Macquarie Equities Research



The Asia Specialist

INDIA

Stocks mentioned in the report

	Bberg		Price	TP	Down
Company	Ticker	Rec	(Rs)	(Rs)	(%)
Bharti	BHARTI	UP	260	280	8%
RCOM	RCOM	UP	137	160	17%
Idea	IDEA	UP	53	35	-34%
MTNL	MTNL	UP	56	47	-16%

Note: Prices as of 19 May 2010 Source: Bloomberg, Macquarie Research, May 2010

Investment fundamentals - Bharti

	2009A	2010E	2011E
Total revenue (Rsbn)	369.6	396.0	433.8
EBITDA (Rsbn)	151.7	162.6	171.4
EPS adj. (Rs)	22.3	24.5	23.0
PER adj (x)	11.6	10.6	11.3
EV/EBITDA (x)	6.8	6.3	5.8

Investment fundamentals - RCOM

	2009A	2010E	2011E
Total revenue (Rsbn)	229.4	235.9	276.6
EBITDA (Rsbn)	92.9	86.3	100.0
EPS adj. (Rs)	27.2	17.6	20.8
PER adj (x)	5.0	7.8	6.6
EV/EBITDA (x)	5.5	5.8	5.0

Investment fundamentals - Idea

	2009A	2010E	2011E
Total revenue (Rsbn)	101.2	118.0	135.3
EBITDA (Rsbn)	28.2	34.6	43.2
EPS adj. (Rs)	3.1	2.4	0.6
PER adj (x)	17.2	21.6	88.2
EV/EBITDA (x)	7.3	6.2	5.0

Investment fundamentals - MTNL

	2009A	2010E	2011E
Total revenue (Rsbn)	45.0	37.5	34.8
EBITDA (Rsbn)	1.8	0.6	-0.8
EPS adj. (Rs)	1.5	-1.2	-6.4
PER adj (x)	37.1	nmf	nmf
EV/EBITDA (x)	-5.3	-15.1	11.1

Source: Company data, Macquarie Research, May 2010

India Wireless Sector

3G: End or endgame (for incumbents)

Event

• 3G auctions ended at the pan India winning price of Rs167.5bn per slot. There were no pan India winners with Bharti winning 13 circles, RCOM 13, Aircel 13, Idea 11, Vodafone Essar 9, Tata Tele (DoCoMo) 9 and STel 3. Maintaining Underperform on India Telecom sector in view of increased balance sheet stress on account of immediate 3G payout, disruption likely on introduction on MNP and uncertain regulatory environment post recent TRAI recos on licensing & spectrum. The emergence of Aircel and Tata Teleservices with strong wins in 3G is structurally a negative for the sector as 3G will lead to further splintering of the sector while 3G could/should have been a consolidator of the wireless space in favour of the top four incumbents.

Impact

- Bharti will have the highest 3G license payout of Rs122.95bn followed by Vodafone Essar (Rs116bn), RCOM (Rs86bn), Aircel (Rs65bn), Tata Tele (Rs59bn), Idea (Rs58bn), and STel (Rs3bn). Key Metro circles of Delhi & Mumbai were won by Bharti, Vodafone and RCOM and together cost Rs65.6bn (US\$1.4bn), accounting for 39% of pan India price. Outcome for incumbents was splintered in the important 5 category A circles and Kolkata.
- The biggest surprise winner in multiple circles is Aircel (Maxis' 74% subsidiary) in 13 circles (see Figure 3) comprising 3 Category A circles of Karnataka, Tamil Nadu, Andhra Pradesh. This is a good use of proceeds from the recent sale of passive infra assets by Aircel for EV of Rs84bn (US\$1.8bn).
- The biggest negative surprise in terms of not winning in quite a few key circles was Bharti Airtel, followed by Vodafone and IDEA. Bharti has not won spectrum in 9 circles, of which 8 are important, implying Bharti hasn't got 3G in areas that cumulatively contribute 31.6% to Bharti wireless revenues. IDEA has not won spectrum in 13 circles, implying it has not got 3G in areas which cumulatively contribute 17.9% to IDEA's all India wireless revenue.
- 3G roaming to come to the rescue of operators who have not won 3G in a circle. However, that does not resolve the problem of incumbents who were banking on the extra 5MHz of 3G spectrum helping their strained & overburdened 2G network, that's possibly already behind (voice) demand.
- MTNL liable to pay Rs65.6bn for 3G slots already awarded in Mumbai and Delhi, unless the Govt specifically waives MTNL's liability in this regard, implying MTNL gets 3G spectrum for free. If MTNL ends up paying cash for 3G, it translates to Rs104/share, implying considerable debt to be raised to fund this.
- Payment for 3G within 10 days though spectrum will be available only after September 2010. We expect launch of 3G services by December 2010.

Outlook

• India unlikely to see meaningful uplift to data revenues in next two years as existing base of high end subs will move to 3G from existing EDGE/GPRS networks, implying 3G will have a cannibalising effect on existing 2G led data revenues. Note only ~5% of India's SIM holders have 3G capable handsets.

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Circle wise details and Impact of 3G license payouts on Indian Telcos

Fig 1 Final Operator-wise 3G spectrum payout in cash

In Rs m, unless ment	ioned					3G s	pectrum p	payout		
	No of Slots	Base Price	Final Bid	Bharti	Vodafone	RCOM	Idea	Tata Tele	Aircel	STel
Delhi	3	3,200	33,169	33,169	33,169	33,169	-	-	-	-
Mumbai	3	3,200	32,471	32,471	32,471	32,471	-	-	-	-
Karnataka	3	3,200	15,799	15,799	-	-	-	15,799	15,799	-
Tamil Nadu	3	3,200	14,649	14,649	14,649	-	-	-	14,649	-
Andhra Pradesh	3	3,200	13,731	13,731	-	-	13,731	-	13,731	-
Maharashtra	3	3,200	12,578	-	12,578	-	12,578	12,578	-	-
Gujarat	3	3,200	10,761	-	10,761	-	10,761	10,761	-	-
Kolkata	3	1,200	5,443	-	5,443	5,443	-	-	5,443	-
Uttar Pradesh (West)	3	1,200	5,140	5,140	-	-	5,140	5,140	-	-
Uttar Pradesh (East)	3	1,200	3,646	-	3,646	-	3,646	-	3,646	-
Punjab	4	1,200	3,220	-	-	3,220	3,220	3,220	3,220	-
Rajasthan	3	1,200	3,210	3,210	-	3,210	-	3,210	-	-
Kerala	3	1,200	3,125	-	-	-	3,125	3,125	3,125	-
Madhya Pradesh	3	1,200	2,584	ı	-	2,584	2,584	2,584	-	-
Haryana	3	1,200	2,226	-	2,226	-	2,226	2,226	-	-
West Bengal	4	1,200	1,236	1,236	1,236	1,236	-	-	1,236	-
Bihar	4	300	2,035	2,035	-	2,035	-	-	2,035	2,035
Orissa	3	300	970	-	-	970	-	-	970	970
North East	3	300	423	423	-	423	-	-	423	-
Assam	3	300	415	415	-	415	-	-	415	-
Himachal Pradesh	3	300	372	372	-	372	372	-	-	372
Jammu & Kashmir	4	300	303	303	-	303	303	-	303	-
Total	70	35,000	167,506	122,955	116,179	85,850	57,686	58,643	64,995	3,377
Total (US\$m)		761	3,641	2,673	2,526	1,866	1,254	1,275	1,413	73
Metro & Category A				5	5	2	3	3	3	
Category B				3	4	5	6	6	5	
Category C				5	-	6	2	-	5	3_
Total Circles won				13	9	13	11	9	13	3

Source: Macquarie Research, May 2010

Fig 2 3G license payout to stretch Balance Sheets across the board

	FY3/11	FY3/12
Bharti (Post Zain integration and post 3G/BWA)		
EPS (Rs)	15.6	19.8
Net Debt (Rsm)	497,949.4	445,919.3
Gross debt (Rsm)	558,119.0	484,534.5
Net Debt/ Equity	1.1	0.8
Net Debt/EBITDA	2.1	1.7
FCF (Rsm)	(29,004.0)	94,954.2
Assumed US\$2.7bn for 3G, US\$978m for BWA and		
US\$9bn for Zain Africa		
RCOM (Post 3G)	47.0	40.7
EPS (Rs)	17.3	12.7
Net Debt (Rsm)	305,758.6	268,031.2
Gross debt (Rsm)	322,688.4	287,218.6
Net Debt/ Equity	0.6	0.5
Net Debt/EBITDA	4.6	3.9
FCF (Rsm)	(119,391.8)	(18,578.9)
Assumes US\$1.9b for 3G, zero for BWA		
IDEA CELLULAR (Post 3G)	4.07	0.74
EPS (Rs)	1.07	0.74
Net Debt (Rsm)	129,873	141,955
Gross debt (Rsm)	152,501.9	173,501.9
Net Debt/ Equity	1.0	1.1
Net Debt/EBITDA	3.2	3.0
FCF (Rsm)	(65,393.4)	(4,589.0)
Assumes US\$1.3b for 3G, zero for BWA		
Source: Macquarie Research, May 2010		

Fig 3 Final Operator wise 3G spectrum – Circles Won

In Rsm unless mentio	ned					Ci	rcles won			
	No of Slots	Base Price	Final Bid	Bharti	Vodafone	RCOM	Idea	Tata Tele	Aircel	STel
Delhi	3	3,200	33,169	1	1	1				
Mumbai	3	3,200	32,471	1	1	1				
Karnataka	3	3,200	15,799	1				1	1	
Tamil Nadu	3	3,200	14,649	1	1				1	
Andhra Pradesh	3	3,200	13,731	1			1		1	
Maharashtra	3	3,200	12,578		1		1	1		
Gujarat	3	3,200	10,761		1		1	1		
Kolkata	3	1,200	5,443		1	1			1	
Uttar Pradesh (West)	3	1,200	5,140	1			1	1		
Uttar Pradesh (East)	3	1,200	3,646		1		1		1	
Punjab	4	1,200	3,220			1	1	1	1	
Rajasthan	3	1,200	3,210	1		1		1		
Kerala	3	1,200	3,125				1	1	1	
Madhya Pradesh	3	1,200	2,584			1	1	1		
Haryana	3	1,200	2,226		1		1	1		
West Bengal and And	4	1,200	1,236	1	1	1			1	
Bihar	4	300	2,035	1		1			1	1
Orissa	3	300	970			1			1	1
North East	3	300	423	1		1			1	
Assam	3	300	415	1		1			1	
Himachal Pradesh	3	300	372	1		1	1			1
Jammu & Kashmir	4	300	303	1		1	1		1	
Total	70	35,000	167,506	13	9	13	11	9	13	3
Total (US\$m)		761	3,641							
Metro & Category A				5	5	2	3	3	3	
Category B				3	4	5	6	6	5	-
Category C				5	-	6	2	-	5	3
Total Circles won				13	9	13	11	9	13	3

Source: Macquarie Research, May 2010

■ The biggest negative surprise in terms of not winning in quite a few key circles was Bharti Airtel and to a lesser extent, Vodafone. Bharti has not won spectrum in key circles (noted in parentheses - Bharti's current revenue market share in the circle; Revenue contribution from the circle to Bharti pan India wireless revenue, respectively) Delhi (38.6%, 5.1%), Gujarat (19.6%, 3.7%), Kolkata (32.4%, 2.4%), Kerala (16.2%, 2.7%), Punjab (39.1%, 5.0%), Haryana (19.0%, 1.3%), UP – East (29.0%, 5.1%) and Madhya Pradesh (32.0%, 3.9%), implying Bharti has not got 3G spectrum in nine circles which cumulatively contribute 31.6% to its overall wireless revenue.

■ IDEA has not won spectrum in key circles (with Idea's current subscriber market share in the circle noted in parentheses alongside revenue market share and the Revenue contribution by that circle to Idea wireless revenue, respectively), Delhi (9.4%, 7.1%), Karnataka (6.9%, 4.0%), Mumbai (2.8%, 3.0%) and Bihar (4.5%, 2.6%), implying IDEA has not got 3G spectrum in 13 circles which cumulatively contribute 17.9% to IDEA's India wireless revenue.

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Fig 4 Current Revenue and Subscriber Market shares for six key operators by circle and presence on 900 MHz 2G spectrum and presence on 3G spectrum

In Rsm unless mentio		Re	venue Mar	ket Share			Spect	rum in 90	00MHz band	("Y" if yes	, "N" if no)			3G Spec	trum ("Y" if	yes, "N"	if no)	
	Bharti	Vodafone	RCOM	Idea	Tata Tele	Aircel	Bharti Vo	dafone	RCOM	ldea T	ata Tele	Aircel	Bharti	Vodafone	RCOM	Idea	Tata Tele	Aircel
Delhi	38.6%	22.5%	12.3%	9.4%	12.2%	0.6%	Y	Υ	N	N	Υ	N	Y	Y	Υ	N	N	N
Mumbai	20.0%	30.3%	17.3%	2.8%	16.1%	0.3%	N	Y	N	N	N	N	Y	Y	Y	N	N	N
Karnataka	54.2%	14.4%	8.9%	6.9%	6.3%	0.4%	Y	N	N	N	N	N	Y	N	N	N	Y	Υ
Tamil Nadu	34.9%	21.6%	8.0%	0.0%	1.9%	22.6%	N	Υ	N	N	N	Υ	Υ	Υ	N	N	N	Υ
Andhra Pradesh	40.5%	12.9%	9.7%	18.0%	9.2%	0.2%	Υ	N	N	Υ	N	N	Υ	N	N	Υ	N	Υ
Maharashtra	22.3%	18.4%	8.0%	30.4%	10.5%	0.2%	N	Υ	N	Υ	N	N	N	Υ	N	Υ	Υ	N
Gujarat	19.6%	42.8%	7.4%	17.8%	5.1%	na	N	Υ	N	Υ	N	N	N	Υ	N	Υ	Υ	N
Kolkata	32.4%	32.9%	17.9%	0.5%	9.7%	1.4%	Υ	Υ	N	N	N	N	N	Υ	Υ	N	N	Υ
Uttar Pradesh (West)	16.6%	25.6%	10.6%	27.9%	6.5%	0.2%	N	Υ	N	Υ	N	N	Υ	N	N	Υ	Υ	N
Uttar Pradesh (East)	29.0%	32.7%	11.2%	7.9%	3.2%	0.1%	Υ	Υ	N	N	Υ	N	N	Υ	N	Υ	N	Y
Punjab	39.1%	15.7%	4.3%	3.2%	5.2%	na	Υ	N	N	N	N	N	N	N	Υ	Υ	Υ	Y
Rajasthan	46.7%	24.3%	7.3%	5.2%	5.3%	na	Y	Υ	N	N	N	N	Y	N	Υ	N	Y	N
Kerala	16.2%	21.0%	10.3%	31.0%	3.2%	0.5%	N	Υ	N	Υ	N	N	N	N	N	Υ	Y	<u>Y</u>
Madhya Pradesh	32.0%	2.4%	18.9%	29.9%	3.8%	na	N	N	Υ	Υ	N	N	N	N	Υ	Υ	Y	N
Haryana	19.0%	24.9%	7.2%	20.6%	9.4%	na	N	Υ	N	Υ	N	N	N	Υ	N	Υ	Y	N
West Bengal and And	28.8%	37.6%	11.7%	0.3%	5.8%	3.4%	Υ	N	Y	N	N	N	Υ	Υ	Υ	N	N	Y
Bihar	51.2%	3.7%	20.1%	4.5%	6.0%	4.0%	Y	N	Y	N	N	N	Υ	N	Υ	N	N	Y
Orissa	46.7%	3.7%	18.0%	0.6%	5.0%	5.7%	Y	N	Y	N	N	N	N	N	Υ	N	N	Y
North East	38.4%	3.8%	6.5%	0.0%	0.6%	28.6%	Υ	N	Υ	N	Υ	N	Υ	N	Υ	N	N	Y
Assam	37.0%	2.4%	16.9%	0.0%	0.8%	25.1%	Υ	N	Υ	N	Υ	N	Υ	N	Υ	N	N	Y
Himachal Pradesh	46.0%	2.2%	21.0%	4.9%	3.7%	2.7%	Y	N	Υ	N	Υ	N	Υ	N	Υ	Υ	N	N
Jammu & Kashmir	65.7%	1.5%	1.2%	0.2%	1.2%	24.4%	Y	N	N	N	Υ	Y	Υ	N	Υ	Υ	N	Y

Source: Macquarie Research, May 2010

Fig 5 $\,$ 3G roaming potential in circles of no overlap for incumbents, Bharti, Vodafone and IDEA

	3G spectrum o	verlap ("Y" if overlap,	"N" otherwise)
	Bharti with Vodafone	Vodafone with Idea	Bharti with
Delhi	Y	N	N
Mumbai	Υ	N	N
Karnataka	N	N	N
Tamil Nadu	Υ	N	N
Andhra Pradesh	N	N	Υ
Maharashtra	N	Υ	N
Gujarat	N	Υ	N
Kolkata	N	N	N
Uttar Pradesh (West)	N	N	Υ
Uttar Pradesh (East)	N	Υ	N
Punjab	N	N	N
Rajasthan	N	N	N
Kerala	N	N	N
Madhya Pradesh	N	N	N
Haryana	N	Υ	N
West Bengal and Andaman & Nicobar	Υ	N	N
Bihar	N	N	N
Orissa	N	N	N
North East	N	N	N
Assam	N	N	N
Himachal Pradesh	N	N	Y
Jammu & Kashmir	N	N	Υ
Source: Macquarie Research, May 2010			

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Fig 6 Global emerging market telecom valuation

							EV/EBITDA by						
	Bloomberg	Rec	Price	-	V/EBITDA		EBITDA CAGR		PER		P/B	PEG	Div Yield (%)
Company Name	Ticker	Rec	lcy	2010E	2011E	2012E	2009-12E	2010E	2011E	2012E	2011E	2009-12E	2011E
China Mobile	941 HK	Neutral	74.35	4.7	4.5	4.4	1.3	11.5	11.2	11.1	2.0	4.9	3.9
China Unicom	762 HK	Neutral	9.04	4.4	4.1	3.7	-5.3	20.8	32.6	19.7	0.9	-0.3	2.
China Telecom	728 HK	Underperform	3.41	4.2	4.3	4.2	-0.9	17.2	16.6	13.5	1.0	-0.8	3.3
Bharti Airtel*	BHARTI IN	Underperform	259.55	6.3	5.8	5.0	0.8	10.6	11.3	10.0	1.9	9.2	3.5
Reliance Comms*	RCOM IN	Underperform	136.80	5.8	5.0	4.3	0.7	7.8	6.6	5.3	0.5	-0.3	2.2
ldea Cellular*	IDEA IN	Underperform	52.75	6.2	5.0	4.2	0.3	21.6	88.2	27.1	1.1	-0.2	0.0
TCOM	TCOM IN	Underperform	243.90	8.5	7.4	6.3	0.4	142.9	nmf	nmf	1.6	6.0	1.8
MTNL	MTNL IN	Underperform	56.15	-15.1	11.1	11.9	nmf	nmf	nmf	nmf	0.5	nmf	33.1
PT Telkom	TLKM IJ	Outperform	7,550.00	6.5	6.2	5.6	0.7	13.1	12.1	11.4	3.0	1.8	4.1
Indosat	ISAT IJ	Neutral	4,975.00	5.7	5.1	4.7	1.3	45.4	17.9	14.9	1.2	-0.3	3.1
XL Axiata	EXCL IJ	Outperform	3,625.00	6.3	5.7	5.1	0.4	15.1	13.3	9.6	2.2	1.3	1.5
Bakrie Telecom	BTEL IJ	Outperform	143.00	4.8	3.7	3.5	0.3	20.9	14.3	11.4	0.7	0.8	0.0
SK Telecom	017670 KS	Outperform	167,500.00	4.1	3.5	3.2	0.6	9.4	7.3	7.0	0.9	0.6	7.2
KT	030200 KS	Outperform	47,150.00	4.7	3.7	3.5	1.0	16.9	9.0	8.1	1.1	0.4	5.7
LG Telecom	032640 KS	Neutral	7,810.00	4.0	4.0	3.7	0.2	8.6	8.3	7.2	0.7	-1.9	5.8
SK Broadband	033630 KS	Neutral	5,800.00	9.7	7.0	5.7	0.9	nmf	nmf	88.7	1.3	nmf	0.0
Chunghwa Telecom	2412 TT	Neutral	61.80	5.2	5.8	5.8	-3.2	13.7	13.0	12.8	1.5	-3.5	7.1
Taiwan Mobile	3045 TT	Outperform	60.50	6.5	6.9	6.5	1.2	13.0	13.1	12.4	2.4	-2.1	7.3
Far EasTone	4904 TT	Neutral	37.85	4.8	5.0	4.9	-1.2	13.4	13.2	12.5	1.7	-13.1	7.2
SingTel *	ST SP	Neutral	2.91	6.9	6.4	5.9	1.3	11.7	11.8	10.6	1.7	-88.6	5.5 8.9
Starhub MobileOne	STH SP M1 SP	Outperform Outperform	2.24 2.09	6.9 6.8	7.0 6.6	6.8 6.5	6.7 9.0	12.0 12.4	13.4 12.4	12.4 12.3	102.1 5.9	-2.5 32.3	8.9 6.5
Axiata	AXIATA MK	Outperform	3.76	6.9	6.0	5.6	0.4	17.0	13.5	12.3	1.4	0.6	2.7
Digi.Com	DIGI MK	Neutral	22.98	8.6	7.8	7.1	1.4	17.0	16.4	14.3	18.0	-5.7	7.0
Telekom Malaysia	T MK	Outperform	3.31	4.8	4.8	4.6	1.4	18.2	16.5	15.9	1.7	1.3	6.0
PLDT	TEL PM	Outperform	2,455.00	6.0	5.7	5.4	2.2	11.6	10.9	10.6	4.4	2.8	6.6
Globe	GLO PM	Neutral	900.00	4.3	4.5	4.4	-9.0	8.8	11.2	11.1	2.4	-1.0	7.6
AIS	ADVANC TB	Underperform	75.25	5.1	5.1	5.0	18.2	13.1	12.5	11.7	4.0	3.3	8.6
Shin Corp	SHIN TB	Underperform	23.80	9.8	7.5	7.3	0.5	11.7	8.8	8.7	2.2	0.6	10.1
TAC	DTAC TB	Neutral	33.50	4.5	4.5	4.4	-18.1	12.0	10.8	10.6	1.2	-0.7	6.6
True Corp	TRUE TB	Underperform	2.74	4.6	4.4	4.4	1.3	nmf	11.7	10.0	1.5	0.6	0.0
Thaicom	THCOM TB	Neutral	5.20	6.9	4.3	4.1	0.4	nmf	40.6	13.6	0.4	nmf	0.0
HTIL	2332 HK	Neutral	2.19	2.6	-6.8	-24.0	nmf	nmf	nmf	nmf	1.5	nmf	0.0
Smartone	315 HK	Underperform	8.41	4.3	3.4	3.2	1.3	112.5	21.4	18.0	1.7	-1.9	5.4
NTT*	9432 JP	Outperform	3,865.00	2.8	2.8	2.7	-5071.1	10.5	10.5	9.3	0.6	3.0	3.1
NTT DoCoMo *	9437 JP	Neutral	138,700.00	3.7	3.8	3.6	-2.2	11.6	12.1	10.9	1.1	2.5	3.7
Softbank*	9984 JP	Underperform	2,214.00	6.0	5.3	5.0	0.9	15.2	14.5	13.0	2.9	3.5	0.2
KDDI *	9433 JP 9427 JP	Outperform	433,500.00	2.9	2.7 5.1	2.7 5.0	1.2 -21.2	7.2 19.7	7.1 12.0	7.7	0.8	-3.5	2.9
eAccess Okinawa Cellular *	9427 JP 9436 JP	Outperform Outperform	70,000.00 183,500.00	5.7 3.5	3.4	3.1	-21.2 0.8	19.7 8.7	12.0 8.6	9.4 8.1	4.2 1.0	nmf -2.2	3.4 4.1
Telstra	TLS AU	Neutral	3.02	3.5 4.8	4.8	4.8	3.2	9.2	9.7	9.9	2.8	3.9	9.3
TCNZ	TEL NZ	Underperform	2.05	3.4	3.5	3.5	-1.4	7.8	9.7	10.9	1.5	-0.2	8.2

Note: Prices as of 19 May 2010. Aircel, Tata Teleservices, Telenor Unitech and Vodafone Essar are unlisted.

Source: Bloomberg, Macquarie Research, May 2010

Fig 7 India Wireless sector- Key metrics

March Year ends; Rs million	3QFY08	4QFY08	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10	2QFY10	3QFY10A	4QFY10A
Bharti Gross ARPU (Rs)	358	357	350	331	324	305	278	252	230	220
YoY growth (%)	-16.2	-12.1	-10.4	-9.5	-9.3	-14.6	-20.4	-23.9	-29.0	-27.9
QoQ growth (%)	-2.2	-0.2	-2.1	-5.3	-2.0	-6.0	-8.8	-9.4	-8.6	-4.5
RCOM Gross ARPU (Rs)	339	317	282	271	251	224	210	161	149	139
YoY growth (%)	3.4	-15.9	-24.8	-24.9	-26.0	-29.3	-25.5	-40.6	-40.6	-37.9
QoQ growth (%)	-6.1	-6.5	-11.0	-3.9	-7.4	-10.8	-6.3	-23.3	-7.5	-6.7
Idea Gross ARPU (Rs)	292	297	294	266	271	261	236	215	206	190
YoY growth (%)			-11.2	-12.2	-7.2	-12.0	-19.7	-19.1	-23.8	-27.4
QoQ growth (%)	-3.8	1.8	-1.0	-9.4	1.6	-3.5	-9.7	-8.7	-4.3	-8.0
VOD Gross ARPU (Rs)	349	350	332	305	297	274	247	222	209	197
YoY growth (%)	-15.7	-13.6 na		-15.5	-14.9	-21.7	-25.7	-27.2	-29.6	-28.1
QoQ growth (%)	-3.3	0.3	-5.1	-8.1	-2.6	-7.7	-10.0	-10.0	-5.9	-5.7
Bharti MoUs per subscriber	474	507	534	526	505	485	478	450	446	468
YoY growth (%)	1.4	6.8	11.8	12.2	6.7	-4.3	-10.6	-14.5	-11.8	-3.6
QoQ growth (%)	1.1	7.0	5.4	-1.6	-3.9	-4.0	-1.5	-5.9	-0.9	5.0
RCOM MoUs per subscriber	449	430	425	423	410	372	365	340	330	318
YoY growth (%)	-1.1	-20.5	-16.7	-13.7	-8.7	-13.5	-14.1	-19.6	-19.5	-14.5
QoQ growth (%)	-8.4	-4.2	-1.2	-0.4	-3.1	-9.3	-1.9	-6.8	-2.9	-3.6
Idea MoUs per subscriber	377	411	431	421	416	402	399	375	389	398
YoY growth (%)	2.2	6.2	13.1	16.9	10.3	-2.2	-7.4	-10.9	-6.5	-1.0
QoQ growth (%)	4.7	9.0	4.9	-2.3	-1.2	-3.4	-0.7	-6.0	3.7	2.3
VOD MoUs per subscriber	384	391	374	364	355	336	330	319	318	325
YoY growth (%)	-10.5	-9.6 na		-2.2	-7.4	-14.1	-11.9	-12.6	-10.5	-3.1
QoQ growth (%)	3.0	1.8	-4.2	-2.6	-2.5	-5.6	-1.8	-3.3	-0.1	2.1
Bharti ARPM (Rs)	0.76	0.70	0.65	0.63	0.64	0.63	0.58	0.56	0.52	0.47
YoY growth (%)	-17.3	-17.7	-19.9	-19.4	-14.9	-10.7	-11.0	-10.9	-19.5	-25.2
QoQ growth (%)	-3.3	-6.7	-7.1	-3.8	2.1	-2.1	-7.4	-3.7	-7.8	-9.1
RCOM ARPM (Rs)	0.76	0.74	0.66	0.64	0.61	0.60	0.58	0.47	0.45	0.44
YoY growth (%)	4.5	5.8	-9.7	-13.0	-18.9	-18.3	-13.4	-26.1	-26.2	-27.4
QoQ growth (%)	2.5	-2.4	-9.9	-3.5	-4.4	-1.6	-4.5	-17.7	-4.6	-3.2
Idea ARPM (Rs)	0.74	0.72	0.68	0.62	0.64	0.63	0.58	0.56	0.51	0.48
YoY growth (%)	-15.2	-11.8	-18.9	-22.5	-13.5	-12.8	-14.9	-9.7	-20.3	-24.4
QoQ growth (%)	-7.5	-2.4	-5.6	-9.0	3.2	-1.6	-7.9	-3.4	-8.9	-6.6
VOD ARPM (Rs)	0.91	0.90	0.89	0.84	0.84	0.82	0.75	0.70	0.66	0.61
YoY growth (%)	-5.8	-4.4 na		-13.6	-8.1	-8.9	-15.7	-16.8	-21.4	-25.8
QoQ growth (%)	-6.1	-1.5	-0.9	-5.7	-0.2	-2.3	-8.4	-6.9	-5.7	-7.7

Source: Macquarie Research, May 2010

Fig 8 Key quarterly operating and financial metrics – wireless business: Bharti and RCOM

Bharti Airtel - Actuals for 4QFY10										
March Year ends; Rs million	3QFY08	4QFY08	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10	2QFY10	3QFY10A	4QFY10A
Windows Bossesson (Bosses)	F0 40F	04.004	00.450	70.040	70.000	00.040	00.005	00.004	70.040	04.075
Wireless Revenues (Rs m)	56,105	64,201	69,150	72,843	79,392	82,216	82,285	80,994	79,618	81,975
YoY growth (%)	49.3	51.3	47.2	44.0	41.5	28.1	19.0	11.2	0.3	-0.3
QoQ growth (%)	10.9	14.4	7.7	5.3	9.0	3.6	0.1	-1.6	-1.7	3.0
Subscribers (m)	55.16	61.98	69.38	77.48	85.65	93.92	102.37	110.51	118.86	127.62
YoY growth (%)	72.5	66.9	62.5	58.5	55.3	51.5	47.5	42.6	38.8	35.9
QoQ growth (%)	12.9	12.4	11.9	11.7	10.5	9.7	9.0	8.0	7.6	7.4
Gross ARPU (Rs)	358	357	350	331	324	305	278	252	230	220
YoY growth (%)	-16.2	-12.1	-10.4	-9.5	-9.3	-14.6	-20.4	-23.9	-29.0	-27.9
QoQ growth (%)	-2.2	-0.2	-2.1	-5.3	-2.0	-6.0	-8.8	-9.4	-8.6	-4.5
Avg. monthly MoUs per subscriber	474	507	534	526	505	485	478	450	446	468
YoY growth (%)	1.4	6.8	11.8	12.2	6.7	-4.3	-10.6	-14.5	-11.8	-3.6
QoQ growth (%)	1.1	7.0	5.4	-1.6	-3.9	-4.0	-1.5	-5.9	-0.9	5.0
ARPM (Rs)	0.76	0.70	0.65	0.63	0.64	0.63	0.58	0.56	0.52	0.47
YoY growth (%)	-17.3	-17.7	-19.9	-19.4	-14.9	-10.7	-11.0	-10.9	-19.5	-25.2
QoQ growth (%)	-3.3	-6.7	-7.1	-3.8	2.1	-2.1	-7.4	-3.7	-7.8	-9.1
Total minutes carried (m)	73,840	89,058	105,217	115,834	123,626	130,669	140,713	143,680	153,241	172,797
YoY growth (%)	78.8	80.9	84.2	79.9	67.4	46.7	33.7	24.0	24.0	32.2
QoQ growth (%)	14.7	20.6	18.1	10.1	6.7	5.7	7.7	2.1	6.7	12.8
Avg. EBITDA per minute (Rs)	0.31	0.26	0.20	0.19	0.20	0.20	0.19	0.18	0.16	0.14
YoY growth (%)	-9.3	-24.2	-39.6	-41.0	-34.8	-22.6	-4.1	-5.2	-21.9	-30.0
QoQ growth (%)	-3.8	-17.4	-21.2	-5.7	6.3	-2.0	-2.4	-6.7	-12.5	-12.2
Wireless EBITDA (Rs m)	22,887	22,779	21,218	22,009	24,963	25,860	27,183	25,860	24,178	23,969
YoY growth (%)	62.0	37.2	11.2	6.2	9.1	13.5	28.1	17.5	-3.1	-7.3
QoQ growth (%)	10.4	-0.5	-6.9	3.7	13.4	3.6	5.1	-4.9	-6.5	-0.9
Wireless EBITDA margin (%)	40.8	35.5	30.7	30.2	31.4	31.5	33.0	31.9	30.4	29.2
YoY expansion (basis points)	319.5	-365.1	-994.7	-1,076.7	-935.0	-402.7	235.1	171.4	-107.5	-221.4
QoQ expansion (basis points)	-18.8	-531.2	-479.7	-47.0	122.8	1.1	158.1	-110.7	-156.1	-112.8
Blended Churn	3.8%	4.2%	3.7%	3.2%	2.9%	3.2%	3.4%	4.4%	6.3%	5.7%
VAS as % of total revenue	9.3%	9.4%	9.7%	10.0%	9.5%	9.3%	9.3%	9.8%	11.0%	11.8%
YoY growth (%)	-10.6	-6.9	-2.0	2.0	2.2	-1.1	-4.1	-2.0	15.8	26.9
QoQ growth (%)	-5.1	1.1	3.2	3.1	-5.0	-2.1	0.0	5.4	12.2	7.3
Total Cell Sites	60,299	69,141	75,876	82,554	88,319	93,368	96,149	99,501	102,190	104,826
YoY growth (%)	75.8	76.3	65.7	56.3	46.5	35.0	26.7	20.5	15.7	12.3
QoQ growth (%)	14.1	14.7	9.7	8.8	7.0	5.7	3.0	3.5	2.7	2.6
Wireless Capex (Rsm)	27,538	17,995	32,227	23,396	29,012	16,039	13,037	15,028	12,513	8,565
YoY growth (%)	76.6	68.1	-1.8	-18.4	5.4	-10.9	-59.5	-35.8	-56.9	-46.6
QoQ growth (%)	-3.9	-34.7	79.1	-27.4	24.0	-44.7	-18.7	15.3	-16.7	-31.6
Total Population Centres covered	325,525	347,646	369,335	389,571	406,939	419,966	428,216	434,795	438,929	444,024
YoY growth (%)	79.7	64.0	48.7	32.1	25.0	20.8	15.9	11.6	7.9	na
QoQ growth (%)	10.4	6.8	6.2	5.5	4.5	3.2	2.0	1.5	1.0	na
Total employees	24,703	25,543	26,144	25,616	25,553	24,538	23,789	18,598	18,201	18,354
YoY growth (%)	35.6	25,5 4 5 25.7	13.9	10.1	3.4	-3.9	-9.0	-27.4	-28.8	10,334 na
QoQ growth (%)	6.2	3.4	2.4	-2.0	-0.2	-3.9 -4.0	-3.1	-21.4 -21.8	-20.0 -2.1	na na
India Total Wireless Subscribers	233.63	261.08	286.87	315.31	346.89	391.76	437.51	483.27	515.5	574.77
YoY growth (%)	59.5	58.1	55.1	50.8	48.5	50.1	52.5	53.3	48.6	46.7
. ,	59.5 11.7	36. i 11.8	9.9	9.9	46.5 10.0		52.5 11.7		46.6 6.7	
QoQ growth (%)	11.7	11.0	9.9	9.9	10.0	12.9	11.7	10.5	0.7	11.5

Reliance Communications - Actuals fo		4057/00	005/00	205/22	405/00	4057/40	005)/40	2057/404	405)/40
March Year ends; Rs million	4QFY08	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10	2QFY10	3QFY10A	4QFY10
Wireless Revenues (Rs m)	41,608	41,187	43,356	44,119	45,015	47,931	40,100	40,225	40,900
YoY growth (%)	40.1	22.1	16.5	11.5	8.2	16.4	-7.5	-8.8	-9.
QoQ growth (%)	5.2	-1.0	5.3	1.8	2.0	6.5	-16.3	0.3	1.
Subscribers (m)	45.79	50.79	56.05	61.35	72.67	79.62	86.12	93.80	102.4
YoY growth (%)	63.5	59.4	54.3	49.8	58.7	56.8	53.7	52.9	40.9
QoQ growth (%)	11.8	10.9	10.4	9.5	18.5	9.6	8.2	8.9	9.2
Gross ARPU (Rs)	317	282	271	251	224	210	161	149	13
YoY growth (%)	-15.9	-24.8	-24.9	-26.0	-29.3	-25.5	-40.6	-40.6	-37.9
QoQ growth (%)	-6.5	-11.0	-3.9	-7.4	-10.8	-6.3	-23.3	-7.5	-6.7
Avg. monthly MoUs per subscriber	430	425	423	410	372	365	340	330	318
YoY growth (%)	-20.5	-16.7	-13.7	-8.7	-13.5	-14.1	-19.6	-19.5	-14.5
QoQ growth (%)	-4.2	-1.2	-0.4	-3.1	-9.3	-1.9	-6.8	-2.9	-3.6
ARPM (Rs)	0.74	0.66	0.64	0.61	0.60	0.58	0.47	0.45	0.4
YoY growth (%)	5.8	-9.7	-13.0	-18.9	-18.3	-13.4	-26.1	-26.2	-27.4
QoQ growth (%)	-2.4	-9.9	-3.5	-4.4	-1.6	-4.5	-17.7	-4.6	-3.2
Total minutes carried (m)	55,959	62,000	67,800	72,100	74,800	83,300	84,500	89,057	93,596
YoY growth (%)	18.9	35. <i>4</i>	35.3	38.5	33.7	34.4	24.6	23.5	25.1
QoQ growth (%)	7.5	10.8	9.4	6.3	3.7	11.4	1.4	5.4	5.1
Avg. EBITDA per minute (Rs)	0.30	0.27	0.25	0.23	0.22	0.22	0.15	0.14	0.13
YoY growth (%)	9.8	-8.3	-4.5	-23.5	-25.8	-17.9	-39.7	-38.9	-42.6
QoQ growth (%)	-1.5	-9.6	-7.3	-7.3	-4.5	0.0	-31.8	-6.1	-10.3
Wireless EBITDA (Rs m)	16,763	16,623	16,859	16,616	16,629	18,489	13,132	12,545	11,81
YoY growth (%)	45.6	24.1	13.4	5.0	-0.8	11.2	-22.1	-24.5	-28.9
QoQ growth (%)	6.0	-0.8	1.4	-1.4	0.1	11.2	-29.0	-4.5	-5.8
Wireless EBITDA margin (%)	40.3	40.4	38.9	37.7	36.9	38.6	32.7	31.2	28.9
YoY expansion (basis points)	152.0	65.6	-106.4	-231.9	-334.7	-178.6	-613.7	-647.5	-805.3
QoQ expansion (basis points)	30.8	7.2	-147.5	-122.3	-72.1	163.3	-582.6	-156.1	-230.0
Blended Churn	1.4%	1.4%	1.3%	1.0%	0.8%	1.3%	1.3%	2.0%	2.8%
VAS as % of total revenue	6.9%	7.6%	7.3%	7.4%	na	na	na	na	na
YoY growth (%)	9.5	33.3	17.7	15.6	na	na	na	na	na
QoQ growth (%)	7.8	10.1	-3.9	1.4	na	na	na	na	na
Total Cell Sites	na	na	na	na	na	na	na	na	na
YoY growth (%)	na	na	na	na	na	na	na	na	na
QoQ growth (%)	na	na	na	na	na	na	na	na	na
Wireless Capex (Rs m)	46,442	56,926	33,260	32,508	17,084	9,402	8,964	11,037	2,010
YoY growth (%)	371.0	280.2	-33.1	-46.4	-63.2	-83.5	-73.0	-66.0	-88.2
QoQ growth (%)	-23.4	22.6	-41.6	-2.3	-47.4	-45.0	-4.7	23.1	-81.7

Fig 9 Key quarterly operating and financial metrics – wireless business: Idea

Idea Cellular - Actuals for 4QFY10									
March Year ends; Rs million	4QFY08	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10A	2QFY10	3QFY10	4QFY10A
Wireless Revenues (Rs m)	19,724	21,735	22,992	26,209	28,627	28,883	28,909	30,610	33,011
YoY growth (%)	51.1	47.1	47.2	53. <i>4</i>	45.1	32.9	25.7	16.8	15.3
QoQ growth (%)	15.5	10.2	5.8	14.0	9.2	0.9	0.1	5.9	7.8
Subscribers (m)	22.13	27.19	30.38	34.21	38.89	42.77	46.76	52.30	63.82
YoY growth (%)	45.8	57.0	56.2	54.5	43.0	40.8	36.7	34.5	49.2
QoQ growth (%)	13.8	22.9	11.7	12.6	13.7	10.0	9.3	11.9	22.0
Gross ARPU (Rs)	297	294	266	271	261	236	215	206	190
YoY growth (%)	#DIV/0!	-11.2	-12.2	-7.2	-12.0	-19.7	-19.1	-23.8	-27.4
QoQ growth (%)	1.8	-1.0	-9.4	1.6	-3.5	-9.7	-8.7	-4.3	-8.0
Avg. monthly MoUs per subscriber	411	431	421	416	402	399	375	389	398
YoY growth (%)	6.2	13.1	16.9	10.3	-2.2	-7.4	-10.9	-6.5	-1.0
QoQ growth (%)	9.0	4.9	-2.3	-1.2	-3.4	-0.7	-6.0	3.7	2.3
ARPM (Rs)	0.72	0.68	0.62	0.64	0.63	0.58	0.56	0.51	0.48
YoY growth (%)	-11.8	-18.9	-22.5	-13.5	-12.8	-14.9	-9.7	-20.3	-24.4
QoQ growth (%)	-2.4	-5.6	-9.0	3.2	-1.6	-7.9	-3.4	-8.9	-6.6
Total minutes carried (m)	27,824	33,087	36,315	40,254	44,224	48,729	50,339	57,841	68,275
YoY growth (%)	79.9	93.5	92.8	79.2	58.9	47.3	38.6	43.7	54.4
QoQ growth (%)	23.9	18.9	9.8	10.8	9.9	10.2	3.3	14.9	18.0
Avg. EBITDA per minute (Rs)	0.26	0.26	0.20	0.17	0.17	0.16	0.15	0.12	0.12
YoY growth (%)	#DIV/0!	-21.5	-34.7	-39.9	-35.9	-39.0	-26.2	-26.2	-28.6
QoQ growth (%)	-6.5	-1.6	-23.9	-14.1	-0.4	-6.3	-7.9	-14.1	-3.6
Wireless EBITDA (Rs m)	6,731	8,242	7,151	6,806	7,416	7,701	7,307	7,203	8,328
YoY growth (%)	#DIV/0!	<i>53.4</i>	35.2	16.5	10.2	-6.6	2.2	5.8	12.3
QoQ growth (%)	15.3	22.4	-13.2	<i>-4</i> .8	9.0	3.8	-5.1	-1.4	15.6
Wireless EBITDA margin (%)	34.1	37.9	31.1	26.0	25.9	26.7	25.3	23.5	25.2
YoY expansion (basis points)	3,412.8	154.7	-275.7	-822.0	-822.3	-1,125.8	-582.7	-243.7	-67.7
QoQ expansion (basis points)	-6.1	379.3	-681.8	-513.4	-6.4	75.8	-138.7	-174.4	169.6
Blended Churn	4.6%	4.0%	3.9%	4.3%	5.2%	6.7%	7.2%	9.1%	7.7%
Total Cell Sites	24,793	27,594	33,377	39,289	44,230	48,067	50,915	55,804	66,187
YoY growth (%)	na	109.7	95.1	85.4	78.4	74.2	52.5	42.0	49.6
QoQ growth (%)	17.0	11.3	21.0	17.7	12.6	8.7	5.9	9.6	18.6

Source: Company data, Macquarie Research, May 2010

Fig 10 Key quarterly operating and financial metrics – wireless business: MTNL and Tata Teleservices Maha.

MTNL- Actuals for 4QFY10										
March Year ends; Rs million	3QFY08	4QFY08	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10	2QFY10	3QFY10	4QFY10
Windows Barrenses (Barre)	0.000	0.400	0.000	0.000	0.000	0.000	4.070	4705 57	4050 40	4040
Wireless Revenues (Rs m)	2,329	2,409	2,298	2,332	2,269	2,089	1,870	1795.57	1656.42	1840
YoY growth (%)	6.3	22.0	2.5	-7.6	-2.6	-13.3	-18.6	-23.0	-27.0	-11.9
QoQ growth (%)	-7.7	3.4	-4.6	1.5	-2.7	-7.9	-10.5	-4.0	-7.7	11.1
Subscribers (m)	3.21	3.53	3.72	3.96	4.19	4.48	4.58	4.68	4.60	5.09
YoY growth (%)	26.5	20.1	32.2	32.2	30.5	26.9	23.1	18.2	9.8	13.6
QoQ growth (%)	7.2	10.0	5.3	6.4	5.8	7.0	2.1	2.2	-1.7	10.7
Blended ARPU GSM (Rs)	242	237	213	207	188	162	138	133	116	127
YoY growth (%)	-12.6	3.7	-15.7	-27.2	-22.2	-31.5	-35.0	-35.5	-38.6	-21.6
QoQ growth (%)	-14.8	-2.3	-10.0	-2.8	-9.0	-14.0	-14.6	-3.6	-13.3	9.9
Tata Tele Maha Actuals for 3Q FY10	3QFY08	4QFY08	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10A	2QFY10A	3QFY10A	4QFY10A
Subscribers (m)	4.33	4.68	5.19	5.70	6.15	6.96	7.44	9.04	10.90	12.34
YoY growth (%)	na	na	64%	50%	42%	49%	43%	59%	77%	77%
QoQ growth (%)	14%	8%	11%	10%	8%	13%	7%	22%	21%	13%
Gross ARPU (Rs)	254	254	232	210	196	178	154	148	143	125
YoY growth (%)	na	na	-23%	-21%	-23%	-30%	-34%	-30%	-27%	-30%
QoQ growth (%)	-4%	0%	-9%	-9%	-7%	-9%	-13%	-4%	-3%	-13%
Avg. monthly MoUs per subscriber	313	302	369	336	323	311	292	271	266	250
YoY growth (%)	na	na	-7%	-6%	3%	3%	-21%	-19%	-18%	-20%
QoQ growth (%)	-12%	-4%	22%	-9%	-4%	-4%	-6%	-7%	-2%	-6%
ARPM (Rs)	0.81	0.84	0.63	0.62	0.61	0.57	0.53	0.55	0.54	0.5
YoY growth (%)	na	na	-18%	-16%	-25%	-32%	-16%	-11%	-11%	-12%
QoQ growth (%)	9%	4%	-25%	-2%	-2%	-7%	-7%	4%	-2%	-7%
Total minutes carried (m)	na	4083	5463	5487	5741	6113	6301	6705	7957	8713
YoY growth (%)	na	na	na	na	na	50%	15%	22%	39%	43%
QoQ growth (%)	na	na	34%	0%	5%	6%	3%	6%	19%	10%
Blended Churn	1.80%	2.20%	0.80%	0.80%	1.80%	1.10%	1.20%	2.80%	0.50%	2.20%
VAS as % of total revenue	10.40%	11.80%	12.30%	13.40%	13.40%	13.90%	15.40%	14.30%	13.90%	14.80%
YoY growth (%)	na	na	48.2	44.1	28.8	17.8	25.2	6.7	3.7	6.5
QoQ growth (%)	11.8	13.5	4.2	8.9	-	3.7	10.8	(7.1)	(2.8)	6.5
Total Population Centres covered	na	7,966	8,026	8,115	9,378	10,664	10,904	11,055	11,303	11,421
YoY growth (%)	na	na	na	na	na	34%	36%	36%	21%	7%
QoQ growth (%)	na	na	1%	1%	16%	14%	2%	1%	2%	1%

Source: Company data, Macquarie Research, May 2010

Fig 11 Key quarterly operating and financial metrics - Vodafone India

	1QFY09	2QFY09	3QFY09	4QFY09	1QFY10	2QFY10	3QFY10A	4QFY10A
Subscribers (m)	49	55	61	69	76	83	91	101
YoY growth (%)	60.0	62.2	70.9	55.8	<i>55.4</i>	51.7	50.0	46.7
QoQ growth (%)	11.5	11.0	11.5	12.9	11.2	8.4	10.3	10.3
Gross ARPU (Rs)	332	305	297	274	247	222	209	197
YoY growth (%)	na	(15.5)	(14.9)	(21.7)	(25.7)	(27.2)	(29.6)	(28.1)
QoQ growth (%)	(5.1)	(8.1)	(2.6)	(7.7)	(10.0)	(10.0)	(5.9)	(5.7)
Avg. monthly MoUs per subscriber	374	364	355	336	330	319	318	325
YoY growth (%)	na	(2.2)	(7.4)	(14.1)	(11.9)	(12.6)	(10.5)	(3.1)
QoQ growth (%)	(4.2)	(2.6)	(2.5)	(5.6)	(1.8)	(3.3)	(0.1)	2.1
ARPM (Rs)	0.89	0.84	0.84	0.82	0.75	0.70	0.66	0.61
YoY growth (%)	na	(13.6)	(8.1)	(8.9)	(15.7)	(16.8)	(21.4)	(25.8)
QoQ growth (%)	(0.9)	(5.7)	(0.2)	(2.3)	(8.4)	(6.9)	(5.7)	(7.7)
Total minutes carried (m)	52,349	56,745	61,606	65,276	71,775	76,135	83,172	93,735
YoY growth (%)	na	57.6	54.4	39.7	37.1	34.2	35.0	43.6
QoQ growth (%)	12.0	8.4	8.6	6.0	10.0	6.1	9.2	12.7

Source: Macquarie Research, May 2010

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand

Outperform – return >5% in excess of benchmark return Neutral – return within 5% of benchmark return Underperform – return >5% below benchmark return

Macquarie - Asia/Europe

Outperform – expected return >+10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%

Macquarie First South - South Africa

Outperform – expected return >+10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%

Macquarie - Canada

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Macquarie - USA

Outperform (Buy) – return >5% in excess of Russell 3000 index return

Neutral (Hold) – return within 5% of Russell 3000 index return

Underperform (Sell)- return >5% below Russell 3000 index return

Recommendations - 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high-highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low-medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.

* Applicable to Australian/NZ/Canada stocks only

Financial definitions

All "Adjusted" data items have had the following adjustments made:

Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*

ROA = adjusted ebit / average total assets

ROA Banks/Insurance = adjusted net profit /average total assets

ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendati	on proport	tions – Fo	r quarter e	nding 31 M			
	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	50.55%	62.20%	42.25%	42.39%	62.16%	74% (for US coverage by MCUSA, 6.53% of stocks covered are in	estment banking clients)
Neutral	36.63%	19.02%	47.89%	50.35%	31.89%	78% (for US coverage by MCUSA, 9.62% of stocks covered are in	estment banking clients)
Underperform	12.82%	18.78%	9.86%	7.27%	5.95%	48% (for US coverage by MCUSA, 0.00% of stocks covered are in	vestment banking clients)

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Rakesh Arora (India)	(9122) 6653 3054
Ferry Wong (Indonesia)	(6221) 515 7335
David Gibson (Japan)	(813) 3512 7880
Peter Eadon-Clarke (Japan)	(813) 3512 7850
Chan Hwang (Korea)	(822) 3705 8643
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Edward Ong (Malaysia)	(603) 2059 8982
Alex Pomento (Philippines)	(632) 857 0899
Patrick Yau (Singapore)	(65) 6231 2835
Daniel Chang (Taiwan)	(8862) 2734 7516
Alastair Macdonald (Thailand)	(662) 694 7741

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Sales

Regional Heads of Sales

Regional fleaus of Sales	
Chris Gray (ASEAN)	(65) 6231 2888
Justin Crawford (Asia)	(852) 3922 2065
Peter Slater (Boston)	(1 617) 598 2502
Jeffrey Shiu (China & Hong Kong)	(852) 3922 2061
Thomas Renz (Geneva)	(41) 22 818 7712
Andrew Mouat (India)	(9122) 6653 3200
Stanley Dunda (Indonesia)	(6221) 515 1555
Kenneth Yap (Indonesia)	(6221) 515 1555
JJ Kim (Korea)	(822) 3705 8799
Jason Lee (Malaysia)	(603) 2059 8888
Gino C Rojas (Philippines)	(632) 857 0761
Greg Norton-Kidd (New York)	(1 212) 231 2527
Luke Sullivan (New York)	(1 212) 231 2507
Scot Mackie (New York)	(1 212) 231 2848

Regional Heads of Sales cont'd

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Sheila Schroeder (San Francisco)	(1 415) 762 5001
Angus Kent (Thailand)	(662) 694 7601
Michael Newman (Tokyo)	(813) 3512 7920
Charles Nelson (UK/Europe)	(44) 20 3037 4832
Rob Fabbro (UK/Europe)	(44) 20 3037 4865
Nick Ainsworth (Generalist)	(852) 3922 2010

Sales Trading

Adam Zaki (Asia)	(852) 3922 2002
Mike Keen (Europe)	(44) 20 3037 4905
Yat Quan Tan (Hong Kong)	(852) 3922 2028
Stanley Dunda (Indonesia)	(6221) 515 1555
Mario Argyrides (Korea)	(822) 3705 8610
Edward Robinson (London)	(44) 20 3037 4902

Sales Trading cont'd

Chris Reale (New York)	(1 212) 231 2616
Michael Santos (Philippines)	(632) 857 0813
Matthew Ryan (Singapore)	(65) 6231 2888
Isaac Huang (Taiwan)	(8862) 2734 7582
Dominic Shore (Thailand)	(662) 694 7707
Phil Sellaroli (Tokyo)	(813) 3512 7837

Alternative Strategies

Convertibles - Roland Sharman	(852) 3922 2095
Depository Receipts - Robert Ansell	(852)3922 2094
Derivatives - Wayne Edelist	(852) 3922 2134
Futures - Tim Smith	(852) 3922 2113
Structured Products - Andrew Terlich	(852) 3922 2013