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### News Roundup

#### Corporate

- Government has objected to Reliance Power's plan to use coal from the mines awarded for the Sasan plant for its Chitrangi plant which is also located in Madhya Pradesh (BS)
- US-based theatre chain Regal Entertainment Group, and private equity funds such as Bain Capital, Goldman Sachs and Texas Pacific Group are in talks with the promoters of Pyramid Saimira Theatre to pick up a 14% stake in the company (ET)
- United Spirit owned Whyte and Mackay is said to be looking to acquire Elgin-based distillery Glen Moray (BS)
- Reliance Industries is said to be looking to acquire Chevron's downstream assets in Kenya and Uganda (ET)

#### Economic and political

- Government is considering imposition of windfall profit tax on private oil companies. The proposal has been put forward by Congress' latest ally, the Samajwadi Party. A similar proposal by the Left front was earlier rejected by the Oil ministry. (ET)

Source: ET = Economic Times, BS = Business Standard, FE = Financial Express, BL = Business Line.

### EQUITY MARKETS

India	Change, %			
	4-Jul	1-day	1-mo	3-mo
Sensex	13,454	2.7	(13.6)	(14.6)
Nifty	4,016	2.3	(13.2)	(15.7)
<b>Global/Regional indices</b>				
Dow Jones	11,289	0.7	(8.9)	(10.5)
FTSE	5,413	(1.2)	(8.4)	(10.0)
Nikkei	13,229	(0.1)	(8.7)	(1.6)
Hang Seng	21,563	0.7	(11.6)	(12.3)
KOSPI	1,569	(0.6)	(14.4)	(11.5)
<b>Value traded - India</b>				
		Moving avg, Rs bn		
	4-Jul	1-mo	3-mo	
Cash (NSE+BSE)	181.0	192.2	195.3	
Derivatives (NSE)	442.2	483.8	337	
Deri. open interest	688.0	687	539	

#### Forex/money market

	Change, basis points			
	4-Jul	1-day	1-mo	3-mo
Rs/US\$	43.1	0	18	321
6mo fwd prem, %	0.7	(25)	71	24

#### Net investment (US\$mn)

	3-Jul	MTD	CYTD
FIs	(174)	-	(5,255)
MFs	56	-	1,660

#### Top movers -3mo basis

Best performers	Change, %			
	4-Jul	1-day	1-mo	3-mo
i-Flex	1,512	6.5	19.1	56.4
Chambal Fert	64	8.0	(20.7)	26.7
Ingersoll Rand	352	13.7	28.5	31.6
Ballarpur Ind	32	-	(6.0)	21.1
Infosys	1,756	0.7	(11.9)	17.7
<b>Worst performers</b>				
BPCL	230	1.8	(23.7)	(42.7)
Acc	477	1.2	(24.0)	(42.7)
Tata Motors	400	2.2	(25.9)	(36.7)
Grasim	1,691	0.6	(25.3)	(35.2)
Wockhardt	182	5.1	(31.2)	(33.8)

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**Industrials**

Sector coverage view

Cautious

Company	Rating	Price, Rs	
		4-Jul	Target
BHEL	ADD	1,500	1,750
BGR	BUY	213	325
L&T	BUY	2,381	3,600
BEL	ADD	998	1,350
ABB	REDUCE	836	1,125
Dredging	REDUCE	457	550
Suzlon	ADD	192	325
AIA Engineerin	REDUCE	51	1,750
Siemens	ADD	428	520

## **BHEL may be awarded Krishnapatnam boiler order in a tightly contested bid; intensifying competition in the sector may pressurize margins**

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- **BHEL may likely be awarded the boiler order for 2X800 MW Krishnapatnam project after a very tightly contested bid**
- **Closeness of boiler bids of the two competitors in stark contrast to large difference in turbine bids; possibly led by technology tie up dynamics**
- **Highlight about 65% escalation in price per MW of BTG package since Sipat order to Doosan and Power Machines**
- **Another recent domestic order (1X 600 MW Mettur project) also signals more competition for dominant domestic player BHEL as Indian contractors and Chinese vendors pool in strengths**
- **Higher efficiency and lower emission levels have led towards ultra-supercritical configuration of above 1,000 MW globally**

Information suggests that BHEL may get supercritical boiler order for 2X800 MW APGENCO's power plant at Krishnapatnam. We believe BHEL's quote at Rs25.3 bn has been just a tad lower than Rs25.8 bn quote of Larsen and Toubro. Closeness of boiler bids of the two competitors is in stark contrast to the significant difference in the turbine quotes from the two vendors as reported in newspapers (BHEL at Rs20 bn and L&T at about Rs15 bn). We believe the difference may be dependant on price quoted by back-to-back technology providers Siemens/Alstom in case of BHEL and MHI in case of L&T. We highlight that on a per MW basis there has been about 65% escalation in BTG package prices when we compare the current bids with the award of contracts for NTPC's Sipat plant. Award of 1X600 MW Mettur project to BGR Energy on an EPC basis based on its tie up with Dongfang China signals another significant change in the power equipment sector where in Indian contractors and foreign equipment vendors work together to win EPC bids. Increasing competition intensity of the sector, through both domestic and international competition, may impact pricing and pressurize margins. We highlight that while Krishnapatnam may be the first 800 MW supercritical configuration power plant to start construction activity based on domestic manufacturing, globally technology curve has moved towards ultra-supercritical with unit size of above 1,000 MW.

### **BHEL may likely be awarded the boiler order for 2X800 MW Krishnapatnam project after a very tightly contested bid**

Information suggests that BHEL may get supercritical boiler order for 2X800 MW APGENCO's power plant at Krishnapatnam. We believe BHEL's quote at Rs25.3 bn has been just a tad lower than Rs25.8 bn quote of Larsen and Toubro. It is expected that after various adjustments such as for auxiliary consumption etc. the difference may reduce further; however the final award is still likely to go to BHEL.

### **Closeness of boiler bids of the two competitors in stark contrast to large difference in turbine bids; possibly led by technology tie up dynamics**

Closeness of boiler bids of the two competitors is in stark contrast to the significant difference in the turbine quotes from the two vendors as reported in newspapers (BHEL at Rs20 bn and L&T at about Rs15 bn). We believe the difference may be dependant on price quoted by back-to-back technology providers Siemens and Alstom in case of BHEL (respectively for turbine and boilers) and MHI in case of Larsen-MHI combine. There could be several plausible reasons for differences in vendor costs:

- 1) Higher stake begets higher commitment: We believe that MHI has a higher stake in success of L&T-MHI JV (with a 49% equity stake) and thus would be keen to provide the JV with aggressive indigenization schedules as well as components at competitive cost versus stake of Siemens and Alstom in the success of BHEL.
- 2) Delivery schedules of respective vendors: Power equipment vendors have been facing a strong demand environment and availability of production capacity for various equipment configuration as per specific delivery timelines, may also make a difference.
- 3) Difference in BHEL's tie up with Siemens and Alstom: We highlight that our discussions suggest that BHEL's tie up with Alstom for boilers may be stronger versus BHEL's tie up with Siemens for turbines. For instance, we understand that Alstom would not place a competitive bid for supercritical boilers in India while the same is not the case with Siemens for turbines. For instance, Siemens attempted to tie up with Tata Power for UMPP bidding, independently of BHEL.

#### **Highlight about 65% escalation in price per MW of BTG package since Sipat order to Doosan and Power Machines**

We highlight that on a per MW basis there has been about 65% escalation in BTG package prices when we compare the current bids with the award of contracts to Doosan (Korea) and Power machines (Russia) for NTPC's Sipat plant. We believe that escalation has to account for (1) changes in scope, (2) escalation in commodity prices, (3) general inflation over last four years (Sipat orders were placed in April 2004), (4) savings on a per MW basis by having a 800 MW unit in Krishnapatnam versus 660 MW unit in Sipat.

#### **Another recent domestic order (1X 600 MW Mettur project) also signals more competition for dominant domestic player BHEL as Indian contractors and Chinese vendors pool in strengths**

Award of 1X600 MW Mettur project to BGR Energy on an EPC basis based on its tie up with Dongfang China (for BTG package) signals another significant change in the power equipment sector where in Indian contractors and foreign equipment vendors work together to win EPC bids. Indian contractor takes care of execution, provides management/technical and fabrication skills and manages local interface with SEBs/ political system while the foreign equipment vendor focuses on equipment supply based on scale economics and other structural cost advantages. This was model earlier adopted only by Reliance Infrastructure (earlier Reliance Energy), whose EPC capabilities are now largely dedicated towards Reliance Power's ambitious plans in power generation projects. We highlight that such a combination would mean additional competition for dominant domestic equipment suppliers such as BHEL. Increasing competition intensity of the sector, through both domestic and international competition, may impact pricing and pressurize margins.

#### **Higher efficiency and lower emission levels have led towards ultra-supercritical configuration of above 1,000 MW globally**

We highlight that while Krishnapatnam may be the first 800 MW supercritical configuration power plant to start construction activity based on domestic manufacturing, globally technology curve has moved towards ultra-supercritical with unit size of above 1,000 MW. For instance, China has already completed one of the largest 4X1,000 MW ultra supercritical power plant. Strict nationalization rules, mandating 70% domestic manufacturing, has also led to technology transfer from Siemens (turbines) and Mitsubishi (Boilers) to Shanghai Electric and Harbin respectively.

**Exhibit 1: BTG package prices have risen by about 65% since the Sipat order**

Comparison of financial bids for Sipat and Krishnapatnam supercritical power projects

<b>Project</b>	<b>Configuration/scope</b>	<b>Vendor</b>	<b>Contract value (Rs mn)</b>	<b>Cost per MW (Rs mn)</b>	<b>Date of award/bid</b>
Sipat - NTPC	3X 660 MW turbines	Power Machines, Russia	11,350	5.7	6-Apr-04
	3X 660 MW boilers	Doosan, Korea	18,600	9.4	15-Apr-04
Krishnapatnam - APGENCO	2X 800 MW turbines	Larsen-MHI	15,000	9.4	8-Jun-08
	2X 800 MW boilers	BHEL	25,300	15.8	5-Jul-08

Source: Newsreports, Kotak Institutional Equities

**Construction**

Sector coverage view

Attractive

Company	Rating	Price, Rs	
		4-Jul	Target
Punj Lloyd	BUY	228	320
NCCL	BUY	125	230
IVRCL	BUY	304	430
Sadbhav Engin	BUY	697	1,100
Consolidated C	BUY	529	730

## Downgrade estimates and target prices based on higher interest cost and WACC assumptions; reiterate BUY on coverage stocks based on attractive valuations even with stress-case earnings

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- **Downgrade earnings estimates based on higher interest costs**
- **Cut target prices led by higher cost of capital assumption of 13.5% versus 12.5% earlier**
- **Current trading multiples seem attractive even under stress-case earnings scenario**
- **Reiterate BUY on Punj, IVRCL and Nagarjuna; upgrade CCCL to BUY from ADD earlier**

We downgrade our EPS estimates for our construction coverage universe primarily led by higher interest costs ' increase in average interest costs by 100 bps than earlier assumption over FY2009E-10E. We cut target prices for all our construction coverage universe stocks primarily led by a higher cost of capital assumption of 13.5% versus 12.5% earlier ' Punj ' Rs320 (versus Rs370 earlier), IVRCL 'Rs430 (versus Rs535 earlier), Nagarjuna ' Rs230 (versus Rs285 earlier), and CCCL ' Rs730 (versus Rs800 earlier). Our construction coverage universe seems to be trading at attractive multiples even with stress-case earnings estimates (wherein earnings fall on an average by about 20-25%) ' with FY2010E P/E multiples being in the range of 12X-14X. We reiterate our BUY rating on Punj, IVRCL and Nagarjuna and upgrade our rating on CCCL to BUY (from ADD earlier).

### Downgrade earnings estimates based on higher interest costs

We downgrade our EPS estimates for our construction coverage universe primarily led by higher interest costs – increase in average interest costs by 100 bps than earlier assumptions over FY2009E-10E –

**Punj** – Revise EPS to Rs14.3 (from Rs14.9 earlier) and Rs20.2 (from Rs21.6 earlier) for FY2009E and FY2010E respectively.

**IVRCL** – Revise EPS to Rs17.7 (from Rs19.6 earlier) and Rs25.2 (from Rs26.7 earlier) for FY2009E and FY2010E respectively.

**Nagarjuna** – Revise EPS to Rs9.3 (from Rs10 earlier) and Rs12.2 (from Rs13.6 earlier) for FY2009E and FY2010E respectively.

**CCCL** – Revise EPS to Rs38.4 (from Rs38.9 earlier) and Rs49.6 (from Rs52.6 earlier) for FY2009E and FY2010E respectively.

### Cut target prices led by higher cost of capital assumption of 13.5% versus 12.5% earlier

We cut target prices for all our construction coverage universe stocks primarily led by a higher cost of capital assumption of 13.5% versus 12.5% earlier –

**Punj** – Revised FY2009E-based DCF target price of Rs320 (versus Rs370 earlier), implying a P/E multiple of 22X and 16X our FY2009E and FY2010E EPS estimates respectively (Exhibit 1).

**Nagarjuna** – Revised SOTP-based target price of Rs230 (versus Rs285 earlier), implying a P/E multiple of 19X and 14X our FY2009E and FY2010E core construction business earnings estimates respectively. Our target price comprises of (1) Rs177 of core construction business, (2) Rs7 of BOT road and power projects, (3) Rs17 of investments at book value and (4) Rs26 of real estate (Exhibit 2-3).

**IVRCL** – Revised SOTP-based target price of Rs430 (versus Rs535 earlier), implying a P/E multiple of 17X and 12X our FY2009E and FY2010E core construction business earnings estimates respectively. Our target price comprises of (1) Rs293 (versus Rs350 earlier) for the standalone entity based on FY2009E-based DCF, (2) IVR Prime's contribution of Rs93 (versus Rs126 earlier, based on 10% discount to NAV of Rs470), based on 20% discount to NAV of Rs390 per share), (3) value from infrastructure projects of Rs39 (unchanged) and (4) Rs9 from Hindustan Dorr Oliver (current market price) (Exhibit 4-5).

**CCCL** – Revised FY2009E-based DCF target price of Rs730 (versus Rs800 earlier), implying a P/E multiple of 19X and 15X our FY2009E and FY2010E EPS estimates respectively (Exhibit 6).

### **Current trading multiples seem attractive even under stress-case earnings scenario**

Our construction coverage universe seems to be trading at attractive multiples even with stress-case earnings estimates (wherein earnings fall on an average by about 20-25%) – with FY2010E P/E multiples being in the range of 12X-14X. Multiples seem attractive given that (1) multiples are on stress-case earnings, (2) likely earnings CAGR growth post FY2010E is greater than 20% and (3) Strong macro outlook over the next decade with large planned infrastructural investments. Our stress-case earnings assume the following over the base-case (1) 10% points lower (versus earlier estimate) revenue growth for FY2009E, (2) 5% points lower (versus earlier estimate) revenue growth for FY2010E and (3) 100 bps lower margins (versus earlier estimates) during FY2009E-10E (Exhibit 7).

**Punj** – Trading at 20X and 14X our stress-case EPS estimates of Rs10.6 and Rs14.7 for FY2009E and FY2010E respectively adjusting for about Rs16 per share for investments such as in Pipavav shipyard etc.

**Nagarjuna** – Core construction business (excluding all investments at book value from market price) trading at 15X and 12X our stress-case EPS estimates of Rs7 and Rs8.6 for FY2009E and FY2010E respectively. We also highlight that Nagarjuna's book value at end-FY2008 was around Rs80 per share.

**IVRCL** – Core construction business (excluding all investments at book value and IVR Prime and Hindustan Dorr Oliver at current market price) trading at 16X and 12X our stress-case EPS estimates of Rs13.7 and Rs18.6 for FY2009E and FY2010E respectively.

**CCCL** – Trading at 16X and 13X our stress-case EPS estimates of Rs32.2 and Rs39.6 for FY2009E and FY2010E respectively.

### **Reiterate BUY on Punj, IVRCL and Nagarjuna; upgrade CCCL to BUY from ADD earlier**

We reiterate our BUY rating on Punj, IVRCL and Nagarjuna and upgrade our rating on CCCL from ADD to BUY. We highlight that the recent correction in construction sector stocks leaves significant upsides to our revised target prices and current valuations seem attractive even under stress-case earnings assumptions. We also highlight that (1) construction companies are better protected against commodity price escalation related risks versus their industrial counterparts as about 70-90% of their order books (except Punj) may have escalation clauses related to specific commodities such as cement, steel, bitumen etc. We believe that construction companies are also less exposed (versus their industrial counterparts) to ferrous and non-ferrous metals where price increases in the last few months have been very sharp, (2) infrastructure development opportunities in several sectors such as roads, ports, airports and hydro power may add meaningful value over a period of time and (3) long-term macro growth story for Indian infrastructural investments remains intact providing strong visibility of growth opportunities for the construction sector.

**Exhibit 1: Our revised target price for Punj is Rs320**

DCF model for Punj, March fiscal year-ends, 2009E-19E (Rs mn)

	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
<b>Revenues</b>	<b>104,067</b>	<b>132,230</b>	<b>168,053</b>	<b>207,840</b>	<b>254,525</b>	<b>308,366</b>	<b>369,930</b>	<b>425,419</b>	<b>489,232</b>	<b>562,617</b>	<b>618,878</b>
Revenue growth (%)	34.2	27.1	27.1	23.7	22.5	21.2	20.0	15.0	15.0	15.0	10.0
<b>EBITDA</b>	<b>9,144</b>	<b>12,273</b>	<b>15,625</b>	<b>19,299</b>	<b>23,647</b>	<b>28,656</b>	<b>34,426</b>	<b>39,564</b>	<b>45,499</b>	<b>52,323</b>	<b>57,556</b>
EBITDA (%)	8.8	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
Depreciation	(1,762)	(1,989)	(2,252)	(2,549)	(2,882)	(3,249)	(3,652)	(3,834)	(4,026)	(4,227)	(4,439)
<b>EBIT</b>	<b>7,382</b>	<b>10,284</b>	<b>13,373</b>	<b>16,750</b>	<b>20,765</b>	<b>25,407</b>	<b>30,774</b>	<b>35,730</b>	<b>41,472</b>	<b>48,096</b>	<b>53,117</b>
Tax	(2,068)	(2,836)	(3,687)	(4,613)	(5,724)	(7,006)	(8,498)	(11,791)	(13,686)	(15,872)	(17,529)
Change in net working capital	(5,717)	(6,023)	(5,399)	(7,975)	(9,443)	(10,813)	(12,400)	(11,402)	(13,112)	(15,079)	(11,561)
Capex	(3,000)	(3,500)	(4,000)	(4,500)	(5,000)	(5,500)	(6,000)	(5,530)	(6,360)	(7,314)	(8,045)
<b>Free cash flow</b>	<b>(1,641)</b>	<b>(86)</b>	<b>2,538</b>	<b>2,210</b>	<b>3,480</b>	<b>5,337</b>	<b>7,528</b>	<b>10,841</b>	<b>12,340</b>	<b>14,059</b>	<b>20,421</b>
PV of each cash flow	(1,641)	(76)	1,970	1,512	2,097	2,834	3,521	4,468	4,481	4,498	5,756
Capex (% of sales)	2.9	2.6	2.4	2.2	2.0	1.8	1.6	1.3	1.3	1.3	1.3

**Weighted average cost of capital-WACC**

Terminal growth - g (%)	5.0	FCF in terminal year (Rs mn)	20,421
Risk free rate-Rf (%)	8.5	Exit FCF multiple: (1+g)/(WACC-g)	12.4
Market risk premium—(Rm-Rf) (%)	6.0	Terminal value of FCF (Rs mn)	252,261
Beta (x)	1.1	Exit EBITDA multiple	4.4
Cost of equity-Ke (%)	15.1	PV of cash flows	29,420
Cost of debt-Kd (%)	12.0	PV of terminal value	71,103
Tax rate (%)	33.9	EV	100,523
Debt/Capital (%)	43.1	Debt	(677)
Equity/Capital (%)	56.9	Equity value	101,201
WACC (%)	12.0	Shares outstanding (mn)	321
<b>Used WACC (%)</b>	<b>13.5</b>	<b>Equity value (Rs/share)</b>	<b>315.7</b>

Source: Kotak Institutional Equities estimates.

**Exhibit 2: Our revised target price for Nagarjuna is Rs230**

Derivation of SOTP-based valuation of Nagarjuna

	Equity Commitment (Rs mn)	Incremental P/B (X)	Valuation (Rs mn)	Rs/share
<b>BOT Projects</b>	<b>3,148</b>		<b>1,555</b>	<b>6.7</b>
Roads				
Brindavan Infrastructure Co. Ltd.	150	0.4	60	0.3
Bangalore elevated Corridor Project	637	1.0	637	2.8
Western UP Tollway Ltd.	239	1.0	239	1.0
Orai - Bhognipur	832	0.4	333	1.4
Pondicherry Tindivanam Tollway Limited	375	0.5	188	0.8
Power				
Gautami Power	420	0.0	0	0.0
Hydropower project in Himachal Pradesh	495	0.2	99	0.4
<b>ICICI Ventures/Tishman/ Nagarjuna project</b>			<b>1,184</b>	<b>5.1</b>
<b>Book value of investments</b>	<b>4,142</b>			<b>17.9</b>
<b>Value of core construction business</b>			<b>40,976</b>	<b>177.0</b>
<b>Value of land bank</b>			<b>5,087</b>	<b>22.0</b>
<b>Total</b>				<b>228.7</b>

Source: Company data, Kotak Institutional Equities estimates.



**Exhibit 3: Our revised core construction business valuation of Nagarjuna is Rs177**

DCF model for Nagarjuna's core construction business, March fiscal year-ends, 2009E-19E (Rs mn)

	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
<b>Revenues</b>	<b>34,729</b>	<b>47,420</b>	<b>60,193</b>	<b>73,986</b>	<b>91,006</b>	<b>113,037</b>	<b>139,750</b>	<b>169,723</b>	<b>195,182</b>	<b>218,604</b>	<b>240,464</b>	<b>264,510</b>
Revenue growth rate (%)	21.0	36.5	26.9	22.9	23.0	24.2	23.6	21.4	15.0	12.0	10.0	10.0
<b>EBITDA</b>	<b>3,599</b>	<b>4,868</b>	<b>6,128</b>	<b>7,644</b>	<b>9,402</b>	<b>11,452</b>	<b>14,158</b>	<b>17,195</b>	<b>19,518</b>	<b>21,860</b>	<b>24,046</b>	<b>26,451</b>
EBITDA margin (%)	10.4	10.3	10.2	10.3	10.3	10.1	10.1	10.1	10.0	10.0	10.0	10.0
Depreciation	(482)	(581)	(700)	(830)	(980)	(1,158)	(1,375)	(1,612)	(1,719)	(2,130)	(2,564)	(3,244)
<b>EBIT</b>	<b>3,116</b>	<b>4,287</b>	<b>5,429</b>	<b>6,814</b>	<b>8,422</b>	<b>10,294</b>	<b>12,783</b>	<b>15,583</b>	<b>17,799</b>	<b>19,730</b>	<b>21,483</b>	<b>23,207</b>
Tax	(816)	(1,063)	(1,386)	(1,759)	(2,179)	(2,701)	(3,387)	(4,205)	(4,803)	(5,324)	(5,797)	(6,263)
Change in net working capital	(6,075)	(51)	(2,062)	(3,243)	(3,785)	(4,999)	(6,153)	(7,056)	(5,231)	(4,813)	(4,492)	(4,941)
Capex	(1,600)	(1,500)	(1,500)	(1,800)	(2,000)	(2,500)	(3,000)	(3,000)	(4,880)	(5,465)	(6,012)	(6,613)
<b>Free cash flow</b>	<b>(4,892)</b>	<b>2,253</b>	<b>1,181</b>	<b>843</b>	<b>1,438</b>	<b>1,251</b>	<b>1,618</b>	<b>2,934</b>	<b>4,604</b>	<b>6,258</b>	<b>7,746</b>	<b>8,635</b>
PV of each cash flow	(4,892)	2,253	1,040	654	984	754	859	1,373	1,898	2,272	2,478	2,434
<b>EBITDA (%)</b>	<b>10.4</b>	<b>10.3</b>	<b>10.2</b>	<b>10.3</b>	<b>10.3</b>	<b>10.1</b>	<b>10.1</b>	<b>10.1</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>
Capex (% of sales)	4.6	3.2	2.5	2.4	2.2	2.2	2.1	1.8	2.5	2.5	2.5	2.5

**Weighted average cost of capital-WACC**

Terminal growth - g (%)	5.0	FCF in terminal year (Rs mn)	8,635
Risk free rate-Rf (%)	8.5	Exit FCF multiple: (1+g)/(WACC-g)	12.4
Market risk premium—(Rm-Rf) (%)	6.0	Terminal value of FCF (Rs mn)	106,662
Beta (x)	1.1	Exit EBITDA multiple	4.0
Cost of equity-Ke (%)	15.1	PV of cash flows	16,999
Cost of debt-Kd (%)	12.0	PV of terminal value	30,064
Tax rate (%)	33.6	EV	47,063
Debt/Capital (%)	37.3	Debt	6,087
Equity/Capital (%)	62.7	Equity value	40,976
WACC (%)	12.4	Fully diluted shares outstanding (mn)	232
<b>Used WACC (%)</b>	<b>13.5</b>	<b>Equity value (Rs/share)</b>	<b>177.0</b>

Source: Company data, Kotak Institutional Equities estimates.

**Exhibit 4: Our revised target price for IVRCL is Rs430**

Derivation of SOTP-based valuation of IVRCL

	Equity Commitment (Rs mn)	P/B Multiple (X)	Per share (Rs)
<b>Value of core construction business</b>			<b>292.5</b>
<b>Roads</b>			
Jalandhar- Amristar Tollways	400	1	3.0
Salem - Kumarapalayam	760	1	5.6
Sumarapalayam Chenagmpalli	1,290	1	9.6
<b>Water</b>			
Chennai Water	713	1	5.3
Infrastructure holdings	2,132	Book value	15.8
Value of Hindustan Dorr Oliver		Market Price	8.9
Value of IVRCL Prime Developers limited		NAV	92.6
<b>Total</b>			<b>433.4</b>

Source: Company data, Kotak Institutional Equities estimates.



**Exhibit 5: Our revised core construction business valuation of IVRCL is Rs293**

DCF model for IVRCL's core construction business, March fiscal year-ends, 2009E-19E (Rs mn)

Rs mn	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
<b>Revenues</b>	<b>36,606</b>	<b>50,127</b>	<b>68,513</b>	<b>89,538</b>	<b>115,966</b>	<b>136,382</b>	<b>161,690</b>	<b>192,442</b>	<b>221,309</b>	<b>247,866</b>	<b>277,610</b>	<b>305,371</b>
Revenue growth (%)	58.8	36.9	36.7	30.7	29.5	17.6	18.6	19.0	15.0	12.0	12.0	10.0
<b>EBITDA</b>	<b>3,614</b>	<b>5,013</b>	<b>6,851</b>	<b>8,954</b>	<b>11,597</b>	<b>13,638</b>	<b>16,169</b>	<b>19,244</b>	<b>22,131</b>	<b>24,787</b>	<b>27,761</b>	<b>30,537</b>
EBITDA margin (%)	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Depreciation	(328)	(470)	(638)	(818)	(1,021)	(1,246)	(1,493)	(1,763)	(1,645)	(1,862)	(2,104)	(2,371)
<b>EBIT</b>	<b>3,296</b>	<b>4,553</b>	<b>6,223</b>	<b>8,145</b>	<b>10,586</b>	<b>12,402</b>	<b>14,686</b>	<b>17,491</b>	<b>20,496</b>	<b>22,934</b>	<b>25,667</b>	<b>28,176</b>
Tax	(922)	(1,440)	(1,976)	(2,598)	(3,377)	(3,955)	(4,684)	(5,590)	(6,550)	(7,329)	(8,203)	(9,004)
Change in net working capital	(5,185)	(2,085)	(4,111)	(6,566)	(8,725)	(6,740)	(8,355)	(10,152)	(5,931)	(5,457)	(6,112)	(5,704)
Capex	(1,750)	(1,750)	(2,000)	(2,000)	(2,500)	(2,500)	(3,000)	(3,000)	(3,320)	(3,718)	(4,164)	(4,581)
<b>Free cash flow</b>	<b>(4,244)</b>	<b>(262)</b>	<b>(1,235)</b>	<b>(2,210)</b>	<b>(3,005)</b>	<b>443</b>	<b>130</b>	<b>502</b>	<b>6,330</b>	<b>8,283</b>	<b>9,283</b>	<b>11,248</b>
PV of each cash flow	(4,244)	(262)	(1,088)	(1,716)	(2,055)	267	69	235	2,609	3,007	2,970	3,170
<b>EBITDA (%)</b>	<b>9.9</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>
Capex (% of sales)	4.8	3.5	2.9	2.2	2.2	1.8	1.9	1.6	1.5	1.5	1.5	1.5

**Weighted average cost of capital-WACC**

Terminal growth - g (%)	5.0	FCF in terminal year (Rs mn)	11,248
Risk free rate-Rf (%)	8.5	Exit FCF multiple: (1+g)/(WACC-g)	12.4
Market risk premium—(Rm-Rf) (%)	6.0	Terminal value of FCF (Rs mn)	138,948
Beta (x)	1.1	Exit EBITDA multiple	4.6
Cost of equity-Ke (%)	15.1	PV of cash flows	7,206
Cost of debt-Kd (%)	12.0	PV of terminal value	39,164
Tax rate (%)	33.6	EV	46,371
Debt/Capital (%)	41.7	Debt	6,968
Equity/Capital (%)	58.3	<b>Equity value</b>	<b>39,403</b>
WACC (%)	12.1	Shares outstanding (mn)	135
<b>Used WACC (%)</b>	<b>13.5</b>	<b>Equity value (Rs/share)</b>	<b>292.5</b>

Source: Kotak Institutional Equities estimates.

**Exhibit 6: Our revised target price for CCCL is Rs730**

DCF model for CCCL, March fiscal year-ends, 2009E-19E (Rs mn)

	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E
<b>Revenues</b>	<b>21,814</b>	<b>28,272</b>	<b>34,213</b>	<b>41,720</b>	<b>50,428</b>	<b>60,575</b>	<b>72,595</b>	<b>85,662</b>	<b>100,225</b>	<b>115,258</b>	<b>131,395</b>
Revenue growth (%)	47.7	29.6	21.0	21.9	20.9	20.1	19.8	18.0	17.0	15.0	14.0
<b>EBITDA</b>	<b>2,130</b>	<b>2,788</b>	<b>3,376</b>	<b>4,141</b>	<b>5,092</b>	<b>6,119</b>	<b>7,334</b>	<b>8,652</b>	<b>10,123</b>	<b>11,641</b>	<b>13,271</b>
EBITDA margin (%)	9.8	9.9	9.9	9.9	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Depreciation	(104)	(138)	(159)	(175)	(199)	(226)	(257)	(257)	(257)	(257)	(257)
<b>EBIT</b>	<b>2,026</b>	<b>2,650</b>	<b>3,217</b>	<b>3,966</b>	<b>4,893</b>	<b>5,893</b>	<b>7,077</b>	<b>8,395</b>	<b>9,866</b>	<b>11,384</b>	<b>13,014</b>
Tax	(528)	(693)	(1,064)	(1,313)	(1,621)	(1,953)	(2,345)	(2,782)	(3,269)	(3,773)	(4,313)
Change in net working capital	(1,290)	(1,117)	(1,372)	(1,543)	(1,789)	(2,085)	(2,470)	(2,506)	(2,793)	(2,883)	(3,095)
Capex	(375)	(248)	(280)	(280)	(350)	(400)	(450)	(531)	(621)	(714)	(814)
<b>Free cash flow</b>	<b>(63)</b>	<b>730</b>	<b>660</b>	<b>1,005</b>	<b>1,331</b>	<b>1,681</b>	<b>2,069</b>	<b>2,833</b>	<b>3,439</b>	<b>4,271</b>	<b>5,049</b>
PV of each cash flow	(63)	643	512	687	802	893	968	1,167	1,249	1,366	1,423
EBITDA (%)	9.8	9.9	9.9	9.9	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Capex (% of sales)	1.7	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6

**Weighted average cost of capital-WACC**

Terminal growth - g (%)	5.0	FCF in terminal year (Rs mn)	5,049
Risk free rate-Rf (%)	8.5	Exit FCF multiple: (1+g)/(WACC-g)	12.4
Market risk premium—(Rm-Rf) (%)	6.0	Terminal value of FCF (Rs mn)	62,372
Beta (x)	1.1	Exit EBITDA multiple	5.4
Cost of equity-Ke (%)	15.1	PV of cash flows	9,648
Cost of debt-Kd (%)	12.0	PV of terminal value	17,580
Tax rate (%)	34.0	EV	27,229
Debt/Capital (%)	31.9	Debt	377
Equity/Capital (%)	68.1	Equity value	26,851
WACC (%)	12.8	Shares outstanding (mn)	37
<b>Used WACC (%)</b>	<b>13.5</b>	<b>Equity value (Rs/share)</b>	<b>726.6</b>

Source: Kotak Institutional Equities estimates.

**Exhibit 7: Stress-case scenario results in earnings decline of about 21% versus base case estimates**

Base case and stress-case earnings estimates for construction coverage universe

	Sales (Rs mn)			EBITDA (Rs mn)			Net Profit (Rs mn)			EPS (Rs)			
	2008	2009E	2010E	2008	2009E	2010E	2008	2009E	2010E	2008	2009E	2010E	
<b>Base case valuation</b>													
Punj Lloyd Ltd	77,529	104,067	132,230	6,408	7,474	9,775	3,229	4,582	6,489	10.1	14.3	20.2	
Nagarjuna	34,729	47,420	60,193	3,599	4,868	6,128	1,620	2,159	2,813	7.0	9.3	12.2	
IVRCL Infrastructure	36,606	50,127	68,513	3,614	5,013	6,851	2,104	2,387	3,391	15.6	17.7	25.2	
CCCL	14,772	21,814	28,272	1,392	2,130	2,788	889	1,418	1,834	24.7	38.4	49.6	
<b>Stress case valuation</b>													
												<b>Changes from base case</b>	
Punj Lloyd Ltd	77,529	96,461	117,743	6,408	7,474	9,775	3,229	3,413	4,719	10.1	10.6	14.7	Cut operating margins by 100 bps to 9% both in FY09E and FY10E Cut revenue growth to 27% (10% points lower) and 32% (5% points lower) for FY09E and FY10E respectively
Nagarjuna	34,729	43,826	53,322	3,599	4,083	4,922	1,620	1,618	2,002	7.0	7.0	8.6	Cut operating margins by 100 bps to 9.3% and 9.2% in FY09E and FY10E respectively Cut revenue growth to 27% (10% points lower) and 22% (5% points lower) for FY09E and FY10E respectively
IVRCL Infrastructure	36,606	46,453	61,380	3,614	4,181	5,493	2,104	1,843	2,506	15.6	13.7	18.6	Cut operating margins by 100 bps to 7.8% and 8.3% in FY09E and FY10E respectively Cut revenue growth to 24% (10% points lower) and 22% (5% points lower) for FY09E and FY10E respectively
CCCL	14,772	20,306	25,291	1,392	1,782	2,233	889	1,190	1,463	24.7	32.2	39.6	Cut operating margins by 100 bps to 8.8% both in FY09E and FY10E Cut revenue growth to 24% (10% points lower) and 22% (5% points lower) for FY09E and FY10E respectively

Source: Company data, Kotak Institutional Equities.

## Insurance

## Stress-case analysis on insurance business

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Given the uncertain markets and the risk to valuations from lower growth, lower margin and higher cost of equity, we have tried ascertaining the value of the insurance businesses of key players under stress case scenario. We believe that the reduction in the value of insurance business for key players assuming lower growth and lower margins would be around 25-40%. Note that even for our base-case scenario we assume higher cost of equity of 16% and lower and declining margin for most players. We have further reduced this under a stress-case scenario. We believe that near-term premium income collection could get impacted by volatile markets but overall long-term growth will remain intact.

## Exhibit 1: Current estimate of Indian insurance companies valuations

	NBV 2008E (Rs bn)	NBV 2009E (Rs bn)	Fair value (Rs bn)	Fair value to 2008E NBV (X)	Fair value to 2009E NBV (X)
Bajaj Allianz	7.9	11.0	230	29.1	20.9
Birla Sun Life	1.7	3.7	85	49.5	22.9
HDFC Standard Life	3.1	4.7	108	34.7	23.1
ICICI Prudential	9.4	13.1	293	31.3	22.3
Max NY	1.8	2.7	63	34.4	23.7
Reliance Life	2.6	5.2	118	45.2	22.6
SBI Life	3.7	5.6	134	36.2	24.1

Source: Kotak Institutional Equities

## Exhibit 2: We assume lower margins and ...(%)

	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
<b>Bajaj Allianz</b>								
Base case NBV margin (%)	13.75	13.00	12.50	12.00	11.50	11.00	10.50	10.00
Stress case NBV margin (%)	12.25	11.50	11.00	10.50	10.00	9.50	9.00	8.50
<b>Birla Sun Life</b>								
Base case NBV margin (%)	11.87	11.00	10.50	10.00	9.50	11.00	10.50	10.00
Stress case NBV margin (%)	10.37	9.50	9.00	8.50	8.00	9.50	9.00	8.50
<b>ICICI Prudential Life</b>								
Base case NBV margin (%)	13.72	13.00	12.50	12.00	11.50	11.00	10.50	10.00
Stress case NBV margin (%)	13.72	13.00	12.50	12.00	11.50	11.00	10.50	10.00
<b>HDFC SL</b>								
Base case NBV margin (%)	13.79	13.29	12.79	12.29	11.79	11.00	10.50	10.00
Stress case NBV margin (%)	12.29	11.79	11.29	10.79	10.29	9.50	9.00	8.50
<b>Max</b>								
Base case NBV margin (%)	13.95	13.50	13.00	12.50	12.00	11.00	10.50	10.00
Stress case NBV margin (%)	12.45	12.00	11.50	11.00	10.50	9.50	9.00	8.50
<b>Reliance</b>								
Base case NBV margin (%)	13.70	13.00	12.50	12.00	11.50	11.00	10.50	10.00
Stress case NBV margin (%)	12.20	11.50	11.00	10.50	10.00	9.50	9.00	8.50
<b>SBI Life</b>								
Base case NBV margin (%)	13.46	13.46	12.96	12.46	11.96	11.00	10.50	10.00
Stress case NBV margin (%)	11.96	11.96	11.46	10.96	10.46	9.50	9.00	8.50

Source: Kotak Institutional Equities

**Exhibit 3: ...and premium income under stress case**

	FY2008A	FY2009E	
		Current estimate	Stress case estimate
Bajaj Allianz	80	40	—
Birla Sunlife	139	80	40
HDFC Standard Life	79	50	25
ICICI Prudential	68	40	20
Max NY	70	45	20
Reliance Life	169	100	50
SBI Life	107	50	25

Source: Kotak Institutional Equities

**Exhibit 4: Resulting in a 25-40% decline in fair value estimate and...**

	Base case (Rs bn)	Stress case (Rs bn)	
		Assuming slower growth	Assuming slower growth and margin
Bajaj Allianz	230	161	138
Birla Sunlife	85	71	60
HDFC Standard Life	108	86	74
ICICI Prudential	293	248	213
Max NY	63	45	38
Reliance Life	118	87	75
SBI Life	134	105	91

Source: Kotak Institutional Equities

**Exhibit 5: ...SOTP under the worst-case scenario**

Value addition to parent's SOTP from insurance business (Rs/share of holding co.)

Insurance company	Addition to SOTP base case (Rs/share)	Stress case			
		Assuming lower growth (Rs/share)	% chg over base price	Assuming lower growth and lower margin (Rs/share)	% chg over base price
Bajaj Allianz	513	359	(30)	309	(40)
Birla Sun Life	496	415	(16)	353	(29)
HDFC Standard Life	252	201	(20)	173	(31)
ICICI Bank	176	149	(15)	128	(27)
Max India	128	91	(29)	78	(39)
Reliance Life	395	319	(19)	274	(31)
SBI Life	142	111	(22)	96	(33)

Source: Kotak Institutional Equities estimates.

**Exhibit 6: Value addition remains high even under stress case scenario**

Insurance business value as proportion of current share price (%)

Insurance company	Base case (%)	Stress case	
		Assuming slower growth (Rs/share)	Assuming slower growth and lower margins (Rs/share)
Bajaj Allianz	107.2	75.1	64.5
Birla Sun Life	44.8	37.4	31.9
HDFC Standard Life	12.2	9.7	8.4
ICICI Bank	29.7	25.2	21.6
Max India	85.8	61.0	52.4
Reliance Life	44.7	36.1	31.0
SBI Life	12.6	9.9	8.5

Source: Kotak Institutional Equities estimates.

**Exhibit 7: Our base case estimate already assumes lower margin (e.g ICICI Prudential Life firm value estimate)**

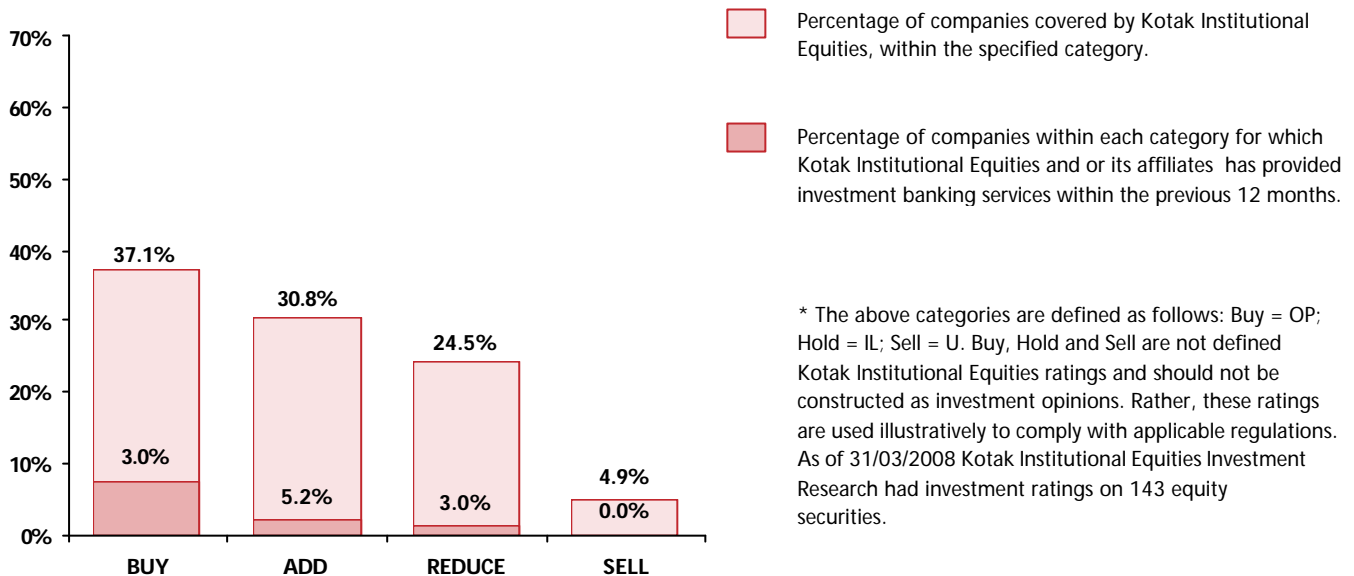
Year	FY2008 0	FY2009 0	FY2010 1	FY2011 2	FY2012 3	FY2013 4	FY2014 5	FY2015 6	FY2016 7	FY2017 8	FY2018 9	FY2019 10	Terminal year	Growth in high growth phase
<b>Base case scenario</b>														
Premium income (Rs mn)	68,102	95,469	124,109	155,137	186,164	223,397	256,906	295,442	339,759	390,723	449,331	516,731		22
% growth		40	30	25	20	20	15	15	15	15	15	15	8	
<b>NBV margin (%)</b>		<b>13.72</b>	<b>13.00</b>	<b>12.50</b>	<b>12.00</b>	<b>11.50</b>	<b>11.00</b>	<b>10.50</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>		
<b>Reduction in margin bps</b>			<b>(0.72)</b>	<b>(0.50)</b>	<b>(0.50)</b>	<b>(0.50)</b>	<b>(0.50)</b>	<b>(0.50)</b>	<b>(0.50)</b>	<b>-</b>	<b>-</b>	<b>-</b>		
NBV (Rs mn)		13,101	16,134	19,392	22,340	25,691	28,260	31,021	33,976	39,072	44,933	51,673		
<b>Discount rate (%)</b>		<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16.00</b>	<b>16</b>	
PV of profit (Rs mn)		13,101	13,909	14,411	14,312	14,189	13,455	12,733	12,022	11,918	11,815	11,713	146,418	
Fair value = PV of profit stream (Rs mn)		289,995												
<b>Assuming volume slowdown in FY2009 ...</b>														
Premium income (Rs mn)	68,102	81,722	106,239	132,799	159,358	191,230	219,914	252,901	290,837	334,462	384,632	442,326		21
% growth		20	30	25	20	20	15	15	15	15	15	15	8	
Fair value = PV of profit stream (Rs mn)		248,239												
Chg in value from base case (%)		(14)												
<b>... and margin compression</b>														
Premium income (Rs)	68,102	81,722	106,239	132,799	159,358	191,230	219,914	252,901	290,837	334,462	384,632	442,326		21
% growth		20	30	25	20	20	15	15	15	15	15	15	8	
<b>NBV margin (%)</b>		<b>12.22</b>	<b>11.50</b>	<b>11.00</b>	<b>10.50</b>	<b>10.00</b>	<b>9.50</b>	<b>9.00</b>	<b>8.50</b>	<b>8.50</b>	<b>8.50</b>	<b>8.50</b>		
Profit (Rs)		9,988	12,217	14,608	16,733	19,123	20,892	22,761	24,721	28,429	32,694	37,598		
Discount rate (%)		16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16	
PV of profit (Rs)		9,988	10,532	10,856	10,720	10,561	9,947	9,342	8,747	8,672	8,597	8,523	106,535	
Fair value = PV of profit stream (Rs mn)		213,020												
Chg in value from base case (%)		(27)												

Source: Kotak Institutional Equities

"Each of the analysts named below hereby certifies that, with respect to each subject company and its securities for which the analyst is responsible in this report, (1) all of the views expressed in this report accurately reflect his or her personal views about the subject companies and securities, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report: Lokesh Garg, Tabassum Inamdar."

### Kotak Institutional Equities Research coverage universe

Distribution of ratings/investment banking relationships



Source: Kotak Institutional Equities.

As of March 31, 2008

### Ratings and other definitions/identifiers

#### Rating system

Definitions of ratings

**BUY.** We expect this stock to outperform the BSE Sensex by 10% over the next 12 months.

**ADD.** We expect this stock to outperform the BSE Sensex by 0-10% over the next 12 months.

**REDUCE:** We expect this stock to underperform the BSE Sensex by 0-10% over the next 12 months.

**SELL:** We expect this stock to underperform the BSE Sensex by more than 10% over the next 12 months.

Our target price are also on 12-month horizon basis.

#### Other definitions

**Coverage view.** The coverage view represents each analyst's overall fundamental outlook on the Sector. The coverage view will consist of one of the following designations: Attractive (A), Neutral (N), Cautious (C).

#### Other ratings/identifiers

**NR = Not Rated.** The investment rating and target price, if any, have been suspended temporarily. Such suspension is in compliance with applicable regulation(s) and/or Kotak Securities policies in circumstances when Kotak Securities or its affiliates is acting in an advisory capacity in a merger or strategic transaction involving this company and in certain other circumstances.

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