	5,972	26,570
Other current assets, loans and advances	11,042	15,303	15,303	15,303	15,303
Total current assets	28,275	41,662	40,232	48,380	69,836
Current liabilities	78,396	95,710	124,688	144,386	155,729
Provisions	-	-	-	-	-
Total current liabilities	78,396	95,710	124,688	144,386	155,729
Net current assets	(50,121)	(54,048)	(84,457)	(96,006)	(85,893)
Miscellaneous expenditure	-	-	-	-	-
Profit and loss account	-	-	-	-	-
Total Assets	135,339	198,548	264,801	331,213	398,345
Share capital	18,939	18,959	18,959	18,959	18,959
Reserve and surplus	17,511	60,083	113,336	177,748	254,880
Shareholders equity	36,450	79,042	132,295	196,707	273,839
Secured loans	34,503	52,461	65,461	67,461	57,461
Unsecured loans	-	-	-	-	-
Minority interests	957	1,801	1,801	1,801	1,801
Total Liabilities	135,339	198,548	264,801	331,213	398,345

Source: Citigroup Investment Research estimates

#### Figure 29. Bharti Airtel – Cash flow statement

Rs in million, year-end March	2006	2007	2008E	2009E	2010E
Cash Flow from Operations	48,320	77,884	126,727	150,323	169,724
Сарех	(57,309)	(89,228)	(134,611)	(123,745)	(112,524)
Cash Flow from other Investing Activities	(54,095)	(88,152)	(132,049)	(123,605)	(111,873)
Cash flow from Financing Activities	5,338	15,717	(2,527)	(21,758)	(37,253)
Change in cash	(438)	5,450	(7,850)	4,961	20,598
Beginning Cash	3,087	3,412	8,861	1,012	5,972
Closing cash	2,650	8,861	1,012	5,972	26,570
Source: Citigroup Investment Research es	stimates				

# **Company Focus**

Rating change □	
Target price change 🗹	
Estimate change 🗹	
Punu/Low Diek	11
Buy/Low Risk	11
Price (19 Jun 07)	Rs114.65
Target price	Rs140.00
from Rs112.00	
Expected share price return	22.1%
Expected dividend yield	0.0%
Expected total return	22.1%
Market Cap	Rs297,271M
	US\$7,333M

#### Price Performance (RIC: IDEA.BO, BB: IDEA IN)



# IDEA Cellular (IDEA.BO)

Buy: Steady as it goes

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Mar	(RsM)	(Rs)	(%)	(x)	(x)	(%)	(%)
2006A	1,683	0.74	636.7	153.9	39.8	30.9	0.0
2007A	5,033	1.94	160.6	59.1	8.8	25.1	0.0
2008E	8,371	3.18	63.6	36.1	6.7	21.2	0.0
2009E	10,649	4.04	27.2	28.4	5.4	21.1	0.0
2010E	13,052	4.95	22.6	23.1	4.4	20.9	0.0

Upgrading target price — We are revising our Mar-08 target to Rs140, incorporating a 10% M&A premium on the DCF value (Rs128). We have raised the core business value of 128/share due to higher growth over FY07-10E and imputes a FY09E EV/EBITDA of 12.2x, P/E at 31.7x and P/CEPS at 13.0x. The premium to Bharti on EV/EBITDA is justified by higher growth over the next three years.

- Subscriber additions market share to remain stable We are factoring in a stable 10% share of net adds until the terminal year (FY16E). Though its market share of net adds should come under pressure in existing circles. Roll-out in new circles should ensure that the overall market share remains stable.
- Incorporating 10% M&A premium Though AV Birla Group has ruled out a potential M&A transaction in the immediate future, we are attaching a 10% M&A premium to the target price especially as spectrum constraints hinder new entrants in GSM (Maxis, RCOM and Telekom Malaysia). A significant block of private equity investors will also keep potential suitors interested.
- Key risks Key risk relates to spectrum uncertainty in procuring spectrum hitting the rollout timetable and project cost overruns remain key risks. From an industry perspective, we believe low revenue yields and moderate EBITDA margins leave little room for disruptive pricing. Maintain Buy/Low Risk.

#### Figure 30. IDEA Cellular – Profit and Loss statement

Year ending March 31( Rs m)	2005	2006	2007	2008E	2009E	2010E
Service Revenue	22,464	29,489	43,664	67,496	89,597	103,619
Equipment Sales	93	166	-	-	-	-
Total Income	22,557	29,655	43,664	67,496	89,597	103,619
Cost of Trading Goods	(84)	(76)	(52)	-	-	-
License Fees	(1,472)	(2,152)	(4,487)	(5,946)	(8,795)	(10,952)
Interconnect & Roaming Charges	(5,151)	(6,485)	(7,287)	(13,446)	(16,302)	(19,373)
Network Operating Cost	(1,692)	(2,189)	(5,279)	(8,612)	(10,624)	(9,438)
Staff Costs	(1,419)	(1,734)	(2,598)	(2,958)	(4,159)	(5,269)
Selling Costs	(2,923)	(4,553)	(7,438)	(9,521)	(12,188)	(13,554)
Admin and Other Exp	(1,606)	(1,793)	(1,887)	(3,712)	(5,376)	(5,906)
Total Opex	(14,347)	(18,981)	(29,028)	(44,195)	(57,444)	(64,493)
EBITDA	8,210	10,674	14,637	23,301	32,153	39,126
EBITDA margin	36.4%	36.0%	33.5%	34.5%	35.9%	37.8%
Net interest	(3,189)	(3,225)	(3,291)	(4,458)	(5,124)	(5,786)
Depreciation & Amortisation	(4,427)	(5,495)	(6,718)	(10,990)	(15,217)	(18,900)
EBIT	3,783	5,179	7,918	12,312	16,936	20,226
PBT	760	2,198	5,092	8,630	11,992	14,699
PAT	760	2,118	5,033	8,371	10,649	13,052
No of shares	2,260	2,260	2,593	2,635	2,635	2,635
EPS	0.1	0.7	1.9	3.2	4.0	5.0

Source: Citigroup Investment Research estimates

#### Figure 31. IDEA Cellular – Balance sheet

Total Assets	53,310	56,547	101,001	116,940	144,648	160,526
Loans & Advances	1,594	2,394	3,000	3,500	4,000	4,500
Other Current Assets	514	678	746	970	1,067	1,173
Cash & Bank	1,772	1,493	22,872	3,000	3,000	5,608
Sundry Debtors	1,514	1,308	1,302	1,581	1,740	1,715
Inventories	176	114	200	250	300	350
Current Assets, Loans & Advances	5,569	5,987	28,120	9,301	10,106	13,347
Goodwill on Consolidation	11,791	11,791	11,816	11,816	11,816	11,816
Fixed Assets	35,950	38,769	61,065	95,823	122,726	135,364
Total Liabilities	53,310	56,547	101,001	116,940	144,648	160,526
Provisions	106	172	172	172	172	172
Other Current Liab	739	1,047	2,200	1,600	1,800	1,900
Deposits from Customers	760	699	1,600	1,600	1,600	1,600
Advances from Customers	1,379	1,743	2,790	4,781	6,437	7,454
Eq Supply Payables	4,169	8,693	18,082	21,216	21,060	15,769
Current Liabilities & Provisions	7,153	12,355	24,844	29,370	31,069	26,895
Loan Funds	36,939	32,856	42,505	42,325	57,685	64,685
Preference Share Capital	4,830	4,830	0	0	0	0
General Reserves	(19,205)	(17,088)	(12,078)	(3,684)	6,965	20,017
Reserves & Surplus	998	998	19,813	22,576	22,576	22,576
Equity Share Capital	22,595	22,595	25,929	26,354	26,354	26,354
Shareholders Funds	9,218	11,336	33,664	45,245	55,894	68,946
Year ending March 31 (Rs m)	2005	2006	2007	2008E	2009E	2010E

Source: Citigroup Investment Research estimates

#### Figure 32. IDEA Cellular – Cash Flow statement

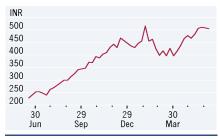
•						
Year ending March 31 (Rs m)	2005	2006	2007	2008E	2009E	2010E
Net Profit	760	2,118	5,033	8,371	10,649	13,052
Depreciation	8,983	4,370	5,643	9,808	14,036	17,719
Change in Working Capital	784	4,505	11,736	3,473	894	(4,806)
Operating Cash Flow	10,527	10,992	22,412	21,651	25,579	25,965
Сарех	(16,068)	(7,188)	(31,254)	(41,251)	(40,939)	(30,356)
Acquisitions/Disposals	7,322	-	25	-	-	-
Investments	(450)	-	12	(12)	-	-
Other Investing Cash Flow						
Investing Cash Flow	(9,195)	(7,188)	(31,217)	(41,263)	(40,939)	(30,356)
Borrowings	13,223	(4,083)	9,649	(180)	15,360	7,000
Preference capital			(4,830)	-	-	-
Equity Changes	-	-	22,148	3,188	-	-
Financing Cash Flow	13,223	(4,083)	26,967	3,007	15,360	7,000
Opening Cash	962	1,772	1,493	19,654	3,050	3,050
Change in Cash	14,555	(279)	18,161	(16,604)	-	2,608
Closing Cash	15,517	1,493	19,654	3,050	3,050	5,658
Source: Citigroup Investment Res	earch estimates					

Source: Citigroup Investment Research estimates

# **Company Focus**

Target price change	
Estimate change 🗹	
Buy/Medium Risk	1M
Price (19 Jun 07)	Rs490.75
Target price	Rs600.00
from Rs510.00	
Expected share price return	22.3%
Expected dividend yield	0.2%
Expected total return	22.5%
Market Cap	Rs1,003,395M
	US\$24,751M

#### Price Performance (RIC: RLCM.BO, BB: RCOM IN)



# **Reliance Communications (RLCM.BO)**

Buy: Value unlocking to the fore

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Mar	(RsM)	(Rs)	(%)	(x)	(x)	(%)	(%)
2006A	4,823	2.36	na	nm	8.5	na	0.0
2007A	31,396	15.36	551.1	32.0	4.9	19.5	0.1
2008E	45,977	22.49	46.4	21.8	4.1	20.4	0.2
2009E	58,905	28.82	28.1	17.0	3.3	21.4	0.4
2010E	69,571	34.04	18.1	14.4	2.7	20.8	0.4

**Target up on non-core drivers** — While RCOM remains leveraged to Indian wireless growth, earnings upgrades are muted as higher sub adds are offset by likely margin pressures on subsidies. Target moves up though to Rs600, incorporating value from towerco (Rs60) and FLAG (Rs20).

- **CDMA back in focus, at least for the time being** The uncertainty regarding the timing of spectrum release and RCOM's status in the "queue" has led to company reverting to CDMA, with cheaper/discounted handsets as their main tool. While we have more or less maintained RCOM's share of net adds over FY01-10E, EBITDA margin gains will likely be more muted than peers.
- **Towerco unlocking ahead of peers?** While we favor Bharti's towerco in terms of size and visibility, RCOM may set the valuation benchmark. RCOM's accelerated tower rollout target (20,000 in FY08) despite lack of clarity on GSM spectrum could be a result of growing realization of the "first mover" advantage in a nascent industry likely to be dominated by 1-2 mega towercos.
- Potential positive triggers in the short term RCOM will take a decision on value unlocking in the Towerco in next six months. This along with FLAG listing is potential trigger even as material discount to Bharti's valuations (20-25% on FY08-09E EV/EBITDA) provide downside support. We reiterate Buy.

## Wireless business – Back to CDMA?

Spectrum release and allocation for GSM remains key for RCOM's proposed overlay in 15 circles. Given the growing needs and first right of the incumbents (as per the subscriber linked formula) and other new entrants who are waiting (Idea and Maxis), the visibility for RCOM are far less than ideal.

- We see a possibility of RCOM getting spectrum in only some of the circles due to the prevalent "queue", which though informal is likely to be followed.
- Meanwhile, TRAI has also raised the issue of GSM spectrum allocation to existing CDMA players in its latest consultation paper on "Capping of number of access providers". The debate is therefore likely to continue over RCOM's position in the demand for spectrum.

As a result, RCOM has turned its focus back on CDMA for now, with discounted handsets a key tool. While this has had some restoring impact on its market share, a) it has not been at the expense of GSM, and b) could be at the expense of its margins. We would therefore watch revenue growth and ARPU trends more closely in 1QFY08 disclosures. Meanwhile, we assume relatively muted gains in RCOM's wireless EBITDA vis-a-vis peers, to factor in the impact of cash discounts on CDMA handsets.

#### Figure 33. Reliance Communications – Wireless EBITDA margins

	FY06/CY05	FY07/CY06E	FY08/CY07E	FY09/CY08E	FY10/CY09E
Bharti	36.1%	37.6%	39.2%	41.7%	43.2%
RCOM	30.3%	37.1%	38.9%	40.6%	41.1%
ldea	36.0%	33.5%	34.5%	35.9%	37.8%

Source: Citigroup Investment Research estimates

## Towerco – Funding rounds will create valuation benchmarks

As per media reports, RCOM's towerco (Reliance Telecom Infrastructure Ltd.) is in talks with private equity investors for funding. While Bharti remains more leveraged to the towerco valuation, RCOM's apparent progress in tying up equity funds needs to be recognized too. We have therefore undertaken towerco valuation for RCOM as well, estimated at US\$6bn (Rs60/share). Please note that we have assumed RCOM's tenancy factor to be lower than Bharti (by 0.20-0.30) and market share of tower adds at 25% (vs. 35% for Bharti). 20 June 2007

Rs in million, year-end March	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16
RCOM's share	26%	25%	25%	25%	25%	25%	25%	25%	25%
RCOM owned towers (nos)	31776	46159	54063	61620	66464	71310	73771	74788	7556
Average tenancy (x)	1.15	1.30	1.50	1.65	1.80	1.90	2.00	2.10	2.20
Tower rental revenues (Rs m)	21925	30964	37953	45143	51682	56905	61968	64079	67829
EBITDA (Rs m)	7054	9915	13948	18523	23767	26955	30984	32668	36091
EBITDA (%)	32%	32%	37%	41%	46%	47%	50%	51%	53%
Capex (Rs m)	49004	38835	23713	22669	14531	14538	7384	3053	2335
Total capex (Rs m)	49765	40980	27867	27535	20077	20520	13802	9692	9066
Total Capex (US\$m)	1214	1000	680	672	490	500	337	236	221
FCF (Rs m)	-43499	-32343	-15387	-10584	1977	4520	15288	21346	21344
NPV (Rs m)	122357								
NPV (US\$m)	2984								
NPV (Rs/share)	60								
Implied EV/EBITDA (x)	17.3	12.3							
WACC (RCOM's current)	10.8%								
Terminal growth rate	4%								

# Value Unlocking of undersea cable assets

RCOM has approved plans to list FLAG to: 1) fund capex on new cables and 2b) potentially unlock value. The process could take three months. Given our EBITDA estimates for the data business (part of Global business in RCOM's segmental reporting), and the range of possible market cap, we estimate the potential upside to be Rs20/share at the mid-point. Given the lack of any listed peers, FLAG's valuation will likely depend on estimated cash flows from capacity and bandwidth sales, percentage of unlit capacity, capex on new capacity, etc.

#### Figure 35. FLAG - Details and Upside

	FY07	FY08E	FY09E
FLAG/Data EBITDA - Rs m	3,474	6,066	8,375
FLAG/Data EBITDA - US\$m	79	150	207
RCOM's EV/EBITDA (x) at Rs520		9.8	8.0
Present contribution of FLAG to EV - US\$m		1,474	1,655
Potential listed market cap - lower end (US\$m)		2.000	2,000
Incremental value creation		2,000 526	2,000
		520	545
Potential listed market cap - upper end (US\$m)		3,000	3,000
Incremental value creation		1,526	1,345
Average incremental value creation (Rs m)		41.557	34,231
Outstanding shares (m)		2.044	2.044
Value per share		2,044	2,044
		20	17
Source: Citigroup Investment Research estimates			

Rs in million, year-end March	FY06	FY07	FY08E	FY09E	FY10E
Total Revenue	112,884	144,683	187,760	230,030	262,790
Wireless	74,070	107,276	154,728	192,842	220,730
Global Business	59,048	51,771	55,422	63,094	69,144
Broadband	5,128	11,440	16,067	21,210	26,740
Others	19,200	3,716	-	-	-
Eliminations	(44,562)	(29,521)	(38,457)	(47,115)	(53,824)
Total Cost	(88,098)	(88,013)	(103,071)	(120,371)	(134,219)
Access & IUC	(31,012)	(25,628)	(54,468)	(62,776)	(70,202)
License Fees	(8,559)	(12,194)	(15,040)	(19,294)	(22,628)
Other Operating Exp	(48,527)	(49,649)	(72,020)	(85,416)	(95,214)
EBITDA	24,786	57,212	84,689	109,659	128,571
Wireless	22,411	39,844	60,153	78,341	90,762
Global Business	5,922	12,714	16,527	20,716	24,171
Broadband	746	5,194	8,243	10,882	13,974
Others	-	(194)	(233)	(280)	(336)
Eliminations	(4,293)	(541)	-	-	-
EBITDA Margin (%)	22.0	39.5	45.1	47.7	48.9
Wireless (%)	30.3	37.1	38.9	40.6	41.1
Global Business (%)	10.0	24.6	29.8	32.8	35.0
Broadband (%)	14.5	45.4	51.3	51.3	52.3
Net Interest	(2,649)	(6)	(997)	(1,196)	445
Depreciation & Amortisation	(16,987)	(24,653)	(34,255)	(43,012)	(50,669)
PBT	5,150	32,552	49,438	65,451	78,346
Tax	(327)	(616)	(3,461)	(6,545)	(8,775)
PAT	4,823	31,937	45,977	58,905	69,571
No. of Shares	2,045	2,044	2,044	2,044	2,044
EPS	2.4	15.6	22.5	28.8	34.0
DPS	-	0.5	1.0	2.0	2.0

## Figure 36. Reliance Communications – Profit and Loss statement

#### Figure 37. Reliance Communications – Balance Sheet

- Bare et a legal et a					
Rs in million, year-end March	FY06	FY07	FY08E	FY09E	FY10E
Equity	10,223	10,220	10,220	10,220	10,220
Reserves and Surplus	107,292	193,767	237,445	291,751	356,724
Shareholders funds	117,515	203,987	247,665	301,971	366,944
Debt	92,976	155,438	155,438	155,438	155,438
Secured Loans	87,185	51,804	51,804	51,804	51,804
Foreign Currency Loans	35,079	20,049	20,049	20,049	20,049
Rupee Loans	52,106	31,755	31,755	31,755	31,755
Unsecured Loans	5,791	103,634	103,634	103,634	103,634
Current Liabilities	89,956	136,013	143,154	167,182	186,416
Provisions	19,291	43,173	43,173	43,173	43,173
Total Liabilities	319,738	538,611	589,430	667,765	751,970
Fixed Assets	230,531	349,456	456,426	555,629	636,593
Accumulated Depreciation	(47,573)	(55,940)	(90,195)	(133,207)	(183,876)
Net Fixed Assets	182,958	293,516	366,231	422,422	452,716
CWIP	31,305	36,907	36,907	36,907	36,907
Investments	121	11,925	11,925	11,925	11,925
Cash	60,038	137,200	123,834	139,192	189,474
Current Assets	45,316	59,063	50,532	57,318	60,948
Inventories	4,076	4,821	5,000	5,000	5,000
Debtors	16,807	18,316	15,647	15,974	14,599
Other Current Assets	765	3,264	1,200	1,200	1,200
Loans & Advances	23,668	32,662	28,686	35,144	40,148
Total Assets	319,738	538,611	589,430	667,765	751,970

Source: Citigroup Investment Research estimates

#### Figure 38. Reliance Communications – Cash Flow statement

Rs in million, year-end March PAT Add: Depreciation Change in NWC Add: Interest Operating Cash Flow	<b>FY07</b> 31,937 24,653 56,192 6 112,788	FY08E 45,977 34,255 15,671 997 96,900	FY09E 58,905 43,012 17,243 1,196 120,357	FY10E 69,571 50,669 15,603 (445) 135,399
	,	,	,	,
Capex	59,316	106,970	99,204	80,963
Free Cash Flow	53,472	(10,069)	21,153	54,436
Cash flow into investments	(59,316)	(106,970)	(99,204)	(80,963)
Increase in debt	62,462	-	-	-
Increase in Equity	(3)	-	-	-
Less: Interest	(6)	(997)	(1,196)	445
Less: Dividend	(1,196)	(2,300)	(4,599)	(4,599)
Financial cash flow	61,257	(3,296)	(5,795)	(4,154)
Cash year begin	60,038	137,200	123,834	139,192
Cash generated	114,602	(13,366)	15,358	50,282
Cash year end	137,200	123,834	139,192	189,474
Source: Citigroup Investment Research est	timates			

# 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 Buy/Low Risk (1L). We believe continued robust wireless market expansion and Bharti's ability to capture this growth profitably will be a recurring theme. We estimate FY07-10 earnings CAGR of 32.7%, more than double the broader market. We believe that competitive pressures, though intense, will remain 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 discomforting, cannot derail the growth path, in our view. Combined with strong brand presence and good corporate governance standards, 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 over next 2-3 years. We also expect the towerco hive-off (Bharti InfrateI) to be a value accretive looking beyond the immediate impact on margins, given Bharti's stated intentions to be a minority stake owner in the towerco.

#### Valuation

Our 12-month forward target price of Rs1,050 is based on core DCF of Rs890 and a towerco option value of Rs157. The core DCF (as on March-08) is based on a WACC of 10.7%, a terminal growth rate of 4% and beta of 0.9. 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 FY09-10E. Our target price (net of towerco value) represents a FY09E P/E of 20.4x, P/CEPS of 13.1x and EV/EBITDA of 11.5x. The imputed target P/E (net of towerco) of 26.3x FY08E is at 30% 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, high return parameters, improved earnings visibility and relative insulation from macro 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) SingTel's strategic shareholding leaves us comfortable with execution issues and initiatives. 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.

# IDEA Cellular Company Description

Idea Cellular, a pure play wireless provider, is the fifth-largest cellular operator in India. It has licenses to provide cellular-phone services in 13 of the 23 telecom circles in India and an active presence in 11 of them. The company listed on the Indian bourse in March 2007 and is part of the Aditya Birla Group.

#### **Investment Thesis**

We rate Idea Buy/Low Risk. Continued robust wireless market expansion and Idea's ability to regain its growth potential following its restructuring and full control by Aditya Birla Group are key factors in our investment argument. The company's IPO provided sufficient funding flexibility to pursue its growth plans. Idea's strong competitive position in its existing circles and comparable operational parameters provide us sufficient comfort in management's ability to execute its plans. Given the spectrum issues facing potential new entrants, Idea should remain relatively unconstrained for the next 12-18 months. As a result, we estimate earnings CAGR of 37% over FY07-10E, ahead of peers and more than double that of the broader market. In addition, we believe that Idea's GSM footprint in a spectrum-scarce market with 6-7 players offers M&A potential in the long run. From an industry perspective, we believe that low revenue yields and moderate EBITDA margins leave little room for disruptive pricing. Additionally, most regulatory concerns are now addressed and potentially costly 3G auctions cannot derail it from its growth path, in our view.

#### Valuation

We have set our 12-month target price at Rs140 based on core DCF of Rs128 and an M&A premium of 10%. Though the Aditya Birla Group has ruled out any potential M&A transaction soon, we believe that M&A potential exists in the long run, especially as spectrum constraints hinder new GSM entrants. We prefer DCF as our primary valuation methodology due to the back-ended nature of free cash flows given the new circle roll-outs. Our DCF assumes a WACC of 10.8% at a target debt to capital of 50.0% and terminal growth rate of 4.0% (similar to Bharti). Our DCF is based on explicit forecasts for FY07-16E with a terminal year EBITDA margin at 41.1% (~400bps below Bharti) and capex/sales of ~8% (in line with Bharti). The target price implies an EV/EBITDA of 12.2x, a slight premium to Bharti's target multiples (for the ex-towerco portion of Rs890), which we believe is supported by 1) higher EBITDA growth rates for Idea and 2) liquidity overflow from Bharti's foreign limit constraints

#### Risks

Our quantitative risk rating system assigns a default Speculative Risk rating to Idea due its trading history of less than 12 months. We see a Low Risk rating as more appropriate due to the higher visibility of Indian wireless growth, Idea's reasonably competitive position, strong parentage and lower financial leverage post-IPO. Operationally, the risks facing Idea are slightly higher than its more established peers given the roll out in new circles. Project cost over-runs, delays in spectrum allocation and hence commercial launches could affect the value accretion opportunity in new circles. Idea will also face competition from established players in new circles and market share gains may be lower than expected. Idea will incur higher capex requirements in the new circles due to the coverage compulsions, which may depress return parameters in the initial years. Any rollout plans beyond 13 circles may also require a fresh equity infusion. These risk factors could impede the stock from reaching our target price.

# Reliance Communications Company description

RCOM is an integrated player in the Indian telecoms sector. It was listed on the Indian stock exchanges following the de-merger of Reliance Industries. RCOM is the second-largest player in the mobile segment, has an 80,000km-long India-wide optic-fiber network and owns the FLAG submarine cable network. It plans to launch IPTV and retail broadband in 2007. RCOM has three business units 1) Wireless, which includes a nationwide wireless network on CDMA and GSM; 2) Global Business comprising wholesale voice and data; and 3) Broadband for both retail and enterprise.

#### **Investment thesis**

We rate RCOM Buy/Medium Risk (1M). Continued expansion of the wireless market and RCOM's ability to capture its due market share profitably will, in our view, be a recurring theme. The wireless business has shown higher operating leverage recently and has maintained return parameters despite lower revenue yields. Competitive pressures, though intense, should continue to be rational. RCOM is planning a GSM overlay on its existing CDMA network; while there is market rationale for this (GSM ecosystem more supportive for developing markets), we think the economic rationale would be determined by the deal from vendors as well as the extent of infrastructure-sharing possible. Most regulatory concerns appear behind, and news flow is likely to be positive. The company has yet to realize the benefits of full utilization of its network infrastructure (especially in broadband); we expect significant strengthening of margins as traffic increases across segments. We expect RCOM to register an EBITDA CAGR of 31% and EPS CAGR of 29.6% for FY07-10E.

#### Valuation

Our 12-month forward target price of Rs600 is based upon core business valued at Rs520, towerco option value of Rs60 and Flag's potential value unlocking at Rs20. We value Indian wireless plays on DCF given the back-ended nature of profits and cash flow. For RCOM, however, we use EV/EBITDA in the absence of a detailed balance sheet. Our 12-month target price of Rs520 is based on 9.8x FY09E EV/EBITDA, a 15% discount to Bharti's target multiple (ex- towerco) to reflect the uncertainty on the timing of the GSM rollout and the associated challenges. We expect RCOM's valuation multiples to be determined by Bharti's due to the liquidity overflow from the latter, notwithstanding the risk of technology transition. Meanwhile, higher-than-average earnings growth (CAGR of 29.6% over FY07-10E) and low sensitivity of wireless demand to interest rates should continue to support premium valuations for the sector.

#### Risks

Our risk-rating system, which tracks 260-day share price volatility, assigns a High Risk rating to RCOM, but we believe Medium Risk is more appropriate. RCOM has been de-merged from Reliance Industries, and its shareholding at the time of listing mirrored the holding of RIL. The stock is therefore unlikely to have risks that are typical of newly listed companies. Besides, growth in the telecoms sector gives visibility to RCOM's prospects. But we believe its evolving financial history and risks pertaining to GSM overlay warrant a risk rating higher than the Low Risk assigned to Bharti. Downside risks to our target price include smaller-than-expected market share, lower-than-anticipated operating leverage (especially in FY07) due to handset subsidies, cost-overruns n GSM overlay, regulatory and competition risks, un-remunerative capex and delays in the ongoing re-organization and more telecom-related paper.

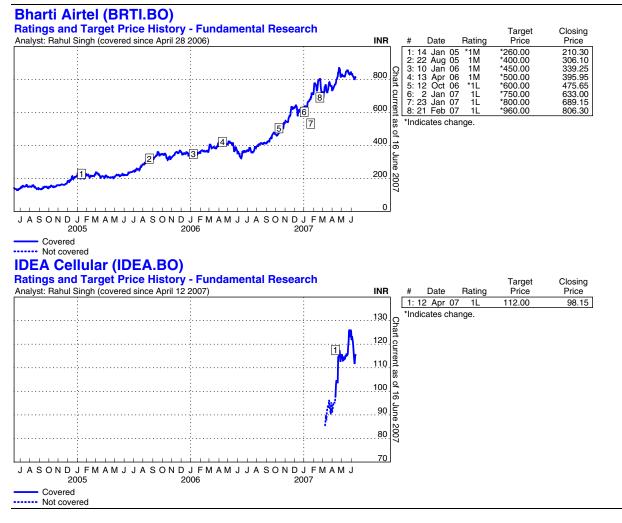
Indian Wireless 20 June 2007 Indian Wireless 20 June 2007

# Appendix A-1

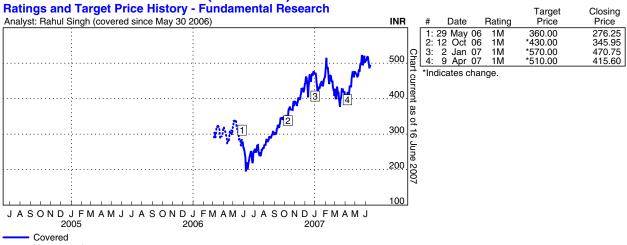
## **Analyst Certification**

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**



## **Reliance Communications (RLCM.BO)**



----- Not covered

Rahul Singh holds a long position in the shares of Bharti Airtel.

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of Bharti Airtel and IDEA Cellular. This position reflects information available as of the prior business day.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of IDEA Cellular.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Bharti Airtel and IDEA Cellular.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Bharti Airtel and IDEA Cellular in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as investment banking client(s): Bharti Airtel and IDEA Cellular.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, securities-related: Bharti Airtel and IDEA Cellular.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, non-securities-related: Bharti Airtel and IDEA Cellular.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability, which includes revenues from, among other business units, the Private Client Division, Institutional Sales and Trading, and Investment Banking.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citigroup Investment Research product ("the Product"), please contact Citigroup Investment Research, 388 Greenwich Street, 29th Floor, New York, NY, 10013, Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Private Client Division clients should refer to www.smithbarney.com/research. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citigroup Investment Research Ratings Distribution						
Data current as of 31 March 2007	Buy	Hold	Sell			
Citigroup Investment Research Global Fundamental Coverage (3215)	45%	40%	15%			
% of companies in each rating category that are investment banking clients	45%	42%	32%			
India Asia Pacific (130)	58%	14%	28%			
% of companies in each rating category that are investment banking clients	42%	50%	42%			

#### Guide to Fundamental Research Investment Ratings:

Citigroup Investment Research's stock recommendations include a risk rating and an investment rating.

Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

Investment ratings are a function of Citigroup Investment Research's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected

performance and risk.

Guide to Corporate Bond Research Credit Opinions and Investment Ratings:

Citigroup Investment Research's corporate bond research issuer publications include a fundamental credit opinion of Improving, Stable or Deteriorating and a complementary risk rating of Low (L), Medium (M), High (H) or Speculative (S) regarding the credit risk of the company featured in the report. The fundamental credit opinion reflects the CIR analyst's opinion of the direction of credit fundamentals of the issuer without respect to securities market vagaries. The fundamental credit opinion is not geared to, but should be viewed in the context of debt ratings issued by major public debt ratings companies such as Moody's Investors Service, Standard and Poor's, and Fitch Ratings. CBR risk ratings are approximately equivalent to the following matrix: Low Risk Triple A to Low Double A; Low to Medium Risk High Single A through High Triple B; Medium to High Risk Mid Triple B through High Double B; High to Speculative Risk Mid Double B and Below. The risk rating element illustrates the analyst's opinion of the relative likelihood of loss of principal when a fixed income security issued by a company is held to maturity, based upon both fundamental and market risk factors. Certain reports published by Citigroup Investment Research will also include investment ratings on specific issues of companies under coverage which have been assigned fundamental credit opinions and risk ratings. Investment ratings are a function of Citigroup Investment Research's expectations for total return, relative return (to publicly available Citigroup bond indices performance), and risk rating. These investment ratings are: Buy/Overweight the bond is expected to outperform the relevant Citigroup bond market sector index (Broad Investment Grade, High Yield Market or Emerging Market), performances of which are updated monthly and can be viewed at http://www.sd.ny.ssmb.com/ using the "Indexes" tab; Hold/Neutral Weight the bond is expected to perform in line with the relevant Citigroup bond market sector index; or Sell/Underweight the bond is e

#### **OTHER DISCLOSURES**

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Reliance Communications. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citigroupgeo.com.)

Citigroup Global Markets Inc. or its affiliates beneficially owns 5% or more of any class of common equity securities of IDEA Cellular.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the subject company(ies) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citigroup Investment Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citigroup Investment Research does not set a predetermined frequency for publication, in the Product is a fundamental research report, it is the intention of Citigroup Investment Research does not set a predetermined frequency for publication, if the Product

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia to wholesale clients through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992) and to retail clients through Citigroup Wealth Advisors Pty Ltd. (ABN 19 009 145 555 and AFSL No. 240813), Participants of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. The Product may not be distributed to private clients in Germany. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG & Co. KGaA, which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). Frankfurt am Main, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. If the Product was prepared by Citigroup Investment Research and distributed in Japan by Nikko Citigroup Ltd., it is being so distributed under license. Nikko Citigroup Limited is

regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Akasaka Park Building, 2-20, Akasaka 5-chome, Minato-ku, Tokyo 107-6122. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by Financial Supervisory Commission and the Financial Supervisory Service. Hungkuk Life Insurance Building, 226 Shinmunno 1-GA, Jongno-Gu, Seoul, 110-061. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, which is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd., a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission, Level 19, Mobile on the Park, 157 lambton Quay, Wellington. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Papierów Wartosciowych i Gield. Bank Handlowy w Warszawie S.A. ul. Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Taiwan through Citigroup Global Markets Inc. (Taipei Branch), which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 8 Manhattan Building, Hsin Yi Road, Section 5, Taipei 100, Taiwan. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is regulated by NASD, NYSE and the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citigroup Investment Research's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would be illegal. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. Advice in the Product has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs.

© 2007 Citigroup Global Markets Inc. Citigroup Investment Research is a division and service mark of Citigroup Global Markets Inc. and its affiliates and is used and registered throughout the world. Citigroup and the Umbrella Device are trademarks and service marks of Citigroup or its affiliates and are used and registered throughout the world. Nikko is a registered trademark of Nikko Cordial Corporation. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm) is provided solely for your convenience and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST